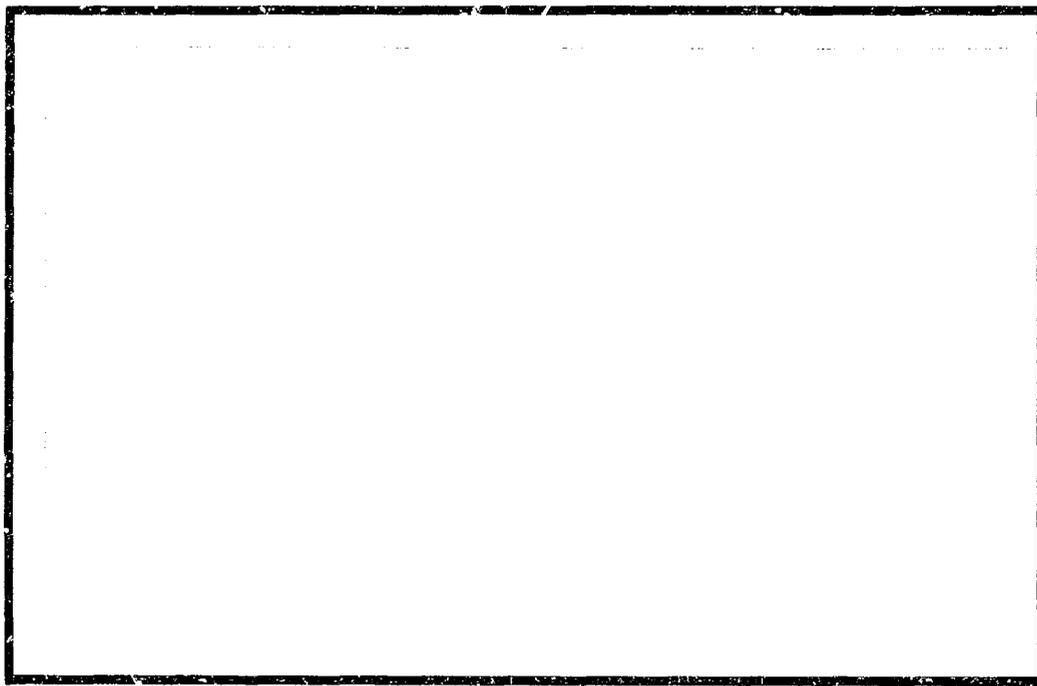


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Technologies for Primary Health Care

Management Sciences for Health
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UGANDAN TRADITIONAL HEALERS STUDY
"INDIGENOUS KNOWLEDGE AND MANAGEMENT
OF CHILDHOOD DIARRHOEAL DISEASES"
(UGANDA TRADITIONAL HEALERS INITIATIVE -
PHASE ONE: RESEARCH)

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**UGANDA TRADITIONAL HEALERS INITIATIVE/PHASE ONE: RESEARCH
"INDIGENOUS KNOWLEDGE AND MANAGEMENT
OF CHILDHOOD DIARRHOEAL DISEASES"**

I. EXECUTIVE SUMMARY

This report presents the results of the Ugandan Traditional Healers Study conducted during fall 1990 by a research team sponsored by the Ministry of Health's Diarrhoeal Disease Control (CDD) Programme and by the PRITECH Project (USAID). The purpose of the research was to guide the development of the Uganda Traditional Healers Initiative - a strategy designed to improve village-level health status by encouraging collaboration between traditional healers (THs) and government health workers (HWs). The research conducted for this study was aimed at answering certain specific descriptive and substantive questions about Ugandan healers and their management of childhood diseases, especially those of which diarrhoea might be a symptom.

A. GOALS AND OBJECTIVES

1. Goal of the research: To provide information in enough detail and depth to design a culturally appropriate workshop curriculum for Ugandan THs, focusing particularly on an appropriate explanation of oral rehydration therapy (ORT) that accommodates its rehydrating function and at the same time, fits with local understanding of the mechanism of diarrhoea and its effects on a child's body. Socio-demographic background data on THs in the 24 sampled parishes will also assist in planning collaborative activities for healers and biomedical health workers. While the production of an actual curriculum was not intended as one of the outcomes of this project, the next step in the CDD's plan of action following review of the report will be to design and implement a culturally appropriate workshop curriculum in cooperation with other Ministry of Health programs and the Ministry of Youth, Sports and Culture (under whose administrative jurisdiction THs fall).
2. Objectives
 - a. To identify characteristics of THs in three districts in terms of total numbers, therapeutic specialties, socio-demographic characteristics, and level of interest in developing a working relationship with Uganda's biomedical sector by participation in workshops/seminars. (This is the census/prevalence or quantitative component of the project.)
 - b. To increase in-depth understanding of traditional healers' management of childhood illnesses of which diarrhoea may be a symptom. (This is the indigenous knowledge or qualitative component of the project.)

B. SUMMARY OF FINDINGS

1. The healer to population ratio for the three sampled counties is 1/287 or about 15 healers per parish. Although this figure may be a bit low, it tentatively suggests there could be at least 63,000 healers in Uganda. (See also Section IV A.)

2. **Specialties:** Just over 50 percent of the sample are spiritualists who also practice herbalism, 32-43 percent are pure herbalists, about a third are TBAs, and the remainder are bonesetters and snakebite specialists. There was overlap in reported specialties. (See also Section IV A.)
3. **Socio-demographic characteristics:** There were slightly more men than women (55 percent/45 percent) in the sample. About two thirds say they are Christian and a quarter say they are Muslim. About half say they practice traditional religion. About 60 percent are married, 80-90 percent say they treat children, and 40 percent say they belong to TH associations. The average healer in our sample is 53 years old, has six children, has three years of education, began practicing at age 27, acquired his skills from a relative, and has been in practice between 20-25 years. (See also Section IV A.)
4. **Interest in collaboration:** Healers are very interested in learning more about how biomedical practitioners treat many common illnesses and about how they can improve their practices. Their attitude toward collaboration is extremely positive. Health workers and members of communities are also supportive of collaboration between the sectors. (See also Section IV B.)
5. **Local support for collaboration:** Health workers, RCs, elders, parents and other local officials were very willing to have the research done, and expressed interest in helping to foster collaboration between the traditional and biomedical sectors.
6. **Interest in workshops and topics:** Over 85 percent are interested in participating in TH workshops. The most commonly mentioned subject or topic that interested the healers was preservation, processing and storage of herbal medicines. Other popular topics, in order of frequency mentioned, included the following: AIDS, midwifery, general improvement of diagnostics and care, "false teeth" (ebinyo), immunization and specific contagious diseases, family planning, ORT/diarrhoeal diseases, malaria, and children's illnesses. (See also Section IV B.)
7. **Illnesses treated:** Traditional healers treat many of the same diseases and illnesses also treated by biomedical health workers. Diseases of which diarrhoea may be a symptom are extremely common. Diarrhoea is or can be a symptom of the majority of illnesses commonly treated by THs as reported during intensive interviews with prominent healers. (See also Section IV C.) Besides diarrhoea-related problems, other illnesses most commonly seen by traditional healers include: false teeth, measles, whooping cough, AIDS, worms, fever, and tetanus .
8. **Preparation of herbal remedies:** Herbal remedies are often prepared by mixing ingredients together with water and boiling the mixture, sometimes reducing the volume of liquid during the boiling period. There is no tradition of boiling water first and then adding ingredients to the boiled water.
9. **General disease causation:** Several themes emerged from detailed descriptions of illness management which are useful for understanding motivation behind behavior. People believe that extremes of heat and cold can be responsible for illness. Babies should be covered properly at night and often sleep with their mothers so that the mother can replace covers kicked off during the night. The heat of pregnant women, transmitted by skin-to-skin contact or through breastmilk, can cause illness in a child. Exposure to wind can cause illness since spirits "come with the wind". Disease can be transmitted from mother to child during

pregnancy, such that the child can fall ill after delivery. Disregarding behavioral norms can produce illnesses such as obusobe, commonly known as 'behavioral diarrhoea'. Some diseases are considered to be 'indigenous to the culture' such as obusobe, (behavioral diarrhea), and eyabwe, (cerebral malaria), while others are considered to come from 'outside' such as AIDS and ebinyo, ("false teeth"). Sanitary conditions of the environment and of food are also believed to cause illnesses. (See also Section IV C-G.)

10. **Types of diarrhoea reported and duration:** Information from the case histories revealed that 45 percent of cases were reported by the mothers to be simple diarrhoea, although 73 percent stated that fever was also present, and vomiting was reported for 44 percent of the cases. The average duration of an episode (if ended) was 5.5 days. (See also Section IV E.) Simple diarrhoea is characterized primarily by frequent and watery stools and weakness of the child. Seriousness of diarrhoea is determined by frequency, quantity and 'wateriness' of stools, duration of the overall episode, and response to initial symptomatic treatment.
11. **Reported cause of the diarrhoea:** Data from the case histories revealed that the most commonly reported cause of the diarrhoea was worms (33 percent), measles (22 percent), "milestones" (20 percent), foods (nine percent), and hygiene (nine percent) (See also Section IV E.)
12. **Use of traditional medicine vs traditional healers:** Of the case histories, 70 percent received traditional medicine during a recent diarrhoeal episode. Of those, 54 percent said they obtained the medicine from "around the house/bush/forest", 25 percent said they obtained it from someone who is not a TH, and only 21 percent said they obtained it from a TH. (See also Section IV E.)
13. **Types of treatment received:** 68 percent of cases selected from a convenience sample were taken to a dispensary, private clinic, health center, drug shop, or hospital during the illness episode, thus many cases received both traditional and biomedical care. Of those taken to biomedical facilities, 51 percent received an ORS sachet (one child was given SSS), and 76 percent received some kind of biomedical pharmaceutical given orally or by injection. (See Table 29, page A-18)
14. **Purpose and types of treatments for diarrhoeal diseases:** The traditional treatment objective is to STOP the diarrhoea rather than to prevent dehydration due to fluid loss. Herbal mixtures in a water base are the most common treatments, usually used in combination and taken orally. Sometimes herbal remedies are also prescribed for bathing or rubbing on the skin. (See also Section IV D.)
15. **Dietary management of diarrhoea:** Besides liquid herbal medicines given to stop the diarrhoea, parents and traditional healers recommend a wide range of foods and drinks to be taken during episodes, most commonly matooke, milk and porridge. There are also a number of things commonly mentioned to avoid including millet, orange juice/oranges, sweet potatoes, sweet bananas, greens (doodo), cold foods and anything sweet.
16. **Potentially harmful treatments for illnesses of which diarrhoea may be a symptom:** This research verified the findings of other research that there exist cultural beliefs about appropriate treatments for certain culture-specific illnesses which are considered harmful from a biomedical perspective. The most commonly mentioned of these "cultural beliefs" is a

relatively new illness called "false teeth" (ebinyo in Luganda). Focus group discussions revealed some confusion about whether the appropriate treatment for false teeth should be extraction of the false tooth (an invasive procedure done with no anesthesia) or rubbing with herbs (noninvasive). Other culture-specific illnesses identified during the research as requiring treatment considered biomedically harmful include oburo (millet disease - treatment involves cutting the 'millet' out of the chest), and ekikubuuko (abdominal swelling which is treated by inducing diarrhoea to 'un-do' the intestines or by 'cutting out' the swelling. (See also Section IV F.)

17. **Costs of traditional treatments:** Costs vary widely depending on several factors. If a healer "has a relationship" with a family (knows the family well), he/she may charge nothing for treatment or may charge according to what the family can pay. Herbalists usually charge a small amount for "going into the bush" to collect medicinal herbs, then when the patient is cured, more money is paid to the healer. Spiritualists charge more since the illnesses they are called upon to treat are usually more serious, or invasive procedures may be required, or expensive rituals may have to be performed. In general, treatment by a traditional healer is cheaper than treatment at a health center partly because health centers are less accessible so there are costs involved in getting to the health center, spending time there, and possibly purchasing medications from another source. Seeing a health worker at a health center is free, however.
18. **AIDS:** Although not commonly seen among children, AIDS is common among adults, and patients with AIDS often consult THs for help with illnesses occurring because of a depressed immune system. The healers do not claim to have a treatment for AIDS itself. According to some respondents, healers often tell patients that AIDS is due to spiritual interventions. Most focus group participants recognized that sexual intercourse and unsterile instruments could transmit AIDS but it was not clear from the research if they understood, for example, that promiscuity itself does not cause AIDS, but rather that sexual intercourse with someone who is HIV positive might lead to infection with the AIDS virus. (See Section IV G)
19. **Tetanus:** Focus group discussion data reveals much misinformation about tetanus and its prevention and treatment. Tetanus is confused with meningitis and malaria due to the presence of convulsions or "fits" during the course of the illness. During one discussion mothers said they thought that neonatal tetanus could be avoided by delivering in a health center but that sometimes women who delivered in health centers still had babies who eventually got tetanus. The exact mode of transmission was not clear. (See Section IV C)
20. **Measles-related diarrhoea:** Diarrhoea associated with measles is viewed as beneficial since the diarrhoea serves to help "get the measles out" which is verified by the appearance of the rash. If a child with measles is constipated, s/he is given an herbal remedy to "force out the measles eggs" by causing diarrhoea. It is believed that if a child does not have diarrhoea to help force out the measles, the child is likely to die. However, according to some respondents, some foods and drinks like oranges and sweet bananas are restricted because they cause diarrhoea. Millet is restricted because it looks like measles eggs and may "add to the problem". (See Section IV G)
21. **Salt, meat and measles:** Salt is restricted (except for the traditional enseru salt) during measles episodes because it contributes to retaining the measles in the body. The same is true for

meat. Meat is traditionally not even allowed in the house during a measles case. Injections are believed to slow the appearance of the rash, thus taking a child with measles to a health center is discouraged. (See Section IV G)

22. **Fevers/malaria/cerebral malaria:** Most fevers are assumed to be due to malaria unless other symptoms point directly to another illness. Cerebral malaria and non-malarial convulsions are not always distinguished and have culturally-specific explanations relating to an eagle-like bird and a spider-like insect. (See Section IV G)
23. **Malnutrition:** There are traditional names for various stages of malnutrition, and several cultural explanations for the disease (See Section IV G). Weaning is recognized as playing a major role, and diarrhoea is one of the most frequently mentioned symptoms. (See Section IV G)

C. CONCLUSIONS

The goal of the research was to provide information to help in designing a strategy for collaboration between traditional healers and biomedical health workers of which the main component was considered to be a workshop curriculum. The objectives were to learn something about the socio-demographic characteristics of healers from 24 parishes in three districts of the country, and to find out how Ugandan traditional healers manage childhood diseases of which diarrhoea could be a symptom.

The question of whether or not to collaborate with THs in Uganda has already been answered in the affirmative prior to the research. The issue that prompted the research was the CDD Programme's initial efforts to train healers in ORT and their discoveries that the training did not accomplish what it set out to do. Therefore, the main question was how collaboration (in the form of workshops) should proceed.

Based on the findings, the research team's conclusions can be summarized as follows:

1. No formal collaboration currently exists between traditional healers and biomedical health workers in the areas where this study was conducted. Although a complete analysis of the reasons why such collaboration does not exist is beyond the scope of this study, one factor would appear to be lack of official encouragement. The Ugandan government's interest in promoting collaboration between the traditional and biomedical sectors, and the high level of interest expressed by the healers themselves and by members of the communities where this study was conducted suggest that collaboration between the two sectors can be realized. It is the premise of this study that increased collaboration between traditional healers and biomedical practitioners would result in better quality health care for Ugandan children.
2. Traditional medicine and traditional healers are used widely by the rural majority of Uganda which make up nearly 90 percent of the population, and even by many health workers themselves for their personal health care needs. Traditional medicine is not always obtained from traditional healers, however, since the herbs are widely available and accessible to the average Ugandan. Use of the herbs is based on the advice of friends, neighbors and family as well as traditional healers.

3. There are several different kinds of traditional healers whose roles often overlap and cannot easily be separated from one another.
4. Both THs and biomedical practitioners have the same goals - treating illness and relieving suffering. Their explanations and methods are different.
5. Parents use both systems interchangeably and concurrently as needed. If both sectors were communicating with each other, complementary messages would be heard by patients that could only result in better care.
6. The healers' expressed interest in collaborating with health workers suggests that they could be an asset in the management of childhood illnesses and in the reduction of childhood mortality. Their knowledge, skills and high status in rural communities make them prime candidates for extending the coverage of primary health care (PHC) beyond the current capacity of rural health center staff particularly since traditional medicine and traditional healers are often the first point of contact (even where health services exist) when a child falls ill.
7. One form of "collaboration" is attending workshops. Healers are interested in participating in seminars to improve their skills and learn more about primary health care by discussing these issues with biomedical practitioner. THs seem to be more interested in working with health workers than health workers are in working with healers, although this impression needs more investigation. Healers believe that health workers have much to learn from traditional medicine.
8. The fact that many healers mentioned topics for joint discussions with health workers, suggests that they are interested in workshops not only for the purposes of interacting among themselves and improving their knowledge but also to gain new skills related to primary health care by interacting with health workers.
9. THs have extensive indigenous knowledge about managing childhood diseases of which diarrhoea may be a symptom. Diarrhoea is or can be a symptom of the majority of illnesses commonly treated by THs as reported in group discussions and intensive interviews with healers. Healers do have a vast knowledge about different herbs and their use in managing a wide variety of childhood diseases. Some (if not many) of the herbs are perceived to be effective in treating a variety of illnesses and may in fact be pharmacologically active.
10. When traditional healers are asked specifically about diarrhoea, they tend to talk about simple kinds of diarrhoeas treated primarily with herbal medicines designed to stop the diarrhoea. They mention causes attributable to "cultural beliefs" as well as causes compatible with biomedical explanations. The concept of dehydration is unknown. They don't tend to mention prevention, but they do recommend a wide variety of foods and drinks to give during illnesses. There are some dietary restrictions.
11. The culture-specific illness referred to as "false teeth" (ebinyo in Luganda) is a widely-discussed and controversial problem, of which the major symptoms are diarrhoea and vomiting. It does not appear to be traditionally considered a "diarrhoeal disease" although diarrhoea is the major symptom of the illness. It is considered to be a separate disease. There is no clear-cut treatment (management) for false teeth. Some traditional healers still use the lucrative method

of extraction while others (perhaps few) use the rubbing method. Since the illness is perceived to be life-threatening if untreated, and is characteristically seen in very young infants, it poses a major challenge to the skills of both traditional healers and health workers.

12. Other problematic treatments (from a biomedical perspective) center on measles, millet disease (more common in Kabarole), and ekikubuko, (enlarged spleen), all of which involve controversial treatments which will have to be addressed during healer workshops.

D. RECOMMENDATIONS

On determining the distribution and characteristics of Ugandan THs:

1. At the district level, attempts should be made to verify numbers and characteristics of healers at the parish level so that accurate estimates can be made of resources needed for workshop development in each district. The short form could be used for this purpose. Prominent healers could be interviewed in depth with a modified version of the long form for additional local information.
2. Studies of this type should be done with other (non-Bantu) ethnic groups in Uganda in order to describe a wider range of cultural variability in the TH population of the country.
3. Documentation of ethnic variation and cultural beliefs and practices should include efforts to publish information in professional international journals for the benefit of all who are engaged in developing collaborative relationships between traditional healers and biomedical practitioners.

On encouraging collaboration between healers and health workers:

4. All persons and organizations involved with encouraging collaboration between THs and HWs should remember that both health sectors (and the communities they serve) have a common goal - reducing childhood mortality and morbidity. Methods of the two sectors are different but not incompatible.
5. Efforts to foster collaboration between THs and biomedical HWs should not include the task of organizing healers' associations. Communication lines can be opened between the two systems without relying on prior organization of healers into associations. This is an internal issue concerning collaboration among healers themselves, although there are implications for the nature of the relationship between healers and the Ugandan government. The Uganda Traditional Healer Initiative concerns collaboration between healers and biomedical practitioners.
6. Representatives of relevant programmes within the Ministry of Health, the Ministry of Youth, Sports and Culture, and the Dept. of Pharmacology should be included in the planning, design and execution of collaborative activities. Planners should also include traditional healers as early as possible in planning efforts, especially at the local level.

7. "Communities" should also have a role in encouraging collaboration between healers and health workers. Planners should think in terms of a triad (community, traditional healer, health worker) rather than just the dyad of TH and HW.
8. The collaboration planning group should consider at what level it wishes the interface between traditional medicine and biomedicine to occur - district, village, or somewhere in between.
9. Planning should define "collaboration" in other ways besides workshops. Local opinions should be sought on other ways for THs and HWs to collaborate.
10. In the process of responding to the healers' interests via some kind of formalized instruction, the terms "workshop" or "seminar" should be used instead of "training", and appropriate parallel terms should be identified in indigenous languages.
11. Workshops should include both traditional healers and biomedical practitioners in order to best develop the concept of collaboration.
12. The reason for getting groups of THs and HWs together to talk should be that of improving child health by developing cooperation and understanding between the two sectors currently providing care to children. Reasons given should not include "training healers in PHC", "getting healers to stop bad practices", "getting healers to do things our way", "controlling healers' behaviors" or other similar negative-sounding phrases.
13. Traditional healers should be identified who can work with the curriculum development team in planning the workshops and who can work as co-trainers of other healers. Planners should strive to identify healers who are literate, prominent and influential in their communities.
14. Workshops should begin as meetings between THs and biomedical practitioners to discuss beliefs and behavior, to share information and ideas, and to compare illness management strategies.
15. The workshop curriculum should include discussion of illnesses based on cultural beliefs as well as illnesses based in biomedical concepts. The curriculum should focus on an exchange of views and beliefs between THs and HWs (and/or other biomedical health workers who may be included in the workshops).
16. The workshop curriculum should include topics taken from the lists in Section VII E, as well as other topics determined after studies are conducted in the localities where collaborative activities will be developed.

On conducting workshops to discuss childhood diarrhoeas and ORT:

17. Planners for the ORT module for healer workshops should consider CDD's past experiences with teaching ORT to healers. UTHS research results suggest explanations for Prins' findings (1990b) on THs' use of ORS (see page 23). Traditionally, healers make an herbal mixture using water as a base and then boil the mixture - a different process from boiling water first and then adding ingredients to it. Amounts of herbal mixtures given are small because the mixture is medicine to stop diarrhoea. Too much medicine is not good for the child. If ORS is viewed as medicine to stop diarrhoea, then giving a liter during one day will not be

considered appropriate. "Treating" diarrhoea means "stopping" it, therefore explanations for ORT's use and purpose should not include labeling it as a medicine that treats diarrhoea.

18. The concept of dehydration and its management should figure prominently in discussions about various types of diarrhoeal diseases as well as discussions about other childhood illnesses of which diarrhoea may be a symptom.
19. The difference between stopping diarrhoea and replacing lost water (or preventing the loss of water) should be strongly emphasized.
20. THs should not be encouraged to substitute ORT for their traditional treatments, but rather to administer it in addition to those herbal remedies. ORT should be a compliment to herbal remedies, replacing lost water, while the herbs deal with the cause of the diarrhoea. For cases where perceived cause requires additional measures besides herbal remedies, ORT can still be promoted for the dehydration that usually follows prolonged diarrhoeal episodes.
21. The Ministry of Health should address the issue of how health workers are prescribing medications for diarrhoeal episodes, and if 51% of cases (as determined by the UTHS case histories) is an accurate measure of the percentage of diarrhoeal cases actually receiving ORT at health centers.
22. It should be recognized that diarrhoea is sometimes but not always perceived by healers to be a symptom of a wide variety of illnesses, some of which are not biomedically categorized as "diarrhoeal diseases".
23. Planners must realize that cultural beliefs about appropriate treatments for certain culture-specific disease categories (like ebinyo, oburo, and ekikubuuko) cannot be easily changed and will certainly not be changed simply by telling people that their beliefs are "wrong". While biomedical personnel would like to eliminate certain invasive treatments such as extraction of "false teeth" or fat nodules, and the administration of enemas and purgatives, it must be appreciated that treatment customs don't usually change quickly. They often do change over the long term as it becomes apparent to practitioners that there exist other more effective methods for achieving a positive outcome to an illness episode.
24. Some of the invasive procedures are quite lucrative since the illnesses they treat are perceived to be potentially life-threatening, therefore it may be necessary to consider developing other forms of self-sustaining economic incentives to replace income lost from practicing invasive procedures. These issues and additional questions would need further investigation by other more specific studies.

II. BACKGROUND

A. CHILDHOOD MORTALITY AND MORBIDITY IN UGANDA

Uganda's population grew from approximately five million in 1948 to 9.5 million in 1969 to the current estimated high of 18 million (Haub et al 1990). The current birth rate - 52 per 1000 population each year - is one of the highest in the world, and continues to rise (GOU 1989:4). Since the death rate continued to decline prior to the political turmoil of the mid-1980s, the rate of natural increase of the population was estimated in 1988 at 2.9 percent (GOU 1989) and in 1990 at 3.6 percent (Haub et al 1990). This rapid population increase accompanying two decades of social unrest has resulted in high levels of childhood mortality and morbidity.

Prior to 1971, Uganda had one of the best health care systems in Africa (Dodge 1987:101), both in the number and distribution of health units, and in the content of health programmes (UNICEF 1989:49). Civil unrest from 1973 to 1982 contributed to the deterioration and destruction of the health infrastructure, resulting in increased mortality, particularly for infants (Kaijuka et al 1989:55). Between 1983 and 1988, health services improved markedly, especially those preventive services such as immunisation programmes. Although child mortality rates have declined slightly since 1983 (Kaijuka 1990:2), infant and child mortality rates remain high compared to more developed countries. One in six Ugandan children dies before his or her fifth birthday (Kaijuka 1990:14). It is estimated that more than a half of all deaths each year in Uganda occur among children aged less than five years, and a 1988 household survey found that a quarter of all deaths occur among children aged less than one year (UNICEF 1989:33).

According to the Uganda Demographic and Health Survey (UDHS), the country's infant mortality rate (IMR) for the period 1983-88 was 101 per thousand, and the childhood mortality rate was 88 per thousand. "This means that of 1000 live births in Uganda, 101 do not live to their first birthday and an additional 88 do not live to age five. The overall probability of dying between birth and exact age five is 180 per 1,000 live births" (Kaijuka et al 1989:54). Country-wide statistics tend to mask higher rates in smaller localities. As late as 1985, for example, the IMR in the Luwero Triangle (north and west of Kampala with an estimated population of 750,000 people) was 305 per 1000 live births among displaced people residing in Red Cross-assisted shelters (Dodge 1987:104).

The UDHS data show infant mortality rates for urban populations only slightly lower than for rural populations (103 compared to 107), however childhood mortality is much lower in urban areas than in rural areas (68 compared to 94) (Kaijuka et al 1989:56). Mother's education level has a major effect on child mortality rates, with lowest levels among more educated women and highest levels among illiterate women (Dodge 1987:107; Kaijuka et al 1989:55). Birth intervals depict the most significant differentials in infant mortality. For intervals less than two years, the IMR is 152 per 1,000 births. For intervals of two to three

years, the IMR is 84, and for intervals of four years or more, the IMR is 68 (Kaijuka 1989:56).

