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4

Engaging Indigenous African Healers in the Prevention of AIDS and STDs

EDWARD C. GREEN

This chapter outlines a pilot program for enlisting the help of indigenous, or "traditional," healers (as they prefer to be known) in an AIDS prevention program in Manica province, central Mozambique. There were few reliable data on HIV prevalence in 1991, at the outset of the pilot program. By 1992, after the end of civil war and when data became more reliable, the national average of HIV prevalence for the general, sexually active population (ages 15-49) was 8.0%. However, HIV prevalence in Manica province was 10.5%, second only to Tete province at 18.0%. Both of these provinces had experienced a great deal of population movement, mostly of Mozambican refugees returning from neighboring countries with considerably higher HIV prevalence than Mozambique, especially Malawi and Zimbabwe.

Need for an AIDS Prevention Program

Before 1991, there had been little AIDS preventive education or condom promotion in Mozambique. A number of "knowledge, attitude, and practice" (KAP) surveys had asked questions designed to test knowledge of HIV spread and prevention. Surveys at the time found "low" levels of knowledge about the "basic facts" of HIV transmission and prevention. The program I proposed in 1991 was

based on the premise that it is critical to discover the indigenous or ethnomedical system of beliefs relating to a domain of health in which there is to be an attempt at behavior change—in fact, this is far more useful than KAP surveys which simply demonstrate lack of biomedical knowledge.

The program involving traditional healers aimed to reduce the spread of HIV not only through the promotion of responsible sexual behavior and condom use but also by means of treatment and prevention of other sexually transmitted diseases (STDs),¹ which themselves increase the likelihood of HIV infection. Specifically, a proposed program objective was to reduce STD incidence and thereby HIV seropositivity by first modifying the behavior of traditional healers (in their referral if not their treatment practices) and then, through them, modifying the behavior of their clients. Another objective was to promote reduction in numbers of sexual partners by reinforcing indigenous beliefs about the dangers of sex with strangers.

A basic hypothesis was that AIDS prevention efforts could take advantage of the prestige, credibility, authority, and widespread availability of traditional healers to promote behavior change and the adoption of new technology (such as condoms) among their clients. Research suggests that traditional healers see and attempt to treat many or most STD cases in southern Africa, if not in all of Africa (Good, 1987; Green, 1994; Nzima, 1995). Healers also provide vaccinations and participate in ritual scarification, using razor blades, thus facilitating transmission of AIDS. It is generally accepted that about 80% of the people of sub-Saharan Africa rely on traditional healers for treatment of all conditions, even if many also visit hospitals (Bannerman et al., 1983). In Mozambique, the proportion relying on traditional healers may be even higher because of poverty, inaccessibility of biomedical health services, and years of attacks against the government's rural health personnel and infrastructure during Mozambique's civil war (1976–1992). Preliminary census studies by the Department of Traditional Medicine (Gabinete de Estudos de Medicina Tradicional, or GEMT) of the Mozambique Ministry of Health suggest a ratio of roughly 1 traditional healer for every 200 people. This estimate is comparable to estimates made elsewhere in sub-Saharan Africa (specified in Green, 1994:19). Given a national population of about 17 million, Mozambique can be estimated to have approximately 85,000 healers. The physician to population ratio in Mozambique is about 1:50,000, with some 52% of doctors concentrated in the capital city.

My GEMT colleagues and I proposed a three-year program to establish a foundation for public health collaboration between traditional healers and the National Health Service (Green et al., 1991). In 1991, I designed and directed preliminary ethnomedical research in Manica province in a pilot program focusing on child diarrheal disease and sexually transmitted disease, including AIDS. These foci were chosen because (1) both diseases were and are priority areas of preventive and promotive health care for the Ministry of Health; (2)

the GEMT lacked the resources to work directly in more than two health topics, at least initially; (3) there was prior experience collaborating with traditional healers in diarrheal disease control elsewhere in Africa, and (4) there was already interest on the part of Mozambique's National AIDS program in such collaboration. The first phase of the pilot program consisted of what has come to be called rapid ethnographic research (Yoder, 1997). This was followed by development of a research-based communications strategy, a "training" workshop, and, finally, impact evaluation.

The current program of indigenous-biomedical collaboration was funded for at least three years by the Swiss Development Cooperation (beginning 1994). I served as program adviser for the first year. Following the pilot program in Manica, there have been additional GEMT collaborative programs based on the pilot model, in Gaza, Maputo, Inhambane, and Nampula provinces.

