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**TRADITIONAL HEALERS AND DIARRHEA:
RESULTS OF A RECENT SURVEY IN ZAMBIA**

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INTRODUCTION

In the past three years, the Zambian Control of Diarrheal Disease (CDD) Programme has carried out a number of surveys designed to provide baseline data and answer important issues relevant to the implementation of CDD activities. Research activity began with the Nationwide cluster sample CDD/UCI survey in 1986. While this survey provided vital baseline data on diarrheal morbidity and mortality and knowledge, attitudes and practices (KAP) regarding diarrhea, it left many questions unanswered and raised others requiring further research. Soon after the completion of the baseline survey, studies on ORS distribution, effective use, case management by health workers, exploration of alternative ORS distribution networks and case management of diarrhea by private physicians were conducted.

It was also evident from the baseline study that the use of traditional medicine for the treatment of diarrhea featured prominently in both urban and rural samples. Therefore, a sample survey on traditional healers was planned and discussed with the Ministry of Health and the Department of Traditional Medicine (MOH). The survey would provide information on current diarrhea treatment practices by different categories of healers, their knowledge of oral rehydration solution (ORS) and sugar-salt solution (SSS), and their willingness to promote oral rehydration therapy (ORT).

THE HEALTH SYSTEM IN ZAMBIA

The Zambian health care system is presently in a state of crisis. The patient/physician ratio has fallen, recurrent and capital expenditures continue to decline, health care coverage in the rural areas in particular is deteriorating, drugs and equipment are in short supply and primary health care implementation is facing serious problems. This situation is exacerbated by rapid population growth and urbanization. The marked decline in socioeconomic conditions is the result of the combined effect of internal and external factors.

The economy, which is still highly copper-dependent, has been under considerable pressure from the effects of world recession and unfavorable terms of trade. The decline in copper prices, particularly since 1977, and the rapid increase in the cost of production in the mining sector, have worsened the balance of payments. As a result, foreign reserves have dwindled, prices have increased, imports reduced, government subsidies and expenditures cut, indebtedness has risen, government revenue reduced and the kwacha devalued.

The effects of a declining economy cut across all sectors, but their implications for the delivery of social services are particularly serious.

For health care, the consequences are even more serious and are reflected in increased morbidity and mortality from disease and malnutrition. Health service indicators such as physician/population ratios have shown dramatic declines. Many essential health care services have been reduced and many health programmes are threatened as the crisis deepens.

Given this scenario it is important that all available alternatives are exploited in terms of health care delivery. The recently published Fourth National Development Plan¹ argues forcefully for the use of more cost-effective health care delivery because it is unlikely that the Ministry of Health will be able to expand services sufficiently when revenues are shrinking and population is expanding at 3.6 percent per annum. It is therefore appropriate that an important potential resource such as traditional healers be utilized in promoting CDD efforts.

¹GRZ/NCDP, "Fourth National Development Plan (1989-1993)," (Lusaka, Zambia: Office of the President, National Commission for Development Planning, 1989).

TRADITIONAL HEALERS IN ZAMBIA

In addition to the four-tier modern medical system consisting of government, missions, mines and private sector, an important health manpower resource is available to both urban and rural dwellers: namely, traditional healers. Traditional healing still plays a significant role in the lives of Zambians and evidence shows that it will continue in importance in spite of modernization and urbanization trends.

Historically, the position of traditional medicine has gone from a low status to attempts to integrate with modern medicine. During the period of British Colonial Rule the Witchcraft Act was passed in 1914 that provided penalties for the practice of witchcraft, and because of the association of traditional healers with witchdoctors many practiced in secret for fear of prosecution. However, soon after Independence the Act was amended (1967), which made it illegal for traditional healers to practice witchcraft but made it clear that traditional healers were free to practice their profession.

In 1977, a significant national conference on traditional medicine and its role in the development of primary health care in Zambia was held. The conference recommended that efforts should be made to form a National Association of Traditional Healers as a first step toward regulating the practice of traditional medicine. It also recommended that a National Council be formed by an Act of Parliament.

Since the 1977 conference there have been several important activities that are aimed at bringing traditional medicine and modern medicine closer together. An office of traditional medicine has been created in the Ministry of Health and a Traditional Health Practitioners Association was formed. Within three years, the latter claimed a membership of over 10,000. The goal of the organization is to register all traditional healers, to "modernize" traditional healing by upgrading the skills of healers and to cooperate with modern health practitioners in the delivery of health care.