In Uganda, the principal causes of mortality among young children are preventable communicable diseases including measles, diarrhoea, and respiratory infections, endemic malaria, and to a lesser extent, malnutrition (UNICEF 1989:34). "Measles has probably been responsible for more infant and child deaths in Uganda than any other disease over the past ten years" (Kaijuka et al 1989:39). Although immunisation programmes are apparently reducing the incidence and mortality of measles, the case fatality rate remains high (UNICEF 1989:39). AIDS may emerge as the primary cause of mortality among Ugandan children under five years during the next decade (UNICEF 1989:40).

Community survey data and hospital admission data on morbidity patterns among young children show a pattern of causes similar to the data on mortality (UNICEF 1989:35). The UDHS studied the prevalence of the most important symptom complexes contributing to high levels of childhood morbidity including fevers, diarrhoeal illnesses, and respiratory illnesses (Kaijuka et al 1989:61). Additional indicators of child health studied by the UDHS included vaccination coverage and nutritional status.

1. Fevers: Most fevers in children in Uganda are attributed to malaria infection. The UDHS asked questions about fever in an effort to determine the extent to which children experienced a bout of malaria during the four weeks prior to the interview and what type of treatment was given. Overall, 41 percent of children under five were reported to have had a fever in the previous four weeks (Kaijuka et al 1989:67). Of those, 45 percent were taken to a medical facility, 57 percent were treated with antimalarial drugs, 70 percent were given other medicines, and 14 percent were given no treatment at all. Fever prevalence is highest for children aged 6-17 months and among children living in East region. Not surprisingly, medical consultation is higher for urban children.

2. Diarrhoeal illnesses: The relative importance of diarrhoea in the childhood morbidity and mortality profile in Uganda has increased over time (UNICEF 1989:37). UDHS data revealed that 14 percent of children under five were reported to have had diarrhoea in the 24 hours prior to the interview, and 24 percent had had diarrhoea in the two weeks prior to the interview (Kaijuka et al 1989:65). Diarrhoea prevalence was highest among children aged 6-17 months (a time of increased mobility and weaning), with 40 percent reported to have had an episode in the previous two weeks. Diarrhoea prevalence is somewhat higher among rural children than urban, and among children in the East region. Among the group of children with diarrhoea during the previous two weeks, 15 percent were taken to a medical facility, 14 percent received some form of oral rehydration therapy (ORT), 30 percent received some other treatment, and 63 percent received no treatment. Children under six months of age were less likely than older children to be taken to a medical facility or to receive treatment during their diarrhoeal episode. Urban children and children of more educated mothers were more likely to receive some treatment and to receive ORT.

Just under half of all mothers of children under five interviewed during the UDHS had heard of oral rehydration salts (ORS). Factors contributing to higher rates of knowledge of ORS include women's education and urban residence.

3. Respiratory illnesses: To obtain information on upper respiratory tract infection among children under five, UDHS interviewers asked if the child had had an episode of severe cough with difficult or rapid breathing in the four weeks preceding the interview. Of the 22 percent reported to have experienced these symptoms, 48 percent consulted a medical provider, 23 percent received antibiotic treatment, and 23 percent received no treatment (Kaijuka et al 1989:67).

4. Vaccination coverage: The UDHS data revealed that about 70 percent of children under five had received some immunisations (44 percent of mothers interviewed could produce an immunisation card for their under-five children, and 26 percent stated their child had had at least one immunisation but could not produce the card). Overall, 44 percent of the children under five with health cards have been fully immunised against vaccine-preventable diseases (Kaijuka 1989:62). Of children aged 12-23 months with health cards, 48 percent are fully vaccinated (UDHS 1990:23). UDHS data estimates that 31 percent of all children aged 12-23 months have been fully immunised (Kaijuka et al 1989:63).

5. Nutritional status: In the absence of a national nutrition survey, studies with smaller samples suggest that the nutrition situation in Uganda is better than in many other countries in the region (UNICEF 1989:42). The UDHS, for example, weighed and measured respondents' children under age five to assess their nutritional status. The study found that 45 percent of these children are stunted (short in relation to their age) compared with an international reference population (UDHS 1990:19). Stunting indicates chronic undernutrition. UDHS data suggest that stunting is more common among boys and rural children, and in the South West and West regions (UDHS 1989:20). Other studies report that urban children have a higher risk of both acute and moderate malnutrition (UNICEF 1989:42). Children's nutritional status varies markedly with mother's education. Children of uneducated mothers are three times more likely to be classified as stunted than those whose mothers are educated. Children who have more recently been ill (with fever, diarrhoea or respiratory infections) are more likely to be stunted (UDHS 1990:20). Undernutrition and illness combine to create a potentially fatal cycle in which illness causes undernutrition and undernutrition decreases resistance to disease.

The UDHS data highlight several factors related to child survival in Uganda: place of residence, mother's education, birthspacing, and mother's age (Kaijuka 1990:14-15). Although infant mortality rates are only slightly higher in rural areas than in urban areas, rural children aged 1-4 are at substantially higher risk of death than are urban children. The highest child mortality rates occur in West Nile and East regions. Children born to uneducated mothers are nearly twice as likely to die before age five than those whose mothers are better educated. Children born less than two years after a previous birth are twice as likely to die before age 12 months than those born four or more years after a

previous birth. Children born to mothers under age 20 have a 20 percent higher risk of dying before age five than those born to older women.

B. PREVIOUS RESEARCH ON TRADITIONAL MEDICINE

Many analyses of Uganda's health care situation do not adequately consider the contributions to illness management made by private sector providers commonly known as traditional healers and traditional birth attendants (eg. Gershenburg and Haskell 1972; GOU 1989; Kaijuka et al 1989; UNICEF 1989). Analyses of medical care focus on government or NGO sponsored biomedical services exclusively. Survey research reveals only a small percentage of actual use of traditional medicine. Until recently, it was assumed that as biomedical services became more available to citizens in the developing world, traditional forms of illness management (and traditional therapists) would disappear (eg. King 1966: 19:2; Foster and Anderson 1978:257-258). By the mid-1970s it was apparent that the supply of biomedical resources in developing countries could not keep up with the demand, and by the late 1980s certain economic, political and social realities have made it clear that the biomedical health systems of most countries in Africa will not be able to reach the vast majorities of rural populations on the continent (Hogle 1990:3). Within Uganda, there is a renewed interest in a role for traditional practitioners in the promotion of primary health care, particularly for child survival, through collaboration with biomedical health services (cf. Bukenya 1991; Bwengye 1989; Hogle and Prins 1991; Prins 1990a, 1990b; Sanneh 1990). Prior to initiation of collaborative activities, it is necessary to know more about the numbers, characteristics, and beliefs of the different kinds of traditional healers currently practicing among Uganda's many ethnic groups.

1. Categories and numbers of traditional healers

Most of the literature written about traditional healing in Uganda refers to the beliefs and practices of the Baganda who make up approximately one quarter of the population (Jelliffe and Bennett 1961:185). Kiganda THs include ancestral spirit diviners or spiritualists called basawo. Their knowledge, training, and powers allow them to interpret and treat various forms of adversity, including illnesses. Preparation for the profession is traditionally an apprenticeship to a parent or grandparent since the role is normally inherited. The most important part of professional training, however, lies in the determination that an individual has been chosen by the spirits to follow the profession of the ancestors. Thus practical training is considered of secondary importance to the inherited supernatural powers. The spirit, acting through the TH, makes diagnoses and prescribes treatments during sessions accompanied by drumming and shaking rattles (Bennett 1963:153). Diviners tend to specialize in the sense that individual musawo might be associated with specific traditional gods or deities (balubaale) which are in turn associated with certain illnesses (Bennett 1963:154).

In addition to the spirit diviners, there are pure herbalists (mukozi we ddagala eganda) who specialize in mixing and prescribing medicines, TBAs, and snake bite specialists (musawo we musote). The most respected specialist is the bonesetter (musawo muganda muyunzi) (Zeller 1979a:141). There are also Moslem Baganda practitioners who prescribe amulets containing passages from the Koran, and are especially feared for their ability to bewitch (Bennett 1963:154).

For the Nyole of eastern Uganda, Whyte categorizes healers as curers (abagangi) who use herbal medicines (this category includes the highly respected bone-setters), diviners (omufumu or omulagusi), and those who protect by using medicine. The curers are usually ordinary people who might be well known for being able to treat one or a few illnesses, and usually charge patients a small amount "for going into the bush" to gather the necessary ingredients for herbal remedies. The diviners' investigation into the cause of an illness "bears a closer resemblance to a legal inquiry than to a health examination. In fact the spirits speaking through one Nyole diviner were often heard to say 'This is a court and we have come to argue'" (Whyte 1982:2057). There are gourd-rattle diviners (ab'esaasi or ab'enyango) who "have a working relationship with a team of spirits" and become possessed during seances to determine the cause and necessary treatment requirements. Book diviners (lamuli) are always Muslim although their clientele represents many other faiths. Lamuli derive their authority from Arabic books rather than spirits and are not possessed during diagnosis. The third type of misfortune specialist is called omung'eng'a, a term derived from a verb meaning to protect, especially with medicine. The term translates as 'medicine man'; they are expert at executing, preventing and ameliorating sorcery. They manipulate medicine to deal with many kinds of misfortune besides illness, but their efforts are aimed at agents rather than symptoms. Their medicines strike at the cause and relieve the symptoms at the same time (Whyte 1982:2058).

Traditional birth attendants (TBAs) are another category of healer whose practices are not well documented. Overall, approximately 75-80 percent of women in Uganda receive prenatal care (MOH:personal communication; UNICEF 1989:44), but only 26 percent deliver in health institutions with the assistance of trained personnel, although the figure varies considerably by district (UNICEF 1989:44). Of those 74 percent who do not deliver in health facilities, "31 percent...are assisted by traditional birth attendants, while a high number of women deliver in their homes without specialised assistance" (UNICEF 1989:44). These figures suggest (.74 X .31) that 23 percent of women are delivered by TBAs, almost four times the number identified by the UDHS.

The UDHS study reported that only six percent of births among its sample of women during the previous five years were attended by a TBA and 36 percent by a relative, compared to 36 percent by a trained nurse/midwife and three percent by a doctor (Kaijuka 1990:16). Summarized, the UDHS data suggest that 39 percent of their sample was delivered by biomedically-trained assistants, and 44 percent by "untrained" assistants. Seventeen percent reported they delivered alone with no assistance. Considering that 91 percent of the population lives in rural areas, but only 27 percent lives within five km of a health unit

(UNICEF 1989:50), it's likely that the total numbers of people delivered by TBAs is much higher than the estimates. Women may not admit to interviewers that a TBA delivered their children if the TBAs are not trained or registered. Some TBAs deliver babies only for members of their extended families so it's possible that women would say a relative delivered them when in fact that relative might legitimately be called a TBA. Survey research doesn't necessarily produce the most accurate data on use of traditional practitioners since respondents are often hesitant to admit to traditional behaviors in front of strangers. Basawo take personal interest in their patients' problems, focusing not just on physical problems but on the social context of patients' lives. Zeller writes:

"...the musawo muganda had a deep insight into human nature, took a sincere interest in the problems and suffering of their people, and became...psychologists or psychiatrists of sorts. They possessed a knowledge of the types of tension that exist in society, and some even knew the ancestors and all the clan and personal associations of their patients. This was equally true for indigenous midwives who established a personal relationship with the families of their patients and took a continuing interest in the children they delivered throughout their lives. Furthermore, no medicine man ever expressed hesitancy or uncertainty about his diagnosis and treatment. None will admit being ignorant or perplexed by a case." (Zeller 1979b:252)

The total number of traditional healers in Uganda is unknown, although a number of widely varying estimates have been made. A UNICEF publication states that there are THs in every village in the country and their numbers "may total 6,000 or more nation-wide" (UNICEF 1989:53). One study of 292 healers, interviewed about their treatments for diarrhoeal diseases in five districts, revealed the presence of two or more healers in every village visited (Anokbonggo et al 1990). During a pretesting visit to Katoogo parish in Mukono, the UTHS research team consulted the RCIIs for information about all the healers in the parish. They were given 19 names with ages and specialties, for a population of about 4,000 people giving a healer to population ratio of 1/210 for that parish. If this is typical of Uganda, that means there may be up to 86,000 healers in the country. Other rural African populations have healer to population ratios of around 1/150 which means Uganda's TH population could be as high as 120,000 since 91 percent of the country's population is rural-based.

The UTHS's final results, based on a census of healers in 24 parishes, suggest a healer to population ratio closer to 1/287 for a total of about 63,000 nation-wide if our sample turns out to be typical of Uganda as a whole. Another study of 100 healers from five districts found an increased level of competition among healers due to the overabundance of them in the villages, and that most were continuing to train more healers. Over half said they have students every six to twelve months (Sanneh 1990:10,60). These data suggest that traditional medicine in Uganda is a thriving and vital profession.

2. Traditional illness beliefs and practices

The most detailed information available about traditional illness beliefs and practices describes the culture of the Baganda, the largest of the 17 major ethnic groups (UNICEF 1989:8), although some data exist for smaller ethnic minorities such as the Nyole (Whyte 1981, 1982). According to Zeller (1979a:140), illness, death and misfortune are traditionally believed to be the result of angry ancestors or gods, the activities of witches and sorcerers, or broken tribal sanctions or taboos. Within that context, classical Baganda basawo recognize four categories of illness (Bennett 1963:153; Zeller 1979b:253):

- * trivial illnesses (obulwadde) such as colds, which need no treatment;
- * European illnesses or diseases (endwadde ez'ekizungu) - such as pneumonia, malaria, and syphilis, for which biomedical practitioners are consulted;
- * kiganda illnesses (endwadde ez'ekiganda) such as feet swelling from standing on wet ground too long, ekigalanga (a stomach condition), and illnesses caused by sorcerers, ghosts, breach of tribal taboos, or bewitchment, for which THs are consulted;
- * death (olumbe) a "disease" with no cure.

Whyte points out that most African peoples recognize symptomatic and etioloigical treatments of misfortune. The symptoms of illnesses like fever, diarrhoea, boils, and menstrual disorders are usually treated and cured with appropriate herbal remedies. It is only when the treatments fail, that the Nyole begin to search for the reasons for the appearance of symptoms, or for the real cause of the trouble (Whyte 1982:2056). The illness is then reclassified according to etiology. Among the Baganda, sick people might self-treat initially, but then consult a musawo if symptoms persist. Failure after the musawo's treatment might indicate a European disease requiring a visit to a biomedical physician. If the patient is still not cured, then his disease would be categorized as olumbe. Bennett states that causation is usually multiple (1963:153), while Whyte emphasizes that "the distinction between symptom and etiology is a difference in Nyole analytical level, not an either-or dualism" (1982:2057).

It is believed that illness can lead to greater misfortune, so the patient is often more concerned with the future than with the immediate discomfort of an illness. Zeller claims the patient is mainly concerned with the causal agent, and tends to delay treating the symptoms of the problem. The wishes of the gods or ancestors must first be met, the poisons of the witch or sorcerer counteracted, or some other action taken according to instruction from the musawo before clinical treatment is initiated. Negative outcomes are not blamed on the healer. Rather, it is believed that the forces working against the patient were stronger than the powers the musawo could summon, or that the patient did not follow the prescribed treatment, or that a longer time was needed for the treatment to take effect, or that the patient had a European disease requiring European treatment.

Magic, witchcraft or evil eye can be responsible for a range of illnesses, conditions, or any kind of bad luck, due ultimately to the malignant intent of a person. Someone who wishes to harm a family might inflict illness on one of the family's children. This diagnosis might be reached after failure of various forms of treatment or after consultation with a spiritualist. Treatment depends on the prescriptions of the healer which may include animal sacrifice, payment of a fee, and bathing with various sorts of herbs (Namboze 1983:2043).

The infectious nature of some illnesses is recognized by the Baganda, who identify the modes of entrance of disease as venereal, ingestion and inhalation, modified by supernatural intervention. These illnesses are believed to be contracted by close contact with an infected person, although the Baganda don't appear to have a concept of a living and multiplying infectious agent (Bennett 1963:148). Tuberculosis and leprosy, for example, are recognized as infectious diseases, and also carry a social stigma that can prevent afflicted individuals from seeking medical care. It is believed that some diseases can be "hereditary", so marriage into a family where some members have TB or leprosy is discouraged. Measles and whooping cough are also recognized infectious diseases and parents do not allow children to visit homes where those diseases are present. The common cold is also recognized as infectious. (Namboze 1983:2043)

More than 25 years ago, Bennett wrote about the changing nature of Kiganda beliefs about disease causation, noting rural/urban differences and a wide range of local variation. He feels the Baganda use particular diagnoses as a form of social control, especially those attributed to illicit sexual relationships (1963:157). Namboze acknowledges that her discussion of traditional beliefs and practices among the Baganda is based on concepts of illness causation which have existed for generations. The introduction of Christianity over 100 years ago has greatly modified the influence of these beliefs. She states that educated Ugandans "now believe in the scientifically established concept of health which includes good nutrition and environmental sanitation, prevention by immunisation and various methods of treatment" (1983:2043), but the influence of traditional beliefs remains deeply rooted.

Traditional Nyole beliefs systems have changed to some degree in response to new conditions (Whyte 1982:2060). In particular, sorcery and certain types of spirits have incorporated foreign elements. For example, battery acid and rat poison have become new forms of sorcery medicine. 'Foreign spirits' are believed to have come on the roads built by Europeans and must be appeased using appropriately exotic items (Whyte 1981:354).

3. Cultural beliefs about food

This topic is not often considered to be related to explanatory models of disease, however, cultural beliefs about food are important for treatment of childhood diarrhoea, where diet and nutrition play a major role. Traditionally, Baganda consider "foods" to be staples - anything else is an accessory. The most common cultivated foods are matooke, other types of bananas, sweet potatoes, cassava, yams, maize, sesame, beans and groundnuts. Food is

either "good" or "not good" but there are no specific ideas about what makes food good. "Good" food is warm and "not good" food is cold. Baganda recognize that food is necessary for the maintenance of health, and that it maintains life by keeping the blood circulating and by giving strength to the body (Rutihouser 1963:138). Urine and feces are thought to be the result of eating food, but otherwise there are no specific beliefs about what happens to food in the body. The alimentary tract and the genito-urinary systems are supposedly not clearly differentiated (Bennett 1963:148). The stomach is considered to be simply a container for food which should not be over-filled. It is believed that too much food can make a person ill. "There is no understanding of a connection between eating, growth and development. Eating matooke makes a man healthy, because it is good food, and because a man is healthy, he is big and strong" (Rutihouser 1963:138). Indigenous agriculture is rain-fed, therefore irrigation and the watering of plants are traditionally unknown concepts.

Milk is not a traditional kiganda food. Goats and chickens are commonly kept, but goats' milk is not drunk. White ants and grasshoppers are considered delicacies and are caught in season, however it is also thought that children who eat white ants will get diarrhoea (Jelliffe and Bennett 1961:186). Sweet foods are considered especially for children including sweet bananas, matooke allowed to ripen to a yellow color, mangoes, pawpaw, and sugar cane, but only because children like them, not because they are considered good for children. Meat is considered bad for measles and chicken pox, though fish is not (Rutihouser 1963:144). Eggs are good for swelling or coughing, and soup made from an animal's stomach is good for pneumonia. Beans, bean soup, chicken, meat soup and milk are all thought to be good for illness of any sort, though Jelliffe and Bennett (1961:186) mention that beans are thought to cause diarrhoea in children.

After breastmilk, a child's first foods are tea with or without milk or sugar, maize porridge, matooke, pawpaw, and sweet bananas. At the age of eight or nine months, children might then be given beans, groundnuts, meat, fish and eggs. Writing nearly 30 years ago, Rutihouser states that traditionally the Baganda recognize no connection between nutrition, growth and illness, and that the latter is believed to be something that is "cured on the spot by injections or incantations, and not by food, given over a long period" (1963:146).

4. Interpretation of childhood diarrhoeal diseases

Traditional Kiganda beliefs about disease causation and treatments, including indigenous language illness names, were described more than 25 years ago by Bennett (1963), Bennett et al (1964) and Rutihouser (1963), and more recently by Namboze (1983). Descriptions of cultural beliefs about diarrhoeal diseases in Uganda among a variety of ethnic groups have been reviewed by Bwengye (1989), Kasozi (1989), and Lwanga and Mukisa (1989). The latter pair of researchers identified cultural beliefs associated with childhood diarrhoea by interviewing 391 people in 16 districts representing all cultural groups in Uganda. Their sample included 204 mothers of children under five, 85 THs, 51 elders, and 51 religious leaders. Detailed data about traditional management of diarrhoeal diseases was collected by

Anokbonggo and his colleagues (1990) from a sample of 292 THs in five districts who were asked about the causes and treatments of diarrhoeal diseases.

The symptom of "loose stools" is known as embiro or ekidukano in Luganda, kidhukano or munararo in Lusoga, and kuturuka in Lutooro. Other types of diarrhoea-related illnesses, discussed in detail by Lwanga and Mukisa (1989) and Kasozi (1989), and reviewed in Section IV of this report include:

- * obusobe (known as "behavioral diarrhoea" in Buganda and characterized by diarrhoea and vomiting);
- * ebinyo or "false teeth" (which affects very young children in many parts of Uganda, and is also characterized by diarrhoea and vomiting);
- * various forms of malnutrition of which diarrhoea is often a symptom known as obwosi or eryosi, ekireego, omusana, empewo, and obusoro;
- * oburo or "millet disease" known primarily among the Batooro;
- * ekikubuuko (a Kiganda term meaning abdominal swelling, or indigestion and diarrhoea caused by "interwoven intestines");
- * ekigalanga (a Kiganda term to describe a condition in children characterized by cold feet, diarrhoea, abdominal pain and anorexia and thought to be due to an ancestral spirit);

Measles-associated diarrhoea (or omulangira among the Baganda) presents a special situation, described in detail in section IV. Diarrhoea is desirable in children with measles since it helps to 'force the measles out of the child' which is necessary to survive the illness.

Traditional healers commonly use invasive treatments for ebinyo, oburo, and ekikubuuko. A diagnosis of ebinyo often results in extraction of a tooth bud (see Section IV F 1), oburo results in the removal of a nodule of fat from the child's breast, and ekikubuuko involves "cutting out" the swelling. Herbal remedies are generally used for other diarrhoea-related illnesses and the objective of treatment is to stop the diarrhoea.

Survey questions about causes of "diarrhoea" generally elicit information such as was collected by Anokbonggo and his colleagues (1990). Their study questioned healers about "what they thought were the causes of the diarrhoeal diseases they treated" without attempting to identify different types of diarrhea and their associated causes. Since the study was being conducted by researchers from the medical school, the healers' responses to this question were predictably oriented towards biomedical explanations: 51 percent mentioned unclean or improper foods, 40 percent mentioned unclean water, 30 percent said poor sanitation, 26 percent said worms, 18 percent gave no response, and 13 percent attributed

diarrheal problems to "false teeth", "ancestral wrath", evil spirits and bewitching. Other responses included complications of other diseases such as measles, poor breast hygiene, poisoning, and food allergies. Reference is made by the authors to the importance of "spirit inspiration...in the thinking of both the healers and the patients". The fact that their data reveal such a small percentage of healers mentioning "cultural explanations" is probably due to the healers' desire to please the biomedical researchers, rather than to a loss of faith in traditional cultural explanations for the illnesses. It might also be simply an accurate response to questions about uncomplicated or acute conditions as opposed to chronic conditions with additional complicating symptoms.

Use of pit-latrines is forbidden to women who have never delivered (they might become barren) and to women who are pregnant (the baby might be delivered into the latrine). Violation of these taboos can cause diarrhoea (Kasozi 1989:4). "Milestones" are often mentioned as a cause of simple diarrhoea and refer to events in a child's life such as sitting, crawling, teething, and walking.

Anokbonggo states that diarrheal diseases are usually handled by pure herbalists and spiritualists. His respondents claim to use only herb/plant treatments administered orally for diarrheal diseases. "Water is generally used as the vehicle for antidiarrhoeal herbal materials" (Anokbonggo 1990:360), however, 69 percent of healers say they give 100 ml or less per day for children. Only three percent gave 500 ml or more per day to children. Methods of preparation include collection of fresh plant materials followed by extraction in boiling water (64 percent), extraction in cold water (20 percent), drying and pounding into powders which are then mixed with hot or cold water (12 percent), and miscellaneous (six percent). The last category included mixing the extracts with a variety of different substances (raw eggs, clay, salt, milk, porridge, milky fluids from tree trunks). In addition to herbal medicines, the treatment for the culture-specific illness known as ekigalanga includes inhalation of medicated smoke, and a charm (olukisa) tied around the waist.

Over 250 plants were mentioned as having therapeutic value in treatment of diarrhoeal diseases by respondents interviewed by Anokbonggo's team (1990:360), although only 19 were mentioned frequently (percentage of respondents mentioning these 19 plants was not given). Leaves, roots and barks are used most often, seldom fruits or flowers. About half the healers use a single plant in treatments, and half combine two or more types of plants. Eighty percent of the respondents denied the existence of side effects or adverse reactions to their herbal remedies. Side effects mentioned by small numbers of healers included constipation, excessive sweating, generalised weakness, itching, vomiting, dizziness, and gastrointestinal hypermotility (pre-publication version of Anokbonggo et al 1990:15). Healers said they used other herbs to counteract the side effects of the antidiarrhoeal treatments.

In many areas of Uganda, there is a tradition of increasing liquid intake and maintaining feeding for children with diarrhoea (UNICEF 1989:37). Consistent with this tradition, the majority of healers prescribed fluids and foods during diarrhoea treatment - 68 percent of

healers prescribed water in addition to herbal treatment, 19 percent prescribed black tea, and 12 percent prescribed milk. Twelve percent advise taking over 500 ml per day of these supplemental fluids (Anokbonggo 1990:360). Seventy-four percent said there was no restriction on foods and an additional 13 percent specifically mentioned soft foods. Foods used or recommended during diarrhoeal episodes include porridges made from maize meal, rice or cassava, matooke or millet.

Sixty-eight percent of respondents stated that treatment for diarrhoeal diseases should not exceed three days. An additional 28 percent felt that diarrhoea should stop within a week. Episodes lasting longer should be treated by biomedical practitioners (Anokbonggo 1990:361).

C. CDD PROGRAMME ACTIVITIES WITH TRADITIONAL HEALERS

As of the early 1970s, there had been some efforts to study traditional medicines, and much talk about integrating traditional and modern medical care in Uganda, including having bonesetters work with orthopaedists, training TBAs in hygienic practices, and funding research projects on traditional therapies. Zeller felt there was "coexistence and complement without cooperation" (1979b:253).

