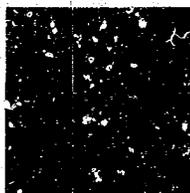
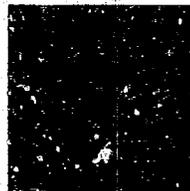
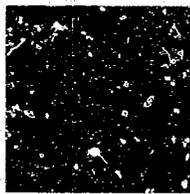


# PRITECH

*Technologies for Primary Health Care*

## **Prospects for Collaborating with Traditional Healers in Africa**



PROSPECTS FOR COLLABORATING  
WITH TRADITIONAL HEALERS  
IN AFRICA

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# **PROSPECTS FOR COLLABORATING WITH TRADITIONAL HEALERS IN AFRICA**

## **I. EXECUTIVE SUMMARY**

This paper has three purposes:

1. To assess the potential for developing collaborative efforts in primary health care between traditional healers and biomedical personnel in Africa.
2. To review previous collaborative efforts of this type.
3. To make recommendations that address the development of a PRITECH strategy to promote such collaboration.

### **A. EVIDENCE SUPPORTING COLLABORATION WITH TRADITIONAL HEALERS**

The study of collaborative efforts with healers in several countries as described in this paper suggests that when approached with proper deference and tact, many African healers are highly motivated to collaborate with biomedical health-care providers and are willing to incorporate into their own practices those biomedical aspects they perceive as effective. Traditional healers are definitely not interested in becoming low-paid community health workers who report to ministry of health administrators, or in being coopted or integrated by biomedicine as low-status assistants.

Ministries of health in many African nations are increasingly interested in developing working relationships with the traditional healers in their countries. In most cases, ministries have collaborated with traditional birth attendants rather than with other kinds of healers. Government policies usually make distinctions between traditional birth attendants and traditional healers, partly due to the wider range of variation in traditional healer practices, and to the difficulty in agreeing on criteria to evaluate those practices.

Properly designed educational programs have been seen to affect healer behaviors and attitudes very positively, bringing about increased use of oral rehydration therapy (ORT) within pilot project areas in Ghana, Swaziland, Nigeria, and Brazil and diminished use of dangerous traditional treatments in Ghana, Swaziland, and Kenya. Trained healers have improved their overall hygienic practices in Ghana, Swaziland, Nigeria, and Kenya, and in Nigeria promote vaccination. Training has helped healers in Ghana treat fevers and malnutrition more effectively and has increased their referrals to biomedical facilities in Ghana, Swaziland, Nigeria, and Kenya.

Trained healers can also have a significant impact on the communities they serve. Nigeria, Swaziland, and Brazil each experienced some of the following community-level changes: improved diarrhea case management by mothers at home; increased vaccination coverage; and intensified community-level education and disease-prevention efforts as well as other community-development activities.

Properly designed and implemented educational workshops for healers can also significantly improve relationships between healers and biomedical personnel. Such was the case in Ghana, Swaziland, Nigeria, and Kenya. Collaboration can also help biomedical personnel improve the manner in which they interact with patients by increasing their appreciation of the traditional beliefs and practices that determine patient behavior.

## **B. CONSTRAINTS, CHALLENGES, AND ISSUES**

PRITECH's literature review and country-level studies revealed many known and potential constraints and challenges to the development of effective strategies for working with healers:

**1. Targeting and selecting healers for collaborative activities.** Providing educational opportunities to all or even most of the approximately 1 million healers in sub-Saharan Africa is neither desirable nor feasible. Not all healers treat childhood illnesses, not all healers are motivated to modify their practices, and not all healers are interested in collaboration. The identification and selection of healers as targets of collaboration are further complicated by several factors:

- \* In most countries relatively little is known about healer distribution, specialties, beliefs, practices, attitudes, or organization.
- \* On the whole, healers are poorly organized. Even where healer organizations do exist or where government departments are responsible for communicating with healers, the majority are not actively involved in these networks. Also, there is often mutual antagonism and mistrust between existing networks and even within them.
- \* Political and social realities in a given area may prohibit the selection of some healers over others. In other circumstances, pressure may exist from government and biomedical authorities to select one type of healer (e.g., traditional birth attendants or herbalists) to the exclusion of others (e.g., diviners or spiritualists). The preferred healers may not be the ones who provide most of the care to children with diarrhea.

**2. Reaching agreement on the objectives of collaboration.** In the initial stages of project development, seeking agreement on the collaboration objectives may be a major challenge because healers, local biomedical personnel, government officials, and project sponsors may have a different perception of needs and interests. For example, healers may be interested in collaboration primarily to gain recognition for the validity of their own treatments and

procedures. (A primary interest is often the validation of herbal remedies as effective drugs.) Biomedical personnel, on the other hand, are often suspicious of healers and view the elimination of dangerous treatment modalities and regulation of healers' practices as priorities. Government officials, motivated by political and financial considerations, may wish primarily to strengthen government control over healers' organizations and institutions. Religious leaders may be concerned about the fact that healers' spiritual beliefs and practices may conflict with church teachings. And, finally, donors may have more limited and specific objectives and may not agree on priorities even among themselves.

**3. Designing educational and training strategies.** Even after reaching agreement on the collaboration objectives, the educational and training strategies may be complicated by several factors:

\* To be most effective, educational content must be adapted to local beliefs and practices. Yet definitions of illness, perceptions of causation, and strategies for treatment differ widely among cultures (even within individual countries and even among different types of healers). While this much is known, very little data are currently available on beliefs, attitudes, and practices of specific cultures in most countries. Thus, curriculum design will usually require a long lead-in period to gather information and test materials.

\* While some traditional practices are beneficial, many are potentially harmful. Of specific concern are the widespread practices of enemas and purges for children with diarrhea, various invasive procedures (of increasing concern in this era of HIV infection), and inappropriate diet modifications. Especially in southern Africa there is concern that some herbal remedies may be extremely toxic. Attempting to modify these practices will require sensitivity and tact so as not to alienate healers.

\* In identifying effective home fluids that healers may use to prevent and treat dehydration, trainers will need to take into account healers' concerns about diluting the effectiveness of their traditional remedies and about possible overdoses of strong herbal preparations. Other issues to consider include government restrictions on distribution of ORS through non-pharmaceutical channels, healers' preference for "home solutions", government concerns about healers selling "free" ORS, healers' insistence on access to ORS to legitimize their care, and the potential logistical problems of providing ORS to healers. The question of whether or not trained healers should be supplied with ORS packets is one which will have to be addressed in the context of each national country program.

**4. Healers' adaptations of recommended practices.** There is evidence that healers sometimes inappropriately adapt what they learn to their own concepts of appropriate treatment. These adaptations were observed in Nigeria, Uganda, Swaziland, and Brazil, and included the transformation of sugar-salt solution (SSS) and oral rehydration salts (ORS) in sometimes dangerous ways, the addition of oral rehydration therapy (ORT) to traditional

rituals (not in itself a problematic phenomenon), and the partial adoption of recommendation practices only under certain conditions or only after traditional treatment had failed. Follow-up with trained healers will be important to limit transformations to adaptations that are not harmful. This additional collaborative element will require adding considerable time and resources to proposed educational activities, but is consistent with the need for followup and reinforcement after any training activity including those with biomedical personnel.

### C. RECOMMENDATIONS

1. At this time, PRITECH should not attempt to develop a large-scale collaboration with healers in Africa, but should instead, for the remainder of PRITECH II, limit interventions to small-scale activities in a few countries where favorable conditions for collaboration exist. Such activities should be specifically designed to expand knowledge and understanding of traditional medicine, test strategies, and identify successful approaches to interacting with traditional healers.

Since efforts to train traditional healers have been most successful when they have built on pre-existing relationships, PRITECH should build its interventions on existing situations where collaboration between traditional and biomedical sectors has already begun.

2. Educational workshops should not be limited only to topics that relate to diarrheal disease control, but should also incorporate a broader primary health care focus, including such issues as nutrition (including breastfeeding), increased vaccination coverage, disease prevention, family planning (where appropriate), and other topics of interest and concern to the traditional healers, as identified by consultation with healers themselves.

Workshops sponsored by PRITECH should focus on upgrading or supplementing the skills of traditional healers. PRITECH will not direct its efforts at creating, strengthening or modifying traditional healers' organizations. Instead we will work through appropriate existing networks and channels including government ministries, local leaders, and healers' organizations where advisable.

3. Activities should be undertaken only in countries where PRITECH has an ongoing country program and (preferably) a resident representative and where there is active collaboration and support from other programs in the MOH in addition to CDD, and other donors and local institutions (NGOs, local government, and healers' organizations).
4. In all PRITECH-supported CDD programs in Africa, PRITECH should encourage the development of increased knowledge and understanding of the role of traditional medicine in mothers' behavior; the inclusion of traditional

healers as a specific target group for ongoing health education activities where background cultural information is already known; and the incorporation, in health personnel training programs, of discussion concerning the impact of traditional medicine and traditional healers on mothers' beliefs and practices relative to the impact of health facility level interventions for CDD.

While this point would seem to contradict recommendation number 1, a distinction should be made between two types of countries where PRITECH works. There are a handful of countries which have requested PRITECH's assistance in collaborating with traditional healers. PRITECH's involvement in workshop activities in these countries will be a response to their initiation of collaboration. In all other countries in which PRITECH works, PRITECH could include very limited traditional healer activities as outlined above as a way of cautiously and inexpensively exploring the potential for expanding its traditional healer initiative in other countries besides those which have already requested assistance in that area.

5. PRITECH should develop a policy and mechanism for addressing the concerns of biomedical practitioners regarding the safety of certain traditional medicines and traditional practices, particularly in those countries in which traditional healer activities are currently being undertaken.

## **II. INTRODUCTION AND BACKGROUND**

This paper summarizes the current understanding of the role that traditional healers play as health-care providers in Africa, specifically in the area of diarrheal disease control (CDD). It explores the potential for collaboration between the biomedical and traditional health sectors for the improvement of child health care. The information within is based primarily on the results of an extensive literature review concerning traditional medicine and traditional attitudes, beliefs and practices in relation to CDD. Information from the literature review was verified and enhanced by in-depth studies and observational tours conducted by PRITECH staff and consultants in four African countries (Cameroon, Ghana, Swaziland, and Uganda). These information-gathering activities provide a database to use in developing a PRITECH strategy for working with traditional healers to improve community-level care for children with diarrhea.

This section provides an overview of the roles, categorization and organization of traditional healers in Africa. Section III includes a detailed description of previous and ongoing collaborative projects with healers in Ghana, Swaziland, Nigeria, and Brazil, and with traditional birth attendants in Kenya (detailed in Annex 2). Available information on the traditional care of childhood diarrhea in Africa (including local illness categories, perceived causes, help seeking behavior and prescribed treatments) is summarized in Annex 1 for interested readers.

### **A. WHY WORK WITH TRADITIONAL HEALERS?**

The estimated population of sub-Saharan Africa is 518 million (Haub et. al. 1990), of whom approximately 100 million are children under five. In Africa, children in this age group suffer 3 to 10 diarrheal episodes a year. Despite nearly a decade of work with National Diarrheal Disease Control programs, there is good reason to believe that many of these cases do not receive proper care and that, consequently, most children continue to suffer the negative nutritional and health effects of these repeated episodes.

Many factors contribute to biomedicine's failure to influence health status everywhere in Africa. Economic, political and social realities will continue to limit the reach of biomedical health systems in most countries. In fact, less than half the population of some African countries receive public health services. Especially in rural areas, large population subgroups will continue to have limited or no access to basic health services through the biomedical system.

Often, even if public health facilities are available, relatively few peripheral-level health personnel have received training in proper case management of diarrhea. And when personnel have been trained, logistical, motivational, supervisory, and other constraints may hamper the provision of adequate care, especially in the time-consuming activity of educating mothers about good home health management.

The attitudes and practices of mothers are also a factor. Ethnographic research demonstrates that mothers define diarrheal diseases in culturally-determined ways that rarely correspond with biomedical definitions. As a result, most mothers, even those who know about ORT, do not consistently treat all diarrheas in the recommended manner. They may use ORT for simple acute watery diarrheas, but not for diarrheas associated with other symptoms, including the symptoms due to dehydration.

The literature suggests that many mothers first treat diarrhea at home with traditional remedies or modern drugs obtained at a pharmacy or market drug stall. If the diarrhea does not resolve within a few days, the next source of care is usually a traditional healer. For the people of sub-Saharan Africa, traditional healers are a major (perhaps primary) source of health care, sharing an understanding of illness and healing with the populations they serve in a way the biomedical health system cannot. African models of disease causation and perceptions of effective treatment strategies differ markedly from the biomedical model. Traditional medicine corresponds with and responds to the beliefs and practices of the majority of the African population and will continue to do so in the foreseeable future.

Thus, the local biomedical facility is often the resource of last resort. Not infrequently, traditional healers and biomedical practitioners are consulted simultaneously. If healers could be convinced to incorporate ORT into their existing treatment regimes as an appropriate way to prevent and treat dehydration (separate from diarrhea), and to appropriately assess the need for referral to biomedical health facilities, the number of diarrheal cases receiving proper care would increase dramatically, and the messages mothers received from the biomedical sector about the correct care of diarrhea would be reinforced.

## **B. THE ROLE AND DISTRIBUTION OF TRADITIONAL HEALERS IN AFRICA**

All cultures have "misfortune specialists" who act as intermediaries between average people and the unknown forces of the universe. Many of these specialists treat illness problems in addition to other types of afflictions unrelated to disease.

In Africa, traditional medicine remains a thriving, dynamic cultural feature. An estimated 1 million traditional healers practice in sub-Saharan Africa, for an estimated healer/population ratio of 1/500 (as opposed to a 1/40,000 ratio for physicians). Healers of many sorts remain equitably distributed in even the most remote rural areas, working part- or full-time to earn their living by interpreting illness and misfortune for their fellow villagers and restoring social and physical harmony to individuals, families, and societies through the use of ritual and herbal therapeutic strategies.

Traditional healers probably serve 80 to 90 percent of the population of the African continent. In many African countries, traditional healers outnumber biomedical practitioners by at least 100 to 1 (Warren and Green 1988:3). The following summary shows the distribution of traditional healers and physicians in selected African countries. It is

recognized that lower-level biomedical personnel provide the majority of biomedical services in most African countries, thus reducing the disparity between the biomedical practitioner to population and the traditional healer to population ratios. Nonetheless, even with the inclusion of these lower-level health care providers, there is still no parity of accessibility to the two sectors (see ratios in Annex II).

While it may be true that in the presence of high-quality biomedical care, use of traditional healers declines (Foster et. al. 1978:252; Neumann and Lauro 1982:1818; Davis 1990:9; Schumann et. al. 1987:10), and that in some areas, numbers of healers are decreasing (Good et. al. 1979:142), evidence from other areas suggests that traditional healers are increasing (Warren 1979c:250). For the most part, they are accessible, acceptable, affordable, and accountable to the cultural milieus of which they are a part.

Many, perhaps most, individuals and families use traditional and biomedical systems sequentially or simultaneously in their search for improved health. Studies of client characteristics reveal use of traditional healers both by highly educated, urban elites with equal access to biomedical facilities and by isolated, illiterate rural dwellers.

Characteristics of traditional healers and their practices are continuously undergoing modification and adaptation. Particularly in urban areas of Africa, pluralistic medical resources consist of a bewildering array of health care services: a wide variety of biomedical services, traditional healers of many different sorts, alternative resources such as religious faith healers, and a host of other "resources" that may be illegal and/or dangerous to health (injectionists, bus-stop dispensers, market drug sellers). Traditional forms of holding healers accountable to their patients are eroding in urbanizing areas. Complicated and expensive healing rituals sometimes become simpler as healers change their approaches to attract more clients in an atmosphere of increased competition. People with little or no training in either traditional medicine or biomedicine are entering an often lucrative profession of catering to the health needs of urbanizing populations. Traditional medicine can provide substantial income as well as flexible work hours and social status, particularly for women and uneducated people. Contrary to popular belief, costs of traditional healers' services are comparable to the cost of biomedical care in many areas.

Traditional medicine may not necessarily be more affordable than biomedicine, but people find a way to procure the services they feel they need. There are clear distinctions between illness problems believed to be best treated by traditional healers and those best treated by biomedical practitioners. Mental illness, infertility, impotence, and problems with supernatural involvement are considered to be within the realm of traditional healers, while infectious diseases, surgery, and complicated childbirth are better treated by biomedical practitioners.