There is evidence in both urban and rural areas of the multiple use of health services. In the rural areas a common health-seeking progression pattern is self-treatment using roots and herbs obtained from a family member or close relative, to traditional healer, to rural health center or hospital. There is also some evidence of referrals from rural health centers to traditional healers, particularly for psycho-social problems.

In the urban areas, the multiple use of traditional healers and modern health facilities is well known. For example, patients often leave the University Teaching Hospital after receiving treatment and travel to their home villages to obtain traditional medicine for a complete cure. Using traditional medicine before seeking modern health services is also common.

In general, the government of Zambia has sought a greater cooperation between modern health services and traditional health services.

Literature Review

Since the formal recognition of traditional medicine through the establishment of a WHO program in 1978, there have been increasing reports of efforts to integrate traditional healers into modern health care systems. The vast potential of traditional healers has been recognized by researchers, health planners and program managers, particularly in developing countries where adequate health service is increasingly difficult in conditions of severe economic crisis.

Attempts to utilize traditional healers in promoting ORT (ORS/SSS) have been reported from Brazil,¹ Swaziland,² and Ghana.³ In Brazil, a two-year project was designed to mobilize traditional healers to clinically manage diarrhea and to deliver oral rehydration therapy. As Nations observes, such a program is feasible as long as ORT could be easily incorporated into the traditional healer's treatment system without destroying their own medical tradition.³ The government officials in Brazil would accept the idea as long as the quality of health care would not be

¹Marilyn Nations, J.F. McAuliffe, M.A. Sousa, R. Guerrant, J.G. Araujo, A. Neto, F.S. Mota, M.P. Nogueira and D. Kaiser, "Project II: Evaluation of a Three Tiered Community Based Oral Rehydration Program," (University of Virginia project paper, 1983).

²Edward C. Green, "Traditional Healers, Mothers and Childhood Diarrheal Disease in Swaziland: The Interface of Anthropology and Health Education," Social Science and Medicine 20 (1985): 277-285.

³D.M. Warren, G.S. Bova, M.A. Tregoning and M. Kliever, "Ghanaian National Policy towards Indigenous Healers," Social Science and Medicine 16 (1982): 1873-1881.

⁴Marilyn Nations, "Spirit Possession and Enteric Pathogens: The Role of Traditional Healing in Diarrheal Diseases Control," (paper presented at the ICORT Meetings, Washington, D.C., 1983).

compromised when the traditional healers' use of ORT was incorporated into the national health care delivery system. These concerns have been expressed in country reports including Zambia.

The Brazilian experience involved a research design which attempted integration only after the careful identification of alternatives, and discussion and refinement by the researchers, traditional healers and the community. A select group of healers was trained in ORT and assessed to determine their attitudes toward working with physicians. During the study, the healers delivered over 7,400 liters of ORS. Moreover, an evaluation of the project revealed that mothers' knowledge and use of ORT significantly increased and positively influenced feeding during diarrhea episodes. Because of the success of the project, there are plans to expand the use of traditional healers to other areas of Brazil.

In Swaziland, a series of training seminars was held to initiate dialogue between the Ministry of Health and the healer, focusing on child survival. This was followed by specific training by the ministry in ORT and the distribution of ORS packets to healers in select districts.

In Ghana, Warren describes the case of the Primary Health Training Program for indigenous healers in Techiman District⁶. While collaboration and attempts to integrate healers into the national health care delivery system experienced a number of problems, a successful pilot training program with classes in preparation and preservation of herbs, diarrhea/ORT, vaccination, basic nutrition, and family planning was initiated. An evaluation of the program found that trainees were using ORS to treat diarrhea and some healers had even improved environmental sanitation in their villages. Critical elements to the success were inclusion of interesting, relevant training modules and follow-up of the trainees.

In Zambia, the Ministry of Health recognized the need for dialogue with traditional healers and took the innovative step of establishing a department of traditional medicine in 1978. Since that time, officers within the ministry and university researchers have been conducting studies on various aspects of traditional medicine. While the traditional healers have frequently called for cooperation/integration through their association, the ministry has been cautious. Nevertheless, in its 1986 National Plan, the CDD Program included traditional healers in promotion of ORT through the production of health education materials and training workshops. However, these activities were postponed due to many

⁶Warren, "Ghanaian National Policy."

intervening CDD activities and ORS production/distribution problems.