Sanneh chronicles the interest of THs in meeting together to exchange ideas, in working with the Ministry of Health, and in learning more about Western medical treatments, while at the same time commenting that healers don't want to share their own secret treatment regimens with other healers - they primarily want to learn from "outsiders" (1990:31). Around half the THs interviewed said they would like to work with other healers (Sanneh 1990:33, 68), and they asked for more workshops and seminars with the CDD Programme. Healers interviewed by Sanneh also requested bicycles to facilitate their work. They want recognition from the government "so that they could have their drugs openly accepted into hospital wards and also be allowed to visit their patients in all wards in all hospitals" (p. 33). The healers complained that their stocks of ORS were finished and that they were not being resupplied (p. 40). Gaining recognition of and legitimacy for traditional medicine seems to be one of the motivating forces behind THs' interest in participating in training programs (Prins 1990a:1).

There have been instances of cooperation between traditional healers and biomedical practitioners. Sanneh reports that, in Kamuli, the District Health Educator has brought THs together for lectures on environmental sanitation and AIDS. As part of the South West Uganda Integrated Health and Water Project, Bwengye and his colleagues hold dialogues with parents, health workers and traditional healers to discuss diarrhoeal diseases and their treatments, both traditional and modern, and the role of dehydration (Bwengye 1989:6). At Masaka Hospital since September 1990, the medical superintendent has initiated collaboration

with THs involving group discussions with health workers, and joint community health education activities including immunization campaigns (Bukenya 1991).

The CDD Programme first became involved with traditional healers as a result of Prof. Anokbonggo's study which revealed that 42 percent of their caseload consists of adult and pediatric diarrhoea episodes (Anokbonggo et al 1990:359). As is the case in most African nations, government-sponsored MCH activities in Uganda reach a minority of the population (about 30 percent). Thus, a majority of diarrhoea cases are treated by THs using traditional methods of case management.

In an effort to increase knowledge of ORT among traditional practitioners, the CDD Programme included THs and health workers in one-day ORT workshops held during 1989 and 1990 in most districts of Uganda. After learning how to prepare SSS, most healers adapted the formula in practice according to their own internally logical systems of thought (Prins 1990a:2,8) which are, at this point, not well-understood. The changes to the formula were not predictable: some healers increased or decreased quantities of sugar, salt, and water, and/or added herbs to the solution, and/or changed the quantities or manner of administration. Amount of fluid suggested ranged from 1 teaspoon taken 3 times per day, to 2 teaspoons after each stool. Some healers were reluctant to include salt in SSS (Prins 1990b:5,8). The healers seemed to focus on the need to boil water especially in the preparation of ORS or SSS. During informal interviews with healers after the orientation sessions, each one mentioned the need to boil water after the addition of the ingredients to the measured amount of water (Prins 1990b:6).

Prins' informal discussions with THs revealed that most of them knew ORS was for "treating" diarrhoea, several said it was for "preventing" diarrhoea and vomiting, some said it was for "stopping" diarrhoea, a few said it was for "giving strength" but not for stopping the diarrhoea, and some said it was first aid to be given while waiting for real treatment (Prins 1990b:4). The healers were also given supplies of 50 packets each, but not resupplied. The healers feel they should have access to a reliable supply of packets, because it gives them "greater authority and legitimacy both in the eyes of the population and of the 'orthodox' medical establishment" (Prins 1990a:1).

The CDD Programme feels that an improved working relationship must be developed with THs around the issues of diarrhoea management in children. Specifically, the Programme wants to include THs in ORT workshops (or PHC workshops) so that the healers feel their therapeutic effectiveness is increased by such participation.

The CDD Programme would like to revise its curriculum for TH workshops in such a way that the healers' could incorporate ORT into their existing treatment strategies without disruption of traditional non-invasive behaviors, such as herbal teas and rituals. In order to accomplish this goal, it is necessary to understand in more detail how the symptom of diarrhoea is understood in traditional Ugandan cultures, and how various childhood illnesses in general are traditionally treated. The challenge for the CDD Programme in developing

such a curriculum lies in communicating to healers and mothers the function and purpose of ORT - specifically, its ability to prevent dehydration rather than its erroneously perceived ability to stop diarrhoea. ORT is not a medicine to cure (ie, stop) diarrhoea, but rather a treatment designed to prevent dehydration. Research evidence suggests that people fail to continue using ORT because it does not stop diarrhoea and they don't understand what it is supposed to do (Herman 1988). On-going research in Kiyeyi with cereal-based ORT may eventually provide an additional therapeutic strategy which healers will want to incorporate into their treatment regimens, since this type of ORT is more likely to reduce stool volume.

III. METHODOLOGY

A. GEOGRAPHICAL AREA OF THE STUDY

Iganga, Kabarole and Mpigi were selected to represent three of the main language groups in Uganda. Although the research team would have preferred to sample the entire country, constraints on time and resources dictated that the study be limited to three districts so as to attain some measure of cultural variety in a short space of time. Within each chosen district, in consultation with DMOs and other officials, one county was chosen in which officials felt there would be many THs and a minimum of urban influence. Within each county, eight parishes were chosen randomly as research sites:

Iganga: Bukoli County (Bulidha, Buwunga, Buswale, Muterere, Buluguyi, Iwemba, Kasita, Namasere parishes).

Characteristics: 6 counties
39 sub-counties + 2 town councils
250 parishes
900,000 population (estimated 1990)
majority ethnic group/language: Basoga

Kabarole: Bunyangabo County (Rwimi, Kibiito, Kabaale, Kabonera, Rubona, Lyamambwa, Kiboota, Rwensenene parishes).

Characteristics: 6 counties
33 sub-counties
150 parishes
630,674 population (estimated 1990)
ethnic groups/languages: Banyankole, Batooro, Bakiga,
Banyoro, Bahima

Mpigi: Gomba County (Kanziira, Kiriri, Kawaala, Ntalagi, Matongo, Lugaaga, Nsambwe, Koome parishes).

Characteristics: 5 counties
32 sub-counties + 1 municipality + 1 town council
247 parishes
825,464 population (estimated 1990)
majority ethnic group/language: Baganda

B. SAMPLING

The rationale for sampling decisions begins with the choice of districts. Due to time and financial constraints, the study did not strive for a national sample encompassing all ethnic

groups, all regions, or the entire range of variation of traditional medicine in Uganda. Neither is this simply a pilot study, limited to one district and one ethnic group. The research team wanted to be able to achieve a modest range of variation while keeping costs low and time short. Groups from northern Uganda were not sampled, although Arua district would have been a good research location in addition to the ones chosen. Security problems in the northeast rule out research there. The CDD programme conducted ORT workshops in Arua in September which included THs along with other HWs, and an early version of the long form was tested there with 47 healers. So the programme does have available to it some data on traditional healers in that district.

The three chosen districts represent East, Central and Western Uganda, and three ethnic groups - Basoga, Baganda, and Batooro. The Baganda are the majority ethnic group in Uganda, about which much has been written during the past 40 years. Since the focus is on traditional behaviors, the research team wanted to work in areas that are not so heavily influenced by multi-ethnic urban settings, and in areas that tend to be more ethnically homogeneous. The ethnic and linguistic abilities of the principal investigators and interviewers were also taken into consideration.

Once districts had been chosen, considering ethnicity, homogeneity, security, and location, the next decision involved choosing a county within the district. Cluster sampling technique could have been used to choose a selection of parishes within the entire district, however, the logistic challenges of reaching all the parishes within a short period of time, and in the rainy season, suggested a more modest approach. Within each district, decisions were made based on similar criteria used to choose the district itself. Within Kabarole, for example, there are several ethnic groups: Batooro, Banyankole, Bakiga, Banyoro, Bahima. The research team wanted to work in only one county, and to minimize travel times, so the county needed to be relatively homogenous. Lutooro-speaking Bunyangabo County was the choice, and one of the three interviewers for that county currently works there as a health educator.

In Mpigi, Gomba County was chosen as one which is free of major urban influences and is reputed to have many traditional healers. The choice of Bukoli County in Iganga was made according to similar criteria.

In deciding on the number of focus groups (FGs) to conduct, the researchers identified four categories of people from whom to collect data: THs, mothers, community leaders, and health workers. These four groups provide four different and equally important perspectives on the topic of interest. It was determined that two groups in each category within each district would give enough information on traditional treatments of childhood diseases to be able to compare and contrast the data. Between the three districts we have six FGs with representatives of each of the four categories, for a total of 24 FGs. Since the topics traditional treatments for childhood illnesses - are similar across the groups, there should be sufficient information, according to Krueger (1988) and Morgan (1988), to provide some depth and breadth of understanding, and guidelines for designing a workshop curriculum.

Having decided on eight FGs per district (county), the next decision involved where to do the FGs and where to use the other questionnaires. Logistically, it was easier to operate in only eight parishes within each county (district). The short form list of all healers was compiled in each of the eight parishes in each district. From that list, four prominent THs were chosen to be interviewed in depth with the long form. Within each parish, three mothers were easily found who had a child under age five who had had diarrhoea within the previous two weeks.

Within the chosen counties, there are between 22 and 39 parishes, so eight were randomly chosen in each county. Statistically, generalizations can only be made for that particular county. However, one can also compare and contrast the findings between the three districts, for a somewhat wider perspective. Again, this study is not intended to be nationally comprehensive or representative. The proposal to work in three districts rather than intensively in one district represents an attempt to include some range of variation and ethnic diversity in the research design and allow the researchers to compare results and look for differences. Statistically sound generalizations cannot be made for all of Uganda based on this research, but more accurate educated guesses can now be made based on the available information.

C. TYPES OF DATA COLLECTED

1. Quantitative: characteristics of healers and of diarrhoeal episodes.

24 "short forms" - single-page lists of healers, one from each of the eight parishes chosen in each of the three districts (24 parishes covered). Includes basic sociodemographic data on 365 healers from three language groups.

96 "long forms" - interviews with influential or well-known healers including data on socio-demographic characteristics, training, interest in workshops and topics, and the main diseases they treat.

71 case histories of children who had a diarrhoeal episode during the 2 weeks prior to the interview in an attempt to quantify actual management of episodes by mothers.

2. Qualitative: descriptions of traditional management of childhood illnesses.

24 sets of focus group discussion fieldnotes and cassette transcripts (eight from each of three districts; of each set of eight, two are with THs, two with mothers of children under five, two with community leaders, and two with health workers).

symptoms, causes, treatments of three diseases of which diarrhoea may be one symptom, mentioned by prominent THs during interviews with the long form.

3. Methodology of focus group discussions

Researchers were assisted by the RC system, and MOH officials to identify and convene participants for focus group discussions. Logistics of organizing these discussions tended to be complex, with a fair amount of time lost to waiting and collecting people. Discussions for the most part were held in whichever language was most comfortable for the participants (Luganda, Lutooro or Lusoga). Because they were held in rural areas, all the participants in each group knew each other. Assembling participants with the help of guides generally took longer than anticipated. THs were somewhat difficult to gather together. Mothers tended to come in larger numbers than was ideal for focus group discussions. At times, impromptu health talks were held with groups of mothers who arrived after a focus group had started, to avoid the problem of too large a group for discussion. This way, all mothers who took the time to attend the meeting, were able to participate in some way as a group discussing some topic.

Discussions were held in a semi-circle with the moderator and assistant moderator facing everyone, and the cassette tape recorder in the center. Initially, some participants were nervous about the recorder, but after an explanation of the need to assist memory, people tended to forget about it. In some cases, people wanted to hear themselves on the tape after the discussion ended. In almost all cases, the recorders worked very well and the sound was quite clear.

Prior to each discussion, the moderator introduced the research team, asked the participants to introduce themselves, assured the group of confidentiality, explained the purpose of the tape recorder, reminded people to speak one at a time and audibly, and discussed the purpose of the research. There tended to be some coming and going during the discussion, but it did not seem to be unduly disruptive to the flow of conversation.

Groups of mothers tended to be younger married women. Community leader groups tended to be older men. TH groups and HW groups were more evenly mixed by gender, but THs tended to be older and HWs tended to be younger. Drinks and snacks were served after the discussion in most cases. Discussions tended to last around an hour.

D. TIMETABLE

Planning: 10 September - 28 October

Pretesting questionnaires: 20-30 September

Training: 29 October - 2 November

Production of materials: for training 22-26 October

for fieldwork 29 October - 2 November

Acquisition/logistics: 10 September until 2 November

Fieldwork: 7-27 November

Data entry and analysis: 28 November - 30 December (additional data was

input in February 1991 and June/July 1991)

Draft report: January 1991

Final report: August 1991

E. DATA MANAGEMENT

1. Quantitative data

Sets of short and long forms and case histories were collected daily by supervisors and reviewed for completeness with interviewers in the evenings. All data were kept in a designated room at the CDD Programme Office in Entebbe. The three survey instruments (minus the long forms' illness descriptions which were entered into Notebook DBM) were analyzed with Epi Info (a statistical package developed by WHO and Centers for Disease Control (CDC), Atlanta, USA.). The programme was installed on the CDD Programme's computer, located for the study in UNEPI's offices in order to benefit from their generator during power failures.

2. Qualitative data

Field notes hand-written by the FG recorders were typed by district-level secretaries as soon as possible after the discussion to minimize lack of recall. Typed notes were collected by the supervisors. Cassette tapes were transcribed in the field by the secretaries. Computerized data entry of descriptions of illnesses was facilitated by the textual data base manager Notebook II Plus (Scrimshaw and Hurtado 1987:10). The units of analysis for these data are the local language disease terms. Fields consist of textual information taken from the fieldnotes and transcripts organized under field names such as symptoms, causes, treatments and associated rituals. Additional fields include nearest English equivalent translation, language of disease name, district, county, and parish in which collected, questionnaire type and number (FG, long form, other), and an annotation field for miscellaneous information. Notebook II Plus is an especially powerful DBM for accessing and organizing unlimited text such as was generated by the fieldnotes, transcripts, and illness descriptions provided by prominent THs. The database also contains information on diseases taken from existing published data on childhood diseases in Uganda, for comparative purposes.

Data entry was done by the three supervisors (J.S. Lwanga, W.W. Lwanga and C.K. Mugerwa), one of the field coordinators (J.B. Kasozi), and one of the technical assistants (J. Hogle). A draft report was prepared by mid-January 1991 and circulated to interested parties.

IV. RESULTS

A. NUMBERS AND CHARACTERISTICS OF HEALERS

1. Healer to population ratio (short form): Basic sociodemographic data was collected on 365 healers from 24 parishes in three districts, for an average of 15 healers per parish. (See Annexes Section VII D for tables of results from the short form divided by district). The Iganga research team believes that their lists do not accurately reflect the true number of healers in those parishes due to suspicion on the part of the healers despite explanations and reassurances. Looking at just the Mpigi and Kabarole samples together yields an average of 18 healers per parish, which is closer to the original estimate of 20. So the average for the 24 parishes is probably somewhat low. Using estimated 1990 population figures, we calculate that the 8 parishes in Mpigi district have a healer-to-population ratio of about 1/253; in Iganga 1/533, and in Kabarole 1/196. For the 24 parishes together, a ratio of 1/287 suggests fewer healers than we had supposed. Nevertheless, using this figure and estimating total numbers for Uganda suggests a total of at least 63,000 healers in the country, although generalizing to the entire country from these three districts is statistically inappropriate.

2. Specialties (short form): The healers in this sample of 365 have been in practice for an average of 21 years. They are well-established in their professions and highly respected in their communities. Fifty-two percent of the sample are spiritualists, 33 percent are TBAs, 32 percent are pure herbalists, 21 percent are snakebite specialists and 14 percent are bonesetters. Most healers practice more than one specialty. Of the 345 healers for whom information was available, 80 percent claim to treat children, 39 percent belong to an association, and 87 percent (of the 286 healers for whom information was available) are interested in participating in a workshop for healers.

3. Socio-demographic characteristics (short form): The average age of the sample of 365 is 53, about 45 percent are female and 55 percent male. Thirty-eight percent of the sample are Batooro, probably reflecting the fact that there seemed to be the least amount of suspicion on the part of the healers in Kabarole. Also, the TBAs in Kabarole are very well organized and came forth enthusiastically to talk to the research team. Baganda were the next largest group (23 percent) followed by Basoga (12 percent). The rest of the sample consists of representatives of 16 other ethnic groups.

Use of the single page "short form" for compiling lists of healers in a parish proved to be a relatively simple way for finding out about traditional medical resources in a small administrative area. Most healers, but not all, were contacted directly by the researchers. Supervisors in Mpigi and Kabarole felt that their lists accurately reflected the number of healers in the parishes. By contacting healers, based on referrals from local administrative officials (RCs), and making efforts to check and add to lists by contacting as many people on the list as possible, an accurate picture of characteristics of healers in a parish can be obtained in a minimum amount of time.

4. District differences: The tables in Annex Section VII D reveal some differences between the districts. In Iganga, the gender ratio was 74 percent men to 26 percent women, probably due to the fact that the TBAs are not well organized and are hesitant to admit their activities to government representatives. Particularly in Kabarole, the TBAs are well-organized, have participated in TBA training, and are quite willing to talk to researchers. Iganga was also more ethnically mixed than the other two districts.

In Mpigi, only 13 percent of healers interviewed belonged to associations whereas in Kabarole and Iganga, the figures were around 50 percent. Again, many of those interviewed in Kabarole were TBAs and members of TBA associations. Though in Iganga, very few TBAs were counted, over half the healers were members of associations. There are several reasons why THs in Mpigi don't belong to associations. Some stated that joining the associations was too expensive because of membership fees, subscription fees, and income tax. Other problems with association leadership and financial management discouraged healers from joining. In addition, political and religious differences among the healers interfere with organizing efforts.

5. Specialties (long form): Among the sample of prominent THs (N=95), the most common types of healers include spiritualists (who generally also practice herbalism) and pure herbalists who do not involve the spirit realm in their diagnostic practices. TBAs are also quite numerous. Snake bite specialists and bonesetters are somewhat less common and definitely more selective in the conditions they treat. (See Annex Section VII E for more detail.) Data from the short and long forms show similar distributions of specialties in that over 50 percent of both samples are spiritualists. Herbalists are the next largest category, followed by TBAs and snakebite specialists.

Over 90 percent of the prominent THs interviewed said they treated children; about 7.4 percent said they treated "mostly adults" or only adults. Forty-five percent of the healers belong to associations. Of those who don't, 71 percent would like to join. Eighty-six percent stated they would be interested in participating in a workshop.

6. Socio-demographic data (long forms): During the process of collecting data for the short forms, administrative officials (RCs) and other local residents were asked about the most well-known traditional healers in their parishes. A convenience sample of 4 THs per parish were interviewed at length with the long form. Similarly to the short form data, healers in the long form sample are about 53 years old on the average, with 45 percent female and 55 percent male. Thirty-one percent are Batooro, 30 percent Baganda and 19 percent Basoga. The remaining 20 percent represent 10 other ethnic groups. Thirty-six percent of the interviewees said they are Catholic, 30 percent Protestant and 28 percent Muslim. Sixty-one percent are married and 34 percent are separated or widowed. The average number of children per healer is 6.3, and the average number of years of schooling is about three years. This group of healers has been practicing for an average of 25 years, and began practicing as a healer at age 27, on the average. The above data are summarized below. More detailed tables of long form results separated by district appear in Section VII E.

TABLE 1. Sociodemographic data on prominent THs (long form):

Average age	53 (21-102 range)
Men/women	55%/45%
Musoga	18%
Mutooro	30%
Muganda	29%
other ethnic group	21%
Catholic:	36%
Protestant:	31%
Muslim:	28%
Practices traditional religion:	51.3%
Married:	61%
Separated:	17%
Widowed:	17%
Average number of children:	6.3 (0-20 range)
Average number of years of schooling:	3 (0-13 range)
Average number of years in practice:	25 (less than 1-70 range)
Average age began practicing:	27 (7-53 range)

7. Acquisition of skills: Within this sample of 95 prominent THs, 33 percent stated they had acquired their skills from a grandparent, 29 percent from a parent, and 12 percent from another relative. Thus, about 74 percent of the sample learned healing from a family member. Eighteen percent stated they had acquired their skills from spirits and 17 percent said they "inherited" their skills. In Uganda, when the term "inherited" is used in this way it means that the apprentice was chosen by a deceased ancestor to inherit that ancestor's skills as a healer. A person can also be identified and recruited by a spirit who is not an ancestor. The spirit might cause the person to become ill. Repeated failures of treatments and the diagnosis of a spiritualist would indicate to the person that a spirit was trying to recruit that person to become a healer. Sometimes a person will become aware that an ancestor or other spirit is trying to convince him to become a healer through dreams, possession, or a recognized inability to concentrate or function in one's normal routine. Consultation with a TH might reveal that the phenomena experienced are the result of ancestors or spirits attempting to make their wishes known.

B. HEALERS' AND HEALTH WORKERS' INTEREST IN COLLABORATION

1. Benefits of collaboration: Focus group discussions with THs, CHWs, mothers and community leaders revealed a general feeling that establishing a dialogue between healers and biomedicine would open lines of communication that could result in better care for sick children. People mentioned that both THs and biomedical practitioners have the same goals - treating illness and relieving suffering. Their explanations and methods are simply different. Participants in the focus groups felt that the process of sitting together and sharing ideas and beliefs could result in improved communication and thus better care, since parents use both

systems concurrently. Health workers in one Mpigi focus group stated that seminars were needed in which both HWs and THs could participate, learn from each other, and discuss problems of both sides. Referral of patients between traditional and biomedicine requires first the initiation of communication and development of trust. If that kind of climate does not exist, then patients will not admit to having used traditional medicine, for example, when they visit a biomedical facility. During one focus group, the example was given that a nurse should know whether or not a patient has been given mululuza by a TH before she administers quinine for malaria.

2. Preferred workshop topics: Prominent THs interviewed with the long form were asked which topics they would like to hear about in a workshop. During interviewer training and pretesting the long form, interviewers reported some degree of respondent confusion when that question was asked. On the interview form, the question is accompanied by ideas for topics to provide as examples to respondents who might not understand the question. The examples included storing and preserving herbs, AIDS, immunization, ORT, ebinyo ("false teeth"), family planning, midwifery, malaria or other particular illnesses. So, to some extent, the responses probably reflect the suggestions of the interviewers. On the other hand, if a workshop curriculum were presented to healers for approval, their comments might resemble the list in Section VII E, page A-11. The popularity of storage, preservation and processing of herbal medicines is not surprising in the light of experiences in other African countries with healer workshops such as Ghana, for example (Hogle and Prins 1991; Warren 1986). The list also reflects the concerns of TBAs, the AIDS crisis, and the problems commonly affecting children in Uganda - infectious diseases, malaria, sanitation, and the "folk illness" called false teeth (ebinyo). The higher ranking of midwifery for the Kabarole group (see page A-10) reflects the higher percentage of TBAs represented in the group of prominent THs interviewed with the long form.

TABLE 2. Most commonly mentioned topics for workshops based on responses of prominent THs (N=95) and number of times mentioned:

storage/preservation/processing of herbal medicines	46
AIDS	31
midwifery	28
general improvement of diagnostics and care	26
false teeth	21
immunization	17
family planning	14
ORT/diarrhoeal diseases	10
malaria	9
children's diseases	8

Data from the long forms on commonly treated children's diseases suggest that healers are not yet seeing evidence of AIDS in children on a large scale. At least they are not yet able to identify AIDS in children. Nevertheless the above data suggest a high interest on the part of the healers in learning more about the disease.

C. HEALERS' MANAGEMENT OF CHILDHOOD ILLNESSES

1. Children's illnesses treated most often by prominent THs: Focus group moderators were asked to obtain detailed information from groups of mothers, THs, and community leaders on three of the most common childhood illnesses seen in the parish. All groups were initially asked to describe the most common illnesses seen in the area, then choose three to discuss in detail. The ones discussed in detail (and the number of times that illness was discussed) included the following:

TABLE 3. MOST COMMON CHILDHOOD ILLNESSES SEEN IN THE PARISH
(from focus group discussions with mothers, THs, and community leaders in 24 parishes):

diarrhoea	11
false teeth	8
measles	8
whooping cough	4
AIDS	4
diarrhoea and vomiting	4
worms	3
fever	3
tetanus	3
vomiting	2
enlarged spleen	2
cerebral malaria	2
malnutrition	2
hookworm	1
skin diseases	1
eye diseases	1
malaria	1

Similar results were obtained when prominent THs, interviewed with the long form, were asked to name the childhood illnesses they treat most often. Interviewers had lists of common disease names in indigenous languages and checked off the names of illnesses as the healer mentioned them. The wide variety of illnesses mentioned are listed in Section VII E and divided by language group (pages A-8 through A-10). These lists are ranked according to frequency of

mention by healers and include indigenous names and approximate English translations. Translations into English are sometimes problematic or impossible.

Simple diarrhoea was mentioned most often in all 3 districts. In the absence of biomedical diagnostic facilities, interpretations of the meaning of symptoms often means that symptom complexes are categorized in different ways within different cultures. As is evident in the list below, diarrhoea-related problems are commonly treated by THs (as Prof. Anokbonggo's 1990 study also showed). Preventable contagious diseases and respiratory ailments are also commonly treated. A wide variety of illnesses associated with malnutrition often have several names in indigenous languages depending on the severity. Abdominal swelling and nonspecific gut pain may or may not be associated with malnutrition, but there seem to be a number of indigenous illness terms in the three languages which refer to various aspects of those symptoms.

From the three long lists of common illnesses seen, categorizations were made and references to various illnesses were counted within categories to produce the following table:

TABLE 4. ENGLISH TRANSLATIONS OF COMMON CHILDHOOD ILLNESSES TREATED BY PROMINENT THs, GROUPED BY SYMPTOM COMPLEXES AND NUMBER OF TIMES MENTIONED (long forms):

diarrhoea with additional complications	226
/blood/pus/vomiting/fever/prolapsed rectum/obusobe/false teeth	
contagious diseases	194
/measles/mumps/diphtheria/polio/tetanus/chicken pox/whooping cough	
simple diarrhoea	166
/teething/sitting/crawling/eating new or taboo food	
malnutrition and associated illnesses/weaning/jaundice	135
respiratory ailments	133
/coughs/colds/flu/TB/asthma/pneumonia/tonsillitis	
fevers/malaria/cerebral malaria	114
worms:/hook/tape/round/ring	89
swollen abdomen/stomach/ascites/enlarged spleen/gut pain	75

2. The role of THs in treating diarrhoeal diseases: It is known that diarrhoeal diseases make up a large part of the caseload of THs' patients. This study contacted a convenience sample of 71 mothers of children under five who had had or were having an episode of diarrhoea, in an effort to find out where the THs fit in the overall pattern of health seeking behavior during actual illness episodes. Not surprisingly, it was found that in 70 percent of cases, traditional medicine was administered to the child. Traditional healers, however, were the reported source of the medicine in only 21 percent of those cases who received traditional medicine. Fifty-four percent of mothers who gave traditional medicine obtained it from around the house or from the nearby bush or forest, and 25 percent obtained it from someone else (not a TH). This distinction between traditional healers and traditional medicine is important. Many mothers are apparently administering traditional medicine to their children without the advice of the THs on

dosage and administration (similar to the use of over-the-counter medicines in other parts of the world). From the case histories, it appears that mothers use their own personal resources to treat their children's illness, then consult THs or biomedical resources if the problem continues (cf. UNICEF 1989:51).