Interpretations of the causes of illness episodes, which can change over time, determine people's therapy-seeking strategies along with the availability of pluralistic resources. For Africans who have access to traditional, alternative and biomedical resources, all health care

systems are integrated in the sense that people pick and choose between resources based on their interpretations of the ability of each resource to respond to their perceived needs. In practice, then, the systems are integrated into an overall health-seeking strategy by the clients themselves. What is not integrated is the actual care plan for any individual patient, from the provider's perspective. Often, only the patient knows that he or she is receiving care from two different sources at the same time.

### **C. THE CATEGORIZATION AND ORGANIZATION OF TRADITIONAL HEALERS**

The World Health Organization's (WHO) involvement with traditional medicine dates back to a 1976 meeting in Brazzaville convened by the WHO Regional Office for Africa, and attended by a group of Africa Region experts. This group presented definitions of traditional medicine and traditional healers that contain key elements worth noting:

#### Traditional Medicine:

"...the sum total of all the knowledge and practices, whether explicable or not, used in diagnosis, prevention and elimination of physical, mental or social imbalance and relying exclusively on practical experience and observation handed down from generation to generation, whether verbally or in writing. Traditional medicine might also be considered as a solid amalgamation of dynamic medical know-how and ancestral experience...might also be considered to be the sum total of practices, measures, ingredients and procedures of all kinds, whether material or not, which from time immemorial had enabled the African to guard against disease, to alleviate his sufferings and to cure himself."

(WHO 1978:8)

#### Traditional Healer:

"...a person who is recognized by the community in which he lives as competent to provide health care by using vegetable, animal and mineral substances and certain other methods based on the social, cultural and religious background as well as on the knowledge, attitudes and beliefs that are prevalent in the community regarding physical, mental and social well-being and the causation of disease and disability." (WHO 1978:9)

WHO's definition of traditional healers reflects an emphasis on herbalists and their activities, corresponding to the central role of drugs in biomedicine's therapeutic strategies. traditional healers are defined first as providing health care by "using vegetable, animal and mineral substances". All other non-pharmacological activities engaged in by numerous categories of traditional healers are subsumed under the phrase "certain other methods". In fact, the herbalists and their leaves, roots, barks and fruits are the most understandable and least threatening to biomedical practitioners. Traditional birth attendants and bone setters also fall

within this category of "acceptable" traditional healers since they, too, practice forms of health care which are recognizable to and understandable by biomedically trained health care providers.

Africans' belief in the supreme importance of ancestral spirits is the source of the very high status of the type of traditional healer variously called a diviner, a priest/priestess, a medium or a spiritualist. These people, chosen by the spirits and/or ancestors to liaison with the world of living human beings, are the essential communication link whereby humans have a chance to manipulate or ameliorate the events of their lives, of which illness is only one of many possibilities. It is probably this aspect of traditional medicine that is the most unsettling to biomedical practitioners.

The categorization of African traditional healers is complex and ever-changing. The communication revolution of the latter part of the 20th century has accelerated the dissemination of information so that even some of the most remote settlements are feeling the effects of modern life (Gort 1989; Opong 1989). Like any aspect of cultural life, traditional medicine is also responding to change by evolving in sometimes unpredictable ways. Traditional healers are adapting to social changes, maximizing options, forming associations and attempting to learn from other health care models (Last and Chavunduka 1986).

Many, perhaps the majority, of healers practice both herbal medicine and ritualistic healing in various forms. Most healers specialize in one or a few syndromes: from broken bones and abdominal complaints to infertility and social difficulties such as problems passing examinations or attracting a mate. Added to this is the development of "transitional" and "modern" categories of healers including those who incorporate both biomedical treatments and other more recently introduced forms of healing including faith healing.

The WHO/biomedical focus on those aspects of traditional medicine which are or appear to be compatible with the biomedical model is reflected in the structure and goals of the national organizations for healers which were set up, often by government officials, in the colonial and early post-colonial period. Often managed at the national level by a small group including politically well-connected traditional healers and biomedical physicians (who may also have a background in traditional medicine, or may even be traditional healers), these organizations, in collaboration with Ministries of Health or Culture, frequently limit membership to certain types of healers, often specifically excluding "witch doctors" or diviners. The goals of such organizations tend to be heavily weighted towards registration of healers, regulation of their practices, and establishment of professional codes of behavior and fee structures (Last and Chavunduka 1986; Cavender 1988).

Traditional healers themselves are working toward professionalization of traditional medicine and a working relationship with biomedicine within national health care systems (Last and Chavunduka 1986). Traditional healer associations now exist in at least 23 African countries, and are made up of healers who are interested in learning more about biomedical care, who

want to work with biomedical practitioners and MOH officials, who want to change the old image of traditional healers as primitive witch-doctors, and who want to be as respected among government officials as they are in their own communities (Good et. al. 1979:141; Green 1988a:1126). "The prize is recognition from the government, and ultimately a share in the salaries, supplies and buildings provided by government" (Last and Chavunduka 1986:11). In Zimbabwe, traditional healers want legal status so that their services would be compensated by government and private medical aid programs, and so that traditional healers would have the authority to justify a patient's temporary or permanent leave from work (Cavender 1988:252).

Traditional healers are often said to be secretive about their techniques and uncooperative among themselves. While these characteristics are still reported in some places, the situation is changing. The healers have their own very effective communication networks for information exchange. They are emerging as a political force. As they organize themselves into associations, they are becoming more open to sharing information. There is even a Pan-African Traditional Healer's Association representing healers in Botswana, Lesotho, Malawi, Mozambique, South Africa, Swaziland, Zambia, and Zimbabwe. This group held an emergency meeting in January 1990 to discuss the AIDS threat.

In many countries healers have become frustrated with what they perceive as the lack of concordance between the goals of the "official" national organization and those of a majority of the healers. In some cases small groups of healers have set up their own local organizations to promote their specific aims. Such organizations can take the form of Health Maintenance Organization (HMO)-like joint practices (Uganda), training institutions (Swaziland), factories for the production and sale of herbal medicines (Uganda) or specialized regulatory bodies (Cameroon, Uganda). Usually these groups are built around an influential local healer (Prins:fieldnotes).

Informal networks among healers are also extensive and constitute another organizational framework. These networks are the result of bonds between apprentices of certain powerful healers or of professional contacts between healers and merchants of traditional herbal ingredients who frequently travel widely within and between countries. In addition, important widely recognized healers may have regular contact with their professional peers, either at social or professional gatherings or in the course of referring patients to other specialists. These informal networks serve to exchange information on healing practices and on the efficacy of traditional medicines as well as providing a means of professional recognition.

The diversity, complexity and inherent tensions in the organizational networks of traditional healers pose a number of issues in terms of gaining access to healers for collaborative activities with the biomedical sector:

First, how does one decide in any given country or region how best to access those healers who may be most amenable and appropriate to certain collaborative efforts?

Association with any one organization may limit the number and kinds of healers one can contact. Professional competition or distrust may alienate those healers not belonging to that particular organization. At the same time, searching out individual healers one by one is probably not feasible.

Second, how does one identify those healers most likely to put into practice the therapies that are being promoted? In other words, how does one find out which healers treat childhood diarrhea and which of those healers are most likely to incorporate good case management practices into the healing rituals?

Third, how does one enlist the cooperation of local biomedical practitioners to work effectively with those healers who are most likely to have a significant impact on the case management practices of both other healers and the local population?

Gaining access to healers will be a very individualized process depending on the local situation. For example, during the Ugandan Traditional Healers Study (UTHS) (Lwanga et. al. 1991) was greatly facilitated by the RC (Resistance Council) system - a form of political organization instituted by the current ruling party. This system involves committees of representatives at five levels from the village up to the district. During the study, RC2s (parish level) assisted researchers in identifying healers in their parishes for listing on a short census form, and for identifying prominent, influential healers for intensive interviewing. Within each country, traditional or nontraditional systems of community organization would have to be identified that could assist in mobilizing healers for collaborative activities.

### **III. COLLABORATION BETWEEN TRADITIONAL HEALERS AND THE BIOMEDICAL SECTOR**

#### **A. THE WHO INITIATIVE**

In 1977, the Thirtieth World Health Assembly adopted a resolution launching a worldwide promotion of traditional medicine by urging member states to give "adequate importance to the utilization of their traditional systems of medicine, with appropriate regulations as suited to their national health systems" (Akerle 1984:76). The plan of action formulated at that time was particularly concerned with the problem of collaboration between different therapeutic systems, and what was referred to as the "integration into an overall national health care delivery system" of the different kinds of practitioners (WHO 1978:7). The primary health care concept emerged in 1978 at Alma Ata, and with it, the notion that traditional healers should be part of the primary health care team (Maclean 1986:8).

Thus one of WHO's goals is linking traditional and biomedical sectors within national health care systems. Terms like "integration", "synthesis", "cooperation", and "coopted" were used in the 1978 report for the most part interchangeably, although the words have different meanings. "Integration" or "incorporation" imply transforming traditional healers into low status health care workers, accountable to biomedical practitioners (Warren and Green 1988:7). The role and function of traditional healers is fundamentally altered while the biomedical system remains unchanged. Terms like "cooperation" or "collaboration" imply a "better working relationship between the two health sectors whereby appropriate referrals between the sectors become more routine, certain of the traditional healer's skills are upgraded, and the cultural sensitivity of modern health care workers is increased" (Green and Makhubu 1984:1077).

Another of WHO's objectives is upgrading the skills of traditional healers (WHO 1978:77). WHO has attached great importance to training traditional birth attendants (TBAs) for quite some time, and also stresses the importance of providing other kinds of traditional healers with "additional skills: the ability to identify and encourage existing beneficial practices...as well as skills in certain modern methods of prevention and cure, e.g., for the care of infants with diarrhoea or acute respiratory infections" (WHO 1978:77).

One of the themes recurring throughout Technical Report 622 (WHO 1978) and in many of the articles reviewed (cf. Bibeau 1985:942) is that the lack of information available about traditional medicine poses the greatest barrier to its use in national health care delivery systems. WHO's report thus recommends collecting baseline data through surveys on the following topics within any country-specific effort toward including traditional medicine in health care delivery systems:

1. traditional medicine personnel categories in practice;
2. traditional medicine centers or functioning services;
3. utilization of practitioners of traditional medicine in health services;
4. diseases known to have been successfully treated by traditional healers;
5. traditional medicine, drugs, preparations or medicaments, traditional medicine pharmacopoeias;
6. determinants of manpower needs for primary health care services;
7. collaborating factors and supportive infrastructure for the promotion of traditional medicine;
8. literary resources to gather information and compile bibliographies on traditional medicine.

The technical report on the promotion and development of traditional medicine stresses that contemporary research on traditional medicine has been heavily biased towards the pharmacological properties of medicinal plants, and that subsequent research should try "to keep in focus the wider scope of traditional medicine as experienced in actual practice in the health care systems of various countries" (WHO 1978:10). So besides evaluating the materia medica of traditional medicine, WHO recommends that all the various elements of traditional medicine be evaluated for safety and efficacy (Akerle 1984:77). WHO is therefore continuing to promote the development, teaching and application of appropriate analytic methods for evaluating various aspects of traditional medicine.

There has been some criticism of the motivations and qualifications of WHO's initiative on traditional healers. Velimirovic (1984) points to the complete lack of participation of medical anthropologists in the whole process of preparation of the WHO traditional medicine program, "a strange exclusion of the only professional group which, for years, has been involved in the study of this field" (p. 64). Any effective linkages between biomedicine and traditional medicine will require the participation of medical anthropological knowledge and techniques (Neumann and Lauro 1982:1817).

Supporters of collaboration between traditional healers and biomedical practitioners include a remarkably diverse group:

"governments (whether parties, bureaucracies or military men) who need both to cut costs and maintain popular support;...psychiatrists puzzled by solutions 'to patients' problems in other cultures; pharmacologists on the look-out for new compounds; idealists seeking to develop a truly national medicine and skeptics weary of the medical profession, its claims and its drug companies; radicals of varying persuasion, backing for example the countryside against the town or the 'folk' against the bourgeoisie; or realists who simply remark that 'primary health care' is already, de facto, the province of traditional medicine and therefore want local knowledge and skills recognized for what they are" (Last and Chavunduka 1986:1).

International public health professionals (African and otherwise), anthropologists, and "assorted scholars" can also be added to that group (Gort 1989:1100; Green 1988a:1125), and some have even predated WHO's interest (cf. Jelliffe and Bennett 1960:260). International and regional support for use of traditional medicine in national health care delivery systems also comes from Third World professionals (academicians and theoreticians) linked to the global system who are aware of available funding for activities involving traditional healers.

Promoting the value of traditional medicine for the goal of health for all in Africa is also prompted by WHO delegates' reaction to colonialism and cultural imperialism (Gort 1989:1099), despite the fact that national health systems based on the biomedical model have been adopted virtually without change as inherited from the colonial system (Bibeau 1985:942). In the case of Swaziland, whose medical system is tied extensively to South Africa, Gort points out that South African medical authorities have come out in support of traditional medicine, consistent with their attempts to isolate black majority subpopulations in homelands (Gort 1989:1099).

All this support should not obscure the fact that biomedical practitioners (specifically doctors and perhaps to a lesser extent, nurses and other technicians) are often opposed to inclusion of traditional healers in health delivery systems (Gort 1989:1100; Green 1988a:1126), and ignorant about traditional medicine in their own countries. Physicians tend to know very little about traditional medicine. They only see healers' failed cases in hospital or clinic settings and they tend to think of traditional healers as quacks, charlatans or witch-doctors. There is also considerable concern about the possible toxicity of certain herbal preparations as well as about the sometimes dangerous side effects of some traditional healers' invasive procedures.

Biomedical practitioners who have the opportunity to work with and get to know traditional healers usually experience major attitude changes. Public health nurses and health educators seem to be the most supportive of developing working relationships between traditional and biomedical sectors. Professionals in these specialties are usually among the group of trainers facilitating TH workshops.

## **B. EXAMPLES OF COLLABORATION BETWEEN TRADITIONAL AND BIOMEDICAL SECTORS (GHANA, SWAZILAND, NIGERIA AND BRAZIL)**

Collaborative projects between traditional healers and the biomedical sector have been attempted and met with success in many countries. Traditional birth attendants (TBAs; midwives) have received training from a variety of sources for quite some time and there is an enormous literature available on those projects. Collaboration with other kinds of traditional healers, including herbalists and diviners, is less common, but has been well

documented in a number of countries. There are three projects in Africa (Ghana, Swaziland and Nigeria) and one in Brazil (which is included because several aspects of this project appear to be pertinent to similar initiatives in Africa) where traditional healers have collaborated with government health services in primary health care training focusing on children's health problems including diarrheal diseases. The Nigeria project also included obstetrics and family planning. These projects have been fairly well documented and are summarized in the following section. In Annex 2, a short review of TBA training initiatives includes additional background information relevant to providing educational opportunities for traditional healers.

## **1) The Initiation of Collaborative Efforts**

### **Ghana: the PRHETIH Project**

In Ghana, during the 1970s, international donors assisted in several large-scale health development projects, including the Danfa Project in Accra (USAID), the BARIDEP project (Brong-Ahafo Regional Integrated Development Programme) in Kintampo District (WHO, SIDA and the Ghana MOH), and several UNICEF-funded training projects (Warren 1986:78). The Danfa Project focused on identifying ways of providing integrated health care, including a family planning component and TBA training, for rural populations (Twumasi 1979:352). A joint project by UCLA and the University of Ghana, it registered TBAs and collected basic background data on their knowledge and practices. A significant proportion of the TBAs were also herbalists (Neumann 1982:225). The BARIDEP project trained community health workers and TBAs, and conducted nutrition clinics as part of an integrated approach to rural development (Twumasi 1979:353).

The PRHETIH Project had its roots in Warren's anthropological study of Techiman-Bono disease concepts and therapeutic strategies, conducted from 1969-71 (Warren 1979a, 1979b, 1979c, 1982). Warren was instrumental in facilitating dialogue between Techiman's Holy Family Hospital staff and local healers. Over the years, relationships between local biomedical and traditional practitioners continued to improve and the hospital staff became more involved in primary health care outreach, including the BARIDEP project.