Healers in our study came from Shona ethnolinguistic groups: Ute, Ndau, Manica, and Sena. There are roughly 10 million Shona living today in Zimbabwe and another roughly 1.8 million in west-central Mozambique. The Shona occupy a geographical position between the Central Bantu to the north and west and the Nguni to the south. They are primarily agricultural, raising maize as well as millet, rice, beans, manioc, groundnuts, pumpkins, and sweet potatoes. Animal husbandry is practiced by the Shona but it is not as important as among some neighboring groups. They live in dispersed hamlets or homesteads (kraals). Group membership is primarily patrilineal, unlike their matrilineal Central Bantu neighbors. Historically, the Shona were organized in relatively complex states: a king lived with advisers in a royal court in a capital village or town and received tribute from outlying chieftaincies (Murdock, 1959). The Shona have undergone great social changes in the last two or three generations, due to major conflicts related to independence, wage labor, urbanization, and government policies intended to rapidly modernize people in both Zimbabwe and Mozambique.

Development of Cultural Sensitivity in Mozambique Since Independence

Before 1989, the concept "culturally appropriate" would have made little sense in the context of government programs, including health programs. A brief sketch of Mozambique's history since independence is needed to explain this. The Frelimo party fought Portuguese colonial rule, eventually winning independence for Mozambique in 1975. Mozambique's health system in the late 1970s and 1980s was in some ways a model for Africa, "in the forefront internationally" of primary health care (Hanlon, 1984:55). For the majority indigenous population this represented a great improvement over the health system under colonial rule: whereas the old system had emphasized curative services for whites, the new

system emphasized rural outreach and prevention and established a widespread system of health centers, health posts, and village health workers.

On the other hand, the new system was centralized and top-down in the extreme. It was unresponsive to existing local health beliefs, values, felt needs, priorities, and social organization. There was no attempt to understand indigenous health systems, which were equated with witchcraft practices and spirit beliefs, both of which had no place in Frelimo's program of "scientific socialism." The government felt its mission was to enlighten "the masses," to show them the error of their superstitious ways. Accordingly it attempted to suppress indigenous medicine and its practitioners, along with other backward-seeming features of local cultures, such as polygyny, bride payments, initiation rites, and the system of chiefs and their councils. In response, the indigenous health system (along with the political system, initiation rites, etc.) simply went underground and continued much as before despite the official ideology.

By the Fifth Frelimo Party Congress in 1989, the government formally recognized the mistakes it had made in its zeal to create a new, equitable, unified, national society. In late 1990, because of my background in applied anthropology in Africa (ethnographic and survey research in Swaziland [1981–1990], Nigeria [1985–1988], and Liberia [1988]), I was asked to assist the Ministry of Health in defining a role for traditional healers. The pilot and the current program are direct outcomes of this consultancy. The Frelimo party, elected in Mozambique's first multiparty election in 1994, is today a party that has been humbled by recognition of the power of culture (Green, 1995).

Pilot Program: STI-Related Beliefs and Practices of Traditional Healers

Research Methods

Prior to the GEMT program, little was known about indigenous Mozambican theories and healing practices related to STIs. Our pilot research was exploratory in nature and related to complex beliefs and behaviors which Africans, including Mozambicans, tend to keep secret from those (such as government interviewers) who may hold unsympathetic or even derisive views. Systematic in-depth interviews and focus group discussions were conducted with a representative sample of traditional healers, as described below. Interviewers approached healers with respect and sincere interest, and this helped to overcome their suspicion; however, a few healers would not be interviewed or participate in the program.

Our research does not qualify as ethnographic in the traditional sense; it was of the "rapid research" or "focused ethnographic study" type (Bentley et al., 1988; Yoder, 1997). I did not live in the region prior to the study; in fact, I spent only

a few weeks in the study area. However, I trained and collaborated with four Mozambican health workers, three of whom were from the local groups under investigation. Such applied, rapid research methods have become the norm in applied or operations research in international health. There is not enough time to conduct the long-term, ethnographic research distinctive of anthropology. Fortunately, anthropological studies of African societies—or neighboring societies—where health programs are to be carried out are usually available and can provide applied researchers with a general sociocultural context, if not more specific ethnomedical information.⁴ In the present case, there was abundant ethnographic material on the Shona from across the border in Zimbabwe.