3. Concurrent use of THs and biomedical services: It was noted above that 70 percent of cases received traditional medicine during the diarrhoeal episode. At the same time, 68 percent of cases were taken to a dispensary, private clinic, health center, drug shop, hospital or health worker during the illness episode. (This represents a non-random convenience sample, therefore utilization rates may be biased.) Therefore, confirming previous research, both traditional and biomedical sectors are being consulted either sequentially or concurrently for the same illness. In focus group discussions, participants often repeated that sick children are usually first taken to THs before health centers, and are often being treated by both systems simultaneously. Particularly when the illness is perceived to be a "culturally-based" rather than a biomedically-defined illness, parents take their children first to their local TH. Mothers and community leaders say that traditional medicine is less expensive because healers are there in the village, implying that they seek their advice when needed. Traditional medicine is often free because herbs are collected by the mothers on the advice of neighbors, friends or family. Healers' advice is often free if the healer has an ongoing relationship with the family. Healers can charge fees if their patients are strangers, and complicated treatments for chronic problems or potentially life-threatening problems can be quite expensive. Biomedical care can require travel with attending increases in time spent seeking care, and costs associated with the actual medical care as well as the travel.

4. Tetanus and traditional healers: Focus group participants were asked if they thought THs could help in dealing with tetanus in children. In addition, three Iganga THs mentioned that they saw many cases of tetanus among their patients. The data from responses to questions about tetanus reveals misinformation about the method of transmission of the disease, and how to prevent the disease, and suggests that THs, particularly TBAs, could play a major role in educating mothers about the need for vaccination to prevent tetanus in their children.

UTHS data reveal that many people confuse tetanus with meningitis and cerebral malaria since convulsions (or "fits") can accompany all three conditions. In Luganda the term mulalama is used to refer to both tetanus and meningitis. One Kabarole focus group of community leaders (RCs and elders) said they did not know about the disease and should be educated about it. A group of health workers also said that many THs often don't recognize the disease as being tetanus. Because of the convulsions, they call it mayembe and say that the symptoms are due to witchcraft since affliction with mayembe manifests itself through convulsions. Others interpret the symptoms as eyabwe or cerebral malaria. Others said some healers understand the disease but had no effective herbs for it, nor did they know the cause.

The most common symptoms described included spasms and stiffness, particularly of the neck. Additional symptoms mentioned were child cries a lot, high fever, refuses feeds, wheezing, folding arms and legs, sweats, sensitivity, and lock jaw. The most common causes mentioned

were spirits or wind that enters through the cord or through cuts, germs, and "from the mother". The germ can enter through the "unclosed stump", or through the anterior fontanelle. Other causes were "poor bedding", wounds improperly treated, and cutting the cord with a dirty razor. One group of community leaders said that the disease is transmitted from mother to baby among "mothers who do not go to health units during pregnancy for medical examination and antenatal care".

The three Iganga healers described herbal treatments and special foods to take during the illness. One group of mothers said that to prevent the disease, one could bathe in certain herbs prior to delivery, or bathe the newborn in herbs afterwards. They added that a successful treatment by THs depends on bringing the baby in early in the course of the illness. One treatment mentioned by THs in Mpigi involves "steaming and applying a red hot sharp instrument on the neck" to relieve the stiffness. A group of Iganga community leaders said "THs cannot treat this disease, unless they are assisted to do research on their herbs...THs cannot manage this disease and they always think that it is the spirits of the grandparents. There may be treatment but they have not yet found the medicine". Health workers felt that if THs could be taught to sterilize their instruments and repair lacerations properly, the incidence of tetanus could be reduced.

A focus group of mothers in Mpigi said they thought women and children were supposed to get immunized to prevent the disease. They also stated they were puzzled when one woman "delivered from the hospital but came home and after one day the baby got tetanus; so they don't know where the baby got the sickness from, since they were told that it's delivering from the village that causes it." Another group of mothers in Mpigi said they don't know much about the disease..."some say that if the child is born in a dirty place and the umbilical cord is cut with a dirty razor the child will get the disease; if you are not immunized when you are pregnant, you can transmit it to the child".

The biomedically-defined disease, tetanus, is thus not clearly identified traditionally since its symptoms are similar to other illnesses, some of which (mayembe and eyabwe, for example) are culturally defined and attributed to spiritual intervention. Some people have been told (or at least have interpreted what they were told) that the babies of women who get antenatal care and/or who delivery in health units will not get tetanus. Some people believe that poorly-treated wounds will cause a person to get tetanus. There are some elements of biomedically-based beliefs combined with traditional beliefs that influence people's behavior in regard to management of tetanus.

5. Whooping cough (pertussis): Unlike tetanus, whooping cough has a characteristic symptom unlike any other illness and thus has unique indigenous names. In Iganga it is called akakaika, ranked fourth in frequency of mention by prominent THs as a common illness in their area, and was described in focus group discussions and by THs in intensive interviews. In Kabarole, it is known as enkorro yakatera, ranked fifth in frequency of mention, and was described by three prominent THs. In Mpigi, it was not mentioned as a common illness seen by THs, and was only mentioned once in passing during a focus group discussion with mothers.

The most commonly mentioned symptoms were a persistent cough with a whooping sound and vomiting. Other symptoms mentioned by one or two respondents included swollen eyes, red eyes, high fever, generalised oedema, air in the abdominal cavity, lungs not functioning well, runny nose, wheezing, thinness, weakness, "deep" eyes, and refusal to eat.

Although many different causes were described, the most common explanation was that it follows other illnesses or conditions like fever, measles, chicken pox or influenza. Other causes listed were sleeping under "bad" conditions, wind, lack of fresh air, dust, eating uncooked food, chest pain, sores in chest, continuous fever, "bad blood" from the mother, sharing food with a patient, sharing a cigarette with a patient, uncleanliness, dirty water, worms, or simply that it is a contagious disease and airborne. One respondent in a focus group discussion of Iganga community leaders said that akakaika "usually affects children in the dry season when the wind blows the dust which goes into the nose and leads to cough". A group of mothers and a group of THs stated that whooping cough usually comes at the same time as measles.

A variety of herbal remedies were described by some THs for treating whooping cough. Most involved a mixture of several herbal substances and administration of a few spoonfuls several times a day to the child. Foods and drinks that should not be given to children with whooping cough include potatoes (because it increases the cough especially at night), roasted cassava, banana juice, sugar cane (because it irritates the throat), oranges, sweet potatoes, sweet bananas, or millet. Some THs said there were no restrictions or recommendations on foods or drinks. No particular preventive behaviors were described. At no point did anyone mention the possibility of vaccination against the disease.

D. DIARRHOEA: SIMPLE AND COMPLICATED

1. Categorizations of diarrhoeal diseases: Consistent with other research described elsewhere in this report, diarrhoeal illnesses and other illnesses of which diarrhoea may be a symptom are common and perceived as potentially serious in the three districts in which the UTHS was conducted. Embiro is a symptom - loose stools - that generally responds to herbal drinks designed to stop the diarrhoea. Detailed descriptions of traditional management of simple diarrhoea by prominent healers and participants in focus group discussions indicate that diarrhoea is considered simple when the condition is limited to frequent watery stools and weakness. Those two observations were the distinguishing features of the condition mentioned by almost everyone interviewed. One healer commented that children with simple diarrhoea could still play and eat, while with serious diarrhoea they became too weak.

Diarrhoea becomes serious if frequency, quantity and "wateriness" increase, or if other symptoms appear such as increased weakness, pale or whitish eyes, blood in the stool, fever, or vomiting. Other less frequently mentioned symptoms included eyes bouncing, drowsiness, increased heat in stomach, swollen fontanelle, stomach pain, child cries a lot, weight loss, dehydration, reddish lines in the eyes, and child does not respond to treatment. With the appearance of complicating additional symptoms, it may be necessary to seek supplemental

diagnostic help to determine the specific cause and the steps which must be taken to achieve a cure. It seems that as the symptom of diarrhoea (embiro) acquires additional symptoms or severity, the illness condition may then acquire a different name depending on the perceived cause of the problem.

The UTHS data verified that detailed descriptions of illness beliefs among the Baganda, based on research done over 25 years ago (Bennett 1963; Jelliffe and Bennett 1961; Rutishauser 1963), still accurately describe traditional disease categories, at least in Buganda. The most common children's illnesses in the three areas studied, as perceived by THs, leaders, mothers, and health workers, correspond to the most common illnesses reported in the literature (cf. UNICEF 1989:34-36), with a few exceptions. Ebinyo ranks high on the list of common illnesses in Iganga and Kabarole, having been mentioned specifically by name. In Mpigi, it ranks much lower, although various kinds of diarrhoea remain quite common and high on the list (simple diarrhoea, behavioral diarrhoea or obusobe, dysentery, diarrhoea and vomiting). Conditions such as weaning, teething, crawling, sitting each have specific names and are considered to be illness-producing conditions in Mpigi. "Spirits" - the word seems to be used as an illness name, or perhaps short-hand as a cause of an illness - are commonly recognized in Kabarole and Mpigi, but much less so in Iganga, at least among the people interviewed for this study. Ekiganlanga, a condition apparently unique to Buganda, is common in Mpigi District, but not mentioned in the other two districts, although ekijoka (stomach pain) is common in Kabarole.

Other forms of traditional diseases of which diarrhoea may be a symptom, as identified in other publications, did not appear to be particularly salient or commonly recognized, to the UTHS respondents. For example, oburo appears to be an illness known only in Kabarole, and even there, it was not mentioned very frequently. Although kwashiorkor (obwosi) is common in Mpigi, marasmus (ekireego) is not. Ekikubuuko (enlarged spleen) is somewhat common in Mpigi but not mentioned by Kabarole or Iganga respondents.

2. Causes of diarrhoea: Long form illness description data (see page A-12) revealed that 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). Milestones were also mentioned frequently (sitting, crawling, teething, etc). People recognize that diarrhoea can also accompany other illnesses, mentioning fevers (including eyabwe - cerebral malaria), measles, ebinyo (false teeth), malnutrition, worms, and ekikubuuko (enlarged spleen). Many healers also mentioned that obusobe can be a cause of simple diarrhoea, although obusobe is considered to involve diarrhoea and vomiting which is usually not a kind of "simple diarrhoea". False teeth is also not a very simple illness, however, the inclusion of it as a major cause of diarrhoea suggests that conceptually, the diarrhoea might be viewed as a symptom that could or should receive special consideration in treatment.

3. Treatment objectives: The objective of diarrhoea treatments is to stop the diarrhoea (for example, some of the names of herbs contain the root for the word "stop"). A wide variety of

herbal ingredients were described by those respondents willing to provide detailed information. There were many who refused to reveal specific ingredients of their special treatments. This research did not attempt to uncover explanations about how each herb is supposed to work, or what exactly its effect on the body is supposed to be, other than the general objective of stopping diarrhoea. Long form data and case history data list multiple ingredients for most remedies. (See Annex E, page A-14, for lists of indigenous names of herbs used in treatments for simple diarrhoea).

4. Food/drink intake during episodes of simple diarrhoea: Review of the long form illness description data for simple diarrhoea, asked of most of the 95 prominent healers interviewed, reveals a wide range of foods and drinks recommended during diarrhoeal episodes (see Annex E, page A-13). The most commonly recommended items were matooke, milk, tea without milk, cassava, sweet bananas, irish potatoes, porridge and passion fruit. Foods/drinks commonly NOT recommended included sweet potatoes, millet, orange juice, banana juice, any sweet things, and greens (dodo).

E. CASE HISTORIES OF RECENT DIARRHOEAL EPISODES

Within each district, a convenience sample of 24 mothers of children under five whose child had experienced a diarrhoeal episode within the previous two weeks was interviewed about the episode. The objective was to identify the role of traditional healers in actual diarrhoeal episodes as perceived by the child's mother.

1. The sample: The average age of the sick children in our case history sample was 18 months. The average weaning age was 17 months (see Annex F, page A-15). This age of weaning and increased mobility is the age at which the highest rates of diarrhoea are seen in Ugandan children (UNICEF 1989:37). About 60 percent of the children in the sample are male.

2. Type of diarrhoea: In describing the diarrhoea, 45 percent of mothers said that it was "simple" diarrhoea, although 73 percent later said that fever accompanied the diarrhoea, and 44 percent said the child was also vomiting. Mothers did not mention traditional explanations for the diarrhoea (see page A-18). Understandably, mothers would not admit readily to obusobe as a cause of the diarrhoea, since that would reflect poorly on their behavior. False teeth was not mentioned often in this sample, however, data from other pieces of the research underscore the salience of this illness category in the minds of other respondents in this research. A full 22 percent of the mothers said they did not know what caused the diarrhoea, while 20 percent mentioned milestones and 22 percent mentioned measles - neither of which is a controversial cause.

3. Use of traditional medicine: Traditional medicine was given in 70 percent of cases, obtained primarily from around the house or the nearby bush or forest. Only 21 percent said they received the medicine from a TH, although it's possible the mothers did not feel comfortable admitting this to interviewers. Focus group data reinforces the popular belief that mothers

consult THs as a first resort when children are ill, after administering home-based treatments. The list of ingredients used in treatments by the mothers (page A-16) overlaps with what the THs told us, although the healers provided longer lists. When mothers were asked what medicines were given on the second day, 22 percent mentioned ORS, and 46 percent gave traditional medicine (page A-19). Again, mothers are using both traditional and biomedical treatments concurrently. On the third day, 56 percent of the children were reported to have improved. The average duration of finished episodes was 5.5 days, and diarrhoea was still continuing at the time of the interview in 36 percent of cases (page A-21).

4. Use of biomedical services: Sixty-eight percent of mothers told the interviewers they took their child to some kind of health facility during the episode. Considering the high percentages of accompanying symptoms of vomiting and fever, this is probably not surprising. However, again, the mothers may have been trying to impress the interviewer with information they thought was preferable.

5. Kinds of treatments given at health facilities to children with diarrhoea: Of those children who were taken to health facilities (68 percent of the 71 cases), 51 percent received an ORT sachet (page A-18). One child was given SSS. A full 55 percent of children taken to health facilities received some kind of tablets, injections or liquids, the names of which their mothers were unable to describe. Antimalarials were prescribed for 22 percent of the children, aspirin for 18 percent, antibiotics for 10 percent and antidiarrhoeals for 4 percent. Predictably, there is thus considerable concurrent use of traditional and biomedicine by mothers of children with diarrhoea within our sample - 70 percent of cases received traditional medicine and 68 percent were taken to some kind of biomedical health resource. Of those children who received medicine on the second day, 46 percent were given traditional medicine, 22 percent injections or tablets (type unknown), 22 percent were given ORS, 18 percent antimalarials, 16 percent aspirin, 12 percent antibiotics and 5 percent antidiarrhoeals.

6. Food and drinks taken during diarrhoeal episodes: Mothers were asked what foods and drinks the children took during their first two days of illness. Similarly to the long forms, mothers gave matooke, milk, breastmilk (38 percent), porridge, tea, cassava, beans, and water. 93 percent said the children seemed thirsty. Unfortunately, only 10 percent mentioned giving ORS (despite the fact that 68 percent went to health facilities), and 4 percent gave SSS. Foods eaten on the second day showed a similar pattern (page A-20).

F. CULTURE-SPECIFIC ILLNESSES ("CULTURAL BELIEFS")

Data for the illnesses described in the following sections come from focus group discussions and from illness descriptions provided by prominent THs during intensive interviews (long forms).

1. Obusobe: This illness is characterized by diarrhoea and vomiting (gastroenteritis), is reported to be quite common, and has been described in detail elsewhere (Bennett 1963:151; Bennett et al 1964:213; Kasozi 1989:2; Namboze 1983:2041). Obusobe "is a sanction against the omission of certain ceremonies which stress the husband-wife relationship and which make the parents

come together (even if they have been living apart) to affirm their relationship to the child...It is also a sanction against the committing of certain acts such as extramarital intercourse which might weaken the marriage...If a child develops diarrhoea then the parents will feel guilt or shame about their errors of commission or omission or anxiety about other people's interpretation of the disease" (Bennett et al 1964:217). It is sometimes referred to as 'behavioral diarrhoea' to distinguish it from other types of diarrhoea accompanied by vomiting (such as ebinyo).

The Kiganda word means "mistake", referring to the belief that the illness is caused by an adulterous parent or stranger having looked at or touched the child without taking any of the prescribed precautions. Obusobe can also occur if a roof of a home is repaired by someone other than the father, if a new house is built without conducting appropriate rituals, or by leaving a child's clothes outside where a stranger might touch them (Bennett 1963:151; Namboze 1983:2041). Obusobe is also believed to result from failure to observe certain rituals in connection with the birth of a child, occupation of a new house, or harvesting certain foods; weaning the child and sending it to live with a relative; general careless use of a child's clothes for something other than the intended purpose; throwing a child's feces into a pit latrine; adulterous behavior by one of the parents (Kasozi 1989:3); or shaving off all a child's hair before the father has seen it (Namboze 1983:2041). Another example of a "mistake" concerns edible grasshoppers which are not supposed to be consumed by either parent when they have not been caught by both of them. If a woman catches some alone, she brings them home alive and then releases one in front of her husband so he can catch it, thus making the collection ritually conjugal (Kasozi 1989:2; Namboze 1983:2041).

While obusobe is often mentioned as a cause of diarrhoea in a general discussion, it is seldom given as a reason for a particular case of diarrhoea, by a parent speaking to an interviewer. For example, during a 1962 study, a Makerere medical student questioned 59 people about their ideas on the causation of diarrhoea. Most said there was more than one factor involved, but 53 claimed that diarrhoea was the result of the child's contact with an adult in an unclean state after intercourse, or the parents' omission of "certain conjugal ceremonies" which had to be performed periodically to reinforce the marriage (Bennett 1964). When these same parents were asked what they thought was the cause of their own child's current case of diarrhoea, none mentioned obusobe. Most of the respondents said they didn't know and some of them said it was due to food. When UTHS interviewers asked mothers in the case history sample what they thought was causing their child's diarrhoea, only one of 71 said obusobe. The most common response was worms, followed by measles and milestones. Twenty-two percent of the sample said they didn't know (see page A-18).

According to the literature, symptoms are diarrhoea and vomiting "which may start with itching around the mouth and nose with consequent scratching...vomiting is often projectile...Some cases are mild but others progress rapidly to exhaustion and death...usually occur in children under five but can also be acquired in utero if any of the causes are operative" (Bennett et al 1964:213). Obusobe was described in detail by 18 prominent THs and during one focus group discussion of mothers, and matches the published descriptions. The most common symptoms

mentioned included diarrhoea, rubbing the nose constantly, vomiting, dry lips, chewing constantly, fever and weakness (in order of frequency). Additional symptoms mentioned by some respondents included heavy limbs, stiff joints, oedema, worms, brown hair, swollen stomach, thirst, tongue hangs out, cough, lethargy, sunken eyes, cold extremities and pale eyes.

The most common causes of obusobe described by UTHS respondents include adultery, 'new house' and 'grasshoppers', consistent with explanations already in print. Treatment requires a confession of the error by the guilty person and administering the proper herbal medicine, which is usually done at home by the parents. UTHS respondents described a variety of herbal preparations and specific conditions under which the treatments should be administered. For example, one Mpigi TH said to wash both parents' hands with kanyirikisi herb, put a newborn baby's cloth in the doorway and let people jump over it and remove it, and bathe the child with herbs in front of the house. Other healers mentioned tying an herb around the waist of the child and having both parents bathe the child together with the herb. Another healer said to bathe the child with mbidde and makitembe and put the remaining water under the bed for one day and then throw it over the house.

Dietary restrictions were few: fresh banana juice, sweet potatoes, tea if it has a lot of sugar, matooke, potatoes mentioned by a few respondents, but most said to give anything the child would eat or drink.

2. Ebinyo/false teeth: Ebinyo is one of the most frequently mentioned illnesses in Iganga and Kabarole (spelled ebiino). It was also identified in Mpigi but not as often. It is referred to as a "new" disease - one that is not indigenous to the culture. Some people say that it came from the north, originating in Sudan and coming south via West Nile, Acholi, Bunyoro and Toro (Kasozi 1989:1). Others say it was brought by foreigners, or it came from urban areas. Another recent article (Bwengye 1989:6) states that the false teeth belief first appeared in the 1970s and has since spread.

In 1966, a dental survey in four districts of Uganda revealed that 16 percent of an Acholi sample of 322 people showed "abnormal conditions related to the ritual extraction of the primary canines" (Pindborg 1969:383). This article does not mention the terms false teeth or ebinyo, but says that "none of the Acholis who had been subjected to extraction of the primary canines could give a reason for the custom. The explanation that follows comes from one of the auxiliaries on the survey team: when an infant of the Acholi tribe has a fever, the primary canines, especially the lower ones, are believed to be the source. To get rid of the fever the canines are removed" (p. 389). This study may be a reference to false teeth, although the symptoms of diarrhoea and vomiting are not mentioned. Participants in one Kabarole focus group said that some people thought false teeth came from Acholi.

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 are gum swelling, fever, cough, red eyes, pale skin, general weakness, crying, and refusal to breastfeed. Two healers said a child with ebinyo also has pneumonia, two others mentioned that the

diarrhoea is green, and another said a child also has tonsilitis. Bwengye (1989:6) mentions diarrhoea and fever convulsions as the primary symptoms, although convulsions were not mentioned by any THs or in any focus groups during the UTHS. During one focus group, someone said the child is constipated. The most frequently mentioned symptoms, however, are diarrhoea and vomiting. A 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.

Among Lusoga-speaking prominent THs, false teeth ranked fourth in frequency of mention as a commonly-treated children's illness. The ranking among Lutooro speakers was ninth, and among Luganda speakers, 16th. It is considered to be a very serious, potentially fatal disease. 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 diarrhoea dries the gums and makes the canine teeth inside more pronounced and pale, leading people to believe they are seeing a "false tooth". Another possible explanation is that the "false tooth" is actually a normal anatomic variant called a mucocele, but more investigation is needed on the subject. It's not always clear from respondents' descriptions whether diarrhoea causes false teeth or false teeth causes diarrhoea.

Other sources say that when false teeth develop in a child, they cause shock which frightens the child, resulting in diarrhoea, or that false teeth cause excess heat in the body and it is the heat which causes diarrhoea (Lwanga and Mukisa 1989:13-14).

Many respondents said the cause was unknown. Others mentioned witchcraft or dirtiness in the home. Some said the condition 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 some 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 anaesthesia. In Mpigi, one TH described using a safety pin to extract the tooth if it has already grown in. In Kabarole, after the extraction, the wounds are treated with akanyankamba, the juice of which is squeezed onto the wound. Some healers in Kabarole give injections after the extraction. In one Kabarole focus group of healers, a false teeth extractor

"gave an overall view of the disease in the parish. All other THs and TBAs believe in him and he concluded by quoting one health worker from Virika Hospital, who brought his child to him, whom he claimed to have treated and recovered. When we asked him

of the pain and the wounds, he said that he treats them with a local herb known as akakamya. He also wanted to talk of double colour tablets for some critical cases with high temperature which he said he refers to health units. And since the AIDS crisis he has improved his service by using...one extracting instrument per child for false teeth".

Another Kabarole treatment involves making cuts on the child's cheeks and then rubbing in a traditional herb, so that the false teeth inside disappear. Focus group participants said that with this kind of treatment false teeth does not attack the child again but with extraction the false teeth re-occur. Some respondents said false teeth only occur once in a child's life, while others said it can occur four times for a boy and three times for a girl. An Mpigi healer said that treatment depends on the "resistance of the binyo - some binyo keep on coming back even after local treatment". In Mpigi, one healer described making cuts in the chest, back and gum and then rubbing in medicine. He recommended a piece of girikiti if the child is vomiting.

Many herbal remedies in Uganda are both drunk and rubbed on a part of the body. One treatment described by a prominent TH in Iganga consists of kamira inyhuma grass, kanyhunyhura grass and leaves from the namuvu tree, pounded, boiled, and drunk by the child. Then, "leaves of the above herbs are put together in a clean cloth. A broken piece of water pot (lugyo) is heated in the fireplace then the clean cloth in which the herbs were placed is then placed on the hot pot and then the warm medicine is rubbed on the child's gum three times a day". Some herbs are mixed in ghee and then on the gums. Other Iganga herbal remedies include ndagha leaves, lukowe, and kasatira leaves. Kabarole herbal remedies include akanyunyambuzi, enyaburasana and cow ghee. Another Kabarole healer commented that the tooth should be extracted, herbal drinks should be given, and "if there is bleeding, send the child to the health unit". Another prominent Kabarole healer said to squeeze enswiga and akaynunyambuzi with three grains of millet for a girl or four for a boy and tie them in a piece of cloth and put it on the child's arm. During one Iganga focus group discussion with mothers, the group was asked which type of treatment they preferred: "they said rubbing is better, because the extraction may cause the new tooth not to develop".

A variation in treatment from two Kabarole healers was to "rub an herb in the gum when the false teeth is young; extract them if they are grown". Another Kabarole healer said the first treatment was to rub herbs on the gum. Then if that didn't work, extract the teeth. During a focus group discussion by community leaders in Mpigi, one participant commented that the extractors don't know what they are removing. This group preferred the rubbing treatment so that "at least the other teeth can grow".

There seems to be some degree of ambivalence among healers and parents about appropriate treatment. One Mpigi healer said that "false teeth is difficult to treat...some cut them...some extract them...some have medicine for it...others just rub medicine around the child's gum...some tie medicine around the child's neck. Others no longer extract because this may lead to the child not having his normal teeth grow again". The perceived seriousness of this illness, and the strong belief that the child might die if not treated appear to be the motivating

forces behind the willingness of parents to subject their infants to the terrible trauma of having a tooth not yet erupted, dug out of a tiny jaw.

The SW Uganda Integrated Health and Water Project in Mbarara is attempting to change beliefs and behaviors through discussions with parents, relatives and THs about the relationship between diarrhoea and dehydration, and the need to replace lost water with ORT. They point out that diarrhoea and vomiting existed long before the false teeth problem was identified. Health workers connected with that project recommend treating the gums with warm salty water applied with a clean cloth or cotton wool, which helps to minimize infection (Bwengye 1989:6). This approach was also described by HWs in Mpigi during a focus group discussion.

There was only one brief mention in the data about prevention of false teeth. A healer in Iganga said to tie lukowe around the neck and drop it on the head to avoid false teeth in the child.

3. Oburo/millet disease: Previously described by Lwanga and Mukisa (1989:15) and Kasozi (1989:1) as originating in the northern districts of Uganda, this illness was only described by two of the prominent healers interviewed in Kabarole District and mentioned during one focus group in Kabarole during the present study. Apparently common among the people of Tooro and Nyankole in southwestern Uganda, it is described by the authors above as being a type of diarrhoea. The two Batooro healers who described the problem to UTHS interviewers did not, however, mention diarrhoea as a symptom. Instead, they described difficult breathing, pain in the chest, rapid heartbeat, high temperature and swollen chest. During pretest interviews with prominent healers in Kampala, one stated that oburo was common in Runynoro and Rutoro, and that it involved diarrhoea, pneumonia and breathing problems.