Ideas for the PRHETIH Project (Primary Health Training for Indigenous Healers) were developed during 1979 by a multi-disciplinary group of people committed to the objective of augmenting knowledge and skills of traditional healers and encouraging closer cooperation and understanding between traditional healers and biomedical practitioners. The initial organizational meeting of the project received radio and television coverage and was attended by 60 traditional healers and biomedical practitioners including "herbalists, priest/priestess healers, representatives of the witch-catching healers, the Chairman and the Secretary of the Brong-Ahafo Regional branch of the Ghana Psychic and Traditional Healers Association

(GPTHA), the Regional Medical Officer, the Medical Officer in charge of the BARIDEP program, the heads of the Techiman District Ministry of Health units, and senior staff members of the Holy Family Hospital" (Warren et al 1982:1876). At the meeting, participants made general decisions on development of a training curriculum for healers, and designated a 16-member coordinating committee and a small planning group to define course objectives and select materials for the syllabus.

The coordinating committee included government, MOH and religious officials, Peace Corps Volunteers, local health personnel and representatives of the traditional sector. The administrative base for the project was Holy Family Hospital which had a history of preventive health activities, training programs for TBAs and Community Health Workers (CHWs), and positive attitudes towards traditional medicine on the part of biomedical practitioners. Field coordinators were 4 Peace Corps volunteers (in succession), and the regional secretary of the GPTHA.

During the early 1980s, the project shifted from a focus on Techiman township to outlying villages, and coordinated with other primary health care projects such as nutrition clinics and environmental sanitation activities. Former trainees continue to meet periodically and an alumni association was proposed. An herbal arboretum was established on the Tano River with the Rural Health Training School providing garden tools.

The program suffered setbacks in 1983-85 due to a turnover in leadership at both the Holy Family Hospital and Peace Corps, and "personality and management style differences between the field coordinators and the new hospital administrator and new primary health care coordinator" (Warren 1986:84). As problems were resolved during 1986, traditional healers continued to show considerable interest in more training sessions. Dormaa and Berekum districts have since developed their own traditional healer training sessions based on the PRHETIH model. The Dormaa project has reportedly trained only a small number of healers and the Berekum project has focused more on TBAs than on other types of traditional healers (Davis 1990:6-7).

Outside of those two spinoff projects, it doesn't appear that any kind of national-level policies have developed (Davis 1990:9). On the other hand, there are indications that the government continues its interest in collaboration between traditional and biomedical sectors. A recently appointed senior level deputy director in the Ministry of Health will be responsible solely for developing traditional and herbal medicine (Newsdesk 1990b:7). The University of Amsterdam's Department of Cultural Anthropology will undertake a year-long study of the impact of the PRHETIH project in order to "make practical recommendations to policy-makers to suggest adjustments to PHC training in order to replicate the experience" (Davis 1990:7).

## Swaziland

Since the mid-1940s there has been an interest on the part of the Swazi government in linkages between the traditional and biomedical health care systems. During the early 1980s, the King issued a directive to the Ministry of Health to develop new guidelines for traditional healers. The Ministry formed a Commission for Traditional Medicine to recommend ways of organizing and regulating healers. At that time, Green had been researching Swazi traditional healers for a year and a half as a research anthropologist on the USAID-funded Rural Water-Borne Disease Control Project (Green 1985b; Green 1986). He and his colleague, Lydia Makhubu, a chemist who had been studying the properties of traditional medicines, were asked by the Ministry to provide baseline data and make policy recommendations to assist the government in developing a working relationship with the traditional medical sector (Green and Makhubu 1984:1071; Green 1986:123; Warren and Green 1988:9).

Reports and publications resulting from this research encouraged the MOH to attempt a pilot project with traditional healers, focusing on cooperation rather than integration (Green 1986:127; Green 1987:93). The MOH Health Education Unit along with the Rural Water-Borne Disease Control Project held workshops for traditional healers in mid-1983. The purpose of these workshops was to initiate dialogue with traditional healers and determine to what extent cooperation between traditional and modern sectors was possible (Booth et al 1985:117). Prior to the project, there was suspicion on the part of the traditional healers of the MOH's motives, and considerable negative bias against traditional healers on the part of biomedical practitioners. At the first workshop, only a small number of traditional healers arrived and they came wearing western rather than traditional dress. However, the nurses who also attended the workshop were health educators or public health nurses and were all personally in favor of the MOH's policy of cooperation, so the respectful exchange of information and the positive attitudes at the first workshop made an impression on the traditional healers present. At the next workshop, over 100 traditional healers attended wearing full traditional dress (Green 1986:130). Five-day regional workshops were then conducted in five different regions using modified content and presentation methods based on evaluation of the pilot workshop.

As of late 1986, the MOH's Health Education Unit was continuing to conduct workshops funded under the recurrent costs of the MOH's budget (Green 1986:131). However, in 1988, workshops were suspended by the Swazi government "due to problems concerning government recognition of the national association of healers" (Warren and Green 1988:10). The lack of long-term precedents for cooperation among healers, and between traditional and biomedical practitioners, unlike the situation in Ghana, is probably contributing to the current conflicts over professionalization. However, the government's long-term interests in linkages between traditional and biomedical sectors will hopefully overcome impediments to healer

training programs. Collaboration is apparently continuing on a localized scale as evidenced by the report that a recently opened traditional medicine clinic is staffed by six healers and four nurses, commonly treating skin diseases, open wounds, bronchitis, STDs and infertility (Newsdesk 1990a:6).

### Nigeria: Lagos, Benue and Sokoto

In 1987, the Pathfinder Fund began implementation of a USAID-funded project to train traditional healers in Lagos State, based on a program developed and administered in the late 1970s by the state-level Ministry of Health. Training and participant recruitment are organized by the Lagos Board of Traditional Medicine, comprised of traditional healers and biomedical personnel. The trainees are Yoruba male herbalists (onisegun) who specialize in midwifery, gynecology, prenatal and postnatal care.

A second Pathfinder project, implemented by the Planned Parenthood Federation of Nigeria (PPFN), operates in Benue State. It is based on an earlier project in which TBAs were trained to collaborate in delivering primary health care and family planning services and products. During that earlier project, it became apparent that a number of TBAs were married to male herbalists and diviners. The husbands appeared at TBA classes asking to participate in the training sessions. Benue State was thus chosen as the site for Pathfinder's second project in training traditional healers.

Unlike the Yoruba, Benue State's Tiv, Igala and Idoma have few herbalists specializing in OB/GYN, but Benue healers proved to be highly enthusiastic about participating in workshops. The main problem facing the PPFN was how to select healers to participate where the demand exceeded available spaces in the workshops. That kind of motivation kept training costs low since healers themselves were willing to accept the indirect costs of training (transportation, overnight costs, etc) (Green 1988b:12-13).

A third project, based in Sokoto State, was designed to study the feasibility of training traditional healers, including TBAs, in some aspects of basic primary health care, including family planning (Tahzib 1988:4). Sokoto, one of the first states in Nigeria to run a TBA training program in 1975, has trained 1,000 TBAs since then. This current project takes a broad approach beginning at the village level with an initial mapping, household numbering, total village household census and questionnaire; population KAP, and traditional healers and TBA KAPs; a one-month analysis of visits to the local dispensary; curriculum development, selection and training of TBAs and traditional healers; establishment of systems of detection and registration of births, deaths, marriages, and pregnancies; formation of a village health assembly, and associations of TBAs and traditional healers. The urban project operations included most of the same activities except for mapping and census taking. Pre-training baseline data were collected from 100 traditional healers and TBAs in Sokoto, healer associations were formed, training was conducted, and a range of post-training data were collected.

Healers from both rural and urban settings were trained. Urban healers were selected for training in Sokoto town by leaders of the traditional healers organizations. Eleven men and eleven women participated in the first series of three-hour long sessions conducted in a dispensary and a clinic over a three week period. The rural program in Mungadi village trained 13 TBAs and 15 traditional healers (including 8 women and 7 men), chosen by the village head and leaders of the traditional healers from Sokoto. The TBAs trained for 2 1/2 weeks during three-hour morning sessions. The other traditional healers trained for two weeks during two sessions per day (Tahzib 1988:23).

The Traditional Sector Family Health Project in two sites (Lagos and Benue states) and the Sokoto Traditional Medical Practitioners Project in Sokoto state have emerged from different backgrounds and under different circumstances than the projects in Ghana and Swaziland. States in Nigeria are in many cases larger than some of the smaller African nations so logistical problems become more important in running projects. State-level government officials are more important to local projects than national-level ones. Due to the presence of male TBAs, the traditional healer training programs included obstetrical and family planning components into the overall training package. Ghanaian male traditional healers were trained under a TBA training project as described in Annex 2. The Nigerian projects are thus bridging an artificial gap between TBAs and other kinds of traditional healers created by an apparent preference for TBAs as appropriate recipients of primary health care training.

### Brazil

The project from Brazil is included in this paper on African traditional healers because it was one of the first experiments in training traditional healers to incorporate ORT into actual healing rituals (Nations 1983; Nations and DeSousa 1986; Nations and Rebhun 1988). The project focused specifically on teaching ORT techniques to those healers in northeast Brazil who treat childhood diarrheal diseases. The original experiment took place in a town called Pacatuba (population 7,000), 32 kilometers from Fortaleza (population 1.8 million), the capital of the State of Ceara. The ratio of traditional healers to the population in Pacatuba is 1/150 compared to the estimated physician/population ratio of 1/2000 (Nations and Rebhun 1988:27). All biomedical services (four physicians in a health center) are located in the center of town while 71 percent of the traditional healers live and work in the town's poorer rural periphery. In Pacatuba, the diarrhea attack rate for infants 7-12 months was more than nine episodes (or 50 days) per child per year (Nations 1983:48), and 54 percent of registered deaths in infants in 1976-77 were due to diarrheal diseases (De Souza 1983:107).

The objective of the project was to "identify and develop solutions for the various operational problems in providing ORT through traditional healers" (Nations 1987:1). The healers were mobilized to incorporate ORT into traditional healing ceremonies, and became part of referral networks to link healers to community-based hospital care for high-risk children (Nations 1983:51). Research contributing to the project took place during three field studies undertaken between 1979 and 1986 using both qualitative and quantitative methods. The

actual project of training traditional healers in ORT was carried out between 1984 and 1986 (Nations and Rebhun 1988:32).

During a project to motivate community leaders to promote ORT, the significance of traditional healers as resources during diarrheal episodes was identified, and a healer training project was developed. The project began with informal meetings between researchers and traditional healers to share information and work on a strategy for incorporating ORT into healing rituals. It was not easy at first to get the healers to cooperate with each other, however, their interest in learning a new technique and their concern over the magnitude of the diarrhea problem overcame their rivalries (Nations and Rebhun 1988:32).

Initially, the researchers had proposed gathering administrators, physicians and traditional healers for formal group discussions that would rank alternative solutions and come to group decisions. However, the traditional healers found that process intimidating. They were mostly illiterate, unfamiliar with classroom settings, lists and papers, and felt overpowered by health officials and professionals. Therefore, Nations and her colleagues moved the meetings to a community setting to encourage active dialogue with traditional healers, mothers and children. "By speaking lay language, participating in healing ceremonies, soliciting herbal cures, and showing utmost respect for traditional healers' traditional wisdom, we were able to gain their trust and overcome status differences between our staff and the traditional healers" (Nations and Rebhun 1988:32).

The Pacatuba model, incorporating the basic approach, the educational and teaching materials, and ORT preparation methods and measures, was replicated in the design of the VIVA Project. This five-year child survival effort funded by Project Hope and USAID was implemented between 1985 and 1990 in 33 counties in the State of Ceara and covered 500,000 people. Although the full program report was not available for the preparation of this paper, a summary of results (VIVA 1991) states that infant deaths had been reduced by more than one third, and mothers learned to make and use SSS. Similar to the Pacatuba project, 167 healers of the 325 identified in the 26 project communities were taught to use ORT in their healing rituals, and were mobilized to promote breastfeeding, immunization and "other basic health measures" (VIVA 1991:3). In addition, the project trained a cadre of female community health workers who "have been transformed into community leaders, roles which they are likely to maintain for the rest of their lives" (p. 3). A follow-on program of the State of Ceara's Secretary of Health will include several thousand community health workers and cover most of the state (p. 3). For this project, then, it appears that the initial research project in Pacatuba (training traditional healers to promote ORT) has led to larger scale efforts, reaching more people and involving larger numbers of healers and other health workers.

## **2) Role of the Biomedical Sector**

Ghana's project (Primary Health Training for Indigenous Healers) grew out of a long-standing climate of cooperation and good will between Holy Family Hospital staff and local traditional healers. The administrative base of the project was the hospital, and the staff was instrumental in changing attitudes among other initially skeptical biomedical practitioners. The Swazi project involved public health nurses and health educator nurses as trainers who came to the sessions already convinced and supportive of traditional healers involvement in primary care activities. Physicians' roles in these projects have been as advisors or contributors. It appears that nurses and health educators - those most likely to have positive attitudes - were major participants in the projects, as opposed to physicians. In Nigeria, biomedical personnel were apparently involved and supportive from the beginning, but it's not clear from the documentation exactly what kinds of practitioners participated and who conducted the training. In Brazil, physicians and researchers from the Federal University of Ceara were the motivating force behind the original projects.

Ghana's Danfa project, described in Annex 2, was a huge multidisciplinary undertaking. The TBA training component used a nurse-midwife and health educators as trainers with physicians as resource people. The Kenya project, also described in Annex 2, involved one expatriate nurse-midwife/health educator, assisted by two local community health workers.

## **3) The Role of Ministries of Health**

Ghanaian national and regional MOH officials were part of the original coordinating committee for the PRHETIH project. It was the MOH's Health Planning Unit who in the early 1970s, assembled baseline data on distribution of health resources that pointed to the need to consider a role for traditional healers in the national health system.

Swaziland's MOH has had a policy of cooperation with the traditional sector for some time and commissioned the original study by Green and Makhubu to assist in developing a working relationship with traditional healers. The MOH's Health Education Unit worked with the USAID-financed Rural Water-Borne Disease Control Project on the first workshop to initiate dialogue with traditional healers.

The regional Ministry of Health in Lagos State had developed a training program for traditional healers in the mid-1970s, then worked with the Lagos Board of Traditional Medicine, an entity formed by the MOH, to develop the training plans for the Traditional Sector Family Health Project. Thus the Lagos MOH played a major role in implementing that project.

Documentation of the Brazil project doesn't identify any particular involvement of the Ministry of Health. In Africa, however, government support via ministries of health is mandatory prior to any health research or training project featuring expatriate contributions.

#### **4) Types of Healers Trained**

All of the projects described above were small in terms of numbers of healers trained. The training programs were, in a sense, pilot projects rather than national projects. None of the project documentation describes precisely how healers were selected to participate in educational activities. Selection of healers for training depends on country specific factors such as which type of healer treats which illnesses, which healers are most likely to be perceived by communities as good sources of information about home care for certain illnesses, which healers would be willing to adapt their practices to incorporate certain primary health care interventions, which healers see the most patients (for greatest impact on the population), and which healers might be influential opinion leaders among their peers (for greatest impact on the healer population through networking).

It's not possible within the context of this paper, to generalize about the types of healers all over Africa who should be targeted for participation in workshops. Decisions have to be based on local circumstances with input from healers themselves as well as the biomedical and government sectors.

In Swaziland, diviners and herbalists were trained in management of eight childhood diseases. Zionist faith healers did not apparently participate in the training. Evidence from Botswana and Mali suggest that faith healers may not be appropriate candidates for cooperative ventures between traditional and biomedical sectors (Green and Makhubu 1984:1079). In Africa, these types of healers don't usually use herbal drinks in their treatment regimens, as Brazilian spiritualists do.

Ghana's project, on the other hand, trained all categories of traditional healers - priest/priestess healers, herbalists, "witch-catching" healers and TBAs. The Dormaa Project, based on the Techiman Project, trained community health workers and traditional healers using the same curriculum. Documentation on the Ghana project does not include specific data on traditional treatments for childhood diarrheal diseases, so it's not known whether all or only some of the categories of healers treat these problems. By some reports (Davis 1990:9), mothers in Ghana do not take their children to traditional healers for diarrheal diseases. A national CDD KAP survey revealed that less than one percent reported consulting spiritualists or herbalists for childhood diarrhea (Davis 1990:10). Another study to assess the role of herbal drugs in primary health care found that "hardly any children - certainly not those under the age of five years - are treated by herbalists, the most common type of traditional practitioner in Ghana" (Davis 1990:10). However, in planning the training program, all categories of healers were interested in participating - no one was excluded, and topics did not focus specifically on children's problems.