Why interview traditional healers rather than those who consult them? First, since they are the immediate group with whom we wished to collaborate directly, we needed to understand how they perceive illness. Second, healers presumably represent the beliefs of clients who consult them and they are often better able than their clients to articulate such beliefs, both because of their specialized knowledge and because their status in the community makes them less likely to be intimidated by an interviewer (Bishaw, 1989; de Sousa, 1991; Green and Nzima, 1995; Nzima, 1995; Reis, 1994). On the other hand, healing knowledge is considered sacred and secret in much of Africa. Some healers feel constrained by their empowering spirits not to reveal secret information to interviewers. Again, approaching them with sincerity and respect helped overcome resistance, as did taking the time to fully explain the purpose and objectives of the GEMT program.

Random sampling was not attempted since we lacked an adequate sampling frame. To select healers to be interviewed, we collaborated with the Manica branch of AMETRAMO, the national healers association, which helped to provide balance by gender, age, and district. As with the membership of AMETRAMO itself, there may have been a selection bias in favor of more urbanized, Portuguese-speaking healers. Considerations of war and security for interviewers biased the sample in the same direction. This choice had a useful side effect in that urbanized, Portuguese-speaking healers were more willing to attend workshops than their rural counterparts.

Between February and October 1991, in-depth interviews were conducted with 51 traditional healers reporting a specialty in sexually transmitted illnesses. A semistructured interview schedule was used, with some 90% of interviews conducted in the Shona language, and 10% in Portuguese. Interviews took place in the homes of healers in the five districts of Manica province accessible by road. Key informants were sometimes interviewed again to clarify points that arose in earlier interviews. Interview schedules had to be flexible as information gained in interviews might generate new questions. For example, before the initial interviews, we had no idea about the complex concept of *nyoka* (see below), which required exploration through a new series of questions.

We also used focus group discussion (FGD), a type of research that has been used increasingly in public health and behavioral science in recent years. As a qualitative method, it has more in common with in-depth interviews than with survey research using a fixed questionnaire. A moderator guides discussion to focus on specific topics of research interest, and a recorder keeps a written record of the discussion session. A topic guide developed in advance is used as a framework for discussion. As with in-depth interviews and survey research, focus group research has advantages and disadvantages. It is especially useful to discover or confirm the existence of broad patterns. It is not useful for measuring or quantifying patterns. Since it is not based on a random sample, its findings cannot be projected to a larger population.

In Manica, we conducted five FGDs, two focused exclusively on AIDS and STIs. They were conducted in villages or in the compounds of traditional healers in order to help participants feel relaxed and unintimidated by any of the trappings or symbols of allopathic medicine or the government. Nevertheless, many healers tended to adopt a polite, accommodating, deferential manner they had learned to present to government officials. There seemed to be pressure during FGDs for healers to conform to a unified view, in line with the views of health authorities. In-depth interviews held in private yielded far more useful information.

Findings

According to our research, healing knowledge is passed along within families, often from a paternal or maternal grandparent. There are two basic types of healers, herbalists and diviner-mediums. Diviner-mediums claim to gain diagnostic and healing knowledge directly from ancestral spirits, or through dreams. While apprenticeship was acknowledged to occur, little information was gathered on the extent and nature of the empirical training (e.g., learning about curative herbs and diagnostic techniques) that healers undergo.

Manica healers recognize two broad categories of illnesses believed to be sexually transmitted: *siki* and *nyoka*-related.

Siki Illness. In several Shona dialects a generic term, *siki*, designates the more serious sexually transmitted illnesses. A few older healers suggested that the term *siki* may derive from the English "sick" and may have been borrowed from the Shona of neighboring Zimbabwe, where English is the official language. This derivation might lend credence to the local belief (found elsewhere in Africa) that syphilis and gonorrhea were introduced by Europeans. Some Shona healers said that *siki* can result when people whose "blood doesn't mix" have intercourse. In several neighboring societies, STIs are sometimes conceived as illnesses involving blood that becomes "bad," "dirty," or "impure" from excessive

"mixing" or contact with "strange blood" through having many sexual partners (Schapera, 1940).