Although the two Kabarole healers stated they did not know the cause, the Kampala respondent said that a fatty growth in the chest caused the symptoms, and that it might be due to "an extension of false teeth (ebinyo) or tonsillitis to the chest".

Treatments described by previous authors and also by the healers interviewed for this study involve extraction of droplets of blood and fat and/or of the "millet" using a new razor blade. One Kabarole healer mixes herbs called oruswiga and enyabarasana and squeezes them into the wound. The Kampala healer stated that many children die from punctured lungs due to this procedure and that in Buganda, cupping is the preferred treatment for oburo. Participants in the focus group discussion with health workers in Kabarole stated that mothers take their children first to the THs for the traditional treatment of millet disease, and then to health centers for treatment of the wound.

One Kabarole healer said he restricts any type of food for children with oburo but that it was good to give milk and passion fruit juice. The other respondent who described the disease said that rice, Irish potatoes, milk, passion fruits, and pineapples were good to eat during this illness, but that cassava, ripe bananas or "dry tea" (ie, without sugar or milk) should not be given.

One Kabarole focus group respondent said "oburo (millet), false teeth and diarrhoea always go hand in hand...when a child has false teeth or millet, it is always accompanied by diarrhoea...In addition, it was also said that when a child has millet he/she usually has pneumonia."

4. Ekikubuuko/akabengo/enlarged spleen: The term akabengo means something which is small but very hard and has been used to describe splenomegaly due to malaria (Bennett 1963:151). Ekikubuuko has no English equivalent but rather refers to a "bodily change which causes diarrhoea in children" and is considered by the Baganda to result from a mysterious swelling in the stomach. The Banyankole say that the intestines have become interwoven causing indigestion and diarrhoea (Lwanga and Mukisa 1989:15).

Ekikubuuko was not a commonly mentioned affliction during the UTHS study. Four prominent THs in Mpigi described it, and it was mentioned during two Mpigi focus groups with THs and one Iganga group of THs. Group discussions in Mpigi described yellowish stools containing "egg-like things", swelling on the left side of the stomach, difficulty breathing, coughing, shiny brownish hair, and a hardness and swelling on the left side of the abdomen. One Mpigi healer said that in boys, the hardness is "very tiny and difficult to detect", and the child has cold fingers and feet. In girls, it "occupies a larger portion and extends to the umbilical cord".

Intensive interviews with prominent Mpigi healers revealed fever as the dominant symptom, accompanied by abdominal swelling on the left side. Other symptoms mentioned included cold hands and feet, and the child eating soil. Some healers said they didn't know the cause of the illness. Others mentioned bewitchment, inheritance (runs in the family), poor feeding, or a high fever.

THs "cut out" the swelling to cure the problem. It is believed preventable by immunization with traditional herbs though the way immunization is done was not indicated in the literature (Lwanga and Mukisa 1989:16) or in the UTHS data. Among the Banankole, the treatment involves traditional medicine to "un-do" the intestines, but there are no preventive measures that can be taken. Focus group discussions in Mpigi yielded information that herbal preparations are drunk or used to bath the body. Cutting the affected area and rubbing in herbs first thing in the morning before eating is another treatment mentioned. One healer recommended giving de-worming medicine, and another Mpigi healer recommended giving herbs to induce diarrhoea - or "un-do" the intestines. One treatment consisted of mixing a type of unrefined salt (ekisula) with an herb (ekitonto) and then boiling it. Another Mpigi healer explained that for ekikubuuko, roots and herbs should be boiled and given once a week for two weeks to the child. This healer's preparation was supposed to cause diarrhoea with blood which would help in treating the enlarged spleen.

Most healers did not mention any restrictions on food or drinks during this illness. One healer said that children should have soft foods (matooke, rice, Irish potatoes and drinks), but not hard foods. Another recommended matooke, meat, milk, passion fruit, orange juice and banana juice.

G. OTHER ILLNESSES OF WHICH DIARRHOEA MAY BE A SYMPTOM

1. Measles: As one of the most deadly children's diseases in Uganda, measles and associated cultural beliefs have previously been described by Bennett (1963), Kasozi (1989), Namboze (1983), and Lwanga and Mukisa (1989). Among the Baganda and Basoga, measles is known as omulangira. The term means "prince" because it once afflicted a prince whose spirit is believed to cause the disease. The specific name of the disease is olukusense, but that name is never used for fear of spreading the disease by naming it (Bennett 1963:150; Namboze 1983:2042). The Batooro call measles orusera.

The reason measles causes diarrhea, according to Lwanga and Mukisa's respondents, is that measles causes heat in the body which "burns up" or "boils" the intestines, and also causes wounds and sores in them. Then the intestines become unable to digest and absorb the food properly. "Hence, (a) it comes out as diarrhoea (reported in Tororo) and (b) the child with measles is constipated (reported in Busoga) and when an herb is given to rectify the constipation, diarrhoea develops" (Lwanga and Mukisa 1961:16). Respondents from Tororo stated that "measles has eggs which are lodged up in the intestines...diarrhoea helps to get rid of the 'measles eggs'. Death occurs if these eggs are not washed out" (Lwanga and Mukisa 1961:16). Thus, it appears that diarrhoea is considered helpful in washing out the measles eggs, according to published ethnographic descriptions.

Bagisu, Banyankole, Basoga, and the multi-ethnic cultures of Tororo all say that children with measles and diarrhoea should be taken to the hospital. Basoga use local herbs to "force measles out of the affected child. This method is also used by Baganda who in addition give soup of a high-protein fish locally known as 'nkejje'. A skin rash indicates that measles has come out" (Lwanga and Mukisa 1989:17).

In all three districts where the UTHS interviewed, descriptions of the symptoms of measles were similar. The most frequently mentioned symptoms were fever, diarrhoea (often offensive-smelling), red eyes, skin rash, and cough. Other symptoms mentioned less often included redness and sores in the mouth, vomiting, difficulty in breathing and tightness in the chest, pale skin, decreased appetite, general weakness, runny nose, constipation, headache, restlessness, and irritability. One Kabarole TH said that if a child with measles has constipation and does not soon have diarrhoea, "his chances of dying are high." Thus, measles is viewed as a potentially fatal disease and diarrhoea apparently has a role to play in helping to avert a fatality.

Many respondents said they did not know the cause of the disease. Many others mentioned that measles is airborne, brought by the wind and is contagious. During one Iganga group discussion, a mother said the illness is caused by "wind from spirits rather than from the moving wind". Another respondent said that measles is "due to air when the wind blows, the child gets the disease, because spirits move within the air. Maybe when the whites developed bombs and these contaminated the air, and so the disease moves in the air." Another healer commented that "if omulangira [the prince] calls and you answer, he enters."

Other respondents mentioned environmental/sanitation factors such as dirty environment, flies, mosquitos, bad water, bad feeding, dirty food, untidiness in the home, not covering the child at night, "dirty mother", dust and malnutrition. An Iganga TH said "ignorance leads to poor housing and very poor ventilation, bedding is very poor; dirty homes are the cause." He added that lack of looking after children properly and treating them when they are sick can lead to measles, and that spirits bring it. "Mother's bad breast milk leads to vomiting and diarrhoea, and this leads to measles." Others mentioned fever as a cause of measles. Another TH said that measles is caused by "lack of toilets whereby the wind blows from the feces to the child - that bad wind from the feces brings measles." Although not mentioned in other districts, witchcraft was specifically stated not to cause measles among the Batooro.

Published descriptions of traditional measles treatments (Bennett 1963:150; Namboze 1983:2042) include the need to keep a child indoors out of the sunlight, and to bathe the child in cold water. The skin should be rubbed down with plantain stem sponges. The child should be kept in bed "and covered with olweza (*Aeroa lunata*) and ebombo (*Momordica foetida*) which indicate that he is carrying the prince." Fireplace ash can be prepared in a paste and applied to the skin to reduce itching.

Salt and meat are forbidden to a child with measles in order to avoid retaining the rash in the body. Purgatives and other herbal preparations are given to facilitate eruption of the rash or to "force measles out of the affected child" and to ensure that all of it comes out (Namboze 1983:2042; Lwanga and Mukisa 1989:16). Injections should not be given as a treatment because they can interfere with the eruption of the rash. The high-protein fish 'nkejje' should be given. A skin rash indicates that the measles have come out (Lwanga and Mukisa 1961:17). There may be a connection between causing a child to have diarrhoea (in order to force the eggs out) and the notion of "forcing measles out of the child".

Many different herbs are used in the treatment of measles in the districts covered by this study, including lubirizi leaves, opium leaves, ziizi leaves, coffee leaves, lemon tree leaves, namuvu, eyibombo, roses, mululuza and others. Some of the herbs are given to drink, others for bathing, and others are smeared on the body. In Kabarole, the herb called enderema was mentioned frequently, along with a kind of salt called enseru. The most salient feature about measles treatment in all districts, similarly to the published information, is the need to "bring out" measles from the child. Measles is assumed to have come out when the child develops a skin rash. In some cases herbs are given to induce diarrhoea to force the measles out of the child. Nkejje soup is recommended for a child with measles in all districts, similarly to the published data. Sheep's fat is sometimes given to the child to drink and is smeared on the body.

During pretesting for the study, a Kampala healer described her recipe for the special drink she gives children with measles. It contains sugar, salt, cow ghee, water (for thirst), mushrooms ("which work like vitamins"), nkejje fish, and animal fat to lubricate the intestines. She said the drink lubricates the throat, "replaces the water on the back", and "the fish forces the measles out of the body." She said the gut retains offensive substances

that must be eliminated. The drink also stops vomiting. Cow dung, honey and tiny mushrooms are smeared on the body, helping to bring out the spots. The honey when it dries becomes stiff and can pull out the spots. When drunk, it can cause diarrhoea, but is good for coughing.

Respondents in Kabarole focus group discussions said the biomedical treatments for measles are expensive because they give an injection to the child that stops the rash from coming out, and "this may be very dangerous to the child, leading to more expenses for further treatment." However, one respondent said that the child can be given the injection after the rash has come out. At the same time - when the rash has come out and the child is recovered - the child is supposed to be smeared with mud from an ant hill and put out in the sun. The soil dries on the skin and thereafter, the child is bathed for the first time since contracting the disease.

There are a number of traditional ritual behaviors associated with measles. Several Kabarole healers mentioned that the parents of a child sick with measles should not engage in sexual relations while the child is sick. A method for preventing the other members of the family from getting the disease in Buganda involves tying a fibre called akaso around the neck or arm. Then the leaves of a plant called ekiyindiru are rubbed in the hands, mixed with water on a plantain leaf, and the resulting medicine put in front of the main door of the house while all family members are inside. When they go out, each person drinks a little of the medicine, the sick child being the last (Bennett 1963:150). Iganga traditional healers said that the child is not supposed to go out of the house, cross the road, or meet other people while receiving the treatment - "if the child does not observe this, I will not be able to cure the child."

Mothers in an Iganga focus group said that millet should not be eaten "because this gives diarrhoea and the rash doesn't come out". Meat should not be eaten (or even brought into the house), particularly goat meat because goats have measles, so if the child eats goat meat "it adds to the problem and causes diarrhoea". Millet and simsim (sesame) are restricted because they resemble the measles rash. Banana juice is not given because it causes loss of appetite. Salt is restricted unless it is enseru salt. Orange juice should not be taken as it gives diarrhoea, but matooke, rice, milk and porridge are alright to eat. If the child is only breastfeeding, then the mother should not eat the restricted foods. The reasons given for the food proscriptions seem to conflict with other data suggesting that diarrhoea is helpful for bringing out the measles. In fact, one Kabarole TH said that "it is good for a child to have diarrhoea because the heat goes out with it." Another Kabarole healer said to give a child cold milk, passion fruits and SSS in order to have more water in the body.

2. Fevers, malaria, and cerebral malaria: In Luganda, fever is omussujja, malaria is omussujja gw'ensiri or "fever of the mosquito", and cerebral malaria is called eyabwe (Bennett 1963:151). One Musoga healer in Iganga used the term emizimu (spirit) for malaria, others used the term musudha or musujja for malaria or fever, and two other Iganga healers used the term enyonhi for cerebral malaria. In Kabarole, the term omuswija is used

for malaria or fever, and the term eyabwe is used for cerebral malaria. The differences in the terms recognize the different symptoms associated with the illnesses, and the explanation for eyabwe underscores the seriousness of the affliction.

Besides the obvious symptom of high temperature, additional recognized symptoms include convulsions, neck rigidity, unconsciousness and twitching with cerebral malaria. Several people mentioned the child's eyes roll upward. Several Baganda healers mentioned two types of cerebral malaria - eyawaggulu (the upward type) characterized by the eyes looking upward, convulsions and unconsciousness, and eyawansi (the downward type) in which the eyes look downward or are closed and the child has cold feet. Other symptoms described for simple fevers or malaria include cold extremities, paleness, chest becomes tight, stomach becomes hot, shortness of breath, irritability, restlessness, general malaise, runny nose, cough, child cries a lot, chest pain, dry skin, refusal to feed, diarrhoea, yellowish or greenish stools, headache, sleepiness, shivering, red eyes, thirst, salivation, and a sharp sudden cry.

Traditional beliefs about the causes of cerebral malaria were described many years ago by Bennett (1963:156):

"One of the causes is believed to be a bird, perhaps an eagle...When this bird cries or when it flies overhead and the child looks up, the illness enters into the child. It is for this reason that no one in Buganda points at a bird when carrying a child in his or her arms as to do so would be irresponsible and inviting disaster for the baby. Another cause is the mother having let someone else hold her breast or express her milk. Cleaning a baby on someone else's lap may also be responsible for producing eyabwe. Yet another form of this syndrome is due to an insect called eyabwe which lives in the ground. It is more difficult to cure and leaves sequelae of weakness and nocturnal fevers."

The bird flying over the child explains the rolling of the eyeballs in convulsions to look at the bird (Namboze 1983:2042). If a child sees "their bird" over the house, malarial symptoms can develop. The screeching of the bird flying over the house leaves a curse at the door so that when a breastfeeding mother opens the door, she "picks the curse on herself and transfers it to her child through breastfeeding. Thereafter the child develops diarrhoea" (Lwanga and Mukisa 1989:9). "The Basoga believe that the bird is spiritual. Sometimes it can be sent by someone who does not wish the child well, and sometimes the ancestors can send it if they are annoyed or feel neglected in some way" (Lwanga and Mukisa 1989:7).

Consistent with the published literature, UTHS respondents most frequently listed an eagle-like bird and a spider-like insect as the causes of cerebral malaria. Other causes of fevers and malaria included mosquitos, spirits, drinking and bathing in bad water, eating too many mangoes or too much maize, touching birds' nests, sleeping in a dirty environment, dust, rain, coldness, fetching water at sunset, wind, not covering a child at night, left over food, flies, handling children before washing hands, and stomach pain.

Malaria and cerebral malaria treatments are varied in the three districts studied. However, use of various bitter leaves or roots mixed with water and given to drink is common. At the same time, bathing with water mixed with various herbs is a form of treatment mentioned by many healers. Others indicated tying certain herbs around the wrist, waist and legs of the child until the child grows to prevent any attack in the future. Herbal leaves mentioned by healers in this study included: kijamasolo, kiyondoyondo, kinyirikisi, kombo, ekitonto, mululuza (especially in Mpigi), kayindiyindi. Mulende tree roots were the only roots mentioned specifically by name. A mixture of clay with both leaves and roots (mumbwa) mixed in water and given as a drink was also mentioned by several healers as medicine for children with malaria or cerebral malaria.

In some cases, a specific dosage was mentioned. Some healers indicated that a patient should be given one teaspoonful for a child or a tablespoonful for an adult, two times a day, while others mentioned three times a day. Bathing with herbs mixed with water is intended to make the body strong. In Iganga, a cowrie shell (ensimbi) with lemon juice inside is placed on fire until it melts and the melted substance is given to a patient to drink 1/2 spoon for a child three times a day and one tablespoon for an adult three times a day.

To prevent any future attack a feather or nail of an eagle is tied around the waist of the child. In other cases a spider which faces upwards is tied around the child's waist to prevent eyabwe attacking in case of eyawansi. For eyawagulu, a mixture of herbal leaves is given to the patient to drink. In some cases, drops of a herbal mixture are put on the fingernails and toenails and the boiled herb are smeared on the limbs of the child.

There are certain rituals attached to the treatment of malaria and cerebral malaria such as bathing the child in front of the house in the doorway, not washing your hands when preparing the herbs, giving treatment only indoors, child should not touch birds or nests, mother should not touch birds or nests when holding her child, and don't point to a bird when carrying the child. If convulsions continue, a traditional Kiganda ritual (reported in the literature) involved crushing the roots of omululuza and ekiwondowondo with water in a mortar made of a banana tree base and bathing the child with the resulting medicine. "It is carried out by the parent of the child's sex. If this is done in the morning then the person doing it must look to the east where the sun is rising, so that when it sets later it will take the disease away. If the child has an enlarged spleen, then the leaves of akatanga crushed in the hands and mixed with water, are given so as to crush the spleen inside the abdomen. Other remedies are to rub the splenic area with a small round stone when the child is feverish or to place the child morning and evening on the back of a black cow so that its spleen is in contact with the cow" (Bennett 1963:156). These traditional behaviors were not mentioned by UTHS respondents although references to screeching birds and spider-like insects were common.

3. Malnutrition: Descriptions of traditional beliefs about malnutrition are common in the literature, mainly for the Baganda. Obwosi (eryosi) has been described as a condition afflicting children that can be caused by (1) ebbugumu or heat from a woman who continues

to sleep with her child after she becomes pregnant again (Kasozi 1989:3); (2) okwosera or a pregnant woman continuing to breastfeed which transmits the heat of pregnancy to the older nursing child and causes diarrhoea (Bennett 1963:152; Jelliffe and Bennett 1961:187; Kasozi 1989:3; Namboze 1983:2042); (3) amabeere agasuze or breastmilk taken after the mother has been away from her child for a longer time period than normally would lapse between feedings (ie, the spoiled breastmilk from engorged breasts due to absence from the child), (Kasozi 1989:3); or (4) bad spirits (emizimu or amayembe) sent by people of malicious intent (Kasozi 1989:3). Characteristics of obwosi include diarrhoea, weakness, edema of cheeks and feet, distended abdomen, and pallor of hair and skin (Bennett et al 1964:214; Namboze 1983:2042). Ekireego (marasmus) is characterized by extreme wasting due to starvation, and is often seen in children who are bottle fed extremely diluted milk. It is supposedly due to witchcraft on the mother during pregnancy or lactation (Namboze 1983:2042). Treatment involves consulting a spiritualist to determine the ill-wisher, bathing the child in front of the house, massaging the child's joints with a cloth warm from the mother's body, and stitching medicine into the child's string of beads (Bennett 1963:151).

Jelliffe and Bennett (1961) described four different culturally-recognized diseases which they claim are all kwashiorkor of different stages of severity and emphasizing different signs of disease. They state that obwosi is identified by the child becoming weak, miserable and ceasing to crawl when it is displaced by a newly-arrived sibling and sent to live with a relative. Omusana is recognized by oedema, apathy, light-colored hair and skin pallor, and is thought to be due to the effect of the sun's rays. Jelliffe and Bennett say that this disease is mild kwashiorkor or hookworm anemia (1961:187). Empewo, a term meaning "cold" in Luganda, is a disease in which children have cold, edematous feet, and "also because they are thought to have been affected by cold when put out of the mother's bed to avoid the 'heat' of pregnancy" (p. 187). Finally, obusoro is characterized primarily by a very distended abdomen, thought to be due to "little animals" getting into the child's body. Treatment involves gently tapping the child with twigs so that seeds are scattered about, symbolically driving out the cause of the disease. Bennett later says (1963:152-3) that names for the "causes" of omusana can also be used to name the illness, so that obusoro are actually the seeds of a plant which are thought to enter the body of the child in some way and cause the oedema. Empewo or "air" may also cause the swelling of omusana if it enters while the child is not properly covered at night.

There are numerous references in the literature to obwosi and the illness was mentioned frequently during research for the UTHS. Other forms of malnutrition (omusana, obusoro, and empewo) are mentioned less frequently in the literature and only omusana was described by one Mpigi traditional healer as kwashiorkor characterized by swelling of the upper and lower limbs, pale skin and "child looks sick". The healer was not sure of the cause and did not describe her treatments. Ekireego (marasmus) was not mentioned as a common problem in the three districts where the UTHS took place, and not described in detail by any respondents.

In the UTHS, among the Basoga of Iganga, kwashiorkor was called variously eryose, eryuse, or obwayi. In Kabarole among the Batooro, it was called eryosi. In Mpigi, the Luganda term obwosi was used exclusively for kwashiorkor and described in detail by seven prominent THs and during a focus group discussion with community leaders in Matongo parish. In the three districts there were a wide range of symptoms described for kwashiorkor with swelling of some part of the body being the most frequently mentioned. Other symptoms mentioned included diarrhoea, distended stomach, brownish hair, yellowish skin, paleness, decreased appetite, weakness, apathy, sickly appearance, and anemia.

The most frequently mentioned causes of kwashiorkor were mother's pregnancy and poor feeding. Other causes included lack of blood, sleeping badly, eating soil, worms and "bedding" (perhaps a reference to sleeping uncovered and being exposed to empewo). Roots or leaves prepared as herbal remedies and used for bathing and drinking are prescribed, along with a variety of foods and drinks. In Mpigi, it was recommended to bathe the new baby on top of the older child either as treatment for the existing condition or to prevent its occurrence.

4. AIDS: The UTHS results contain several pieces of information relevant to the AIDS crisis in Uganda. These data come from focus group discussions with health workers, healers, community leaders and mothers that began with a discussion of the most common childhood illnesses in the area. Towards the end of the discussions, participants were asked how they thought healers and biomedical health workers could cooperate to deal with the AIDS crisis. During intensive interviews with traditional healers, the healers were asked about what kinds of things they would like to discuss in workshops. They were given a choice of a range of topics including AIDS.

The common name for AIDS in Uganda is "slim", though in Iganga, Basoga also know it as kavera, kawuka, musirimu, nabutono, kyayidha, munwenge, chinyansi, mulogo, kapira, muhuni, namuzisa, chaida, munwenje ("drink and go"), and mukenenya. Nyole call it obujaha. Kabarole focus group data did not record indigenous language names for the illness, and Mpigi data only contained the term slim. The literal translations for the Lusoga words were, for the most part, not recorded, although in one group discussion with THs, they said that the names mean "you loose weight and get thin. It drains your blood and you become anemic and you die when you are a skeleton". Iganga moderators claimed that the reason it has so many names is that the disease is so scary.

Although AIDS may emerge as the main cause of death among Ugandan children under five years of age in the next decade due to prenatal transmission (UNICEF 1989:40), it is not yet recognized at the village level as a major childhood illness problem. On the other hand, THs indicated a strong interest in learning more about the biomedical perspective on this illness. AIDS was one of the most frequently mentioned topics to cover in workshops with healers and health workers (see pages 33 and A-11).

Information on the causes of AIDS was somewhat accurate - the most frequently mentioned causes were promiscuity and unsterilized syringes, needles or other skin piercing instruments. Most focus group participants recognized that sexual intercourse and unsterile instruments could transmit AIDS but it was not clear from the research if they understood, for example, that promiscuity itself does not cause AIDS, but rather that sexual intercourse with someone who is HIV positive might lead to infection with the AIDS virus. Other causes mentioned less frequently were injections, transfusions, "through the blood", mosquitoes, fleas, spirits, witchcraft and germs of unknown origin. Regarding a higher level of causation or origin of AIDS, Iganga THs commented "God was angry with us and placed a road block in women and put in a mad dog. That dog is always asleep, once you tackle it, it bites you." In one group discussion, the men said it is women who carry the disease, "then the women said mostly men because they move too much outside their homes". Another healer said "it came from the writings of the Bible that people will fear each other. Because maybe God has seen that people don't follow his commandments and so God is angry and has brought about this disease. So women who slept with animals are the ones who brought this disease".

Most respondents recognized that neither the traditional healers nor biomedical practitioners had any cure for the disease. Community leaders in Iganga commented that prevention was the only way to deal with the disease - that it was necessary to "stick to one". Mpigi mothers mentioned that the only treatment was to give herbs to reduce the vomiting and diarrhoea for a while.

Since the topic of AIDS was not the central concern of this research project, data is sketchy. No information exists on people's perception of symptoms other than weight loss and diarrhoea, although Kabarole THs mentioned that "the origin of the disease starts with fever that does not cure". Health workers commented that THs are spreading the disease by using unsterile instruments for incisions made during traditional treatments (such as false teeth extraction, removing fat nodules for millet disease, and traditional forms of vaccination in which cuts are made in the skin and herbal medicine is rubbed inside the wound). Mpigi health workers said that THs need to be educated on the causes and symptoms of slim so that they don't become victims of the patients they treat and so that they don't spread the virus themselves through their invasive treatments. They also commented that "since AIDS is caused by a virus, and THs can deal with other viral diseases it is possible that at one time they might come up with the treatment for HIV/AIDS" and "if THs are taught about AIDS they can give psychological treatment rather than telling patients that they (patients) are bewitched". In a group discussion with Mpigi healers, one participant said "THs have been lazy in looking for treatment. This is so especially when they hear that America and other countries have failed".

V. CONCLUSIONS AND RECOMMENDATIONS

The use of traditional healers to expand Primary Health Care activities through collaboration with biomedical health workers is an intriguing idea which has been discussed since the mid-1970s and has resulted in a number of collaborative experiments worldwide (Hoff 1990; Hogle and Prins 1991). Since individual country situations vary so widely, it has been difficult to derive general guidelines for collaboration that are meaningful in specific local settings. While the results of most experimental collaborative activities are encouraging, evaluation of the projects has been somewhat imprecise. The resources required to implement these activities have been considerable and lead planners to question the advisability of developing national level programs to develop collaborative relationships between traditional and biomedical sectors. In Uganda, efforts to develop collaboration between the traditional and biomedical sectors are underway and should contribute to the worldwide literature on improving health care through use of traditional resources.

This study was proposed by the PRITECH Project in response to a request from Uganda's national CDD programme to assist in training traditional healers in ORT. The rationale was that prior to designing or redesigning a workshop curriculum, additional research should be done to better understand traditional beliefs and behaviors relating to management of childhood illnesses. In addition, more information was needed about the traditional healers themselves - their specialties, distribution and interest in collaboration with biomedical practitioners.

Given their vast knowledge about different herbs in relation to a variety of childhood diseases and their high level of status in their communities, traditional healers could be an asset in the management of childhood illnesses and in the promotion of Primary Health Care objectives. Since they are, in fact, treating a majority of illnesses afflicting rural Ugandans, and since their caseloads are dominated by illnesses of which diarrhoea is often an accompanying symptom, their potential contribution to diarrhoeal disease management is significant. This research also suggests that THs have a major role to play in promoting immunization programs, in preventing the spread of AIDS, in improving maternal and child health, and in educating and influencing communities about a wide variety of public health concerns.