The Traditional Sector Family Health Project in Lagos State, Nigeria trained Yoruba male herbalists who specialize in OB/GYN, prenatal and postnatal care. In Benue State, a second training project worked with TBAs, and male herbalists and diviners. The latter groups

asked to be involved after the start of a program offering training only to TBAs. Interestingly, the Sokoto project report neglected to mention which types of traditional healers were trained along with the TBAs.

In Brazil, the training project attracted mainly rezadeiras - Catholic spiritual or faith healers - because these healers commonly treat childhood diarrheal diseases and because they already use medicinal herbal teas as part of their ritual treatment regimen. Twenty of the first 46 trained were rezadeiras (Nations et al 1988:339). The other 26 trainees were Umbandistas (Afro-Brazilian priests), espíritas (spiritists), popular pharmacists, one herbalist, one popular doctor, and 10 visiting Protestant prayer healers. The training project was able to build on existing traditional behaviors by developing a new ORT drink using traditional teas as a base, and emphasizing techniques of administration.

### 5) Training Content and Methodology

Course contents for these training programs were generally developed cooperatively between the organizations sponsoring the training and the traditional healers themselves or were based on preliminary investigations into local needs. As a result, course content reflects local circumstances.

Ghana's Primary Health Training for Indigenous Healers project developed a course curriculum with the participation of traditional healers themselves. Topics included preparation, preservation and storage of medicinal herbs, diarrhea and ORT, nutrition, weaning, vaccination and selected contagious diseases, family planning, snake bites, jaundice and leprosy. Thus, the focus was not restricted to ORT or even to children's problems.

The training was conducted in the local Akan language by 11 trainers who spoke that language. The course content demonstrates a response to healers' interests in processing, preservation and storage of medicinal herbs, as well as emphasis on childhood problems such as diarrhea, vaccination, nutrition, and measles. Six of the 11 trainers were full time employees of the hospital.

Classes were conducted in homes of the participating healers, and each week prior to the class, the project coordinators, trainers and one or two trainees would meet to review and modify the material as necessary. Each healer paid a small sum per session. If a trainee missed a class, a make-up session was given for a slightly higher fee. Teaching strategy involved presentation of information as supplementary to the healers' existing knowledge and practices using questions and answers, demonstration/return demonstration, graphics and drama, and role-playing, in addition to lecture format (Warren et al 1982:1879). Each trainee received a personal follow-up visit after each session to discuss any difficulties on an individual basis.

Again in Swaziland, the curriculum was developed as a cooperative venture between biomedical people and traditional healers, who first got together to share ideas about each other's profession, and to discuss eight childhood diseases. Based on the pilot workshop, it was decided that too much information had been presented during the five days, so future training curricula were modified. The final course content consisted of topics on which there was the most agreement between nurses and traditional healers - nutrition, personal hygiene, sanitation, ORT and immunization - presented in the context of how to prevent and control diseases common to children.

The sessions were designed to encourage informal dialogue and develop mutual respect and understanding. Healers and nurses discussed their opinions on traditional and modern health practices. The regional workshops were held in rural training centers where healers and nurses lived and practiced (Hoff 1986:4). Health information was presented as simply as possible and was based on existing cultural beliefs wherever possible. Training methods and materials emphasized experiential learning, including small group discussions, visits to clinics, ORT demonstrations, models, photographs, and using microscopes to look at mosquitos and parasites.

A slightly different emphasis developed in Nigeria's Traditional Sector Family Health Project where the traditional healers, who are primarily OB/GYN specialists, were trained in hygienic midwifery techniques, first aid, family planning and community-based distribution, ORT, infant nutrition, and treatment of sexually transmitted diseases. The Sokoto project attempted to cover an amazingly wide range of topics in 14 modules.

Trainers included staff nurse-midwives from the MOH's Basic Health Services Unit, the Health Education Unit, the state EPI/ORT instructors, and nurse-midwives from the School of Nursing and Midwifery and the Sokoto Health Project. Teaching techniques included discussions, talks, demonstrations, practical experience, films, slide shows, songs, music and drama. Locally available tools and instruments were used whenever possible.

In Brazil, the traditional healers were trained specifically in ORT since the training effort emerged from concern over the serious mortality rates from diarrheal diseases in that region. Traditional healers and researchers met in a series of 13 training and problem-solving sessions to address the following issues:

1. how to integrate ORT into healers' rituals;
2. what oral rehydration solution should be utilized;
3. how to teach healers to correctly prepare and administer ORS;
4. where the ORS should be prepared and delivered.

The group developed a home-made recipe for ORT using traditional herbal teas, sugar and salt. The process involved holding a meeting where all the traditional healers were asked to bring their favorite diarrhea recipe. All the contributions were set up on a table: coconut water, rice water, various herbal teas, and packaged ORT. Commercially available ORT

mixes and pharmaceuticals were added by project staff. Advantages and disadvantages of each were discussed by the group. Then the healers were asked to prepare their favorite medicinal teas, unsweetened and were taught how to add sugar and salt to make ORS-tea, using the bottle cap measuring method. Either 7 or 8 bottle caps of sugar per liter were needed so the healers were asked which number they preferred. They chose 7 - a magic number in their religious system. The recipe was finalized during a tasting session with village mothers and children who preferred the sweetest traditional teas to the prepared ORS. However, the healers agreed that sick children need all the ingredients in the packets even if, like many medicines, it did not taste good. The compromise involved combining homemade SSS with the teas. With this approach, the water is boiled, the sugar and salt are included, and the additional power of the traditional herbal treatment is retained.

Through 1985, 17 traditional healers had been fully trained and supervised to deliver ORT, five curing rooms had been constructed, and 13 additional rooms in healers' homes had been renovated. In 12 months, the traditional healers administered over 7,400 liters of ORT. Total program cost was US\$4,027. Initial investments of US\$2,960 included training of traditional healers by a nurse, one senior and one junior level physician, supplies, materials for constructing and equipping the curing rooms, and transportation. Operating expenses for a 15-month period were US\$1,068 which included research staff supervision of traditional healers, four community research assistants; operating supplies (sugar, salt, plastic bags); travel costs of supervisors; and incentives for traditional healers including meeting expenses. The average cost of constructing a curing room came to US\$26 because of donated labor. Equipping a room for ORT administration cost US\$43. And the cost of SSS came to an average of US\$0.48 per healer per month (each healer making on the average 36 liters per month) for the sugar which was the most expensive item (Nations and De Sousa 1987:10).

Though the time and effort (not the expense) of training 17 traditional healers in ORT techniques seems excessive, the investment is primarily in development of the model of training rather than in the 17 healers themselves. Focusing strictly on ORT, the original project in Pacatuba trained traditional healers to prepare and administer SSS and helped them to incorporate its use into existing culturally familiar healing rituals. The healers themselves participated in the development of the training sessions - in particular, the creation of a new ORS combining traditional teas, sugar and salt into an appropriate rehydration fluid. Additional important treatment messages were conveyed to traditional healers and passed along to mothers as revealed in post-training surveys. While the ethnographic context of the Brazil project differs considerably from the African context, the methodological process of project development and implementation is similar to the previous case studies in the use of baseline ethnographic data, the careful attention to respectful attitudes, and the incorporation of healers' inputs into planning.

The TBA training programs in Ghana focused primarily on OB/GYN topics and family planning. In Kenya, the course was in basic midwifery, the details of which were developed

from questionnaires administered to 11 rural TBAs in an effort to learn what they wanted to know about midwifery, which aspects of their practices presented the most problems, and what they understood about the functions of the health center.

It is important to note that all of these projects employed local trainers who were apparently trained in the use of participatory, active and practical (as opposed to didactic) training methodologies.

## **6) Evaluation Results**

Evaluation procedures varied widely among the projects. In general, reports of evaluation efforts were not particularly detailed, and not scientifically precise. Despite the lack of precision of the reported information, the trends appear to be positive. The impact of training on healers' practices appears to have been favorable. In the Ghana PRHETIH Project, follow-up surveys of trainees were conducted six months after the completion of training. In the Swaziland project, a follow-up study conducted three months after the completion of training compared healers who had attended the workshop with a group of healers who had not participated.

In the Sokoto project, post-training measurements included KAPs of TBAs and traditional healers at 1, 6 and 12 months; house visits to TBAs and traditional healers and their patients; monitoring of births and outcomes by TBAs; dispensary visits after one month; distribution and delivery of services (contraceptives, iron and folic acid, antimalarials, ORT); motivation and mobilization (attendance at meetings, participation in EPI, vital statistics registration, and sanitation activities); and tally of numbers of children referred by EPI, numbers of ORT packets and type of advice given, numbers of consultations for family planning, and numbers of referrals by traditional healers and TBAs to the dispensary (Tahzib 1988:8-10).

In the case of the Brazil project, evaluation included a comparison of knowledge and practices of 204 mothers interviewed before the intervention with the responses of 226 mothers interviewed afterwards. Evaluation procedures for the two TBA projects, described in Annex 2, were not outlined.

Despite the differences in methodology, the evaluation results from the four projects were remarkably similar and positive. Findings included the following:

### **1. Improved practices by traditional healers, including adoption of new biomedical treatments and preventive practices as well as modification of traditional practices:**

\* In Ghana, Warren (1989:176) found a 60 percent retention rate among trained healers of the information presented during training after 6 months. Improved practices among healers included: storage of herbs in clean plastic bags; improved mixing practices; treatment of children with febrile convulsions with cold-water,

sponging rather than herbal enemas; ORT for childhood diarrhea rather than traditional cauterization of the child's back; treatment of kwashiorkor with high-protein foods; evidence of village clean-up campaigns and construction of ventilated pit latrines.

\* In Swaziland, Hoff (1986:6) found a better understanding of dehydration and the treatment and prevention of diarrhea among trained healers than among those who did not participate in training activities. This included much better accuracy on preparation of SSS - 91 percent of the workshop group prepared SSS correctly compared to 54 percent of the control group. Traditional healers in the workshop group began giving ORT in addition to their traditional teas, although published accounts of the evaluation do not quantify the percentage of trainees who began giving ORT or the volumes given. The use of purgatives and enemas in treating diarrhea began to decrease, as reported by both nurses and healers. During the follow-up study, it was noted that all the healers in the workshop group had constructed latrines in their compounds and were maintaining them, while in the control group, only 26 percent had latrines. Forty-eight percent of the workshop group had wash basins in their clinics compared to four percent of the controls.

\* In Nigeria, prior to the training program, none of the traditional healers had heard of or used ORT, even in urban Sokoto. Six months after the workshops, 78 percent of the rural practitioners could prepare SSS with all details correct, and an additional 22 percent could still remember it and prepare it with some innovations. Urban healers said they were not as involved with diarrhea treatments, but, nevertheless, six months after training, 45 percent could prepare it correctly, and 35 percent could remember its importance but could not prepare it. Traditional healers no longer kept herbs on the ground, but rather kept them dried, in plastic bags and off the ground. TBAs kept spare new razor blades and soap, and emphasized the importance of hand-washing. (Tahzib 1988).

**2. Rapid diffusion of information from trained healers into the community:** Hoff made the same observation in Swaziland. He also noted that traditional healers' health education and prevention activities appeared to increase. Eighty percent of the workshop group reported giving advice to patients about preventing illness - information on home sanitation, nutrition, immunizations, clinic checkups - compared to 40 percent of controls. Seventy-five percent displayed health education posters given to them at the workshops, as observed by evaluators.

In Nigeria, traditional healers were found to be highly effective in motivating parents to bring children for immunizations, despite their claims for the effectiveness of their own traditional medications for treatment of measles, TB, whooping cough, and diphtheria. In May 1987, only one percent of village children under two years of age had had any immunizations. By March 1988, 100 percent of village children 5 years old and under had been completely immunized, and a system had been set in place for immunizing newborns.

Mungadi was the first village in Nigeria to achieve 100 percent immunization (Tahzib 1988:44). Many of the rural female practitioners took the initiative to teach other women about ORT preparation. "Six months after training {of traditional healers} in the village, at least one female member in every household could make an attempt in preparation of ORT" (Tahzib 1988:37). Urban practitioners preferred to mix ORT themselves and give it to their patients. In addition, traditional healers took the initiative to mobilize the village for general development including establishment of a fund for road improvement, creation of a youth club, traditional healers associations and a village health assembly, and lobbying of Local Government offices for basic health needs. It thus appears that the traditional healers training has had even broader effects than originally envisioned, at least in the rural areas.

The PRICOR Project in Brazil (Nations and De Sousa 1987:7) documented the following changes in maternal behavior in response to changes in traditional healers treatment practices:

- \* increased percentage of mothers who know about SSS and free government ORS (SSS: three percent to 72 percent,  $p < .001$ ; free: 56 percent to 75 percent). The greatest percentage of mothers who knew how to prepare homemade SSS and the packets was in the poorest neighborhoods of Pacatuba. Of those who reported knowing how to prepare SSS, 96 percent learned it from a traditional healers.
- \* 25.5 percent reduction ( $p < .0001$ ) in use of expensive commercially-prepared ORS packets and an 11.6 percent reduction ( $p < .01$ ) in the use of prediluted ORS (although no change in use of free government packets), with greatest decline in the poorest neighborhoods;
- \* significant decrease (from 93 percent to 63 percent) in the belief that pharmaceuticals should be used for diarrhea/dehydration (no change in seeking of physicians for diarrhea).
- \* increased percentage (71 to 92 percent,  $p < .001$ ) of mothers who believe breast feeding should be continued during a diarrheal episode;
- \* decrease by 18 percentage points in the practice of withholding milk during diarrheal episodes, with the greatest decline in the wealthier neighborhoods where weaning occurs the earliest.

### **3. Increased number of referrals between traditional healers and biomedical practitioners:**

\*In Ghana, Warren noted that the hospital now refers psychiatric cases and most simple fractures directly to certain traditional healers; healers refer cases considered beyond their knowledge and capabilities to the hospital; some indigenous practices have become standard practice at the hospital (such as a TBA technique for dealing

with retained placenta) (Warren 1989:176). Furthermore, a dramatic decrease was observed in the outpatient load of Holy Family Hospital from a high of more than 120,000 visits in 1980 to 65,000 in 1985 - remarkable, considering the continued rise in population growth rates. Warren speculates that the decrease in outpatient visits could mean that the training programs have improved community health conditions by increasing the effectiveness of traditional healers's care in that district (1986:84). However, as of 1986, no formal study had verified that conclusion. Informal surveys of traditional healers who have participated in the training sessions indicate an increase in their own case loads, however, suggesting a shift from use of hospital outpatient services to the traditional healers (Warren and Green 1988:9).

\* In Swaziland, increased referral activity between traditional healers and clinics, and development of a patient referral card for healers to use when sending patients to clinics were reported as an outcome of the traditional healers training activities (Hoff 1986:6). Sixty percent of workshop participants reported referring children with diarrhea and vomiting (within the previous three months) to clinics compared to 38 percent of controls. Most of those patients were children under five with serious diarrhea. Nurses who were interviewed verified that healers had referred patients to them within the previous six months, mostly children under five with diarrhea and vomiting.

\* In Nigeria, increased referral by healers to clinics was also noted. However, it was also reported that the clinics were unable to respond to this increased patient load. Traditional healers reported referring patients to clinics for modern birth spacing methods, but that the clinics often did not have supplies or refused to see the women until they had permission from their husbands (Tahzib 1988:43). Increase in patient load was also reported by 33 percent of rural healers and 38 percent of urban healers. They claimed that the increase was due to more people coming to ask about ORT.

\* In Kenya, an increase in the number of babies delivered at the clinic from one every other month to nine per month as well as an increased attendance at prenatal clinics was reported as a result of TBA training (Steele 1990:58).