The specific *siki* illnesses known as *chimanga*, *chicazamentu*, *mula*, *songeia*, *chikeke*, and *gobela* seem roughly equivalent to the categories of more serious biomedically recognized STDs such as syphilis, gonorrhea, chlamydia, and chancroid—the STDs that are cofactors of HIV infection. *Siki* illnesses were uniformly described as "adult diseases," meaning they are not found in children before the age of intercourse. At the risk of generalization, *siki* illnesses are characterized either by painful urination and a milky discharge (*chicazamentu*, *songeia*) or by various types of genital sores or boils (*chimanga*, *chikeke*, *gobela*). Healers report that *siki* illnesses are more common in men than women (Green et al., 1993). They also explained that if a woman remains untreated for *siki* illnesses, especially the one resembling gonorrhea, she can become infertile. This was mentioned often, reflecting the concern with fertility throughout most of sub-Saharan Africa. There was also recognition that *siki* can infect newborn infants.

Shona healers believe that *siki* illnesses are caused by *khoma*—a common tiny, invisible, animate agent—or by direct contact with pus or other genital discharges that contain *khoma*. *Khoma* was sometimes described by healers as a tiny worm or insect. One healer conversant in biomedical concepts explained that *khoma* was like a "microbe," or germ. Different illnesses are carried by different *khomas*, so the word must be regarded as generic.

Manica healers are not unlike biomedical physicians in their treatment of *siki* illnesses: they introduce a medicine into the body to kill or neutralize the specific illness-causing *khoma*. In one type of medicine, special roots are boiled, after which the liquid is cooled and given to the patient to drink. In another type of medicine, certain leaves are crushed or ground, then the resulting juice is drunk. There are also medicines applied directly to genital sores. Healers also advise *siki* patients to refrain from intercourse and from drinking alcohol until cured. Treatment is usually conducted in the patient's home over the course of several days (Green et al., 1993). Some healers reported locating and treating recent sexual partners of a *siki* sufferer. There were said to be different medicines for men and women to prevent *siki*. These were described as always effective if taken before intercourse with someone carrying the illness.

Healers reported that women with the *siki* illness *chimanga* will contaminate their babies. In the words of one healer, "The reason the baby dies inside a woman with *chimanga* is that there is something dirty inside her uterus, and the fetus eats this dirt and then dies." Another healer explained that if *songeia* (a *siki* illness) remains untreated, the "impurity goes inside the stomach and causes internal abscesses." Healers also report that menstruating women will contaminate their sexual partners; that physical contact with "tiny animals" from a "contaminated person" will make another person sick with the same illness; that treat-

ment of *chimanga* requires medicines to make both the mother and father "clean" so that they won't contaminate the fetus in the mother's womb; that the *nyoka*-related sores of a contaminated baby are difficult to cure; that *chicazamentu* results when someone has contact with the clothes of the contaminated person, or steps in that person's urine, or steps on that person's "little animals."

What we see here is evidence of pollution belief, or a mixture of what Murdock (1980) called naturalistic infection with pollution (which he called mystic contagion). Examined closely, pollution belief is actually not so mystical. The basic premise is that when one comes into physical contact with an essence considered unclean or ritually impure, one becomes sick. "Contaminated" individuals—to use the Shona term—believed to be in an unclean or polluted state are often kept apart from other people, since they are considered contagious until ritually "purified," a process that might involve therapy with herbal medicines.

Note from these examples the link between *khoma*/germ and pollution ideas. In fact, pollution illnesses are conceived as being highly contagious in southern Africa (Hammond-Tooke, 1989; Ngubane, 1977). This is not so with illnesses caused by witchcraft, sorcery, or spirits, in which only a specific individual—not others in the area—is thought to be targeted for illness or misfortune by a superhuman being or force. Indeed, the defining characteristic of both "naturalistic infection" and pollution theories is that they are impersonal: one has contact with a "germ" or *khoma*, or with a dangerous essence, therefore one becomes ill. These ethnomedical theories are not "personalistic" (Foster, 1983) or supernatural.

Some Manica healers reported that they remove a *siki* illness and bury it. A person passing over the spot where the illness is buried can become infected. Burying the source of illness is a common health-related practice in Africa, and it implies belief in contagious illness and specifically in pollution (according to Douglas, 1992).

Nyoka-Related Illness. In parts of southern Africa there is a belief in the existence of an invisible, internal snake, often described as a power or force that dwells in a person's stomach but that can move throughout the upper body, from the area of the heart to the abdomen. It is designated by the local term for snake: *nyoka* in Shona and Tsonga. Shona healers described the *nyoka* as a protective force that requires that the body it inhabits be kept free of impurities or contaminants lest the *nyoka* react with displeasure, causing pain and discomfort. The *nyoka* itself can be angry or calm. *Nyoka* may be thought of as a personified immune system or a "guardian of health" or "guardian of bodily purity" (Green, 1997; Green et al., 1994).