There is currently no formal collaborative arrangement between traditional healers and biomedical practitioners in Uganda. Healers are not yet organized nationally into associations, although some organizational efforts have been made. Despite the lack of formal organization or collaboration, the two sectors - the traditional (private) sector which supplies most of the health care, and the biomedical (largely public) sector which receives official government sanction and support - are used simultaneously or sequentially by most Ugandans where and when the resources are available. The two sectors are perceived to have different skills that are appropriate for different kinds of illnesses and there exist specific beliefs about illness categories and appropriate treatments that determine which resources are used at which particular points during the course of an illness.

Due to past historical situations, many THs practice in secret or at night. Despite public lack of support for traditional medicine, many health workers themselves use the services of THs when they determine that a traditional approach would be more effective than a biomedical option. Given the distribution of biomedical services in Uganda (covering about 30 percent of the population) and the small likelihood for substantially increasing that coverage, developing a public collaboration between traditional and biomedical sectors, between private and public health care, would mean that people would hear complementary rather than conflicting messages from the range of people providing them with advice on illness management. Complementary messages can result in improved quality of health care and a reduction in mortality and morbidity rates over time.

In order to produce complementary messages, it is necessary to share information between traditional healers and biomedical health workers about philosophies, methods, techniques and tools of the healing trade. This research concludes that collaboration begins with communication. Both health workers and traditional healers expressed a strong interest during this research in discussing their practices together as a beginning to collaborative activities.

This research has focused on traditional healers and biomedical practitioners and the potential improvement of health care to communities through collaboration between the two sectors. The role of communities in planning and decision-making must remain central to development of collaborative activities. The perspectives of parents, RCs and elders (community leaders) were critical to a complete understanding of traditional management of childhood diseases. It was interviews with mothers of children under five who had had recent diarrhoeal episodes that highlighted the difference between use of traditional medicine and use of traditional healers. The influence of RCs and traditional leaders in Ugandan villages cannot be disputed and their support is crucial for any collaborative activities undertaken with traditional healers and health workers. The research demonstrated strong interest and support from the community for opening public lines of communication between traditional healers and biomedical practitioners. Members of local communities can contribute ideas appropriate to their own local situations and must be involved from the beginning in implementing a collaborative strategy. Health care of childhood illnesses is a complex problem in Uganda with no simple solutions. Improvement of the situation, therefore, requires a concerted and joint effort of health workers, traditional healers and the communities concerned.

UTHS researchers recognize that this study had a small sample size of exclusively Bantu peoples. The qualitative findings, therefore, should be cautiously applied to other parts of Uganda, such as the north and far east (Teso onwards). As the Uganda Traditional Healer Initiative expands to other areas, similar kinds of background research will need to be conducted in order to fully understand the indigenous belief systems among other ethnic groups. The salience of ebinyo, for example may not be as pronounced in other parts of the country. There may be other traditional categories of illness commonly seen among other ethnic groups or other areas of Uganda that have yet to be examined.

Additionally, within each district, county and parish where collaborative activities are undertaken, attempts should be made to enumerate numbers and characteristics of healers so that accurate estimates can be made of resources needed for workshop development in each area.

If there is one critical key to the opening of lines of communication between traditional healers and biomedical practitioners, it might simply be a positive attitude on the part of those who attempt to bridge the gap. Healer workshops (or "meetings" in the indigenous languages) should not be held to preach to healers about how they should change their practices. Traditional medicine and biomedicine will have to "agree to disagree" about certain types of treatments for some time to come. But the existence of disagreements (such as false teeth extractions and invasive procedures for millet disease, for example) does not mean that communication cannot happen. People can sit down to talk together, and they can talk about how best to manage certain kinds of problems. Communication is the key to understanding and dissolving distrust. The researchers hope that Ugandan's biomedical sector is not intent on "controlling the healers" - a phrase we have heard more than once during this research project. "Cooperating or collaborating with them" is a more appropriate phrase. Those 63,000+ healers at work in all the villages of Uganda treating the vast majority of minor and major illnesses afflicting the population are a private resource receptive to the opportunity to collaborate with biomedical services to improve the quality of health care within the communities they serve.

Specific details summarizing findings, conclusions and recommendations appear in the Executive Summary at the beginning of this report.

VI . ANNEXES

A. PREPARATION

During August and September 1990, questionnaires and lists of questions for focus group discussions were drafted by the research team. In late September, pretesting was done in Katoogo parish in Mukono District. In addition to testing the interview schedules, the team needed to determine the best way to locate and mobilize participants for the focus groups within a minimum amount of time. During the pretesting and the actual research, DAs, DMOs, and RCs at all levels assisted the research teams in accomplishing the study objectives. Questionnaires underwent considerable revisions prior to the actual research.

B. IDENTIFYING AND TRAINING INTERVIEWERS

The research team identified researchers who had participated in similar previous research or who had familiarity with the subject matter. Three people from the research team, who could speak the dominant language in each of the three chosen districts, acted as supervisors for the following teams:

	Supervisors	Interviewers
Iganga:	Mrs. C.K. Mugerwa	Mr. J. Nakibali Miss B. Biribawa Miss E. Suubi
Kabarole:	Mr. W.W. Lwanga	Mr. J. Mwesige Miss E. Kensime Miss J. Kemigabo
Mpigi:	Mr. J.S. Lwanga	Mr. R.H. Jjuko Miss M.H. Nansubuga Miss A. Nakaweesi

A week of interviewer training was held at Lweza Training and Conference Center from 29 Oct to 2 Nov 1990 (see training curriculum outline, Annex H). During that time, the questionnaires and methodology underwent further revision with the help of THs, mothers, health workers (HWs) and community leaders from Kajansi, Namulanda, Kisubi and Nkumba villages, who provided the interviewers with practical experience in interviewing skills.

C. FIELDWORK

For the actual fieldwork, three teams of interviewers with a supervisor and driver, and one team of field coordinators (Mr. K. Sanneh and Mr. J.B. Kasozi) and a driver, were transported to the research sites by double-cabin 4WD vehicles furnished by the CDD programme. The field coordinating team provided logistical support and assistance as needed, moving between all three field sites.

The research was conducted between 7 and 27 Nov 1990, during the rainy season, making transport difficult even with 4WD vehicles. There were some unanticipated security problems in Mpigi District (Gomba County) necessitating a change in two parishes by random substitution. Illness and vehicle failure complicated data collection efforts to some degree, but in general, all the research was completed as planned.

D. DATA TABLES FROM SHORT FORMS BY DISTRICT

The short form was used as a census instrument to collect limited quantitative data from eight randomly chosen parishes in one county in each of three districts. Thus there were 24 lists of healers providing basic socio-demographic data on 365 healers from three language groups in Uganda.

TABLE 1: Total numbers of healers per sampled parish by district (range and averages) and estimated numbers of healers per district (=average X no. parishes in district)

District:	Iganga	Kabarole	Mpigi	Total
Total no. THs in 8 samp. par.	80	172	113	365
Range/par.	4-21	11-37	11-20	4-37
Average # THs/parish	10	21.5	14	15
# parishes in district	250	150	247	-----
Est. no. THs/dist.	2500	3225	3458	-----

TABLE 2: Sociodemographic data of THs by district (short form):

District:	Iganga	Kabarole	Mpigi	Total
Age range	25-90	21-102	22-100	21-102
Average age	48.8	53.4	54.5	53
% men	73.8	50.0	50.4	55.3
% women	26.3	50.0	49.6	44.7
Tribe:				
% Musoga	53.8	0	0.9	12.1
% Mutooro	0	80.1	0	37.7
% Muganda	1.3	0.6	71.4	22.6
% other	44.9	19.3	26.8	27.3

(Other tribes mentioned included - Atesot, Nyoro, Dama, Samya, Gisu, Mugwe, Dola, Nyankore, Kitosi, Kenyi, Kiga, Nyarwanda, Konjo, Choli, Lundi, and one Tanzanian.)

TABLE 3: Yrs in practice, range, and average number of years/healer:
(%s = those for whom data was available)

District:	Iganga	Kabarole	Mpigi	Total
No. of yrs	No. %	No. %	No. %	No. %
0 - 9	27 33.8	31 19.7	32 30.8	90 24.7
10 - 19	20 25.0	39 22.7	18 15.9	77 21.1
20 - 29	16 20.0	37 21.5	27 23.9	80 21.9
30 - 39	8 10.0	24 14.0	9 8.0	41 11.2
40 - 49	5 6.3	11 6.4	10 8.8	26 7.1
50 - 59	2 2.5	8 4.7	5 4.4	15 4.1
60 and over	2 2.5	7 4.1	3 2.7	12 3.3
Range	<1-60	<1-84	<1-70	<1-84
Average	18 yrs	23 yrs	20 yrs	21 yrs
Total N	80 THs	172 THs	113 THs	365 THs

TABLE 4: Specialties: number and percentages of the different specialties by district (more than one answer possible):

District:	Iganga	Kabarole	Mpigi	Total
Specialty:	No. %	No. %	No. %	No. %
Pure herb	30 37.5	36 21.1	50 44.6	116 32.0
Spir/herb	44 55.0	92 53.8	51 45.5	187 51.5
Bonesetter	18 22.5	17 9.9	17 15.2	52 14.3
Snake bites	25 31.3	30 17.5	20 17.9	75 20.7
TBA	12 15.0	76 44.4	30 26.8	118 32.5
Advisor	2 2.5	19 11.1	7 6.3	28 7.7
Other	3 3.8	5 2.9	3 2.7	11 3.0

TABLE 5: Number and percentages of healers treating children, belonging to an association, and interested in attending a workshop:

District:	Iganga	Kabarole	Mpigi	Total
	No. %	No. %	No. %	No. %
Treats children	61 76.3	119 75.8	94 87.0	274 79.4
Belongs to association	42 52.5	76 49.7	13 12.5	131 38.9
Wants to attend wksp	76 95.0	122 95.3	51 65.4	249 87.1

E. DATA TABLES FROM LONG FORMS BY DISTRICT

Long forms are in-depth interviews with prominent, influential or well-known THs as identified informally within the 24 sampled parishes (actual N=95).

TABLE 6: Sociodemographic data on THs by district:

District:	Iganga	Kabarole	Mpigi	Total
Age range	25-80	21-102	24-80	21-102
Average age	47	52	59	53
% men	87.5	45.2	31.3	54.7
% women	12.5	54.8	68.8	45.3
Tribe:				
% Musoga	56.3	0	0	18.9
% Mutoro	0	93.5	0	30.5
% Muganda	3.1	3.2	81.3	29.5
% other	40.6	3.2	18.7	21.1
Religion:				
% Catholic	9.4	51.6	46.9	35.8
% Protest.	21.9	35.5	34.4	30.5
% Muslim	62.5	3.2	18.8	28.4
% SDA	0	6.5	0	2.1
% other	0	3.2	0	3.2
% Trad rel	63.3	43.3	45.0	51.3
Marital st.				
% single	3.1	0	9.4	4.2
% married	90.6	54.8	37.5	61.1
% separat.	6.3	29.0	15.6	16.8
% widowed	0	12.9	37.5	16.8
% divorced	0	3.2	0	1.1
Children (average)	8	5	6	6
(range)	1-20	0-16	0-18	0-20
Schooling (aver. yrs)	3.5	2.3	2.7	2.9
(range)	0-10	0-12	0-13	0-13
Practice (aver. yrs)	20.6	22.9	30.4	24.6
(range)	1-60	<1-70	5-60	<1-70
Aver. age began prac.	27.2	26.9	27.5	27
(range)	7-59	10-53	13-44	7-59
Total no. of THs in	32	31	32	95

TABLE 7: How did the healer acquire his/her skills? (long form):

District:	Iganga		Kabarole		Mpigi		Total	
	No.	%	No.	%	No.	%	No.	%
Spirits	9	28.1	3	9.7	5	16.7	17	18.3
Possession	1	3.1	0		4	13.3	5	5.4
Grandparent	13	40.6	12	38.7	6	20.0	31	33.3
Parent	9	28.1	10	32.3	8	26.7	27	29.0
Oth. relat.	0		6	19.4	5	16.7	11	11.8
Non-relat.	0		1	3.2	2	6.7	3	3.2
Inherited	5	15.6	7	22.6	4	13.3	16	17.2
Other	0		7	22.6	2	6.6	9	9.5

(More than one answer is possible)

TABLE 8: Specialties: number and percentages of the different specialties by district (long form):

District:	Iganga		Kabarole		Mpigi		Total	
	No.	%	No.	%	No.	%	No.	%
Pure herb	13	40.6	15	48.4	13	40.6	41	43.2
Spir/herb	20	62.5	16	51.6	18	56.3	54	56.8
Bonesetter	5	15.6	7	22.6	8	25.0	20	21.1
Snake bites	10	31.3	11	35.5	16	50.0	37	38.9
TBA	5	15.6	17	54.8	15	46.9	37	38.9
Advisor	2	6.3	9	29.0	10	31.3	21	22.1
Other	1	3.1	1	3.2	0		2	2.1

(Healers sometimes practice more than one specialty)

TABLE 9: Types of patients treated (long form):

District:	Iganga		Kabarole		Mpigi		Total	
	No.	%	No.	%	No.	%	No.	%
Only child.	1	3.1	1	3.2	1	3.1	3	3.2
Maj. child.	3	9.4	4	12.9	4	12.5	11	11.6
Equal ch/ad	23	71.9	24	77.4	27	84.4	74	77.9
Mostly adu.	4	12.5	1	3.2	0		5	5.3
Only adults	1	3.1	1	3.2	0		2	2.1

TABLE 10: Association membership and workshop interest (long form):

District:	Iganga	Kabarole	Mpigi	Total
% belongs to assoc.	65.6%	54.8%	15.6%	45.3%
% would like to of those who don't belong	100%	78.6%	53.8%	70.6%
% interest. in workshop	100%	83.3%	72.4%	85.7%

TABLE 11: Language of interview by district (long form):

District:	Iganga		Kabarole		Mpigi		Total	
	No.	%	No.	%	No.	%	No.	%
Lusoga	25	78.1	0		0		25	26.3
Lutooro	0		31	100	0		31	32.6
Luganda	4	12.5	0		32	100	36	37.9
Swahili	2	6.3	0		0		2	2.1
Samya	2	6.3	0		0		2	2.1

(More than one answer is possible)

TABLE 12: Children's illnesses treated most often by prominent THs in Iganga district (as mentioned by Lusoga speakers - N=30)

<u>Rank & indigenous name:</u>	<u>English name/translation:</u>	<u>No. times mentioned:</u>
1. kidhukano, munararo, mbiro	simple diarrhoea	28
2. lukusense-mulangira	measles	26
3. musudha	fevers	22
4. ebiino	false teeth	21
4. akakaika	whooping cough	21
5. kidhukano kya musaayi	dysentery	19
5. obwayu	kwashiorkor	19
5. ekidhada	ascitis	19
5. bufukuni	hookworm	19
6. enfaana, emebebe	tapeworm	18
6. mambuluga	mumps	18
6. eiraru	mental illness	18
6. embiru	tonsillitis, acute	18
7. amakadha	swollen, painful joints	17
8. lulalama	tetanus	16
9. seeseba-yegu	colds, URIs	15
9. amaaso agayitulu	trachoma	15
10. omutima omwoyo	prolapsed rectum	14
11. omitenga	haemorrhoids	12
12. oluumu	ringworm	11
12. okusesema, n'okwidhukana	diarrhoea with vomiting	11
13. ebizimba	abcess	10
13. obumene, obuvune	fracture	10
14. esagya	polio	8
14. amaloole	red eyes	8
15. obusangala	diphtheria	7
15. kafuba	TB	7
15. ekidukano ekya amasira	diarrhoea with pus	7
16. omusudha ne kidhukano	diarrhoea with fever	4
16. ebigenge, enkaka	leprosey	4
16. ekikulukuto	haemorrhagia	4
17. obigenge	ear infection	3
17. obutwa	poison	3
18. ensimbu	epilepsy/fits	2
18. emizimu	spirits	2
18. omutwe omutezi	migraine headaches	2
18. empanama	hydrocephalus	2
18. okubulamu omusai	anaemia	2
18. akawomno	sunken fontanelle	2
19. amabwa ogomunda	ulcers	1
19. kamunguluze	dizziness	1
19. eyinya, luwero	asthma	1
19. namusuna	chicken pox	1
19. entumba	TB of spine	1

TABLE 13: Children's illnesses treated most often by prominent THs in Kabarole district (as mentioned by Lutooro speakers - from long forms - N=32)

<u>Rank & indigenous term</u>	<u>English name/translation</u>	<u>No. times mentioned:</u>
1. kuturuka	simple diarrhoea	30
2. oruseru	measles	25
3. kuturuka esagama	dysentery/diarrhoea with blood	20
4. eyabwe	cerebral malaria	18
4. emizimu/embandwa	spirits/gods	18
5. kutanaka	vomiting	17
5. enkorro	cough	17
5. enkorro yakatera	whooping cough	17
5. eryosi	kwashiorkor	17
6. akameeme	sternum pain; collapsed end	16
7. omuswija	fevers, malaria	14
7. enjoka	roundworms	14
7. ekijoka	stomach pain/gas/rumbles	14
8. ekihinzi	flu, colds, URI	13
9. ebiino	false teeth	12
9. ebyomunda	swollen lymph (neck); enlarg liv.	12
10. kwomerrwa	constipation/indigestion	11
11. ebinhaso	pneumonia	10
11. okusobya omwana	behavioral diarrhoea	10
12. omutwe	headache	7
12. ebiguuna, amazomba	ringworm	7
12. ebisumi	chicken pox	7
12. emsimbo	fits	7
13. oruhorochozi	sunken fontanelle	6
13. amaiso	eye infection	6
14. oburo	"millet" disease	5
15. orukaca	jaundice	4
16. omuyunji	fractures (bonesetter)	3
17. amanduguya	mumps	2
17. obugeregere	hookworms	2
17. somama nkwambiye	scabies	2
17. iraru	mental illness	2
17. okuterwa enjoka	snakebite	2
17. ekyakoha	prolapsed rectum	2
18. kiswiga	child crying nonstop	1
18. omugangama	tetanus	1
18. amachu	asthma	1
18. omufunbi	swollen lymph nodes (groin, armpit)	1
18. obuzimba	abcess	1
18. unaga	weaning	1

TABLE 14: Children's illnesses treated most often by prominent THs in Mpigi district (as mentioned by Luganda speakers; includes 2 resident in Iganga district) N=34

<u>Rank & indigenous term:</u>	<u>English name/translation:</u>	<u>No. times mentioned:</u>
1. embiro, ekidukano	simple diarrhoea	31
2. eyabwe	cerebral malaria	30
2. musujja	fevers, high temperatures	30
3. mulangira	measles	28
3. obwosi	kwashiorkor	28
4. obusobe	behavioral diarrhoea	27
5. ekidukano ky'omusaayi	dysentery/diarrhoea with blood	26
5. emizimu	spirits	26
6. kifuba	coughs	24
6. omutwe	headache	24
7. ssenyiga	respiratory infections; colds	23
7. ekigalanga	(no translation)	23
8. ennyumba empya	"new house":diarrhoea, vomiting	22
9. obusonko	sickle cell	21
9. okujja omwana ku mabeere	weaning	21
9. okwoseera	short birth intervals	21
10. omusana	type of malnutrition	20
11. okumera amannyo	teething	19
11. okwavula	"crawling"	19
11. ekikubuuko, akabengo	enlarged spleen	19
12. obuwuka: enfaana, enjoka	worms	18
13. amambuluga	mumps	17
13. obutwa	poison	17
14. okutuula	"sitting"	16
15. emmere empya	"new food"	13
16. ebinnyo	false teeth	6
17. omubisi gw'enjuki	"honey"	5
17. okulya omuziro	"taboo" (eaten totem)	5
18. ekireego	marasmus ("swollen stomach")	2
18. akafuba	TB	2
18. enkanka	jaundice	2
18. ettalo	swollen legs w/boils	2
18. olufuba	asthma	2
19. eddalu	mental illness	1
19. obusukko	cellulitis	1
19. nteyabaana	swollen lymphnodes	1
19. akanula	?(from Gomba county, Mpigi)	1
19. kabotongo	syphillis	1
19. entunnunsi	high blood pressure	1
19. amannyo	tooth ache	1
19. omuliro	burns	1

TABLE 15: Topics for workshops: responses of 95 prominent THs in 3 districts to the question: "What topics would you like to hear about in a workshop?" (number of times each topic was mentioned)

Iganga:	Kabarole:	Mpigi:
23 store/preserv/proces of herbal medicines	13 midwifery	16 stor/preserv/proces of herbal medicines
17 AIDS	7 stor/preserv/process of herbal medicines	13 false teeth
8 family planning	5 false teeth	13 midwifery
6 immunization	5 PHC in general	12 AIDS
5 ORT/diarrhoeal dis.	4 learn about oth drugs	6 family planning
4 diagnosis in general	3 diarrhoeal diseases	5 children's diseases
4 malaria	2 measles	5 malaria
3 how to improve care	2 AIDS	3 immunization
3 building TH clinics	2 immunization	2 adult diseases
3 false teeth	2 examining skills	2 psychological problems
2 children's problems	2 exchange info w/THs	2 ORT/diarrhoeal dis.
2 midwifery	1 cooperation w/biomed.	1 women's diseases
2 working w/biomedicine	1 tetanus	1 about other herbs
2 sanitation/latrines	1 orthopedics	1 about TH's methods
2 measles	1 figuring dosages	
1 cooperation between THs themselves	1 children's diseases	
1 learn new diseases	1 impotence in men	
1 sleeping sickness		
1 epilepsy		
1 mental illness		
1 polio		
1 nutrition		
1 cough		
1 orthopedics		
1 forming associations		
1 abdominal pain		

TABLE 16: Causes of EKIDHUKANO (simple diarrhoea) - Iganga (from interviews with prominent THs - long form)

- 21 food (new, cold, dirty, different, bad eating, heavy drinking, dirty water)
- 7 fever (eyabwe, malaria)
- 5 milestones (sitting, crawling, teething, walking, etc)
- 5 measles
- 4 ebiino
- 4 dirty/careless mother
- 3 obwosi
- 2 bad breast milk

(causes mentioned once included failure of gall bladder, flies, herbs, coldness, enlarged spleen, abcess in abdomen, dirty environment)

TABLE 17: Causes of KUTURUKA (simple diarrhoea) - Kabarole (from interviews with prominent THs - long form)

- 27 food (dirty, bad feeding, different food, new food, diluted milk, juice, ripe bananas, cold food, indigestion, improperly cooked food, unboiled milk)
- 15 worms (kijoka)
- 14 poor sanitation (eating dirty non-food things, uncleanliness)
- 10 milestones (sitting, crawling, teething, walking, etc)
- 7 false teeth
- 4 measles
- 4 worms
- 4 bad breastmilk (mother pregnant)
- 2 amahano (obusobe - "behavioral diarrhoea")
- 2 kwashiorkor/malnutrition

(causes mentioned once included intestinal diseases, oburo (millet disease), embandwa (spirits))

TABLE 18: Causes of EKIDDUKANO (simple diarrhoea) - Mpigi (from interviews with prominent THs - long form)

- 24 food (dirty, stomach rejects, poisoned, overeating, new foods, bad feeding, too many foods, cold foods)
- 13 obusobe
- 8 milestones (sitting, crawling, teething, walking, etc)
- 7 worms
- 6 "new house" rituals not observed
- 5 poor sanitation (dirty utensils, uncovered latrine, eating dirty non-food things, dirty environment)
- 4 bad breastmilk
- 4 malnutrition
- 2 false teeth
- 2 high fever
- 2 ekikubuuko
- 2 bigalanga/spirits ("talking in stomach")

(causes mentioned once include plague (kawumpuli), abdominal lymph nodes, AIDS, measles, anaemia, nyanamo, failure of gall bladder, sores in stomach)

TABLE 19: Recommendations and restrictions on nutritional intake during episodes of simple diarrhoea (from interviews with prominent THs) and number of times mentioned:

	Recommended		Not recommended	
Iganga	matooke	10	millet	13
	milk	8	orange juice	7
	porridge	7	sweet potatoes	6
	passion fruit	5	cassava	3
	cassava	4	milk	3
	tea	4	matooke	
	water	3		
	rice	3		
	orange juice	2		
	soft foods, pineapple juice			
	meat, fish, posho			
Kabarole	milk	16	sweet potatoes	16
	rice	12	juices (?banana)	15
	cassava	10	sweet things	12
	passion fruits	9	millet	10
	sweet bananas	8	milk	7
	irish potatoes	8	bananas	6
	beans	8	millet porridge	3
	porridge	7	irish potatoes	3
	matooke	6	maize	2
	black tea	4	pawpaws	2
	millet	3	cassava	2
	wheat flour	3	cold foods	2
	tomatoes	2	tomatoes	
	eggs	2	plain water	
	juices	2	posho	
	chicken, greens, maize meal,		SSS	
	meat, fish, pawpaws, water,		meat	
	soya beans		greens	
Mpigi	usual food/drink	9	sweet potatoes	14
	matooke	8	banana juice	11
	milk	6	dodo (greens)	6
	tea w/out sugar	6	milk	3
	juices	3	beans	
	maize/millet porridge	2	cold foods	
	soft foods	2	soft foods	
	tea w/sugar	2	bananas	
	fish/meat	2	pawpaws	
	bean soup	2	matooke	
	groundnuts, raw tomatoes,			
	beans w/cassava, hard foods,			
	water, irish potatoes,			
	sweet bananas, greens, eggs			

TABLE 20: Herbal treatments for simple diarrhoea as described by THs in 3 districts (data from the long forms) and number of times mentioned if more than once:

Iganga	Kabarole	Mpigi
akaduku	akakamya 3	akafuula
akasekeranyuma roots	akakwatango 2	clay 5
bombo	akamanyo	ekikakala
ekemuduku	akanyampata	ekiswa soil (anthill)
enfumi roots	akanyunyambuzi	enkami 6
kabaliranyuma	akazibira	enkulukuku 3
kalitunsi leaves	ashes	mugobampiri
kalulu leaves	coffee leaves 5	nongolongo
kanzironziro roots	cow's milk	oluzibaziba
kapanga	dodo (greens)	
kirabi leaves	egufalimu	
kirama roots 3	ekicumucumu	
luganira leaves	ekihayura	
lupeedo roots	ekihububu	
mango tree bark	ekikurra	
mango tree roots 3	ekikuvva	
mapeera (guava) leaves	ekimango	
masasira	ekinyamunsunga	
mulama leaves	ekiragi	
musita 2	ekisekeseke	
nalubirizi leaves	ekiteza	
namuvu	ekizikabafu	
ndhaye (opium)	embiribiri	
orange tree leaves	enderema	
pawpaw roots	entango	
zizi	guava leaves	
	iranga	
	kahu leaves	
	muhire	
	obunyunyambuzi 2	
	orubwera	
	orukwatango leaves 2	
	orukyushya roots	
	omufooka	
	omujaja	
	omunkamba	
	omunyampata leaves	
	omuzigambo	
	omuzingambogo leaves	
	omweya	
	omweza	
	orubwera	
	orugina	
	orukwatango leaves 2	
	orukyushya roots	
	orusenda	
	potato leaves 5	
	rubwera	
	salt	
	soot	
	wankura	
	waragi (alcoholic drink) 2	

F. DATA TABLES FROM CASE HISTORIES BY DISTRICT

Case histories were taken by interviewing mothers of children under five who had had a diarrhoeal episode within two weeks prior to the interview (N=71 cases).