**4. Improved relations between traditional healers and biomedical personnel were reported in Ghana, Swaziland, Brazil and Kenya.** In Swaziland, there was a reduction of fear and mistrust between nurses and healers as both realized, through informal dialogue, the similarity of their objectives for the well-being of their patients. Evaluation results showed improved attitudes toward cooperation - 93 percent of workshop traditional healers reported good cooperation compared to 52 percent of controls (Hoff 1986:6). In the Kenya TBA program, the project increased communication and cooperation between the health center staff, the community and the local TBAs beyond simply the improvement of obstetrical management. Birth registration procedures improved when trained TBAs were allowed to sign birth certificates reporting home deliveries, increasing demand for the trained TBAs'

services. A new MCH Clinic was inaugurated with the arrival of a solar-powered vaccine refrigerator and the trained TBAs became instrumental in motivating villagers to bring their children for vaccinations. When a young girl died of hemorrhage following radical circumcision, the situation was discussed at the monthly TBA meeting at the Health Center. The TBAs as a group decided to discourage the radical form of this procedure in favor of a less damaging removal of half the clitoris (Steele 1990:56).

The Nigeria evaluation also raised some concerns. It was observed that some traditional healers introduced innovations in the practice of ORT. Some of the practitioners had begun to experiment with ORT solutions by adding medicinal plants to the mixture, most commonly, *Acacia nilotica* (Bagaruwa) bark or leaves. "This plant has been shown to have some antispasmodic properties with anticholinergic and antihistaminic actions; the tannin content of the plant is also said to contribute to its antidiarrheal properties" (Tahzib 1988:37). Some practitioners noted that ORT was useful for vomiting and other discomforts during pregnancy. Similar adaptations of ORT were also observed by Prins during informal visits to healers in Swaziland and Uganda (Prins:fieldnotes). There, healers added traditional herbs to the ORS or SSS preparations or modified the quantities of salt, sugar and/or liquid used in the preparation. Occasionally, the recommended quantities of liquid to be administered to the patient were also changed (usually reduced). While all such adaptations are not necessarily harmful, unmonitored modification can result in ineffective and, sometimes, dangerous practices. The Nigeria project evaluation also noted that urban traditional healers felt their role should be more direct, ie. that they themselves should be able to give injections and birth spacing methods, rather than refer patients to clinics. Some traditional healers were observed to give injections and to mix modern medicines with traditional mixtures. Tahzib feels that training for traditional healers may cause some of them to become overconfident about their abilities (Tahzib 1988:46). This concern was also expressed by van der Horst (Prins:personal communication) despite his overall positive experience working with traditional healers in Ghana.

Another concern revolves around the issue of translating a local, pilot-level experiment into an on-going national-level program backed by a solid governmental policy. Many sources consider Ghana's PRHETIH Project to be a model of a successful collaborative effort between the traditional and biomedical sectors. "Yet despite its accomplishments, virtually none of the lessons learned from the experience have been translated into any type of national-level policy nor does it appear that there has been any concerted effort to replicate the experience in any type of systematic fashion on a regional or even more localized scale" (Davis 1990:9).

## 7) Common Elements Contributing to Success

Combining data from the four case studies of traditional healers training programs reveals the following key areas of consideration:

**1. Availability of adequate baseline information and good evaluation data:** Success depends on availability of good qualitative ethnographic data on traditional practices. In Ghana, Swaziland and Brazil, collaboration was initiated by anthropologists who had completed extensive research on traditional medicine in those countries. Both the Sokoto (Nigeria) and Brazil projects were executed as research projects to test the feasibility of the chosen approach. In each case the training efforts were preceded by extensive sociocultural information gathering activities.

Necessary quantitative data includes good epidemiological data to understand the scope of the disease picture and accurate information on types, specialties, and distribution of healers. A good understanding of the existing relationship between the traditional sector, the biomedical sector, and the government's MOH is also invaluable. Continuous qualitative and quantitative assessments of the program's progress and impact are useful to permit ongoing refinement of the chosen strategy.

**2. Mobilization of a wide variety of community leaders in support of the project:** Representatives of government, biomedicine, and traditional medicine, as well as local community, religious and political leaders should be included in the planning and execution of project activities. The rationale behind this inclusion of everybody possible, particularly in the planning stages, is to emphasize the importance to community, region and nation of working to improve the health of the population. When all influential sectors are knowledgeable and involved from the beginning, support and cooperation are maximized and obstacles are minimized. This approach nurtures an atmosphere of dialogue and respectful cooperation. It is important to recognize that distrust and lack of understanding between representatives of the traditional health community (including healers and village populations) and those of the modern biomedical establishment (including biomedical health personnel and the government structures which support them) is a mutual phenomenon, based on both previous negative experience and lack of knowledge. In all four of the projects studied, an initial phase of discussion between representatives of different sectors of the community helped ensure project success. The Brazil project also involved mothers and children in initial discussions. In Ghana and Swaziland, the establishment of effective working relationships was further enhanced by the existence of good relationships of long standing between the anthropologists who helped plan the projects and the local healers. Media coverage in Ghana helped to reinforce the legitimacy of this kind of collaboration between the traditional and modern sectors.

**3. Well-designed course content and effective training methodologies** In Ghana and Swaziland the course content was developed with full participation of traditional healers and included topics of particular interest to them. The Nigeria project was aimed at a specialized group of healers with more emphasis on maternal/child health, obstetrics and family planning, combining strategies of TBA training with wider issues of interest to other types of traditional healers. The Brazil project was the most specific of all, focusing solely on ORT

and diarrheal diseases. However, the SSS formula taught was developed with the healers' participation. The healers also helped to design the teaching materials they were to use with mothers.

All four projects emphasized positive areas of agreement between traditional healers and biomedical practitioners. Arguments over the existence of ancestral spirits and the supernatural explanatory models of disease were avoided. The training material built on a thorough understanding of existing traditional explanatory models of disease and traditional healers' therapeutic beliefs and practices wherever possible.

For example, in Swaziland, dehydration was explained as a condition where the body becomes severely out of balance due to excessive loss of fluids from diarrhea. The fluids must be replaced in order to restore balance and harmony, building on a central theme in Swazi illness concepts. That idea was then related to the problems produced by enemas and purgatives which cause the body to become further out of balance through loss of additional fluids. Hoff claims that the healers quickly understood these explanations, and that the follow-up showed a change in behavior (1986:9).

In Brazil, the healers incorporated the preparation of SSS and its administration into the traditional spiritual healing rituals. In Nigeria, the training program built on the role of healers as specialists in the restoration of harmony and balance (not just good health) by structuring dialogue around life events. The first part of the training focused on causal factors - physical, nonphysical, social, economic, psychological, political and spiritual - and possible related treatment and preventive strategies. The second part focused on the potential problems, health implications, and therapeutic interventions associated with major life events - birth, childhood, schooling, marriage, work, adulthood, parenthood, old age and death.

The most effective training approach for working with traditional healers appears to be one which focuses on the concrete and specific rather than the abstract and theoretical. The courses should teach a relatively limited number of topics, focusing on the practical application of procedures and therapies. In Swaziland, for example, healers who participated in the initial five day workshop found the number and variety of topics confusing. This led to a reduction of topics and simplification of the presentation in later workshops. All the training programs used a wide variety of instructional methods. The emphasis was on discussion and participatory training techniques rather than on lectures by "experts".

**4. Funding strategies which are consistent with local custom:** In Ghana, healers paid a small fee to attend the training course. Though this did not cover the expenses of the project, it was consistent with the local practice of paid apprenticeships. In Swaziland, the national healers' association contributed both time and resources to the organization of the training activities. In the Nigeria Pathfinder project, there was so much interest on the part of healers in participating in the proposed training activities that participants were willing to bear the indirect costs (transportation, room and board, etc.) themselves. In many places, healers believe that knowledge and medicines which are given for free are not really worth

very much and don't have much "power". Healers are private practitioners who sell their services. If traditional healers are used to paying for instruction and apprenticeship, then they should contribute something for training sessions. Consideration should be given to making training a sustainable, long term activity that doesn't quit when expatriate donor funds dry up. Making the contributing base of organizations as large as possible with everyone contributing some kind of funding (including traditional healers professional organizations) means that no one organization assumes the major burden of financing and that all participants have a stake in the successful outcome of activities. Healers should receive certificates and ceremonies at the end of training acknowledging their achievements and these acknowledgements should be as public as possible with media coverage.

**5. Starting with small initiatives building over time to larger scale efforts:** The Brazil project is a good example of this strategy. Pilot projects involving small numbers of healers allow mistakes to be made and dealt with on a small, inexpensive scale. Project procedures and strategies can be refined and then expanded to reach larger populations and numbers of healers. The model involving 17 original healers from the Brazilian town of Pacatuba (population 7,000) was replicated in the design of the VIVA Project. This new large-scale child survival effort funded by Project Hope and USAID was implemented in 26 communities in the State of Ceara and involved 50% (167) of the healers in those communities (HOPE 1991:3).

In Swaziland, an initial five day workshop for 23 healers was later expanded to five different districts. In Ghana, too, small scale efforts were later expanded to other geographical regions. Warren notes that a full year was spent in contacting people, planning and revising the program and preparing the trainers which helped to insure that the course content met the needs of the traditional healers (Warren et al 1982:1878). Considerable time was required to prepare trainers to appreciate the differences in teaching and learning methods used by traditional healers as compared with Western-oriented health training. Between 1979 and 1983, 120 traditional healers had participated in the training project (Warren and Green 1988:8) out of the estimated 20,000 healers in Ghana.

This slow expansion means that initial impact of healers training can be expected to relatively small, in terms of the percentage of healers trained. However, with adequate preparation and by enlisting the support of key, respected healers that small base can later be rapidly enlarged.

## **8) Common Problems and Challenges**

Documentation of evaluations on all of the projects described has not been as detailed as planners of new projects might wish. The evaluations appear to be fairly limited and not very rigorous. Nevertheless, the following themes emerge:

**1. Attitudes** - Studies of physician attitudes towards traditional healers have revealed cautious willingness to cooperate but on very specific biomedical terms. Physicians' and nurses' experiences with traditional healers tend to be negative, based on dealing with traditional healers' failed cases who present to biomedical facilities. Opportunities for social interaction outside of professional activity are few. Colonial efforts to stigmatize traditional healers' activities have left a lasting impression well into independence. Today, sensation-seeking news media report on harmful practices of "witch doctors". The case studies have shown, though, that biomedical attitudes can change and that "working relationships" - which may be all that can be hoped for at this point - can be successfully nurtured. Healers may also be suspicious of the motives of biomedical practitioners and/or MOH officials. They tend to think that biomedicine is only effective in dealing with certain types of problems. In general, however, traditional healers are more receptive to learning from biomedicine than the biomedical practitioners are to learning about traditional healers.

**2. Conflicting agendas** - There are numerous actors in the drama of cooperation between pluralistic medical systems in Africa. There are the clients (patients) and therapy management groups (relatives and other decision-makers) (Janzen 1978) who easily move between traditional and biomedical sources of care - their main concerns are accessibility, affordability, accountability and effectiveness of treatment. Various types of traditional healers practicing traditional medicine in the private sector are interested in learning more about Western drugs, and to a lesser degree, about biomedical practices, but on their own terms. As private entrepreneurs, they want to increase their practices, prestige, and incomes. Biomedical practitioners have a legal monopoly on health care provision in most African countries. They, too, have specific terms under which they would support a working relationship with traditional healers. There is blatant disagreement in many areas of diagnosis, causation and treatment between traditional medicine and biomedicine. Government officials in ministries of health are caught between traditional medicine and biomedicine. In some cases, there is overlap between the domains - some officials are biomedical physicians, some are traditional healers themselves. They and the biomedical practitioners share the same subculture of educated, Westernized elites. At the same time, they share a different (ethnic) subculture with traditional healers. They see the advantages of attracting international funding for activities with traditional healers. But they are in the political position of affiliation with biomedicine as the official, orthodox health delivery system. All of these actors have different agendas which can potentially collide in the process of operationalizing collaboration as discussed in section 7 above.

**3. Who to train: which traditional healers are legitimate?** - The diversity of medical resources available in most African countries today includes a whole range of individuals whose expertise and credentials may not be in the best interests of clients' welfare. Lack of standards of practice and of research data on traditional medicine makes it difficult for traditional healers' associations to effectively monitor traditional healers' behavior. Not all traditional healers in any country are affiliated with the healers' associations and there is often dissention within and among various organizations. Some types of traditional healers may be more appropriate than others as ORT promoters, but without good data on traditional

beliefs, practices, and behaviors, it's difficult to make informed decisions about how to approach which types of healers to participate in training programs. The problem is likely to be greater in urban areas where the proliferation of alternative types of resources is greatest.

The sheer number of healers exacerbates this problem of selection. Ideally, one would like to target training towards those healers most likely to have a significant impact on mothers' behavior as well as those who treat the largest number of child diarrhea cases. Political considerations may make that kind of targeting difficult, however.

Documentation of evaluations of the projects described above did not supply detailed information on how individual healers were selected to participate in educational opportunities. These projects all developed from pre-existing situations of cooperation at some level between traditional and biomedical sectors. Networking was used to identify healers most appropriate to participate. The research process (consisting of ethnographic and epidemiologic data on knowledge, beliefs and practices gathered via questionnaires, surveys, focus group discussions and observation) identifies healers and describes their characteristics so that decisions can more accurately be made about which healers would be most appropriate for training.

For example, during the census of healers for the Ugandan Traditional Healer Survey, healers were asked about their interest in healer workshops. Some individuals stated they were too old to travel very far for a workshop. Others said they could not attend but would send an apprentice. The majority expressed enthusiastic interest in participating.

Another example from Kenya, mentioned briefly in a UNDP publication (UNDP 1991) describes a health promotion campaign being implemented by AMREF (African Medical and Research Foundation). Since September 1989, a project to teach "modern medical approaches to the most common diseases" (p. 29) has been underway with traditional healers including TBAs. (Besides the reference to TBAs, the specific types of traditional healers trained were not mentioned.) AMREF senior health education officer, Moses Lukhando, states that it took almost a year to determine which local healers were the most respected and to earn their full support. "They were suspicious about us initially...When they realized that we were working to improve their health conditions, they began to trust us. Now they can't wait to attend the next health workshop" (p. 29). They are taught to diagnose and treat common ailments such as headaches, fever and diarrhea. They learned to dispense drugs containing paracetamol for headaches and to recommend ORT for diarrhea. After training, "AMREF monitors the performance of the healers in training other people on a monthly basis" (p. 29). Rapport-building time for this project was thus time consuming and probably resource-intensive.

Any strategy for identifying healers has to be developed locally with input from all sectors involved in and likely to be effected by healer training, including:

- \* donors,
- \* government officials (at national, regional and local levels),
- \* healers themselves (the most prominent who see the most patients, leaders of associations, and others who have shown an interest in cooperation rather than confrontation with biomedicine),
- \* biomedical representatives (again, those who have shown an interest in cooperation), and
- \* Ministry of Health program representatives whose special areas of interest could be represented as topics in the training curriculum and who could develop course content in their areas.

Additional resources are community leaders (traditional and contemporary), educational, religious and administrative leaders, community health workers at the local level, and mothers of young children.

## **IV. CONCLUSIONS AND RECOMMENDATIONS**

### **A. GENERAL CONSIDERATIONS**

Expansion of PHC activities, including CDD, to traditional healers in Africa is an attractive idea. Not only would such an effort be challenging, intellectually stimulating and attractive from an ideological point of view to those with a "grass roots" orientation to development, but there is ample evidence that healers play a significant, and sometimes dominant, role in providing basic care to sick children. Perhaps even more significant is the evidence of the important role healers play in the decisions and choices families make when providing initial care to sick children at home as well as in choices of health care providers after initial unsuccessful home treatment. The projects discussed above provide good evidence that it is feasible to work with healers to improve both the services they provide to their clients as well as to improve the practices of those clients in the home.

The evidence also suggests, however, that collaboration with healers so as to have a significant impact on community level PHC practices would be a demanding effort requiring substantial resources. Preparatory activities, including information gathering, consensus building at both the national and community levels, strategy development, materials development and testing, selection and training of trainers and so on will require considerable time and human resources as well as substantial logistics support. Actual implementation, even with active participation of the healers themselves in funding and organizing activities, will require significant levels of additional time, human resources and funding. Such an effort would go well beyond the resources of a project such as the PRITECH project.

In part because of the level of effort required to initiate collaborative activities and in part because of general technical and methodological considerations, it is recommended that any collaborative effort with traditional healers not be restricted to CDD but address a wider range of primary health care issues such as breast feeding and weaning, vaccination promotion, malaria, ARI, household hygiene and sanitation and other locally relevant topics. This would again fall beyond the scope of the current PRITECH project. It would also be beyond the means of the Ministry of Health CDD programs who are currently PRITECH's most active partners in Africa.