ZAMBIAN SURVEY OF TRADITIONAL HEALERS AND DIARRHEA

Methodology

Information was gathered from 192 traditional healers using a structured questionnaire designed to elicit data on understanding of diarrhea, causes, treatment using traditional medicines, advice given to mothers regarding breastfeeding, feeding, prevention, case load, awareness of dehydration signs, awareness of ORS/SSS and willingness to prescribe ORS/SSS. Interviewing was conducted by an experienced research assistant, the CDD secretariat staff, provincial/district CDD staff and the schedules officer in the MOH Department of Traditional Medicine.

The majority of the interviews were conducted in peri-urban areas of Lusaka by the officer from the MOH Traditional Medicine Department, who was known to many of the healers and was able to carry out the interviews without experiencing any difficulties. The other interviewers occasionally encountered some resistance and in several cases were asked to pay a consultation fee before any information was given. However, the vast majority of healers was receptive and provided the information required.

Sampling

The survey was intended as exploratory only and therefore the sample size was small. The Traditional Healers Association estimates that there are approximately 30,000 healers of various types in Zambia, of which 15,000 are members of the Association. Questions were sent to CDD officers in all provinces; however, only five provinces sent in completed forms.

Data Analysis

The data were entered and analyzed using Survey Mate, which includes both data entry and statistical capabilities.

Analysis of Survey Results

The 192 questionnaires were distributed according to province in the following manner:

TABLE 1

<u>Province</u>	<u>Number</u>	<u>Percentage</u>
Central	7	3.65
Copperbelt	11	5.73
Eastern	1	.52
Luapula	15	7.81
Lusaka	156	81.25
Northwestern	2	1.04

Although questionnaires were sent to Southern, Northern and Western provinces, none were completed. Healers fell into three groups: herbalists (141, or 73 percent); spiritualists (43, or 22 percent); and faith healers (8, or 4 percent). The major distinction between spiritualist and faith healers is that spiritualists use herbal medicine as well as prayer in their treatment regimen, while faith healers rely exclusively on prayer/bible for healing.

Traditional birth attendants are an important category which can be enlisted to give advice and promote ORS/SSS but were excluded from the present study because they ordinarily do not treat children on a regular basis. Moreover, the UNICEF-sponsored TBA training program does include material on child health/diarrhea treatment and use of ORS/SSS in the curriculum.

Open-ended questions were included on the respondents' understanding of the word diarrhea and what they believed to be the cause. The majority (90 percent) described diarrhea as the passing of frequent, loose stools. The causes they listed included bad food (16 percent), bad water (3 percent), poor hygiene (2 percent), witchcraft (5 percent), a child sucking milk from a pregnant mother (13 percent) and parents having sex with other partners (10 percent). These results indicate that the healers are aware of the commonly recognized causes of diarrhea.

The next section of the questionnaire concerned treatment patterns for diarrhea in children under the age of five. Questions related to name and type of traditional medicine given, how it was prepared, what root was used for administration, and how often it should be given. The majority of the healers prescribed a root (74 percent), while 20 percent gave bark and 6 percent leaves. The medicine was usually pounded and mixed with water (134 cases or 70 percent), pounded and mixed with porridge (25 percent) or chewed in dry form (5 percent). The medicine was administered orally in 90 percent of the cases, given as an enema in 7 percent of the

cases, rubbed on the skin (2 percent), or patient sat in the mixture (1 percent).

The dosage prescribed varied a great deal. In many cases, the medicine was prepared in bottles and the mother told to give the contents until it was finished (amounts varied from 100 mls to 1.5 liters). In other cases the amount prescribed was in teaspoons either once per day (21 percent), three times per day (56 percent) or as often as possible (13 percent). A teacup per day was prescribed by nineteen, or 10 percent of the respondents.

The type of traditional medicines included guava, mango and banana leaves as well as thirty other different types of roots and bark decoctions. In several cases, the healer distinguished specific medicines for diarrhea with blood or diarrhea as a result of teething.