TABLE 21: Sociodemographic data of mothers and children by district:

	Iganga	Kabarole	Mpigi	Total
Child:				
Age range	4-48 mo.	2-48 mo.	1-48 mo.	1-48 mo.
Average age	19.5 mo.	17.7 mo.	17.0 mo.	18.1 mo.
% male	41.7	75.0	60.9	59.2
% female	58.3	25.0	39.1	40.8
Tribe:				
% Musoga	57.1	0	0	17.6
% Mutooro	0	66.7	0	23.5
% Muganda	0	4.2	100	35.3
% other	?	29.1	0	23.6
% breastfed	50.0	62.5	56.5	56.3
Aver age of weaning	17 mo.	15 mo.	19 mo.	17 mo.

TABLE 22: Type of diarrhoea observed, and other symptoms; traditional medicine given (case histories):

District:	Iganga		Kabarole		Mpigi		Total	
Diarrhoea:	No.	%	No.	%	No.	%	No.	%
Simple	14	58.3	15	62.5	3	13.0	32	45.1
Bloody	4	16.7	3	12.5	4	17.4	11	15.5
Yellowish	0		5	20.8	9	39.1	22	31.0
Whitish	1	4.2	5	20.8	8	34.8	14	19.7
Greenish	3	12.5	1	4.2	7	30.4	11	15.5
Other type	0		1	4.2	2	8.7	3	4.2
Vomiting	15	62.5	10	41.7	6	26.1	31	43.7
Fever	23	95.8	14	58.3	15	65.2	52	73.2
Trad. med. given: %yes	16	66.7	18	75.0	16	69.6	50	70.4

TABLE 23: Ingredients used in treatments of Iganga cases and number of times mentioned:

namavu	9
olubirizi (lubirizi) leaves	9
opium leaves (ndhaaye)	8
ziizi	3
kalulu	2
oluuka leaves	1
teteka cassava leaves	1
kalitunsi	1
mwetango leaves	1
musita leaves	1
kasone leaves	1
akatunda (passion fruit)	1

TABLE 24: Ingredients used in treatments of Kabarole cases and number of times mentioned:

ekiragi (omuragi) leaves	4
ebikoora bye mwanyi (coffee tree leaves)	3
akakamya	2
akanyumyambuzi akatooro	2
ebikoora bya mapeera (guava tree leaves)	2
amakoora ga lumonde (potato leaves)	1
encuhya leaves	1
ekicuncu	1
ekicumucumu	1
omuravunga	1
omwisoni	1
enyondo	1
ekibombo	1
omusambya leaves	1
ekinyamansunga	1
akaramatta	1
omweya	1
wankura	1
ekitunda (leaves of passion plant)	1
enjahi (opium)	1
entendigwa	1
ekigoyegoye	1
entontamya	1
akataisa leaves	1

TABLE 25: Ingredients used in treatments of Mpigi cases and number of times mentioned:

enkami	9
emumbwa	5
endagu leaves mixed with clay (emumbwa)	3
omululuza	2
muhiri leaves	1
mulongoti mixed with clay (emumbwa)	1
enkulukuku (anthill clay)	1

TABLE 26: Source of traditional medicine, if given for the episode (case histories):

District:	Iganga		Kabaroole		Mpigi		Total	
	No.	%	No.	%	No.	%	No.	%
house	13	76.5	3	15.0	7	43.8	23	43.4
TH	1	5.9	4	20.0	6	37.5	11	20.8
someone else	3	17.6	7	35.0	3	18.8	13	24.5
forest/bush	0		6	30.0	0		6	11.3

(%s of total numbers of responses)

TABLE 27: How did you know which herb to use? (case histories)

District:	Iganga		Kabaroole		Mpigi		Total	
	No.	%	No.	%	No.	%	No.	%
from TH	1	6.3	2	11.1	5	35.7	8	16.7
friend/neig	4	25.0	7	38.9	2	14.3	13	27.1
relatives	11	68.8	7	38.9	4	28.6	22	45.8
pers exper	0		2	11.1	3	21.4	5	8.3

(%s of total numbers of responses)

TABLE 28: During the diarrhoea episode, child was taken to:

District:	Iganga		Kabaroole		Mpigi		Total	
	No.	%	No.	%	No.	%	No.	%
Health ctr	1	4.2	5	20.8	0		6	8.5
Dispensary	11	45.8	3	12.5	10	43.5	24	33.8
Hospital	2	8.3	0		1	4.2	3	4.2
Priv clinic	0		4	16.7	4	16.7	8	11.3
Drug shop	4	16.7	0		1	4.2	5	7.0
CHW/TBA	1	4.2	1	4.2	0		2	2.8
not taken	5	20.8	11	45.8	7	30.4	23	32.4
# cases	24		24		23		71	

(%s of total number of cases)

TABLE 29: If child was treated at health facility, type of treatment given: (case histories)

District:	Iganga			Kabarole			Mpigi			Total		
	No.	%1	%2	No.	%1	%2	No.	%1	%2	No.	%1	%2
sachet	7	36.8	29.1	6	42.9	25.0	12	75.0	52.2	25	51.0	35.2
SSS	0			1	7.7	4.7	0			1	2.0	1.4
antibiotic	4	21.1	16.7	0			1	5.9	4.3	5	10.2	7.0
antimalar.	9	47.4	37.5	0			2	11.8	8.7	11	22.4	16.5
antidiarr.	1	5.3	4.2	0			1	5.9	4.3	2	4.1	2.8
aspir/pana.	9	47.4	37.5	0			0			9	18.4	12.7
tablets, inj., liq.	10	52.6	41.7	9	69.2	37.5	8	47.1	34.8	27	55.1	38.0
total # cases:	24			24			23			71		

(%1: those children who were taken to health facilities)

(%2: all cases recorded in that district's sample)

(Of those cases who received biomedical drugs, half the mothers did not know what type of drug had been given and could only say "tablets, injections, or liquids".)

TABLE 30: What did the mother think was causing the diarrhoea? (case histories)

District:	Iganga		Kabarole		Mpigi		Total	
Cause:	No.	%	No.	%	No.	%	No.	%
measles	14	58.3	0		1	4.8	15	21.7
worms	5	20.8	15	62.5	3	14.3	23	33.3
obusobe	0		1	4.2	0		1	1.4
false teeth	1	4.2	2	8.3	0		3	4.3
hygiene	0		6	25.0	0		6	8.7
milestones	4	16.7	8	33.3	2	9.5	14	20.3
fever	5	20.8	1	4.2	2	9.5	8	11.6
flu	2	8.3	0		0		2	2.9
malaria	1	4.2	0		0		1	1.4
eryosi	2	8.3	2	8.3	1	4.8	5	7.2
ekikubuuko	1	4.2	2	8.3	0		3	4.3
medication	0		2	8.3	0		2	2.9
foods	0		6	25.0	0		6	8.7
eating soil	0		0		1	4.8	1	1.4
don't know	2	8.3	2	8.3	11	52.4	15	22.1
other	0		2	8.3	0		2	2.9
Total # cases	24		24		23		71	

(% of total number of cases)

TABLE 31: Foods eaten on the first day (case histories):

District:	Iganga		Kabarole		Mpigi		Total	
Food:	No.	%	No.	%	No.	%	No.	%
porridge	10	41.7	5	20.8	0		15	21.4
matooke	4	16.7	15	62.5	12	54.5	31	44.3
fruit	0		2	8.3	0		2	2.9
cassava	5	20.8	4	16.7	3	13.6	12	17.1
potatoes	3	12.5	3	12.5	1	4.5	7	10.0
beans	1	4.2	9	37.5	2	9.1	12	17.1
posho	3	12.5	1	4.2	0		4	5.7
eggs	1	4.2	0		0		1	1.4
millet	2	8.4	1	4.2	0		3	4.3
groundnuts	1	4.2	5	20.8	0		6	7.6
cabbage	0		2	8.3	0		2	2.9
tomato	0		2	8.3	0		2	2.9
rice	0		2	8.3	0		2	2.9
greens	0		4	16.7	1	4.5	5	7.1
other	1	4.2	4	16.7	0		5	7.1
Total # cases	24		24		23		71	
(%s of total number of cases)								

TABLE 32: Drinks taken on the first day:

District:	Iganga		Kabarole		Mpigi		Total	
Drinks:	No.	%	No.	%	No.	%	No.	%
water	11	45.8	2	8.3	1	4.3	14	19.7
milk	15	62.5	12	50.0	8	34.8	35	49.3
ORS	1	4.2	4	16.7	2	8.7	7	9.9
SSS	2	8.3	1	4.2	0		3	4.2
orange juic	1	4.2	1	4.2	0		2	2.8
tea	5	20.8	4	16.7	6	26.1	15	21.1
breastmilk	10	41.7	7	29.2	10	43.5	27	38.0
passion jui	0		3	12.5	1	4.3	4	5.6
other	0		3	12.5	1	4.3	4	5.6
Total # cases	24		24		23		71	
(%s of total number of cases)								

Did the child seem thirsty on the first day? (% yes)	I	K	M	Total
	95.8	95.7	85.7	92.6

TABLE 33: Condition and medication on the second day:

	I	K	M	Total
Did the child still have diarrhoea on the second day?	100	91.7	91.3	94.4
Did you give more medicine on the second day? (% yes)	95.8	83.3	82.6	87.3

TABLE 34: Foods eaten on the second day (case histories):

District:	Iganga		Kabarole		Mpigi		Total	
Food:	No.	%	No.	%	No.	%	No.	%
porridge	9	40.9	5	20.8	0		14	20.3
matoke	4	18.2	15	62.5	11	47.8	30	43.5
fruit	0		1	4.2	0		1	1.4
cassava	5	22.7	4	16.7	4	17.4	13	18.8
potatoes	3	18.6	2	8.3	1	4.3	6	8.7
beans	1	4.5	7	29.2	1	4.3	9	13.0
posho	2	9.1	1	4.2	0		3	4.3
eggs	1	4.5	0		0		1	1.4
millet	1	4.5	2	8.3	0		3	4.3
groundnuts	1	4.5	5	20.8	0		6	8.7
greens	0		3	12.5	1	4.3	4	5.7
rice	0		1	4.2	1	4.3	2	2.8
fish	0		0		1	4.3	1	1.4
did not eat	3	18.6	0		0		3	4.3
other	1	4.5	7	29.2	0		8	11.3
Total # cases	24		24		23		71	
(%s of total number of cases)								

TABLE 35: Drinks taken on the second day:

District:	Iganga		Kabarole		Mpigi		Total	
Drink:	No.	%	No.	%	No.	%	No.	%
water	8	33.3	2	8.3	0		10	14.1
milk	17	70.8	12	50.0	10	43.5	39	54.9
ORS	3	12.5	4	16.7	5	21.7	12	16.9
SSS	0		1	4.2	0		1	1.4
tea	6	25.0	2	8.3	8	34.8	16	22.5
breastmilk	8	33.3	5	20.8	7	30.4	20	28.2
passion jui	0		5	20.8	0		5	7.1
other	0		3	12.5	1		4	5.7
Total # cases	24		24		23		71	
(%s of total number of cases)								

TABLE 36: Types of medicines given on the second day (case histories):

District:	Iganga		Kabaroole		Mpigi		Total	
Medicine:	No.	%	No.	%	No.	%	No.	%
antibiotics	4	18.2	0		3	15.8	7	11.5
antimalaria	10	45.5	0		1	5.3	11	18.0
antidiarrho	1	4.5	0		2	10.5	3	4.9
ORS	7	35.0	3	15.0	3	15.8	13	22.0
aspir/pano.	9	40.9	0		1	5.3	10	16.4
trad med	3	13.6	15	75.0	10	52.6	28	45.9
inj & tabs	7	35.0	2	10.0	4	21.1	13	22.0

(%s of those who received medicine on the second day)

TABLE 37: Condition of the child on the third day:

District:	Iganga		Kabaroole		Mpigi		Total	
Condition:	No.	%	No.	%	No.	%	No.	%
improved	11	45.8	17	70.8	12	52.2	40	56.3
unchanged	8	33.3	2	8.3	10	43.5	20	28.2
worse	5	20.8	5	20.8	1	4.3	11	15.5
Sample size:	N=24		N=24		N=23		N=71	

TABLE 38: Condition of the child at the time of the interview:

Diar. stopped:				
average duration:	5.1 days	4 days	7.7 days	5.5 days
Diar. still continuing?				
	8 cases 33.3%	4 cases 16.7%	13 cases 61.9%	25 cases 36.2%

G. QUESTIONNAIRES AND QUESTION GUIDES (follow this page)

1. Short form - single-page list of healers, one list for each of the 8 parishes chosen in each of the 3 districts (24 parishes covered). Includes basic sociodemographic data on 365 healers from 3 language groups.
2. Long form - interviews with 96 influential or well-known healers including data on socio-demographic characteristics, training, interest in workshops and topics, main diseases treated plus symptoms, causes, treatments of three diseases mentioned of which diarrhoea may be one symptom.
3. Case history form - case histories of 71 children who had a diarrhoeal episode during the 2 weeks prior to the interview.
4. Focus group question guide for THs, mothers, community leaders (18 groups).
5. Focus group question guide for health workers (6 groups).

DISTRICT _____

PARISH _____

DATE _____

CHECKED BY _____

	NAME OF HEALER	AGE	SEX : (M or F)	TRIBE 1. Musoga 2. Mutooro 3. Muganda 4. Other (specify	Number of years in practice	SPECIALTY: 1. pure herbalist 2. Spiritualist herb. 3. Bonesetter 4. Snake bites 5. TBA 6. Advisor 7. Other (specify	Treats Children? Yes or No	Belongs to a TH Association? Yes or No	Would like to attend workshop for healers Yes or No	COMM.
1										
2										
3										
4										
5										
6										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

UGANDAN TRADITIONAL HEALERS STUDY

LONG FORM

INSTRUCTIONS

WHO TO INTERVIEW: choose a prominent traditional healer who commonly treats childhood illnesses, a healer who is recognized as especially well-known for treating children's problems

HOW MANY: 4 healers in each of the 8 parishes in your district (total=32)

HOW TO FIND ONE: ask someone, "If I had a sick child, who would you recommend I take the child to for treatment?"

OBJECTIVE: to gain in-depth information about how the healer manages common childhood illnesses, especially those of which diarrhea may be a symptom. What we are primarily interested in is detailed data on symptoms, causes, treatments, and rituals connected with treatments of 3 of the illnesses most commonly seen by the healer (NOT illnesses that are rarely seen).

PARTS OF THE QUESTIONNAIRE

1. Background socio-demographic data: pages 1-2
2. Most common illnesses treated by this healer:
Kiganda terms p. 3
Kisoga terms p. 4
Kitooro terms p. 5
3. Detailed data on 3 of those diseases: pages 6-8. Ask the healer about how he treats simple diarrhoea. For the other two illnesses, choose 2 of the illnesses mentioned by the healer where diarrhoea may be one of the symptoms.

Ask about symptoms, causes, treatments, rituals connected with treatments, and recommended foods or drinks. This is an open-ended section and should contain as much detail as possible.

*Fill in all blanks. If, for some reason, you cannot fill in a blank, write on the questionnaire why you can't do it.

If there is not enough room on a page to write in everything you are being told, continue writing on the back of the form.

*For multiple choice questions, CIRCLE the appropriate answer so that the choice is clear.

=====
!!PLEASE PRINT CLEARLY: Illegible data cannot be analyzed. !!
=====

17. Do you consider yourself: (CIRCLE ALL THAT APPLY)

- a. pure herbalist
- b. spiritualist/herbalist
- c. bonesetter
- d. snake bite specialist
- e. traditional birth attendant/midwife
- f. advisor/counselor
- g. other _____

18. Do you treat:

- 1. only children
- 2. mostly children
- 3. about equal numbers of children and adults
- 4. mostly adults
- 5. only adults

19. Do you belong to an association for healers? Yes No

20. IF YES, name of association: _____

21. IF NO, would you like to belong to an association? Yes No

22. If an information workshop were to be held in this district for healers, would you like to attend? Yes No

23. What topics would you like to hear about in a workshop?
(what kinds of information: storing & preserving herbs?
any particular diseases/illnesses? AIDS? immunization?
ORT? false teeth? family planning? midwifery? malaria?)

24. Do you practice traditional religion? Yes No

(TO THE INTERVIEWER):

25. In what language is this interview being conducted?

- 1. Lusoga
- 2. Lutooro
- 3. Luganda
- 4. Swahili
- 5. English
- 6. other _____

KIGANDA LIST OF ILLNESS TERMS (FOR USE IN MPIGI DISTRICT ONLY)

(If you are interviewing in Kabarole or Iganga, please use the correct page for that language group)

26. Which CHILDREN'S ILLNESSES do you treat most often?

CIRCLE ALL TERMS MENTIONED AND ADD ADDITIONAL TERMS IF THEY ARE MENTIONED
write in the English equivalent and/or direct translation of the name of the illness

Kiganda terms:

English name/translation:

1. mulangira	measles
2. musujja	fevers, high temperatures
3. ssenyiga	respiratory infections; colds
4. embiro/ekidukano	simple diarrhoea
5. ekidukano ky'omusaayi	dysentery/diarrhoea with blood
6. obusoro	worms
7. ebinnyo	false teeth
8. obusobe violation	diarrhoea with vomiting, behavior
9. okutuula	"sitting"
10. okumera amannyo	teething
11. okwavula	"crawling"
12. eyabwe (omusujja)	cerebral malaria
13. emizimu	spirits
14. amambuluga	mumps
15. ekigalanga	
16. ekikubuuko	
17. omusana	
18. obutwa	poison
19. obwosi	kwashiorkor
20. emmere empya	"new food"
21.	AIDS
22.	fracture
23. ennyumba empya	"new house"
24. okujja omwana ku mabeere	weaning
25. okwoseera	short birth intervals
26.	sunken fontanelle
27. omubisi gw'enjuki	honey
28. obuwuka: enfaana, enfoka	worms/?
29.	
30.	
31.	
32. okulya omuziro	
33. kifuba	coughs
34. omutwe	headache
35.	
36.	
37.	
38.	
39.	
40.	

KISOGA LIST OF ILLNESS TERMS (FOR USE IN IGANGA DISTRICT ONLY)

(If you are interviewing in Kabarole or Mpigi, please use the correct page for that language group)

26. Which CHILDREN'S ILLNESSES do you treat most often?

CIRCLE ALL TERMS MENTIONED AND ADD ADDITIONAL TERMS IF THEY ARE MENTIONED
write in the English equivalent and/or direct translation of the name of the illness

Kisoga terms:

English name/translation:

- | | |
|-------------------------------|----------------------------------|
| 1. lukusense-mulangira | measles |
| 2. musudha | fevers |
| 3. seeseba-yegu | respiratory infections; colds |
| 4. kidhukano, munararo, mbiro | simple diarrhoea |
| 5. kidhukano kya musaayi | dysentery, diarrhoea with blood |
| 6. enfaana, embebe | tapeworm |
| 7. ekidhada | ascitis |
| 8. bufukuni | hookworm |
| 9. obusangala | diphtheria |
| 10. akakaika | whooping cough |
| 11. kafuba | TB |
| 12. esagya | polio |
| 13. lulalama | tetanus |
| 14. mambuluga | mumps |
| 15. oluumu | ringworm |
| 16. amakadha | swollen, painful joints (arthri) |
| 17. eiraru | runutic (madness) |
| 18. embiru | tonsilitis, acute |
| 19. obwayu | kwashiorkor |
| 20. ebizimba | abcess |
| 21. kaveera | AIDS |
| 22. obumene, obuvune | fracture |
| 23. amaaso agayitulu | trachoma |
| 24. amaloole | red eyes |
| 25. omitenga | haemorrhoids |
| 26. okusobya omwana | obusobe (violation) |
| 27. omutima omwoyo | prolapsed rectum |
| 28. ekidukano ekya amasira | diarrhoea with pus |
| 29. okusesema, n'okwidhukana | diarrhoea with vomiting |
| 30. omusudha ne kidhukano | diarrhoea with fever |
| 31. ebiino | false teeth |
| 32. namusuna | chicken pox |
| 33. luwero | asthma |
| 34. kabotongo | syphilis |
| 35. enziku | gonorrhoea |
| 36. ebigenge | leprosey |
| 37. ensimbu | epilepsy/fits |
| 38. kaboole | dental decay |
| 39. enfeete | hump due to TB |
| 40. obwisiko | (cellulitis) |
| 41. | ear with pus can cause diarrhoea |

KITOORO LIST OF ILLNESS TERMS (FOR USE IN KABAROLE DISTRICT ONLY)
 (If you are interviewing in Iganga or Mpigi, please use the correct page for that language group)

26. Which CHILDREN'S ILLNESSES do you treat most often?

CIRCLE ALL TERMS MENTIONED AND ADD ADDITIONAL TERMS IF THEY ARE MENTIONED
 write in the English equivalent and/or direct translation of the name of the illness

Kitooro terms:	English name/translation
1. oruseru	measles
2. omuswija	fevers
3.	respiratory infections; colds
4. kuturuka	simple diarrhoea
5. kuturuka esagama	dysentery/diarrhoea with blood
6. enjoka	worms
7. kutanaka	vomiting
8. enkorro	cough
9. ekihinzi	flu
10. enkorro yakatera	whooping cough
11. ebinhaso	pneumonia
12. omutwe	headache
13. ebisumi	chicken pox
14. amanduguya	mumps
15. ebiguuna	ringworm
16. emsimbo	fits
17. ebiino	false teeth
18. oburo	"millet" disease
19. eryosi	kwashiorkor
20. ebyomunda	
21. ekijoka	
22. eyabwe	
23. kwomerrwa	constipation/indigestion
24. embandwa	gods
25. emizimu	spirits
26. oruhorofozi	sunken fontanelle
27. amazomba	ringworms
28. amaiso	
29. akameeme	
30. obugeregere	
31. orukaca	
32. ebiyaga/kaberebenje	syphillis
33. somama nkwambiye	scabies
34. okusobya omwana	
35. omuhumbo	lower back pain, diarrhoea
36. muhogo	lower back pain, diarrhoea
37.	
38.	
39.	
40.	

Question 27: 3 parts (3 illnesses)

CHOOSE 3 OF THE CHILDREN'S DISEASES MENTIONED BY THE HEALER THAT HE TREATS MOST OFTEN, PREFERABLY ONES OF WHICH DIARRHOEA MAY BE A SYMPTOM.

"I'd like to ask you some more detailed questions about 3 of the illnesses you mentioned."

FIRST: indigenous name _____ English name: simple (watery)
diarrhoea

How do you distinguish between simple and serious diarrhoea?

CAUSES: (probe for additional causes)

TREATMENTS: (what, how, when, how often?)

RITUALS CONNECTED WITH TREATMENTS:

RECOMMENDED FOODS OR DRINKS:

FOODS OR DRINKS NOT RECOMMENDED:

SECOND: indigenous name_____ English name_____

SYMPTOMS: (how do you know the child has the illness?)

CAUSES: (probe for additional causes)

TREATMENTS: (what, how, when, how often?)

RITUALS CONNECTED WITH TREATMENTS:

RECOMMENDED FOODS OR DRINKS:

FOODS OR DRINKS NOT RECOMMENDED:

THIRD: indigenous name _____ English name _____

SYMPTOMS: (how do you know the child has the illness?)

CAUSES: (probe for additional causes)

TREATMENTS: (what, how, when, how often?)

RITUALS CONNECTED WITH TREATMENTS:

RECOMMENDED FOODS OR DRINKS:

FOODS OR DRINKS NOT RECOMMENDED:

UGANDAN TRADITIONAL HEALERS STUDY

CASE HISTORY FORM

INSTRUCTIONS

WHO TO INTERVIEW: mothers of children under 5 yrs where the child has had some kind of diarrhoeal episode within the past 2 weeks

HOW MANY: 3 mothers in each of the 8 parishes in your district (total=24 for each research district)

HOW TO FIND ONE: ask for advice on locating a mother from a neutral source, in other words, don't go to a clinic (biased responses) or to a TH. RCs may be able to help.

OBJECTIVE: To understand where the TH fits in the overall health seeking process for this illness episode, based on a real-life situation that has recently happened. We also want to know how many days the diarrhoea lasted.

PARTS OF THE QUESTIONNAIRE:

1. Background socio-demographic data, page 1
2. Day-by-day narrative description of the episode, page 2

Don't forget to find out on which day or days, the mother took her child to any kind of doctor, traditional or biomedical.

*Fill in all blanks. If, for some reason, you cannot fill in a blank, write on the questionnaire why you can't do it.

If there is not enough room on a page to write in everything you are being told, continue writing on the back of the form.

*For multiple choice questions, CIRCLE the appropriate answer so that the choice is clear.

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!!PLEASE PRINT IN CAPITAL LETTERS: Illegible data cannot be analyzed. !!
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CASE HISTORY FORM FOR CHILD LESS THAN 5 YEARS OLD WHO HAS HAD
DIARRHOEA-RELATED ILLNESS WITHIN THE PAST 2 WEEKS.

1. Interviewer's name _____ interviewer's number _____

2. District: 1. Iganga 3. Parish: _____
(circle) 2. Kabarole Parish number _____
3. Mpigi

4. Case history number _____ (1-20)

5. Today's date: _____ 6. Time of interview: AM PM
day month

Mother's name _____

Child's name _____ 7. Child's age: _____
yrs months

8. Child's tribe: 1. Musoga
(circle) 2. Mutooro 9. Child's sex: M F
3. Muganda
4. other _____ (specify)

10. Does child still breastfeed: Yes No--->if no, at what age was child
weaned? _____
month year

12. Has the child had diarrhoea 13. Date diarrhoea started: _____
in the past 2 weeks? Yes No day month

14. What kind of diarrhoea was it?

1. simple/watery diarrhoea
2. bloody diarrhoea
3. yellowish diarrhoea
4. whitish diarrhoea
5. greenish diarrhoea
6. other (specify) _____

15. Did the child vomit? Yes No

16. Did the child have fever? Yes No

17. Did you give the child any traditional medicine? Yes No

18. IF YES, what did you give:

19. From whom did you get it? 1. around the house
2. from a traditional healer
3. from someone else (neighbor, relative, etc)
4. other (specify) _____

20. How did you know which herb to use?

21. During the time the child had diarrhoea did you take the child to a:
1. health center
2. dispensary 4. other health facility: _____
3. hospital 5. (did not take child to health facility)

22. If child was taken to health facility, what was given to treat the
diarrhoea?

DAY 1: What did you think was causing the diarrhoea?