Despite the constraints outlined above, it is not suggested that PRITECH abandon the idea of initiating activities with traditional healers in Africa, but simply limit these activities for the remainder of PRITECH II to a few small scale and carefully defined interventions that support and build upon existing interests. Traditional healer interventions must be undertaken in collaboration with other interested donors including, wherever possible, the host country governments, NGOs and traditional healers' associations.

## **B. WHAT PRITECH CAN DO**

### **1) Recommended Goals**

The overall goals of PRITECH's traditional healer interventions might include:

1. Development of low-cost, effective models that demonstrate ways in which donors and governments can work together toward cooperation between traditional and biomedical sectors for the overall improvement of child health. As the quality of cooperation between donors, governments, traditional medicine and biomedicine is enhanced by a more complete understanding of the impact of traditional medical beliefs and practices on child health, the impact of biomedical programs should increase.
2. Development of a low-cost, effective strategy for enhancing the therapeutic skills of traditional healers through education in basic primary health care concepts.
3. Development of a strategy to guide PRITECH's approach to collaborating with CDD programs in countries where an interest in cooperation between traditional and biomedical sectors has been shown.
4. Development of a more rigorous evaluation model for gauging the effect of interventions in the area of primary health care training for traditional healers.
5. Helping CDD programs develop a model by which primary health care programs within ministries of health can cooperate to build linkages with traditional medicine for improving child health.

### **2) Criteria for Initiating Activities**

For the remainder of PRITECH II, PRITECH should restrict its special activities of collaboration with THs to countries or regions meeting the following criteria:

1. Existence of an on-going PRITECH country program with a PRITECH country representative;
2. Existing interest in potential collaboration with traditional healers on the part of the local government, local biomedical authorities, local healers and other donors or existing collaborative efforts;
3. Evidence of substantial involvement by healers in providing health care to children;

4. Willingness of other partners to share in the development and the financing of activities;

5. Existence of a local body (government department, NGO, Traditional Healers Association) willing and able to take responsibility for coordinating and implementing activities with PRITECH technical assistance and financial support as necessary and feasible.

Currently only Uganda meets these criteria. Potential other country candidates include Malawi, Zambia, Ghana, Cameroon and Zaire.

### **3) Specific Objectives**

Specific objectives of PRITECH's TH activities are likely to vary from country to country depending on local circumstances. However, the following are included to suggest the types of objectives that could be envisioned:

1. To educate healers and mothers in basic primary health care, child survival strategies. This objective requires quantitative and qualitative information concerning traditional beliefs and practices concerning the most important child health problems.

2. To promote dialogue and collaboration between traditional healers and biomedical health personnel, as well as among traditional healers, at the community level for improved child health.

3. To improve case management of child health problems by traditional healers, including reinforcement of effective traditional practices, introduction of appropriate biomedical practices, appropriate referral to biomedical facilities when necessary and modification of harmful traditional practices, as possible. For diarrheal disease, emphasis will be placed on appropriate case management including increasing the quantity of liquids given during episodes, providing adequate nutrition during and after diarrhea, and expanding the use of liquids, food and breast feeding to the treatment of all diarrheas regardless of perceived cause.

4. To enlist healers in the introduction of effective home management practices as well as the reduction of inappropriate traditional responses to illness in the home.

5. To enlist healers in the development of effective community level disease prevention strategies and activities. For diarrheal disease, this would include an emphasis on exclusive breast feeding, good weaning practices, personal and domestic hygiene, adequate disposal of feces and appropriate use of water resources as well as participation in growth monitoring and vaccination activities.

6. To identify effective strategies to achieve the above objectives.

As this list indicates, PRITECH's objectives specifically should not include:

- \* the laboratory analysis of traditional herbal medicines to test for effective ingredients,
- \* the development or support of traditional healers' associations,
- \* the development of government or TH association codes of conduct, standards of practice, or similar regulations,
- \* the registration of healers,
- \* the collection of fees or taxes from/on traditional healers;
- \* the development or support of traditional medicine centers, schools or services,
- \* the integration of healers into government public health services.

These objectives may be desirable or useful in the long run, but are not consistent with PRITECH's current priorities or resources.

#### **4) Specific Activities**

Specific activities in any given country or region will depend on local circumstances and needs. Again, the following list is meant to be indicative of the kinds of activities PRITECH might support:

1. Rapid ethnographic studies on traditional medicine or traditional healers' attitudes, beliefs and practices vis-a-vis child health, as a basis for communication messages targeted at traditional healers.
2. KAP-type studies on health personnel knowledge, attitudes and practices vis-a-vis traditional beliefs and practices of health facility clients and local traditional medicine and its practitioners.
3. Evaluation of collaborative programs with traditional healers in the area of child health.
4. Development of community health education activities and materials based on an understanding of traditional beliefs and practices with the purposes of improving home care for sick children and preventing disease.
5. Development of training and educational activities and materials aimed at improving healers' case management practices.
6. Organization of community, regional or national level seminars or workshops for healers, community leaders and biomedical personnel to develop community level intervention strategies for improved child health (including disease prevention).

7. Development of training and educational materials aimed at improving biomedical personnel's knowledge and understanding of traditional medicine and its impact on client behavior to enhance the effectiveness of the interactions between health personnel, family child care givers and healers for improving child health.

8. Implementation and evaluation of training and health education activities as described above.

PRITECH should limit its support to the development and testing of small scale "model" intervention strategies. This will be useful primarily if there is an a priori agreement on the part of other partners (including the local government) to make resources available for the eventual expansion of these activities if they prove effective.

It is theoretically possible and reasonable to start with small initiatives and build over time to larger scale efforts. That strategy, conflicts with the need to develop national programs to train traditional healers. It cannot be assumed that training programs developed in one region can be used without change in other areas of the same country or in other countries. Explanatory models and remedies will vary across nations, so some degree of adaptation would be required. Solutions to the dilemma are country specific and cannot be generalized in the context of this paper. In countries with a great deal of cultural variability, the adaptations which would need to be made would be greater than in countries with less variability. Brazil's healer training program has moved to the wider community, reaching a population of some half a million, but none of the African programs for healer training have evolved from local to national scope. Even the lessons learned from Ghana's PRHETIH project have not been used to construct a national policy on traditional healers (Davis 1990:9).

There are a number of reasons for starting small: testing general approaches, course contents, training materials, trainers, and schedules. Mistakes can be made and corrected in a less expensive manner. Equally important is the need to verify in each locale, that working with healers is feasible and effective, and to convince skeptics that it can be done. Biomedical people need a chance to develop their personal interactive skills so they can learn how to communicate and cooperate with healers. Similarly to working with mothers of small children, what can be applied nationally is more likely the methodology for developing messages, materials, training content, etc, rather than the actual messages, materials and training content themselves. "One of the things we seem to be learning in general, in Africa at least, is that one cannot take generalized messages (such as give more fluids, continue feeding) or even more specific messages (give uji), apply them indiscriminately across any given country and expect to have a really significant impact on behavior" (Prins 1991:3). National strategies have to aim for the largest cultural groups, beginning with a short strategy development phase among a limited sub-population before teaching others how to use the strategy, methods and materials in their own part of the country. Implementation is thus

decentralized. It's not necessary to start from scratch each time, but with experience, guesses about workable approaches will become more accurate so that pretests will result in fewer changes messages, materials, and approaches.

The aim of the activities is to produce a situation where biomedical and traditional health personnel give complementary messages to mothers, and where biomedical personnel could address specific traditional beliefs and practices during their interactions with mothers. Health workers on any continent cannot talk to mothers effectively without understanding the cultural milieu from which the mothers' come. In Africa that means understanding mothers' explanatory models of disease causation and management, and traditional healers' methods of treatment management. Without the cooperation that these aims imply, mothers bring their young children to biomedical facilities with traditional beliefs very similar to those of traditional healers. Health personnel ignore or minimize these beliefs and risk noncompliance by mothers seeking to integrate what they believe and have been told by the healers, with messages from biomedical sources. The miscommunication that occurs results in reduced quality of care for ill children. Education needs to occur in both directions. Healers need to know the basic messages of primary health care and biomedicine needs to know the traditional, cultural context in which their messages are received.

## ANNEX 1

### TRADITIONAL CARE OF CHILDHOOD DIARRHEA IN AFRICA

Prior to the introduction of biomedicine in Africa, traditional healers administered treatments for a variety of culture-specific illnesses of which diarrhea was sometimes a symptom. It has become a truism in international health development that understanding the cultural context of health seeking behavior is critical to the success of health programs and projects. The training projects described in this paper were all rooted in extensive ethnographic data on traditional healing practices in each locality. In three of the four major case studies, anthropological doctoral dissertations formed the bulk of the background ethnographic data on various aspects of traditional healing. Though it's not necessary to conduct dissertation research in every country prior to developing a healer training program, the fact remains that country-specific data on traditional medicine is absolutely essential to avoid costly mistakes (Hermans 1988; Kendall 1984). Faster methods are currently available to accumulate the needed ethnographic background (cf. Bentley et al 1988; Hermans 1988; Scrimshaw and Hurtado 1987).

#### A. IDENTIFYING CULTURE-SPECIFIC ILLNESSES

People of all cultures recognize frequent, loose stools in children as a phenomenon that is usually, but not always, considered pathological. An exploration of traditional care of childhood diarrhea usually begins with a collection of indigenous language terms that correspond with the idea of loose, watery stools. However, starting from the concept of "loose stools" is unlikely to elicit all the possibilities because biomedical and traditional African belief systems have different priorities for conceptualizing and treating various childhood illnesses.

Biomedical science recognizes diarrhea as a symptom that may occur alone or in the company of other symptoms. Diarrhea is considered to be serious because it can lead to dehydration and death. Biomedicine places prime importance on avoiding mortality through fluid replacement, and secondary importance on treating the actual cause of the diarrhea since most diarrheas are self-limiting anyway. Traditional African belief systems, however, usually present multicausal explanations for disease processes that are rooted in social relationships. Africans traditionally place primary importance on ameliorating the perceived root cause of the condition; thus a felt need exists to ritually address disharmonious social or natural conditions (root causes) prior to administering herbal medicines and/or procedures to stop the diarrhea.

After the "main cause" of the diarrhea has been addressed, the next concern is **not** to avoid or to treat dehydration but instead to stop the diarrhea. Despite the fact that people in most cultures recognize signs of dehydration to be dangerous, there are usually no indigenous terms that match identically to "dehydration," nor is there necessarily any indigenous conceptual connection between those dangerous signs (sunken fontanelle, dry skin, sunken eyes, decreased urine output, etc) and the loss of fluids through diarrhea.

Thus, in order to identify within any given culture, the explanatory models of diseases that might involve diarrhea, a more effective approach begins at the general level of childhood diseases. For example, in the Ugandan Traditional Healers Study, groups of traditional healers, mothers of young children, community leaders, and community health workers were asked in focus-group discussions to describe the most common health problems affecting children in their area, along with symptoms, perceived causes, treatments, prognosis, potential complications, etc. Diarrhea was identified as a simple illness alone, as well as a symptom sometimes accompanying other illnesses (Lwanga et al 1991).

"Loose, watery stool" or simple diarrhea is known in Luganda as embiro or ekidukano (the difference between those two terms is the level of politeness). The term obusobe describes diarrhea and vomiting in children - what biomedicine would call childhood gastroenteritis. The Kiganda word means "mistake" and refers to the perceived cause of the problem - a parental error involving sexual misconduct or omission of certain conjugal ceremonies (Bennett 1963:151; Kasozi 1989:2; Namboze 1983:2041). Diarrhea is also one of several symptoms of a culture-specific illness called ekigalanga, which is believed to be caused by an ancestral spirit. Ebinyo is another culturally-defined illness known in English as "false teeth" that causes diarrhea in infants, is believed to be potentially fatal, and is traditionally treated by extracting the "false tooth" from the infant's gum (Bwengye 1989). These terms are among the many types of illnesses of which diarrhea may be a symptom and which are of concern to mothers and other care givers of young children. The salience of diarrhea as a symptom varies between the illnesses.

Another example from Kenya among the Kamba concerns an "illness" called ini or teething (van Luijk 1984:291). Diarrhea may or may not be an accompanying symptom of this problem. The syndrome is considered potentially fatal. In order to speed up teething, a specialist called a mukii (rubber) performs kutita (rubbing) while uttering magical spells. The mukii cuts the gum, removes the eye-teeth, and rubs the wound with soda ash or another kind of herbal medicine. Nowadays mothers themselves may treat ini by rubbing the gums with herbal medications or soda-ash. Campaigns to promote ORT for "all diarrheas" may not succeed in convincing mothers that ORT is appropriate for ini when accompanied by diarrhea unless specific mention is made of that particular illness. Such a situation occurred in Honduras when the CDD program decided not to mention the folk illness empacho in its ORT campaigns. Subsequent surveys showed that people used ORT for all diarrheas except those attributed to empacho (Kendall 1984:259).

## B. DIAGNOSIS AND CAUSATION

The issue of diagnosing the cause of an illness is more complex than the simple natural/supernatural dichotomy. Biomedical practitioners might equate "natural" causative factors with "germs," unsanitary practices, or other "rational" explanations that make sense within the biomedical explanatory model, and "supernatural" causative factors with spiritual forces or "nonrational" explanations. The domain of "natural" causative factors, however, also includes various behaviors of people within the patient's immediate environment - factors that would be termed "natural," but would be considered "nonrational" by biomedical practitioners. In Buganda, for example, the cause of the illness obusobe is considered to be natural, but parental sexual misbehavior is not considered by biomedicine to have anything to do with the symptoms of diarrhea and vomiting.

"Naturally" caused illnesses are sometimes termed "God-given" - in other words, there is no way to avoid them. God-given illnesses have no supernatural agent (witch, spirit, or ancestor) whose interference must be analyzed and propitiated. Illnesses for which no other explanation is possible are attributed to God. In Kenya among the Kamba, English speakers invariably translated "diseases of God" with the term "natural disease," indicating the chance aspect of being afflicted with that disease (van Luijk 1984:284). Herbal treatments are generally assumed adequate to cure God-given (natural) illnesses. For example, in Ghana diarrhea is reported to be caused by natural forces and therefore curable at clinics or with herbal medicines (Fosu 1981:474).

Perceived cause determines health seeking behavior and treatment options; it determines whether symptoms are treated immediately or later. For example, in a survey in Zambia healers had different treatments for bloody diarrhea and teething diarrhea (Freund 1989:12). The response of the condition to initial treatment can in turn modify the diagnosis and bring about additional treatment regimens. Simple diarrheas might initially be classified as naturally caused, then, if they continue or if other symptoms develop, the cause and associated treatments might have to be reevaluated.

In some cases the role of spirits in diarrhea causation is linked to other causal agents so that the overall explanatory model appears to combine "natural" and "supernatural" explanations. For example, among the Maasai of Kenya (Patel et al 1988:1278-1280), disease arises from the actions of someone wishing to harm the family or someone in the family doing something wrong. These actions produce bad spirits, which in turn produce heat in the body that causes diarrhea. Other predisposing conditions for diarrhea are "bad" food, teething, "hot" milk, "hot" weather, cough, and cold; these conditions also produce heat, which leads to diarrhea. In order to stop the diarrhea, one must eliminate the heat with an herbal medicine that selectively destroys the heat-producing substance, or one may give fat to drink which is said to produce a cooling effect. At some point, rituals are required to destroy the source of the heat - the bad spirits. Purgatives are also given to eliminate the accumulated spirits inside the stomach. They might take the form of fat and milk, which is not absorbed by the intestines and is then "vomited out" by giving an emetic solution made from a particular type of tree bark.

Most articles suggest that diarrheal illnesses fall primarily in the realm of naturally caused illnesses. In terms of overall number of episodes, the majority would be treated at home or by herbalists, indicating natural causation. De Zoysa et al conducted 402 structured interviews around the topic of diarrheal diseases (part of a study on the acceptability and feasibility of home-based ORT in Zimbabwe): 76 percent of the described episodes were attributed to natural causes, 15 percent to "social and spiritual" causes, and 8 percent to a combination of both (de Zoysa et al 1984a).