The healers were then asked about the advice they gave mothers regarding breastfeeding and feeding. The majority (68 percent) advised mothers to stop breastfeeding the child during the diarrhea episode. This advice corresponds to the feeling that a common cause of diarrhea in children is the result of sucking milk from a pregnant mother. Thirty-seven (19 percent) advised the mother to continue while 13 percent gave no advice. Of the 173 healers who gave advice on feeding, 5 percent said to give the child only easily digestible food, 10 percent said to give additional fluids (orange juice, tea, milk, soft drinks), 5 percent said to give the African medicine only, 5 percent said to give no food and 31 percent responded with both fluids and easily digested food.

Respondents were also asked for any special advice they gave to mothers regarding treatment of the diarrhea. This open-ended question resulted in a number of interesting responses. Some mothers were given family planning advice ("do not get pregnant when your other child is very young"); some were advised not to drink alcohol, and in fifty-two cases mothers were told not to have sexual intercourse while the child was sick. In ten cases mothers were told that their husband should not have other partners as this was the reason the child was sick. In twelve cases the healers advised the mother to give the child fluids frequently.

The average number of cases treated by the sample was 15 per month with a range of 3 to 100. The urban healers tended to treat more cases than those from rural areas. The healers were then asked if they advised mothers to go to health centers and if so, when they advised the mother to go. The majority (53 percent) said mothers should go to the clinic if the child's condition becomes worse; 11 percent said they should go after seeing the healer; and 28 percent gave no advice regarding when to visit the clinic.

A few healers mentioned specific signs for the mother to look for in the child such as anemia, wrinkled skin pinch, and sunken eyes.

When asked whether they examine the child, 150 (81 percent) did look at the child while 42 (19 percent) did not. For those who did examine the child, 148 (95 percent) were aware of signs of dehydration (e.g., drying out of the skin, sunken eyes (94 percent), sunken fontanelle (41 percent), or decreased urine (40 percent)).

Questions on the respondents' awareness of ORS and SSS revealed that 143 or 77 percent had heard of ORS and 62 (34 percent) were aware of SSS. When asked if they were willing to prescribe ORS or SSS, 146 or 79 percent were willing to give ORS while 150 (81 percent) would prescribe SSS. Five healers said that they were already giving SSS to mothers which they had learnt from local school teachers as part of the "child to child" program. Other healers noted that they knew about ORS from radio programs, other healers, clinic staff and popular theater performances.

Finally, 172 (92 percent) gave mothers information/advice on how to prevent diarrhea including good hygiene, keeping food covered, good child care and boiling water. Ten healers said that diarrhea could not be prevented.

Studies of the traditional practices and beliefs by mothers have been reported; all of the reports agree that mothers' beliefs of diarrhea causation determine when and where she seeks advice for treatment. In Zambia, studies of health care utilization patterns have reports health-seeking behavior which generally begins with self-treatment to utilization of herbal medicine from friends, neighbors and relatives to traditional healers to community health

¹ C.O. Kendall, D. Foote and R. Martorell, "Ethnomedicine and Oral Rehydration Therapy: A Case Study of Ethnomedical Investigation and Program Planning," Social Science and Medicine 19 (1984): 253-260; U. Maclean and R.H. Bannerman, eds., "Utilization of Indigenous Healers in National Health Delivery Systems," Social Science and Medicine 16 (1982); L. McKee, "Ethnomedical Treatment of Children's Diarrheal Illnesses in the Highlands of Ecuador," Social Science and Medicine 25 (1987): 1147-1155; M. Nichter, "From Analu to ORS: Sinhalese Perceptions of Digestion, Diarrhea and Dehydration," Social Science and Medicine

workers and ultimately to clinics/hospitals.' Utilization of the clinic or hospital is sought only after the illness fails to respond to self-treatment or traditional medicines. As a result, treatment is often delayed or the condition made worse.

Studies at the University Teaching Hospital Pediatric Unit have found that 70 percent of the mothers interviewed admitted giving the child traditional medicine before coming to the hospital.'

Adverse Effects of Traditional Medicines for Diarrhea

Problems and complications resulting from the administration of traditional medicine, particularly in children under five have been a longstanding concern in Zambia. The overdosing problem was discussed in the first national workshop in 1977, during several meetings of the Paediatric Association of Zambia and by the traditional healers themselves.