All people are believed born with a *nyoka*, which remains in the body until death. It is not visible, even if one cuts open a body. Its existence is confirmed through bodily sensations when it is disturbed. For example, if "dirt" or spoiled food or bad medicine enters the body, *nyoka* may contract and cause cramps,

or it can make noises of complaint in the stomach. *Nyoka* cleanses the body of impurities by means of discharges such as diarrhea, vomiting, menstruation, or pus, all of which are seen as natural purifying functions.

Manica healers described two sexually transmitted illnesses associated with this concept: *nyoka kundu*, which affects men, and *nyoka dzoni*, which affects women. A woman who has sex with a man who has *nyoka kundu* is said to contract the female disease *nyoka dzoni*, and vice-versa, through a process described as "contamination." *Nyoka dzoni* can also be caught by stepping in urine or feces contaminated by the male disease. Some healers also described congenital transmission.

If a man does not treat his *nyoka kundu* with indigenous medicines, not only will he remain sick, but at the moment of conceiving a son, the son's *nyoka* will be "contaminated." Contaminated sons will not only have symptoms of the illness *nyoka kundu*, but will also be susceptible to various other illnesses. A mother also passes *nyoka dzoni* on to her unborn daughter if she is not treated.

The symptoms of *nyoka* illnesses are diverse and may approximate a variety of genitourinary infections and conditions such as nonspecific urethritis, yeast infections, prostate infections, and trichomoniasis. Among these are conditions that, according to biomedicine, are probably not sexually transmitted but affect the genital or lower abdominal area. The *nyoka* STIs are treated by applying a topical herbal medicine in the genital area and having the patient drink a liquid from boiled roots. Treatment for *nyoka dzoni* is aimed at regulating menstruation and preventing infertility.

Other Syndromes with Genitourinary Symptoms. There are other syndromes with genitourinary symptoms recognized in Manica province, which are regarded neither as *siki* nor as *nyoka* illnesses. Syndromes of this sort, which healers consider less serious than *siki*, include *chitheta*, *iumanga*, *mugarapadima*, and *sikumbe*. Symptoms include menstrual irregularities, vaginal inflammations and discharges, sores in the groin or elsewhere, hydrocele, miscarriage, and infertility. Some of these are regarded as adult diseases but not as sexually transmitted.

Only one STI was related to sorcery. *Rikawo* is believed to be caused directly by contact with a dangerous medicine used by men to "protect" their wives and lovers from sexual contact with other men. The deeper cause of *rikawo* is adultery or infidelity.

Healers' Understanding of AIDS. Although all traditional healers interviewed had heard of AIDS in 1991, most claimed to know little about it beyond what they had heard on the radio or from other people: that it is incurable, fatal, and sexually transmitted, for example. Our findings about AIDS are supportive of findings from KAP surveys of general populations in Mozambique and elsewhere in Africa. Some healers reported that AIDS is highly contagious and is character-

ized by progressive weakness, sores on the body, appetite loss, prolonged diarrhea, emaciation, and coughing. There was little understanding, however, of how AIDS is transmitted, beyond the role of sexual intercourse. Several forms of casual contact, such as sharing eating utensils, were mentioned as means of transmission. About 10% of healers mentioned extramarital sex as a cause of AIDS and noted its increase in modern times. About 10% of healers commented that it is better to prevent than try to cure AIDS, even mentioning the use of condoms.

A majority of healers believed that they had neither seen nor treated this disease and that it was new to Mozambique. A few healers associated AIDS with familiar STIs—even referring to it as a *siki* disease—perhaps because they had heard that it is sexually transmitted. These healers claimed that AIDS is not really a new disease—it is the familiar disease *songeia*, or perhaps *chimanga*. Therefore, they believed, a variety of familiar medicines can cure or prevent the disease, a belief also found elsewhere in Africa (Ingstad, 1990; Scheinman et al., 1992; Staugaard, 1991). A few healers thought that although AIDS is different from familiar STIs, there are nevertheless indigenous medicines to cure it. In short, some healers claimed they could cure—and had cured—what they believed to be AIDS.