Diviners, who normally treat diseases associated with suspected supernatural causes, might also see diarrhea cases. One study of 100 consultations with Zimbabwean n'anga (diviners) in Harare, (Mavi et al 1983) listed eight cases of diarrhea/vomiting and eight of depressed fontanelle. Half the cases in each of these two categories were considered by the diviner to be due to natural causes and half to bewitchment. Thus, diviners are likely to see cases in which spiritual or supernatural causation is suspected but not yet confirmed. Most likely, those cases of diarrhea and depressed fontanelle had already been unsuccessfully treated at home or by herbalists.

### **1) Effects of education on beliefs**

Some studies have demonstrated correlations between education and causation beliefs; one showed no correlation. In Patel's study, Maasai mothers with no education reported diarrhea to be caused by a person doing something wrong (50 percent), by heat (40 percent), and by teething (10 percent). Maasai mothers with six or more years of schooling attributed diarrhea to dirt or dirty things (100 percent), teething (40 percent), change of season (8 percent), and coughing (8 percent) (Patel et al 1988:1280). Education level also affected these mothers' treatment preferences: uneducated mothers advocated using purgatives (60 percent), taking herbal medicine (50 percent), and stopping food intake (40 percent) during childhood diarrhea. Educated mothers reported using SSS (70 percent), boiled water (30 percent), fluids (25 percent), food withdrawal (10 percent), herbal medicine (5 percent), and purgatives (5 percent). Uneducated mothers' treatment regimens are reported to originate with village elders and traditional healers (p. 1282).

In Ghana, Fosu (1981:477) found that uneducated respondents tended to emphasize supernatural causation, while educated people preferred natural explanations. On the other hand, in Zimbabwe, de Zoysa et al found no association between respondent educational status, age, or degree of community participation and beliefs about disease causation (1984a:732).

### **2) Foods as contributing causes**

In different parts of Africa, certain foods are believed to cause diarrhea: among the Baganda, white ants (nswa) and beans are believed to cause childhood diarrhea (Jelliffe and Bennett 1961:185). In other cases, spoiled food is one of the main etiological agents (in

Nigeria among the Yoruba: Bentley et al 1988:112; Odebiyi 1989:989). In Cameroon, many mothers believe that eating green mangoes causes diarrhea. Dietary causes were mentioned in 34 percent of 402 descriptions of diarrheal episodes in de Zoysa's study in Zimbabwe (1984a:731). In Uganda, various qualities of foods and drinks are perceived to cause simple diarrhoea (new foods, cold foods, contaminated foods, too many different foods given all at once, "bad feeding", improperly cooked food, overeating, and sweet foods) (Lwanga et al 1991:18).

### **3) "Bad" maternal milk**

In many cultures, maternal milk can be considered "bad" for a child, particularly if the mother has become pregnant again while the first child is still nursing (in Uganda: Kasozi 1989:3, Lwanga and Mukisa 1989:6, Lwanga et al 1991:A-17; in Zambia: Freund 1989:11; in Kenya: Patel et al 1988:1283; in Zimbabwe: de Zoysa et al 1984a:731), or if the mother is ill (in Niger: Hogle 1988:11). In Zambia, 68 percent of traditional healers interviewed said they advise mothers to stop breast feeding during diarrheal episodes, although the report did not specify if this advice is restricted to diarrhea in a child who is nursing from a pregnant mother or is given for all cases of childhood diarrhea (Freund 1989:12). An earlier survey of mothers in Zambia revealed, however, that 80 percent of mothers continued breast feeding during diarrheal episodes (Freund 1989:16). In Uganda, it is believed that breast milk can "go bad" and cause diarrhea if a mother leaves her nursing child overnight and becomes engorged due to not nursing her baby (Kasozi 1989:3).

### **4) Teething diarrhea**

In many places, teething diarrhea is considered a minor problem - a normal part of growing up (in Swaziland: Green 1985a:280; in Nigeria: Bentley et al 1988:112; Schumann et al 1987:15). It might be treated with herbal teas or not at all. In other areas, removal of eye-teeth is a prescribed treatment for teething diarrhea (in Kenya: Thiuri et al 1989:32; in Uganda: Kasozi 1989:3). In Swaziland, teething is believed to cause diarrhea because it produces heat in the body, which in turn causes the diarrhea (similar to beliefs among the Maasai of Kenya reported earlier). In Zimbabwe, 22 percent of households mentioned milestones in a child's development (teething, crawling, sitting, and walking) as contributory causes to childhood diarrhea. Teething, commonly associated with loose stools containing mucus, was named in 16 percent of households (de Zoysa et al 1984a:731).

### **5) Parental sexual transgressions**

This cause of childhood diarrhea seems to be a recurrent theme (in Zambia: Freund 1989:11; Uganda: Kasozi 1989:2, Lwanga et al 1991:A-17, Bennett et al 1964; Kenya: Patel et al 1988:1283; Zimbabwe: de Zoysa et al 1984a:731). The perceived mode of action seems to be a mixing of semen and breast milk that causes illness in the nursing child.

## **6) Fontanelle disease**

A depressed fontanelle is a danger signal in most cultures. In Zimbabwe, fontanelle disease is called nhova in Shona and inkanda in Sindebele. In both cases, diarrhea is usually seen as a symptom of these diseases and not the reverse (de Zoysa et al 1984a:731). In their study of 402 diarrheal episodes, a depressed fontanelle was mentioned as a cause in 20 percent of episodes and as a consequence in 5 percent of episodes. Fontanelle disease may occur when a young child is breastfed in the presence of many people and thus possibly exposed to another child who has a stronger "influence." Charms are believed to protect a child. An unprotected child may not be strong enough to resist the "influence". Fontanelle disease in Zaire, called lukunga in Lingala (Yoder 1989), is treated by applying a mixture of palm oil and ashes to the fontanelle area.

## **C. HEALTH SEEKING BEHAVIORS AND TREATMENTS**

### **1) Care-seeking**

Although some studies report that mothers claim to go immediately to health facilities with childhood diarrheal problems (de Zoysa et al 1984a:732) or that traditional healers hardly ever treat sick children (Wondergem 1989:111 cited in Davis 1990:18), most studies have shown that mothers treat first at home with family treatments (herbal preparations, over-the-counter or prescription drugs); then consult neighbors, friends, and relatives; then traditional healers; then community health workers, if available; and finally, clinics and/or hospitals (e.g., in Zambia: Freund 1989:14). Thus traditional healers are the first "non-lay" resource consulted after self-treatment.

With the possible exception of Ghana (Davis 1990:9), traditional healers are often consulted for childhood diarrhea, though some studies report higher use rates than others. In Uganda, 40 percent of healers' caseloads were diarrheal diseases in adults and children (Anokbonggo 1990:359). In Zambia, studies at the university teaching hospital's pediatric unit found that 70 percent of mothers said they consulted traditional healers prior to coming to the hospital to seek treatment for childhood diarrhea (Freund 1989:14). In Swaziland, a survey of traditional healers revealed that childhood illnesses in general were considered better treated by traditional healers than by biomedical practitioners (Green 1985a:282). In de Zoysa's Zimbabwe study (1984a:732), perceived cause was a significant predictor of practitioner choice (traditional healer or biomedical practitioner). Diarrheal illnesses attributed to "physical" causes (polluted environment, diet, teething) were taken to biomedical practitioners more often than those attributed to "social" or "spiritual" causes (associated with depressed fontanelle). Overall, they found lower traditional healer use than expected.

## **2) Practitioners**

Not all types of traditional or alternative healers treat childhood diarrheas or would be appropriate participants in ORT training programs. In Zambia, for example, TBAs don't normally treat childhood illnesses (Freund 1989:10). In Benin, some kinds of TBAs are also known as "true healers" (Sargent 1986:6-2), that is, they treat illnesses as well as attend deliveries. In Ghana, TBAs give advice in maternal and child care (Twumasi 1982:210), but other reports suggest that mothers do not consult healers for children's health problems (Davis 1990:9,10). Faith healers (generally considered "alternative" resources rather than "traditional" resources) usually rely exclusively on prayer when treating illnesses, whereas diviners (spiritualists) usually use a combination of herbal medicines and ritual manipulation of perceived causal agents. In theory, then, it would be easiest to incorporate ORT into diviners' existing healing rituals or to add ORT to herbalists' existing array of remedies. Diviners, herbalists, and TBAs have been the types of healers most frequently trained up to this point.

## **3) Self-treatment**

An interesting study in Kenya revealed that 32 percent of 472 nonprescription products used as self-medications were used for gastrointestinal disorders (appetizers, antacids, laxatives, and antidiarrheals). The study excluded cosmetics, toiletries, illegally sold prescription drugs, and herbal remedies prepared by traditional healers (Maitai et al 1981). Self-treatment with both traditional herbal remedies and biomedical drugs is common throughout Africa. Though often "illegal," one finds drug salespeople in many, perhaps most, African markets. A brief survey in Zaire revealed that market drug sellers carried at least five different "modern" medications that they recommended for the treatment of childhood diarrhea, including Imodium, kaoline, and ORS (Prins:personal observation).

## **4) Herbal treatments**

Use of herbs in diarrheal treatment regimens is common all over Africa; in Burundi, for example, 61 medicinal plant species were identified as traditional treatment ingredients for various forms of diarrhea (Polygenis-Bigendako and LeJoly 1989). In the vast majority of cases, the plant leaves are used in infusions and decoctions. In Zambia, on the other hand, 74 percent of traditional healers interviewed prescribed roots pounded and mixed with water or pounded and mixed with porridge or chewed in dry form. Twenty percent of healers used bark, and six percent used leaves. Guava, mango, and banana leaves and 30 types of root and bark decoctions were recorded (Freund 1989:11). In Machakos District, Kenya, one study recorded 25 herbal remedies for intestinal illnesses including diarrhea (cited in Thiuri et al 1989:35). In Malawi, the bark of the marula tree is widely used to treat diarrhea and dysentery (Palgrave ND:458; Williamson 1974:210).

Herbal treatments have also been recorded in Buganda (Bennett 1963:151, 155; Anokbonggo et al 1990) and in Swaziland (Green 1985a:279). All of the 292 traditional healers interviewed in Anokbonggo's study used either one herb or a mixture of herbs and water for childhood diarrhea. Roots were reportedly used in 65 percent of the remedies and leaves in 43 percent (1990:15). In de Zoysa's study in Zimbabwe, 28 percent of the respondents gave traditional herbal remedies, and 38 species of plants used in diarrheal treatments were recorded (1984a:732). The sheer number and variety of plant materials used to treat diarrheal illnesses is astounding, even within individual cultures. Detailed explanatory systems surrounding the role of individual herbal remedies within overall diarrhea treatment strategies remain unknown for most cultures. In the Ugandan Traditional Healer Study, attempts to elicit explanations for the specific effect of individual herbs often resulted in evasive answers such as "I don't know; the spirits just tell me what to give" or "That's what we've always used" (Hogle: personal communication).

The main problem with oral administration of liquid herbal medications is that the amount of fluid is seldom enough to prevent dehydration. In Zambia, for example, a study revealed that dosages vary greatly, from a few teaspoons to over a liter (Freund 1989:11). Healers and mothers may hesitate to increase these herbal draughts to a level sufficient to prevent dehydration. Traditional healers may be concerned about possibly diluting the remedy's effectiveness or about creating toxic overdoses. The objective in administering herbal medicines is not to prevent or treat dehydration but rather to stop the diarrhea. As mentioned earlier, the loss of water is not usually recognized as a problem.

Especially in southern Africa, some of these herbal medications may be extremely toxic in certain circumstances. Biomedical practitioners from Swaziland, Zambia, Malawi, and Zimbabwe have reported cases of paralytic ileum, acute renal failure, and death as an apparent consequence of traditional herbal remedies administered for diarrhea (Prins:fieldnotes; Hogle:fieldnotes). Cases of herbal toxicity from enema treatments for diarrhea amounted to three per month at one hospital in Zambia, and at another, 10 percent of diarrhea cases in a pediatric unit evidenced toxic reactions to herbal medicines. At the university teaching hospital, an estimated 20 deaths per year are attributed to overdosing on traditional diarrhea treatments (Freund 1989:15). Traditional healers themselves have admitted to an overdosing problem in Zambia (Freund 1989:14). One pediatrician in Malawi suspects an organo-phosphate derivative used as a traditional treatment and administered to children with diarrhea (Leggett:personal communication). However, overdosing and toxicity seem to occur in a minority of cases.

### **5) Enemas and Purgatives**

These harmful practices have been recorded in several countries (including Zambia: Freund 1989; Swaziland: Green 1985a; Zimbabwe: de Zoysa 1984a) but seem to be a treatment choice in a minority of cases. For example, in Zambia traditional medicines are given orally in 90 percent of cases, by enema in seven percent, or rubbed on the skin in two percent (Freund 1989:11). In the Zimbabwe study, only two percent of respondents gave enemas; 53

percent claimed to take the child directly to a health center or hospital, 28 percent gave traditional herbal remedies at home, five percent gave SSS, and two percent gave over-the-counter drugs (de Zoysa 1984a:732). Use of purgatives to clean out the gut has been recorded in Kenya (Patel et al 1988:1280) and in Uganda (Namboze 1983:2042). In Cameroon, the use of enemas to treat some forms of diarrhea is reported to be quite common, however (Prins:fieldnotes).

## **6) Other invasive treatments**

In Uganda, "false teeth" is an illness of newborn babies and young infants, characterized by diarrhoea and vomiting, and a white area on the gum which is the "false tooth". Additional symptoms, described by respondents in the Ugandan Traditional Healer Study, are gum swelling, fever, cough, red eyes, pale skin, general weakness, child cries a lot, child refuses to breastfeed. Bwengye (1989:6) mentions diarrhoea and fever convulsions as the primary symptoms, although convulsions were not mentioned by any traditional healers or in any focus groups during this study. The definitive diagnosis is made by several people looking into the child's mouth and viewing the white, swollen area on the gum - seeing the false teeth.

It is considered to be a very serious disease which could result in death. The false tooth is believed to contain a fluid and a maggot. If it bursts and the child swallows the fluid and maggot, then the child will die. Extractors say that once the false tooth is removed and broken open, movement of the maggot can be observed. Bwengye states, (similarly to the official explanation of Uganda's MOH) that the dehydration caused by the diarrhea dries the gums and makes the canine teeth inside more pronounced and pale. It's not always clear from respondents' descriptions whether diarrhoea causes false teeth or false teeth causes diarrhoea.

Many respondents said the cause was unknown. Others mentioned witchcraft or dirtiness in the home. Some said that it is inherited or that children can be born with them - that if the mother during pregnancy walks over false teeth discarded in the road, then her baby will have the illness after birth. This was referred to by several respondents as being "trapped in the road junction" or "trapped by witchdoctors at crossroads". Some people said they had actually seen the removed false teeth, and others (including community health workers) said they had never seen them.

There are two major forms of treatment described by respondents in this study - extraction by the false teeth extractor or rubbing the gums with a herbal preparation which is supposed to make the false teeth "disappear in less than a week". The extraction method involves using a sharpened bicycle spoke, a knife, or a razor blade to dig out the canine bud from the gum without anesthesia.

Although seldom mentioned in survey research in Niger, removal of the uvula is apparently a common treatment for infants with diarrhea (Keith: personal communication; Schmoll:

personal communication). Long-term ethnographic research among Niger's Hausa revealed this commonly-used but little-discussed procedure.

### 7) Oral Rehydration Therapy

This treatment strategy by mothers and traditional healers is not uncommon in some countries. For example, Kenya's Demographic and Health Survey revealed that over 60 percent of diarrhea cases among children of mothers interviewed were treated with some kind of ORT, either homemade or prepackaged (IRD 1989:11). In Uganda, on the other hand, the same survey revealed that only 13.7 percent of mothers reported using ORS for the latest diarrheal episode (occurring within the last two weeks). In Malawi, traditional birth attendants give out ORS packets. There is apparently some level of cooperation for ORS distribution between TBAs and village health committees, with support from Ministry of Health clinics (Leggett:personal communication). Misuse of ORT as a prevention strategy was identified in Kiambu District, Kenya, where mothers commonly give sugar-salt solution (SSS) as a drink from the age of two weeks through one year to prevent diarrhea. This practice suggests confusion between preventing diarrhea and preventing dehydration (Thiuri et al 1989:35).