However, the problem continues and cases of renal complications secondary to herbal toxicity constitute a significant proportion of cases admitted for diarrhea. Medical personnel at Arthur Davidson Children's Hospital on the Cooperbelt estimate that three cases a month come with severe dehydration and herbal toxicity, particularly from traditional medicine given to the child as an enema. At the University Teaching Hospital (UTH) a study by Goma at the Pediatric Unit from January to May 1987 found that 48 out of 100 cases had a history of herbal medication taken orally and 10 percent evidenced toxic reactions.

Interviews with the mothers of those children given traditional medicine revealed that none said improvement occurred

'C. Jonker, "Health Care Utilization in an African Township: A Case Study from Lusaka, Zambia," (Master's thesis, University of Amsterdam, 1988); and P.J. Freund and K. Kalumba, "The GRZ/UNICEF Monitoring and Evaluation Study of Child Health and Nutrition Services in Rural Zambia," (GRZ/UNICEF Programming Committee, 1988).

'G.J. Bhat et al, "Snap Survey of Childhood Morbidity and Mortality in Lusaka," (GRZ/UNICEF Programming Committee, 1987); C.C. Chime, "Mothers' Traditional Customs/Beliefs regarding Diarrhoea in Children Admitted to UTH," (student project report, Post Basic School of Nursing, University Teaching Hospital, Lusaka, 1986); F.M. Goma, "A Study on the Presentation and Management of Diarrhea in the Paediatric Unit of UTH," (student project report, University of Zambia, School of Medicine, 1977).

with the exception of one who alleged that vomiting had stopped. An estimated twenty cases per year die at the UTH as a direct result of complications following overdosing of herbal medicine.

The dosage problem is related to the belief by traditional healers that the more bitter and the more medicine that is given, the stronger and more effective it is.

Implications/Recommendations

The research reported was prompted by the CDD Program's desire to assess current diarrhea case management practices by traditional healers as well as their awareness of ORS/SSS and willingness to promote/prescribe ORS/SSS. The basic assumption of the research was that healers constitute a valuable, virtually untapped manpower resource which could be used to promote ORT and therefore extend the limited resources of the MOH/CDD Program.

The results of the survey are very encouraging in a number of respects. For example, it is evident that many healers are aware of the signs of dehydration in children, advise mothers to give fluids, inform mothers about ways to prevent diarrhea and express a willingness to use and promote ORS/SSS. All of these are strengths which can be enhanced through training of the healers. It is therefore recommended that the original idea in the CDD plan to produce health education materials and hold training seminars for healers be initiated on a pilot basis.

At the same time, there are aspects of the traditional healers' case management and advice which give rise to caution. Many healers advise mothers to stop breastfeeding, which is contrary to standard ORT practice. This idea may be altered through instruction but in the event that it is too culturally engrained, healers can be instructed to advise mothers to increase fluids, which many already do. Moreover, the results of the earlier 1986 baseline survey found that over 80 percent of the mothers do continue breastfeeding during diarrhea episodes.

The more serious aspect of concern is the tendency to overdose children under five. This problem has resulted in deaths of children from complications secondary to severe dehydration and renal toxicity. Again, this issue can be addressed through training seminars. Traditional healers also need to be given information on when to refer cases to the clinic or hospital.

Abundant evidence now exists from other countries that the use of traditional healers to promote ORT is feasible and advantageous. It is therefore appropriate that this option be tested on a pilot basis in Zambia after discussions with the Ministry of Health,

TPAZ, and other relevant organizations (e.g., WHO and UNICEF).

In the majority of published reports, authors have noted that traditional healers are generally anxious to learn from doctors and nurses about medical science. In Haiti, for instance, Coreil writes that all of the healers interviewed were positive about cooperating with doctors/nurses and all but one said they would like to receive ORS packets for distribution to their patients.¹⁰ Moreover, most also indicated a willingness to work with public health officials in the control of diarrheal diseases.

Green and Makhubu in Swaziland argue that because most traditional healers are eager to learn from modern medicine that "we should take advantage of that interest and teach healers aspects of modern medicine, both curative and preventive."¹¹ Similarly, the Zambian study shows that the majority of healers would be willing to promote ORT. However, cooperation entails responsibilities by both parties to ensure that the child's interests are protected. This means that the Ministry of Health should learn from traditional healers, to teach them and support them when collaboration is initiated.