There were several factors favoring development of an STI strategy for Manica healers. It seemed unnecessary to accommodate our message to complex magico-religious beliefs since *siki* illnesses are thought of in a manner similar to the “germ” medical model of STD. To the extent that *siki* illness relates to pollution beliefs including *nyoka*, even these are essentially naturalistic (impersonal) and fundamentally compatible with the medical model. Furthermore, several existing practices relating to STI prevention were biomedically sound: avoiding adultery and intercourse with strangers; avoiding intercourse during menstruation; refraining from intercourse and from drinking alcohol until *siki* was cured; and healers locating and treating recent sexual partners of patients.

There are other parallels with biomedicine, such as recognition that STIs can infect newborn infants and that STI symptoms can become latent. Shona healers also recognize that untreated STIs, especially the disease resembling gonorrhea, lead to infertility.

The question, however, remained: What to advise about treatment? Healers were convinced that only their own medicines could treat *khoma*, the causal agent of *siki* illnesses. Some healers even said that *khoma* “retreats” in the presence of hospital medicine and so may become impossible to cure. Even if it seemed feasible to advise healers to send their patients to a hospital for treatment of STDs, hospitals in Manica and elsewhere in the provinces and districts would run out of antibiotics, at least for emergencies that are not life threatening. Assuming the availability of antibiotics in hospitals in the future, we hoped it would be possible to build on the growing trust and cooperation which had

developed since the first workshop and to persuade healers to allow at least their *siki* patients to benefit from both hospital and indigenous medicines.

Once research provided a base of ethnomedical information, common ground was identified, and specific areas of existing beliefs and behavior were targeted for encouragement or discouragement, we developed a strategy for communication with traditional healers that embodied these elements. Specifically, we promoted educating clients who might engage in risky sexual encounters about condom use; sterilization of razor blades used in treatment; and appropriate referrals of STI patients with persistent symptoms. We wished to reinforce the existing belief that it is dangerous to engage in sexual intercourse outside of marriage (however defined), with strangers, with many partners, and with a person showing symptoms of *siki*. We also encouraged the belief that there is a force within people that requires bodily purity, and we pointed out that *nyoka* is similar to what Western doctors call the immune system. We discouraged healers having direct, unprotected contact with the blood of patients.

Workshop Process and Content

Thirty participants were invited and planned for in the 1991 workshop for traditional healers. Participant selection was handled by AMETRAMO (the national traditional healers' association, Manica branch). The GEMT provided selection criteria with a view toward (1) male-female balance; (2) geographic representation; and (3) attracting participants who were specialists in STIs (or child diarrheas). Eighteen traditional healers appeared for the workshop, and one elderly man dropped out after the first day. The remaining 17 healers completed the workshop. The lower-than-expected turnout may have been due to internal AMETRAMO differences or lack of coordination. Moreover, traditional healers from outlying areas may have been suspicious of government motives. This has occurred in other countries during initial efforts to attract healers to a workshop. (A year or two after the GEMT pilot program, the problem became one of accommodating the large number of healers who wished to participate.)

The workshop lasted a week and basically consisted of give-and-take discussion between healers and government health personnel, with each group trying to learn from the other. The Shona language was used, even though government policy and practice at the time was to overcome “tribalism” through exclusive use of Portuguese, the national language. Most workshop participants spoke Portuguese poorly, if at all. The first few hours of each new topic was devoted to listening to healers explain their understanding of the topic.

Discussion of AIDS occurred without use of scientific terms such as “virus.” AIDS and HIV transmission were explained in terms of healers' existing understanding of *siki* illnesses and their general beliefs about contamination. We explained that AIDS like *siki* is transmitted by an invisible *khoma*. However the

AIDS *khoma* is not transmitted in familiar ways, such as touching, sharing eating utensils or blankets, or stepping in a sick person's excrement or discharges. It is carried in sperm, blood, and in a woman's vaginal fluids. The AIDS *khoma* needs to get into the blood to infect someone. If there are sores or wounds on the genitals of men or women, the AIDS *khoma* can enter the blood more easily. It may help if the *nyoka* is strong because the body is pure and free of any illness or contamination.

We also informed healers about another opportunity for the blood of a sick person to infect or contaminate another's blood through traditional use of razor blades in vaccination or scarification. Unless new razors are used with each patient and/or used razor blades are properly sterilized, small amounts of blood—or even the invisible *khoma* of AIDS or other illness (we described tetanus and hepatitis)—can cling to the blade and enter the bloodstream of the next person on whom the same razor is used.