Excessive salt concentrations in SSS prepared by mothers have been identified in Kenya (cited in Thiuri et al 1989:36), Niger (Hogle 1988:43), and elsewhere. On the other hand, de Zoysa's research in Zimbabwe concludes that rural child-minders are quite capable of preparing effective SSS. Though only 5 percent of her sample had actually used SSS, 52 percent claimed to know about ORT techniques, 46 percent knew a recipe for SSS, and 12 percent were able to describe the correct recipe. Those who knew the recipe were asked to prepare samples, which were then tested. Of those, 26 percent prepared a solution having both sucrose and sodium within the safe and effective ranges. Thus 12 percent of rural adults were able to properly prepare SSS despite the lack of an organized ORT promotion program in Zimbabwe (de Zoysa et al 1984b).

### 8) Diet Modification

In many cultures, dietary modifications during diarrheal episodes are common. In Africa, there is a wide range of culture-specific variation in behaviors. In Kenya, for example, some ethnic groups withhold maize and beans from children with diarrhea (cited in Thiuri 1989:36). In Nigeria among the Yoruba, hot foods and vegetables such as corn, beans, and green vegetables are proscribed during episodes of dysentery, while cold and hard food are recommended to help stop the diarrhea (Odebiyi 1989:989, 992; Schumann et al 1987:22). Among the Taita of Kenya, a thick gruel of wheat flour is believed to 'bind up the intestines' of a child suffering from diarrhea, and the fruit of Garcinia volkensii and leaves of Tamarindus indica are believed appropriate during diarrheal episodes (Fleuret 1986:8-16).

Withholding of food during diarrheal episodes has been reported in a number of places in Africa, including Uganda (Kahororo 1987:2) and Nigeria (Ekanem and Akitoye 1990). Other research in Nigeria with key informants in Kwara State reveals an emphasis on feeding a child during diarrheal episodes in order to avoid weight loss (Schumann et al 1987:23). Treatment of measles-related diarrhea with ORT could be complicated in Uganda by the traditional withholding of salt, which is believed to help the rash "leave the body." Purgatives are also used to facilitate eruption of the measles rash (Namboze 1983:2042). In Malawi, adults eat bananas during diarrheal episodes (Leggett:personal communication). Swazis believe that fluid replacement, especially breast feeding, is essential in diarrheal treatment to maintain strength (Green 1985a:283).

## **9) Prevention**

In Uganda, most diseases that are common or feared can be prevented by certain behaviors. To protect against diarrhea, a coffee root wrapped in a piece of cloth (omugaga) might be tied around a child's neck or onto a bell around the wrist (Bennett 1963:151). In Swaziland, treatment and prevention techniques are identical involving enemas, inhalation, and scarification (Green 1985a:281; Booth et al 1985:116).

## **C. SUMMARY**

In very general terms (and at the risk of oversimplification), minor diarrheas affecting African children are generally considered to be naturally caused and to require pharmacological intervention. The main treatment objective is to stop the diarrhea. Family remedies (both traditional and modern) are usually tried first, then traditional healers might be consulted (herbalists first, then diviners). Depending on the progress of the illness and the range of resources available, biomedical health services are usually consulted late in the illness if other therapeutic strategies fail.

In most cases no connection is made between dehydration and replacement of fluids. The concept of dehydration in isolation is extremely difficult to convey. Complications of diarrhea (failure to stop, fever, blood in the stool, vomiting, dehydration) might be attributed to causal agents (natural or supernatural) requiring diviner-healers to diagnose the agent and prescribe necessary rituals and treatments. In many cases, healers deal first with the perceived cause of the problem (often through ritual) and then address the symptoms, which usually means a delay in administering fluids. When fluids are given, the quantity is usually insufficient to prevent dehydration.

In some parts of the continent, potentially life-threatening therapeutic strategies include enemas, purges, surgical removal of the uvula, withholding fluids and food, and discontinuing breast feeding. Elsewhere, traditional treatment behaviors for diarrhea provide something for CDD programs to build upon, such as providing extra fluids and food, increasing breast feeding, and giving traditional teas and gruels. Again, it must be emphasized that despite the apparent similarities across cultures and nations, there remains a

wide variety of responses to childhood diarrheas. At the risk of repetition, detailed, country-specific data on explanatory models of diarrheal disease causation are necessary prior to intervention programs.

This discussion raises some important programmatic issues within the contemplated collaboration with traditional healers:

- \* Given the wide variations in illness definition, in perception of causation, and in treatment strategies between cultures even within individual countries, and given the relatively little data currently available, the need to develop a relatively detailed and extensive database prior to initiating work with the healers in each country will place a considerable financial and workload burden on country programs. There will be a long lead-in period before the information is available and analyzed. It should be remembered, however, that the beliefs and practices of the healers are shared by their communities. It is unlikely that educational efforts aimed at mothers will be as effective as we would like without a better understanding of how they conceptualize diarrheal illnesses and corresponding treatment strategies.

- \* Not a few of the treatment strategies followed by healers appear to be inappropriate, useless, or dangerous. While it may be advisable to disregard the ineffective but harmless strategies, our approach to the dangerous treatments will require careful thought so as not to alienate the healers, while at the same time recommending modifications to reduce these treatments' harmful effects.

- \* Of particular concern are the reports of toxic herbal medicines from southern Africa. It will be necessary to first verify that these reports are accurate by carefully examining cases of reported toxic reaction because some have suggested that these cases may, in fact, represent inappropriate treatment by biomedical personnel rather than adverse reactions to traditional herbs. Even if a toxic reaction to herbal treatments is verified, it will be no simple task to isolate the source or sources of these reactions without considerable help from the traditional healers themselves, who may prove uncooperative unless approached with tact.

- \* Given the importance of home treatment in the initial stages of illness, work with traditional healers should be integrated with a well-defined community education effort. The collaboration of healers in this effort is likely to strengthen its impact.

- \* Special attention should be given to "fontanelle disease" in those cultures where it occurs, as these are the cases most in need of ORT.

- \* Identification of appropriate home fluids for use by traditional healers and mothers is a challenge that will need to take into account concerns about diluting the remedy effectiveness and about possible adverse reactions from consumption of large quantities of herbal decoctions - while at the same time selecting drinks that are believed to have value and be appropriate for the care of the sick.

**ANNEX II**  
**PHYSICIAN/POPULATION AND TH/POPULATION RATIOS, PERCENT OF POPULATION SERVED BY THs, AND ESTIMATED TOTAL NUMBER OF THs IN SELECTED AFRICAN COUNTRIES**

Country	Est. Pop. In Millions 1990	Phys./Pop. Ratio	TH/Pop. Ratio	% Pop. Served By THs	Est. THs 1990
<b>SUB-SAHARAN<sup>1</sup></b>					
<b>AFRICA</b>	518	1/40,000	1/500	80-90	>1 million
<b>GHANA<sup>2</sup></b>	15	1/10,000	1/500	70	30,000
Accra		1/6,000			
Rural Ghana		1/100,000			
<b>COTE D'IVOIRE<sup>3</sup></b>	12.6	1/15,000			
Abidjan		1/4,000			
Western Region		1/66,000			
<b>KENYA<sup>4</sup></b>	24.6				95,000
Urban Kenya		1/987			
Rural Kenya		1/70,000			
Mathare Valley (urban)		1/850			
Kilungu Location, Machakos (rural)		1/350			
Kingoti & Kambusu Sublocations (rural)		1/92			

<sup>1</sup>cited in Molzan 1987:12)

<sup>2</sup>Bannerman 1983:320; van der Horst 1985:32; Warren 1986:80

<sup>3</sup>Lasker 1981:159,160

<sup>4</sup>Good and Kimani 1980:304; Van Luijk 1984:292

Country	Est. Pop. In Millions 1990	Phys./Pop. Ratio	TH/Pop. Ratio	% Pop. Served By THs	Est. THs 1990
<b>NIGERIA<sup>3</sup></b>	118.8	1/25,000		80	
Bendel State					37,684
Sokoto State (rural)		1/100,000		85-90	
Sokoto town (urban)		1/20,000			
Mungadi Village (Sokoto State)		1/24			172
Yorubaland	20.8	1/532			39,000
<b>RWANDA<sup>6</sup></b>	7.3				
Kigali		1/625			
Rural		1/90,500			
<b>SWAZILAND<sup>7</sup></b>	.8	1/10,000	1/110	85	7,200
<b>TANZANIA<sup>8</sup></b>	26				
Dar es Salaam		1/400			
<b>UGANDA<sup>9</sup></b>	18				63,000
Iganga, Kabarole, Mpigi Districts		1/287			

<sup>3</sup>Good et. al. 1979:147; Oyebola 1980:28; Oyebola 1986:223; Oyeneye 1985:68; Tahzib 1988:7,14; Tahzib and Daniel 1986:203

<sup>6</sup>Good et. al. 1979:147

<sup>7</sup>Green 1985a:283; Hoff 1986:2

<sup>8</sup>Good and Kimani 1980:304

<sup>9</sup>Lwanga et. al. 1991:1,2

Country	Est. Pop. In Millions 1990	Phys./Pop. Ratio	TH/Pop. Ratio	% Pop. Served By THs	Est. THs 1990
ZAMBIA <sup>10</sup>	8.1	1/20,000	1/35		30,000+
ZIMBABWE <sup>11</sup>	9.7		1/260	85	37,300

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<sup>10</sup>If 1/35 is correct, then Zambia's population of 8.1 million would have 231,000 THs, rather than the 30,000+ estimated by Freund's source Freund 1989:9,19

<sup>11</sup>Nyazema 1984:551; Chavenduka 1986:65

## ANNEX III

### TRADITIONAL BIRTH ATTENDANTS

While WHO has been in principle interested in collaboration with traditional healers, in practice, actual training initiatives have focused primarily on traditional birth attendants. This paper has focused on the general category of traditional healers including TBAs, recognizing that in many countries, TBAs may not be among the categories of healers most likely to treat diarrheal diseases or to influence mothers' decisions about treatment. However, most of the literature about training traditional healers deals with TBAs and the lessons learned can contribute to strategies for training other kinds of healers.

In many parts of Africa, TBAs are the most prevalent type of traditional practitioner (Molzan 1987:11). They are said to assist in the delivery of 60-80 percent of all births in most developing countries (Simpson-Hebert et al 1980:J-437). TBAs themselves are not usually a homogenous group. Some TBAs were trained as traditional midwives and deliver many babies regularly. Others deliver babies and are also herbalists or practice some other form of traditional medicine. Others may only perform midwifery services for women within their own extended families and may only deliver a few babies each year.

The majority of training programs for traditional healers are aimed at TBAs. The main reasons for the popularity of TBAs as training participants is that they are easily identified by their tasks (which usually have nothing to do with the supernatural), they are widely respected and influential in their communities and can thus act as motivators, and the objectives of their work - the successful delivery of a live baby and the survival of the mother - are completely shared by biomedical practitioners (Heggenhougen 1988:7).

There are currently about 50 government programs for TBAs worldwide (Molzan 1987:16). TBA training programs in Ghana and Sokoto state, Nigeria, began in 1975 (Twumasi 1982:211; Tahzib 1988:59). As of 1981, there were 16 African countries with TBA training programs, seven additional countries with firm plans to train TBAs, and 10 countries with registration or certification programs for TBAs (Tahzib 1988:2-3).

Training programs don't always focus on just prenatal, labor and delivery, and postnatal techniques. A program in Liberia which began in 1954 achieved a reduction in rates of neonatal tetanus by motivating TBAs to encourage mothers to be immunized. Liberia's training course since 1970 has included some instruction on family planning (Simpson-Hebert 1980:J-466). In Sudan, TBAs were trained to promote EPI activities in their villages and to become involved in family planning either through referrals or actual product distribution (Molzan et al 1987:17,18). In Ghana, TBA training courses which began in 1975 as part of the Kintampo Project. There is very little documentation available on this particular project.

## Ghana

Ghana's well-known Danfa Project, which spanned the entire decade of the 1970s, was a large comprehensive undertaking involving more than a dozen subprojects emphasizing the development of effective, high quality, affordable PHC services in rural areas. The development of working relationships between TBAs and biomedical practitioners was only one component of the overall project. The objective was to broaden the TBA's role to include family planning and general health education related to nutrition and simple first aid, so that the TBAs could be part of the project's MCH services (Neumann 1982:227).

The project staff began very slowly with in-dept educational discussions with village leaders, traditional healers, TBAs, and villagers due to fears by some TBAs that the outsiders might be trying to police them, put them out of business, or tax them. The careful groundwork succeeded in building rapport between the project staff and the villages so that baseline data could be collected on TBAs including basic sociodemographic data, annual number of deliveries and details of practice techniques.

The data collection process revealed two types of TBAs in the project area located north of Accra. There were herbalists for whom midwifery was part of their medical practice, and practitioners who limited their practice to midwifery. About half the TBAs were male, though 79 percent of the male TBAs were herbalists compared to 11 percent of the female TBAs. Only the herbalists provided prenatal care. Most TBAs only delivered a small number of babies per year. The herbalist/TBAs attempted to deal with complications of labor and delivery. It was discovered that 80 percent of deliveries were made by 15-20 percent of the TBAs in the Danfa Project catchment area of about 36,000 population, though there were a total of 268 TBAs. Although this statistic raises the issue of providing training only to the busiest TBAs, such a policy could create community tensions with the excluded TBAs, and the Danfa project made an effort to train all TBAs who wanted to participate. (Neumann 1982:229)

An important component of the Danfa TBA project involved a public education effort in the villages to inform people about the TBA training, impressing on them that the TBAs were giving up their own time, without pay, to improve their skills. It was publicly suggested that trained TBAs should be paid accordingly for their newly-acquired skills. Significantly, the TBAs received no money at any time from the project, though kits and resupply services were provided for free. Despite the lack of remuneration, 84 percent of the TBAs in the project area participated in the training program. In addition, supervision visits were made at least every two months and when needed, refresher courses were organized. These last features were considered absolutely essential to the success of the project.

## **Kenya**

A similar experience was reported from Kenya (Steele 1990), where a TBA training program was conducted in Northeast Province near Kenya's border with Ethiopia, among a semi-nomadic indigenous population of Somali-Kenyan Muslims who speak the Somali and Garre languages. The main objective of the health component of the project, sponsored by Quaker, Peace and Service (QPS) of London, was to develop a working relationship between the local government health center (whose staff was male, Kiswahili-speaking Christians from south Kenya), and the TBAs whose ethnic characteristics matched the local population's. Initially there was no communication whatsoever between health center staff and the local TBAs of the surrounding villages. The training program solved the problems between the clinic and the TBAs through holding training classes at the clinic. Use of the clinic for maternity care did not increase, however, because the community thought that the TBAs would be paid by the government for every woman they brought to the clinic, and relationships between the community and the clinic were not ideal anyway.

It had always been the program's policy to avoid reimbursement to the TBAs in respect of the local system which involved payment in cash or kind according to what the family could afford. The expatriate health educator (also a nurse-midwife) and the two Somali-Kenyan CHWs from the health center who conducted the training program, decided to deal with the community relations problem by undertaking a questionnaire campaign. They interviewed 112 pregnant women throughout the health center's catchment area, asking about obstetrical history, family health history, the current pregnancy, and knowledge of the role of the health center and the trained TBAs. This questionnaire campaign succeeded in changing attitudes of the community toward the trained TBAs and the health center by helping them to realize that the TBA's association with the clinic was intended to improve the health of mothers and babies and not for the financial gain of individual TBAs. Deliveries at the clinic began to increase from one every other month to 2 or 3 per month, and up to 15 women per day attended prenatal clinics. Four years after the beginning of the project, deliveries were still increasing with a peak of 9 in July 1987.

The Kenya project demonstrates an important point about the potential for influencing knowledge and attitudes via the research process in conjunction with other intervention efforts. Community-based data collection does not occur in a vacuum. Within the context of an interview, information transfer occurs in both directions. Interviewing has the potential for establishing rapport and dialogue, and allowing exchange of ideas and information. A research project can change community attitudes simply by the way the interviewing is done and the types of questions that are asked as well as the type of feedback the community receives on the results of the study. The questionnaire campaign described above helped the midwives and technical assistant gather information about their target population, as well as providing an opportunity for clarification of the relationship of the TBAs to the local clinic. The change in knowledge and attitude of the pregnant women about and toward the TBAs and the clinic helped to increase utilization of the clinic and TBA services and thus improve the quality of prenatal care to that population. The end result - the improvement of the health of mothers and children - is the objective of all concerned.

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