Diarrhea in Zambia

Diarrheal diseases remain one of the leading causes of morbidity and mortality among children in Zambia. The major causes of hospital deaths in children under one year are acute respiratory diseases (14 percent), followed by diarrhea (9 percent) 1978-1986. The outpatient morbidity pattern is similar with diarrhea as the second most common diagnosis among outpatients.

Follow Up of Results with Traditional Healers and MOH

The results of the survey were presented to an International Meeting of Traditional Healers (September 14-16) held in Lusaka. The presentation was followed by discussion groups by healers grouped by province with international participants from India, Tanzania, Malawi, Swaziland, Ghana, and Zimbabwe as resource persons. As a result of the discussions the Traditional Healers Association has asked that I join the executive committee to assist

¹⁰J. Coreil, "Innovation among Haitian Healers: The Adoption of Oral Rehydration Therapy," Human Organization 47 (1988): 48-57.

¹¹E. Green and L. Makhubu, "Traditional Healers in Swaziland: Toward Improved Cooperation Between the Traditional and Modern Health Sectors," Social Science and Medicine 18 (1984): 1071-1079.

in research activities. They also agreed in principle to cooperate with efforts by the MOH to promote ORT by using traditional healers. Copies of the paper presented were distributed to each province, international participants and executive committee. The TPAZ Secretariat also agreed to disseminate the results to their various branches in the country.

During this same meeting, the Director of Medical Stores Limited, who is also the Director of Pharmaceutical Services in Zambia, presented a proposal that the MOH would consider the distribution of an herbal kit to health centers after more extensive chemical analyses are completed.

The disadvantages and obstacles to cooperation are:

- o The MOH is reluctant to agree to large-scale projects involving traditional healers and health workers because of current organizational problems within the Traditional Healers Association (particularly regarding the issue of analysis of herbs).
- o There is still mistrust of traditional medicine by the medical establishment.
- o The problem of overdosing of young children in particular remains a serious issue.
- o There have been a number of cases of traditional healers acting as witchfinders, contrary to Zambian law, which have resulted in the deaths of people who were identified as witches.
- o More research and analysis of herbs needs to be carried out before the MOH will agree to promote their use.

The advantages of utilizing traditional healers are:

- o Traditional healers are the front-line resource for many mothers in both urban and rural areas. Moreover, they are early providers of health care.
- o Traditional healers are present in far greater numbers than modern medical personnel (e.g., 1:35 ratio versus 1:20,000 for physicians).
- o Traditional healers are already treating cases of diarrhea, estimated at 1.5 million per year.
- o The cost effectiveness of providing ORS and training for traditional healers will be low compared to training

costs for medical staff.

- o Like community health workers, traditional healers work in the community and are familiar with disease perception, attitudes, etc. of mothers and their promotion of ORT should be readily accepted.

SUMMARY OF FINDINGS ON TRADITIONAL HEALERS

	<u>Percent</u>
<u>Type of Healers</u>	
Herbalists (n = 141)	73
Spiritualists (n = 43)	22
Faith Healers (n = 8)	4
<u>Questionnaire Results: Cause of Diarrhea</u>	
Bad food	16
Bad water	13
Poor hygiene	2
Witchcraft	5
Child sucking milk from pregnant mother	13
Parents having sex with other partners	10
Other (air, etc.)	41
<u>Advice regarding Breastfeeding</u>	
Advised mothers to stop breastfeeding	68
Advised to continue breastfeeding	19
No advice given	13
<u>Feeding Advice</u>	
To give easily digestible food	45
To give additional fluids	10
To give African medicine only	9
Both fluids and easily digestible food	31
No food	5
<u>Advice on Visiting Clinic/Hospital</u>	
If child's condition becomes worse	53
After seeing healer	11
Before using medicine by traditional healer	89
No advice given	28
<u>Knowledge of Dehydration/ORT</u>	
Aware of signs of dehydration	95
Aware of ORS	77
Aware of SSS	34
Willing to prescribe ORS	79
Willing to prescribe SSS	81

Miscellaneous

Average no. of cases treated by healers: 15/month

Examined child

81

Did not examine child

19

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