Did the child seem thirsty? Yes No

What did the child eat on the first day?

What did the child drink on the first day?

DAY 2: Did the child still have diarrhoea on the second day? Yes No

What did the child eat on the second day?

What did the child drink on the second day?

Did you give more medicine on the second day? Yes No
IF YES, what, specifically?

DAY 3: What was the condition of the child? What did you do, if not improved?

DAY 4: (continue same line of questioning if episode continues)

DAY 5: (continue same line of questioning if episode continues)

TO THE INTERVIEWER: HOW MANY DAYS DID THIS EPISODE LAST? _____

QUESTIONS TO GUIDE FOCUS GROUP DISCUSSIONS:
TRADITIONAL HEALERS, MOTHERS, COMMUNITY LEADERS

1. What are the common childhood illnesses in this area?
2. **Seasonality:** usual time of year when illness occurs
3. **Symptoms:** probe - are there any other signs/symptoms that characterize this illness? (How do you know the child has this illness?)
4. **Age of child:** at what age are children most likely to get this illness?
5. **Seriousness:** does this disease worry the mother so as to disrupt her normal routine work?
6. **Causes:** probe - are there other things that can cause this illness?
7. **Treatments:** what is usually done and by whom; probe - are there other things that could be done for this illness
8. **Expenses** associated with treatments - is this treatment expensive? how much does it cost? if you had more money, would you try another treatment? which one? how much does that cost?
9. **Food restrictions:** are there any foods which a child with this illness should NOT eat? any drinks they should not take? which ones? why?
10. **Food recommendations:** are there any foods which are particularly good for a child with this illness? any drinks they should take?
11. Do you know about the AIDS disease? What causes it? What treatment is given?
12. How do you think THs could help in dealing with tetanus in children?
13. How do you think THs and CHWs could cooperate in ways to treat "false teeth".

QUESTIONS TO GUIDE FOCUS GROUP DISCUSSIONS WITH COMMUNITY HEALTH WORKERS

**What are the most common childhood illnesses in this area?

1. How can traditional healers and biomedical personnel work together to improve the health of children in this area?
2. What would you say about referrals between the health facilities where you work and traditional healers in your area?
3. What would you say about the fact that many of the patients you see are probably also seeing traditional healers at the same time for the same health problems, and probably do not tell you they're doing so?
4. How do you think THs could help in mobilizing mothers to bring their children to your health facilities for immunizations?
5. How do you think THs could help in mobilizing mothers to give their children ORT whenever the children have diarrhoeal episodes?
6. How would you feel about attending PHC (primary health care) workshops held for community health workers and traditional healers together at the same time?
7. How do you think THs could help in dealing with the AIDS crisis in Uganda?
8. How do you think THs could help in dealing with tetanus in children?
9. How do you think THs and CHWs could cooperate in ways to treat "false teeth".

A. DATA ENTRY SCREEN FOR NOTEBOOK II PLUS TEXTUAL DATABASE MANAGER

Data on illnesses described during interviews with prominent THs (long form) and during focus group discussions, as well as data from published and unpublished articles about traditional disease concepts in Uganda, was entered into an unlimited textual database manager, Notebook II Plus (into a database called ILLNESS). Each record in the data file contains the following information where applicable. A blank data entry screen looks like this:

Keyname	:
Language/tribe	:
Indigenous name	:
English translation	:
District	:
County	:
Parish	:
Questionnaire type	:
Questionnaire no.	:
Symptoms	:
Causes	:
Treatments	:
Rituals	:
Abbreviation	:

The field "Keyname" is reserved for the author(s) and date of published or unpublished references to illness descriptions with which we are comparing the data we collect. The second field identifies the ethnic group from which the data comes. District, county, and questionnaire data help to identify the source of the data. The remaining fields record information about each illness entry, and can accept unlimited amounts of text, like a word processor. Data can then be sorted, reordered, and printed in an almost infinite variety of ways to facilitate organization and writing summaries.

I. TRAINING CURRICULUM OUTLINE

INTERVIEWER TRAINING - LWEZA CONFERENCE AND TRAINING CENTER 28 OCTOBER - 2 NOVEMBER 1990

Training activities as they actually occurred:

<u>Day</u>	<u>Time</u>	<u>Person</u>	<u>Activity</u>
Sun	PM		Interviewers arrive at Lweza Conference & Training
Ctr			
			Supper
	10:45-	WW Lwanga	Introduction of training staff & interviewers
	11:15		and administrative details
		Mugerwa/ JS Lwanga	Introduction to the Traditional Healers Study: objectives, purpose, value, focus
Mon	7am-		Breakfast
	8:00	Hogle	Types of data to be collected (included further discussion of research objectives, got into some methodological issues, touched on some administrative details)
	10:00		Tea break
	10:45-	Kasozi	Relationship between traditional medicine and culture
	11:30-	J Lwanga	Practical issues on methodology and interviewing: defs of methodology; how to find interviewees; logistics; FG planning; methods related to each form being used.
	1-		Lunch
	2-	Mugerwa	Objectivity in interviewing skills Eliciting responses: rapport with interviewees
	2:30-	Hogle	Focus group discussions: particular problems
	3:15-	Lwanga	Operating tape recorders and note taking
	3:30-	Hogle	Problems with filling structured questionnaires: illegibility, missing data, internal inconsistencies, lack of detail; samples from the pretests.
	4:45-		Tea & rest

FGs, LFs, CHs done that afternoon

Thu	7:30am		Breakfast
	8:30		Practice focus group discussions in the village: FG with CHWs at Kajansi Dispensary
	10:20-12noon		Group finally assembles; miscommunication; FG held
	1-		Lunch
	2-4		Work on translations
	4-7pm		FG with community leaders at Lweza
	7:30		Supper
	8:30-10pm	Mugerwa	Discuss results and problems encountered with focus group discussion
Fri	7am		Breakfast
	8:15		Go to Kasubi Hospital for FG with health workers
	9:30-11		FG conducted
	11-11:30		FG discussed
	11:45-		Tea
	1:15-		Lunch
	2-		3 groups worked on translations of FG questions
	4-	JS Lwanga	Final touches/comments/overall discussion Administrative issues: finances in the field
	5-		Tea
	5:30-		Departure of most participants from Lweza
	7-		Supper
Sat	7am		Breakfast and departure of remaining participants

J. METHODOLOGICAL CONSIDERATIONS

Health care programme planners are aware of the need for accurate ethnographic (or ethnomedical) data - cultural information on health beliefs and practices - about the populations served by their programmes. For example, in Uganda, the CDD Programme would like to encourage THs to incorporate ORT into their existing treatment regimens, and also to discourage practices such as removal of baby teeth, removal of a nodule of fat, enemas, purgatives, and withholding of foods or fluids which may be done as part of treatments for childhood diseases of which diarrhoea may be one symptom. In order to design culturally appropriate workshop curriculums, programme planners must understand in detail not only the existing treatment strategies as used by THs, but also the rationale behind those strategies, as it is understood by the healers themselves. Not only is it important to identify folk beliefs, but also to understand the interaction between beliefs and behavior during diarrhoea (Herman 1988:A-4). In many cases, that type of sensitive information is difficult to obtain because healers and mothers know that biomedical practitioners do not approve of certain practices, considering them dangerous and ineffective. Even if some of the practices considered harmful by biomedical practitioners are in fact not particularly common, healers and mothers are reluctant to discuss them with interviewers perceived as representing government health services.

Many research anthropologists would argue that reliable data on sensitive issues such as traditional treatments for childhood illnesses can only be obtained through long term participant observation methodology involving key informant interviewing of a small number of selected individuals. On the other hand, among applied health researchers, the most common methodology for obtaining sociocultural data has been the survey method in which large numbers of respondents are interviewed using a structured questionnaire format. This methodology obtains rather thin information on non-sensitive topics, and often nothing at all on sensitive issues such as traditional health behaviors known by the respondents to be frowned upon by biomedical personnel. Both approaches to data collection have strengths and weaknesses. Survey methods provide a broad picture that can be statistically generalizable to an entire population, but they tend to miss significant and/or sensitive detail. Long term, key informant interviewing is better able to unravel the cultural intricacies of specific behaviors, but generalizing beyond a particular ethnic group or region then becomes questionable.

Programme managers need detailed enough background ethnographic data in order to develop effective programmes, but also enough detail about national distribution so that regional and ethnic variation can be taken into consideration. Anthropologists with experience in applied health care research and planning believe that essential ethnographic data can be gathered in a relatively rapid fashion using well-designed, short-term methods which take into consideration programmatic time and budgetary constraints (Bentley et al 1988). These methods - variously termed "rapid ethnographic assessment" or "rapid assessment procedures (RAP)" form the basis of this project's methodological approach.

1. Focus on the "sick child"

While the research is being conducted by the CDD Programme, and thus, the principal investigators are primarily interested in childhood diarrhoeal diseases, the methodological approach involves a focus on the "sick child" for the following reasons.

People in all cultures recognize frequent, loose stools in children as a phenomenon that is usually, but not always, pathological. The next step in any exploration of traditional care of childhood diarrhoea is collecting terms used in local languages to describe that phenomenon. However, starting from the concept of "loose stools" (embiro or ekidukano in Luganda, for example) is not likely to elicit all the possible illnesses of which diarrhoea may be a symptom because the accompanying diarrhoea may not be recognized as being important. Asking someone to list all the causes or treatments of "diarrhoeas" will thus result in a lumped and limited set of information.

Biomedical science recognizes diarrhoea as one symptom that may occur alone or in the company of other symptoms. It is considered to be serious because that one symptom can lead to dehydration and death, regardless of the severity of other accompanying symptoms or disease complexes. Biomedicine places prime importance on avoiding mortality through symptomatic treatment (ORT), and secondary importance on treating the actual cause of the diarrhoea since most diarrhoeas are self-limiting anyway. Traditional African belief systems, however, usually present multi-causal explanations for disease processes that are most often rooted in social relationships. Africans traditionally place primary importance on ameliorating the perceived root cause of the condition, and secondary importance on treating symptoms. Thus there often exists a felt need to ritually address disharmonious social situations (root causes) prior to administration of herbal medicines and/or procedures to stop the diarrhoea.

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

Thus, in order to identify the explanatory models of diseases which might involve diarrhoea, our investigation began at the general level of childhood diseases. For example, groups of THs, mothers of young children, health workers, and community leaders were asked in the context of focus group discussions to describe the most common health problems affecting children in their area, along with symptoms, perceived causes, treatments, and other associated information. (See lists of focus group discussion questions in Annex G.) Diarrhoea may be only one symptom among many characterizing a culture-specific illness.

2. Definition of traditional healer

In Anokbonggo's study (1990) of 292 randomly selected healers, 43% of his sample consisted of pure herbalists (those healers who use exclusively herbs to treat patients), and 41% were spiritualists who use herbs along with spiritual assistance. Diarrhoeal diseases in adults and children were usually handled by herbalists and spiritualists (p. 359).

A survey of healers (including TBAs) in Arua by the CDD programme revealed that some TBAs also treat childhood illnesses and consider themselves to be herbalists and/or spiritualists. Therefore, TBAs were included in our definition of "traditional healers", when they are identified by the RC2s as also treating childhood illnesses.

3. Focus group discussions

A certain amount of data has already been assembled on cultural beliefs and practices associated with childhood diseases of which diarrhoea may be a symptom (a summary of that data appears in Hogle 1990). Recent research on the topic (Anokbonggo et al 1990; Lwanga and Mukisa 1989) and other descriptions (Bennett 1963; Bennett et al 1964; Kasozi 1989; Namboze 1983) have focused on the term 'diarrhoea' rather than on the broader concept of children's illnesses. This research project wants to fine-tune existing descriptions of childhood illnesses, with an emphasis on those illnesses of which diarrhoea may be a symptom, by focusing on local language disease names of childhood illnesses, and their accompanying symptoms, perceived causes, and recommended treatments.

The primary methodological approach for obtaining additional data about ethnomedical knowledge and therapeutics is the focus group discussion. This methodology is being rediscovered by social scientists as a relatively inexpensive and rapid way of collecting detailed information on perceptions, feelings, and manner of thinking of the participants (Krueger 1988; Morgan 1988). Groups of 6-12 people (separate groups of THs, mothers, community leaders, and health workers) were interviewed by a moderator using a list of questions as a guide. An assistant moderator took written notes on the discussion and operated a tape recorder. (Both moderator and recorder were trained to do both jobs and traded tasks during actual data collection.) The moderator asked the group about the most common childhood illnesses in the area. When further questions did not reveal new information, then he/she concentrated on asking questions about symptoms, treatments and possible causes for each illness associated with diarrhoea (Yoder 1989). Focus group discussions lasted from 45-90 minutes. (As comparison, Yoder's 1989 research in Zaire involved a Zairian anthropologist and two assistants who interviewed 35 groups of people in three areas of one city within a 2 week period, with an average discussion time of 45 minutes.)

During focus group discussions with health workers, the moderator also elicited ideas from the group on ways that traditional medicine and biomedicine can work together to improve child health. These ideas will contribute to CDD's efforts to redesign a workshop curriculum for healers.

One focus group discussion was conducted in each of the 8 parishes chosen within the 3 study districts. Within each district, there were 2 groups with THs, 2 groups with mothers of children under age 5, 2 groups with health workers, and 2 groups with community leaders. This approach provided comparative information about traditional behaviors from several perspectives: the THs who provide the traditional treatments, the mothers who seek it out for their children's health problems, the community leaders whose opinions are sought when children are ill, and the community health workers whose exposure to biomedicine has given them an additional perspective on traditional treatments, many of which they themselves continue to use.

K. PERSONNEL

Principal investigators: Mr. James S. Lwanga is a clinical psychologist with Makerere University Counseling Center, and has experience conducting research on traditional treatments of childhood diarrhoea (Lwanga and Mukisa 1989), as well as other research on the topics of displaced children, and on other aspects of traditional medicine. Mrs. Christine Kisamba-Mugerwa is a sociologist, the head of the Department of Sociology at Makerere University.

Project coordinator: Dr. Musonge is a physician and the Programme Manager of the CDD Programme at the Ministry of Health. He set in motion the research process and laid the groundwork for realizing the study. His major role has been in the preliminary stages, and will also include involvement in analysis and interpretation of the data.

Field managers: Mr. J.B. Kasozi is the Cultural Officer for Kampala and Mpigi (Ministry of Youth, Culture, and Sports). His input into this project has been considerable and critical, during planning, training, and execution of the research. He divided his time between the three districts during the study period. Mr. Kanja Sanneh is a UN volunteer, working with the CDD programme through UNICEF. He has focused on traditional medicine in Uganda for some time, having visited over a third of the districts in the country, talking to traditional healers and working with the CDD programme's ORT training workshops. He worked with Mr. Kasozi in the three districts during the study period, assisting the research teams with problems as they arose.

Project consultants: W.W. Lwanga is a Health Inspector, Programme Planner and Trainer with the CDD Programme. He has been involved with traditional healers in Uganda for the past four years, has been instrumental in the planning and execution of this study, and joined J.S. Lwanga and C.K. Mugerwa in supervising interviewers. Prof. Anokbonggo is a physician/pharmacologist who has published research on traditional treatments of childhood diarrhoeal diseases (Anokbonggo 1990). Dr. Barton is a physician and consultant to the Child Health Development Center. He played a major role in the development of the proposal. Dr. Hogle is a medical anthropologist with applied research experience in the area of childhood diarrhoeal diseases. She is a consultant for the PRITECH Project, has had major input into the research proposal, assisted in training the interviewers, and in data analysis and writing.

Interviewers: The interviewers are native speakers of the district's indigenous languages, and were chosen from interviewers, known to the PIs and advisors, who had worked on previous research projects. They are health educators and teachers, in their mid to late twenties.

L. HOW TO CONDUCT FOCUS GROUP DISCUSSIONS

(Summary prepared for interviewer training during the Ugandan Traditional Healer Study, Fall 1990, by Janice Hogle, PhD - PRITECH Consultant - Revised 7/91; based on Krueger 1988 and Morgan 1988)

What is a focus group discussion? A focus group discussion is a type of **qualitative** research methodology that uses group interaction to produce data and understanding that would be less accessible without the interaction found in a group.

Focus groups were first introduced by sociologists as a research methodology, but have not been used extensively by social scientists. They have been used mainly by marketing researchers during the past 30 years. Social scientists are now beginning to rediscover focus groups as a qualitative research technique.

Qualitative data concentrates on words and observations to express reality and attempts to describe people in natural situations, resulting in in-depth information about fewer cases (ie. respondents/interviewees/people). Quantitative data places considerable trust in numbers that represent opinions or concepts, and produces more breadth of information across a larger number of cases.

Focus groups are led by questions that strive to understand **perceptions, feelings and manner of thinking** of the participants. "Yes/no" and "why" questions are generally not used unless there is a need for clarification. In answering "why" questions, respondents tend to give socially acceptable responses rather than answers that reflect what they're really thinking.

Focus groups use **open-ended** questions rather than the more commonly used closed-ended questions of structured surveys and questionnaires. Closed-ended questions are "fill in the blank" or "circle the number of the right answer" questions. During focus group discussions there are no right or wrong answers.

The main advantage of focus groups is that they provide the researcher an opportunity to observe a large amount of interaction on a topic in a limited period of time, they are less expensive than surveys because the researcher can interact with several people at the same time rather than the usual one-on-one, face-to-face structured interview.

Although the setting of the focus group is unnatural (as opposed to participant observation), the interaction between people can produce more in-depth data than might otherwise be obtained by interviewing a series of individuals.

Topics can be explored in depth. Focus groups are an ideal way to learn about participant's experiences and perspectives - how people feel about certain topics or issues. People are

usually happy to compare their experiences with other people. Focus groups are particularly good at uncovering **why** people think as they do, without specifically asking them why, because usually people can't tell you why they do what they do. You have to infer "why" from other things they tell you. In this research project, we want to understand how people (healers and others) think about children's diarrhoeal diseases and why they seek or recommend certain kinds of treatments for their children, so that we can think of better ways to explain ORT and enlist THs' cooperation in promoting ORT to reduce child mortality due to dehydration. However, we are not focusing so much on how people feel about childhood diseases, but rather, we are collecting information about traditional management of those diseases. We're asking people to name the common childhood diseases seen in their areas and describe symptoms, causes and treatments as they understand them. Marketing specialists might argue that our group discussions are not really focus group discussions in a technical sense.

One of the objectives of a focus group is to keep the participants discussing a subject until their points of agreement and disagreement become apparent - that is, until the moderator understands the explanation behind the various different perspectives that the participants express. We anticipate that people will have different ideas about causes and treatments for some illnesses, and that their disagreements and explanations might lead to more depth of understanding.

One of the hazards in getting information from people is that they often want to tell us how they wish to be seen as opposed to how they are. Focus groups usually offer a permissive environment to divulge emotions that often do not emerge in other forms of questioning. The environment of a focus group should be permissive and nonjudgemental. **The moderator must avoid expressing personal points of view.**

The idea is NOT to get many vague generalities, but rather, to get very specific, concrete, and detailed accounts of the participants' experiences with childhood illnesses and with traditional healers.

The question guide is ONLY a guide and does not have to be followed rigidly. The questions should be memorized as much as possible by the moderator so that he/she does not have to look at the questions all the time, thus breaking eye contact with the group.

What are the components of a focus group?

moderator

assistant moderator (or recorder)

audio tape cassette recorder

note-taking

6-12 participants who are similar to each other in some way

about 1-2 hours time per focus group

maximum number of focus groups per day should be 2 per moderator

Participants should be similar to each other - categories are usually considered based on the following characteristics:

- sex
- ethnicity (tribe, race)
- age
- socio-economic level (social class)

Following the focus group, the data produced for analysis include: typed tape transcript as written up by the moderator

typed fieldnotes as written up by the recorder

Both forms of data serve as checks on each other.

WHAT IS A MODERATOR?

The term "moderator" highlights the specific function of this type of interviewer - that of moderating or guiding the discussion. The term "interviewer" tends to convey a one-on-one type of communication between interviewer and interviewee. In contrast, a focus group provides the opportunity for multiple interactions between the moderator and the participants and between the participants among themselves.

Moderator characteristics:

Mental discipline - in order to ensure this, the moderator should be well-rested and well-fed prior to the group discussion; must be mentally alert, free from distractions and pressures that would limit ability to think quickly.

Preparation - the moderator should know the contents of the question guide without having to read from it during the discussion.

Moderating a group discussion requires concentration, careful listening, and the ability to give full attention to the group.

The moderator must avoid expressing personal points of view.

Group interaction skills - the moderator should be able to deal with:

- a quiet passive group
- an overly exuberant group
- an outspoken group member
- a group which consistently goes off on a tangent
- a group which appears to be giving inconsistent responses
- a group which does not understand the question
- a group which misses the point completely
- an inarticulate group
- a hostile group or group member
- a nervous, tense group discussing a sensitive topic.

Questions that should pass through the moderator's mind while the discussion is in process (requiring the discipline of listening and thinking simultaneously):

--What else do I need to ask to understand this respondent's statement -- What it means, why he/she feels that way, etc.?

--Am I hearing everything I need to know to understand the problem and answer the objectives of the research? Is there a question not on the topic guide that I should ask?

--How much time do I have left? Will I be able to cover everything when just one section of the topic guide could take the full two hours?

--What does all this mean anyway? What am I learning about people's feelings, beliefs, and behavior? What ideas does this suggest about solving the problem of how to explain ORT to traditional healers?

--The issue is "What do you feel?" not "What is your opinion?". How do I get beyond the intellectualizing to respondents' real feelings? I want to reach what does through people's minds before it becomes censored.

Assistant moderator tasks:

--takes comprehensive notes

--operates the tape recorder

--responds to unexpected interruptions

--notes participants' body language during the discussion

--might ask additional questions near the end of the session

--might probe a participant's response in more depth

--must write up his/her notes immediately after the session

Beginning the focus group - how does the moderator start?

BEFORE the session begins, people will be assembling. During the small talk that always happens, the moderator should **avoid** talking about the topic - talk about the weather, children, anything besides the topic. Also avoid controversial topics: religion, politics, or sensitive local issues, and topics that highlight differences within the group (income, education, political influence, etc). The moderator should not be **anxious** before the session begins.

Introducing the focus group

1. the welcome

2. the overview and topic (why we have called you all together)

3. the ground rules

4. the first question

When everyone is seated and ready to begin, you mention the importance of the tape recorder- that it is being used in order to get everyone's comments, all of which are very important to our understanding of children's health problems in the area. Emphasize that the participants' names will not be used in any written reports about the research project.

"We have called this group together to hear from you about the most common illness problems of young children and babies in this area. We want to better understand what those problems are and how you take care of them."

"We will talk for about an hour or so, or as long as the group wants to continue."

"If the discussion goes off on a tangent (tends to get off the track), someone will usually pull the group back to the topic - either one of the participants or myself or the recorder."

"If the group runs out of things to say, just remember that we're interested in as many different points of view about the topic as possible. So usually, someone will think of something to say that hasn't been said before and their story will restart the discussion."

"If you hear someone describe an illness in a way that is different from the way you know it, then you should speak up and tell us about your experience with that illness."

"Everyone should take the opportunity to speak. We would like to hear from everyone about their experiences with young children's illnesses."

"We want to hear from you all, and learn from you about the problems you are having with young children's illnesses."

"There are a **few simple rules** for focus group discussions:

1. only one person speaks at a time
2. no side conversations between neighbors in the group
3. everyone should have a chance to express their perspectives."

"First we would like everyone to introduce themselves and tell us who you are, and just tell us what was the most recent health problem that your child had, without going into much detail right now." (This technique gets everyone to say something in the beginning and gives the moderator an idea about who is participating).

THEN AFTER EVERYONE HAS SAID WHO THEY ARE AND MENTIONED ONE ILLNESS:

FIRST GENERAL QUESTION: "In your experience, what are the most common childhood illnesses in this area?"

(for the village health workers: "How can traditional healers and community health workers work together to improve the health of children in this area?")

AFTER A FEW MINUTES OF DISCUSSION: "Other people have told us about (any illness you wish to get information about). Is that a common problem here?"

(IF YES), "What are the symptoms (causes, treatments) of that problem?"
(IF NO), (think of another illness that has been mentioned; glance at your question guide for a reminder).

TWO IMPORTANT TECHNIQUES: THE PAUSE and THE PROBE

Pause: The five-second pause is most often used after a participant's comment. It prompts other points of view. There is a tendency for novice moderators to talk too much, to dominate the discussion with questions, and to move too quickly from one topic to another. The pause can often help slow things down, elicit additional comments, and allow time for someone to speak, especially if it is accompanied by eye contact between the moderator and participants.

Probe: This is a technique for getting additional information. In most conversations and group discussions, there is a tendency for people to make vague comments that could have multiple meanings, or to say "I agree". Probing comments include:

"Would you explain further?"

"Would you give me an example of what you mean?"

"Is there anything else?"

"Please describe what you mean?"

"I don't understand."

It is best to use the probe early in the discussion to emphasize the importance of precision in responses and then use it sparingly in later discussion. Excessive probing, however, can be extremely time consuming and unnecessary.

The most frequent danger of novice moderators is that they worry about too many things just before the group session and consequently begin the discussion with high anxiety. The best advice for beginning moderators is to practice asking questions, worry several days before the focus group, and then relax just before the discussion.

SUMMARY AND CHECKLIST FOR FOCUS GROUP INTERVIEWS

Questions

--The first "question" is to have everyone introduce themselves. This should happen quickly - not take too much time.

--Questions should flow in a logical sequence.

--Key questions should focus on the critical issues of concern (children's illnesses or working relationships between THs and biomedical practitioners)

--Use carefully spaced probes, pauses and followup questions.

--Limit the use of "why" questions.

Moderator skills

- Be well rested and alert for the focus group session.
- Practice introduction without referring to notes.
- Remember questions without referring to notes.
- Be careful to avoid too much head-nodding.
- Avoid comments that signal approval, such as "excellent", "great", "wonderful", or the equivalent in local languages. Use neutral comments if you use comments at all.
- Avoid giving personal opinions.**

Immediately after the session

- Moderator must prepare a brief written summary of key points as soon as possible.
- Check to see if the tape recorder captured the comments.
- Assistant moderator must write up his/her notes as soon as possible in as detailed a fashion as he can remember.
- Moderator must transcribe the tape in English to at least get the main points and some detail.

As soon as the participants have left the discussion location the moderator and assistant moderator should retreat to a quiet location. They first spot-check the tape recorder to ensure that it captured participants' comments. Check by using "fast forward" and "play" at several points in the tape, to determine if the tape has sufficient clarity and volume to be usable for later more detailed analysis. If the tape cannot be salvaged, the moderating team **MUST** attempt to reconstruct the discussion immediately, as best they can from memory and notes. If the tape is acceptable, then the moderating team can begin their individual write-ups.

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