Condom promotion was part of the GEMT program. Due to many factors, there was and is great resistance to using condoms on the part of Mozambicans, and our research clearly showed that condoms were held in low regard. As a means of STI prevention, traditional medicines were believed far superior to condoms. Our approach was to find an opportune entry point among traditional healers, upon which we could build a more ambitious program of condom promotion. Since many healers already advised their patients with *siki* illnesses to avoid intercourse during treatment, we tried to persuade healers to provide their clients with condoms to better ensure their compliance with healers' advice. We suggested that healers adopt some "modern technology" used in other countries to help them accomplish what they were already advising. Healers seemed to find this proposition reasonable, and, in any case, healers appreciated the government's gesture of trust in wanting to share medical devices with them.

Discussion

In their review of the challenge of AIDS prevention in Africa, de Zaluondo et al. (1989:165) conclude that "the complex nature of AIDS points to the need for small-scale projects geared toward culturally homogenous communities where trained staff can translate the information into locally meaningful terms." "Trained staff" from biomedical backgrounds are rarely as skilled in culturally appropriate approaches to behavior change as indigenous healers who already share—and strongly influence—the health beliefs of those who consult them. Regarding cultural homogeneity, the strategy developed in the pilot program was for Shona speakers in central Mozambique; it may not be fully appropriate for other groups in Mozambique.

Our applied research showed that there was considerable common ground upon which to develop a collaborative program involving healers. The "fit" between what exists and the biomedical model is greater for STIs/STDs than it would be for other health domains (such as mental illness) where causation involving witchcraft, sorcery, and evil spirits prevails. Both models agree that the cause of sexually transmitted illness is impersonal and relates to conditions that may be modifiable, such as avoiding sex with strangers, or "contamination" (infection) with an unseen agent of illness that can be sexually transmitted. Both perspectives are concerned with prevention of contact with agents of illness, whether conceived of as agents of pollution or as microbes. Both agree generally on the role of blood: traditional healers sometimes referred to STIs as well as AIDS as a condition of bad or impure blood. Among the nearby Tsonga, Zulu, and Bemba, one's blood can become "bad" or "dirty" or "weak" from having sexual intercourse with too many partners, or through contact with the dead or other polluting influences (Green et al., 1995; Nzima, 1995; Schapera, 1940), propositions with which Shona healers are likely to agree. Certainly the admonition that people must avoid contact with the blood of a person with AIDS made sense to traditional healers. It therefore seemed feasible to develop safe-sex messages in which public health and traditional healers promote essentially the same program in similar terms for similar reasons, perhaps even using similar or compatible symbols and metaphors.

Designing an AIDS Workshop for Traditional Healers

How does knowledge of such details help in practical public health efforts? It seems logical that promotion of behavior change and of health-related technology would be more effective if based on knowledge of existing beliefs and behavior, even if it is difficult to measure this effect. As Airhihenbuwa (1990–91:56) put it, "While there is no single strategy that serves as a panacea for understanding the complex health problems in developing countries, an understanding of the complexity of the problem is a necessary prerequisite for proposing an effective solution." Our approach was to build on existing local beliefs and practices, rather than to ignore or challenge them. We were willing to accept existing beliefs and practices, yet without compromising public health principles. Our assumption was that ethnomedical practices can (by Western public health measures) be considered promotive of health, damaging to health, or of no direct health consequence but socially and psychologically useful. In simplest form, our behavior modification strategy was to encourage practices that promote health, discourage those that damage, and respect the rest while not interfering with them.²

Since syphilis, gonorrhea, and chancroid correspond to illnesses locally classified as *siki* rather than *nyoka*, we included them in the GEMT program.

focused on *siki* illnesses. It seemed probable that other STDs such as chlamydia and lymphogranuloma venereum were also classified as *siki* by local healers.

It was never our intention that "training" would be one-way, with traditional healers being the only ones to learn and change. We knew from experience that health workers knew (or pretended to know) little about indigenous medicine, and that many had negative attitudes toward healers. We also believed that clinic treatment could be improved in ways that would attract more STD patients to choose this option as a first choice for treatment. Hospitals and clinics are often regarded as busy, impersonal, and very public places to be seen waiting in line when one has an embarrassing condition. Africans with STDs often regard traditional healers as more sympathetic, more likely to keep confidences, and more accessible than modern health workers; in addition, healers' STD medicines are often believed to be more, or at least as, effective as biomedical treatments (Green, 1994; Green et al., 1993). During all phases of the pilot program (and subsequent projects) we tried to sensitize health care providers in the following areas: to appreciate that STD patients feel embarrassed and therefore need to be treated with special consideration; to be discreet and personal in their approach; and not to make patients feel ashamed if they have visited a traditional healer. However, given work and facility conditions in poor countries, along with entrenched attitudes regarding "obscurantists" or "witch doctors," it was idealistic to expect significant change in this area, at least on a wide scale.

A major question should be answered before attempting to influence STI/STD therapy choice among traditional healers: Can healers successfully treat any STDs? Limited *in vitro* studies of medicinal plants in Africa have shown that some exhibit antimicrobial activity against *Neisseria gonorrhoeae* (e.g., Chhabra and Uiso, 1991). Needed are *in vivo* clinical trials. For argument's sake, if healers in a given area cannot successfully treat STDs, then emphasis must be either on influencing healers to refer their patients to clinics, or thinking about involving healers in so-called syndrome-based treatment, at least on a pilot basis. This approach refers to treating common STDs based on symptoms alone, following a clinical flowchart to guide drug choice, without requiring laboratory tests (Dallabetta et al., 1996). This saves time and money, and it allows less-trained health personnel to treat STDs. Since publication of an influential study showing a 42% reduction in HIV incidence as a result of treating existing STDs in a rural area of Tanzania where condom usage remained low (Grosskurth et al., 1995), substantially more effort has gone into STD treatment as a way of combating AIDS in developing countries. Such results are likely to be improved if programs involve traditional healers who treat most patients with STDs.

If, on the other hand, healers can cure at least some STDs, we need to first determine which STDs. This outcome would obviously modify the general strategy of influencing clients of traditional healers to report to clinics instead of to healers—a difficult task under the best of circumstances. It was hoped from the

time of the pilot program that simple research would be carried out to determine if at least some indigenous STD medicines are pharmacologically effective. This has not been done to date.

AIDS/STD Prevention Strategy

Prevention rather than treatment is the foundation of public health in general and AIDS programs in particular. Africans are often thought to be fatalistic and to believe that prevention of illness and misfortune is not possible. This characterization is only partially true in southern Africa. Hammond-Tooke (1989) proposed four categories of illness causation traditionally recognized in southern Africa: witchcraft (in which category he includes sorcery), ancestors, pollution, and Supreme Being.

I have found that healers in southern Africa, including Shona, tend to think of illness attributed to witchcraft, sorcery, spirits, or a Supreme Being as difficult or impossible to prevent because mere human effort cannot thwart superhuman will. On the other hand, illness attributed to "naturalistic infection" or pollution may be preventable; indeed, these appear to be among the most preventable illnesses. For STIs, prevention may involve use of protective medicines or change of behavior to avoid contact with *khomas* or pollution agents such as menstrual blood or corpses.

Behavioral prevention of STIs appeared to be so self-evident to traditional healers that they often failed to mention it in response to questions about STI prevention. Some took the question to refer only to medicinal prevention. But as most STIs involve the violation of rules governing sexual behavior, it follows (and healers readily agreed if asked) that one would not get these illnesses if one did not violate the rules in the first place.

Prevention involving indigenous agents of contagion (*khoma*, polluting essences) is probably the area we know least about, yet it is the area most closely relevant to successfully promoting use of condoms or other barrier methods. An important question in AIDS prevention is: Can contact with agents such as *khoma* or "dirt" or menstrual blood be avoided during sexual intercourse if a condom is used? *Khoma* are seen as physical, living entities, and as such they resemble microbes. Yet they might have superphysical or mystical attributes as well and therefore might not be contained or blocked by physical barriers. During a 1993 workshop in South Africa, the opinion of traditional healers was divided over whether condoms can block "heat," which in this sense refers to pollution related to sexual intercourse. In Mozambique, we simply suggested to healers that *khoma* and pollution can be blocked by use of condoms. I am not sure how much healers believe this, and I feel that more effective condom promotion strategies can be developed, based on a better understanding on our part of the attributes of various agents of contagion.

In any case, there is considerable common ground between indigenous and biomedical STD theory for the development of safe-sex messages. The only "concession" AIDS educators need to make to traditional beliefs is essentially in adoption of the language, symbolism, and metaphors of STIs already in local use. AIDS educators would not have to adopt the language, symbolism, and metaphors of witchcraft, sorcery, or evil spirits in preventive messages.

In both the pilot and subsequent programs in other provinces, workshop moderators and other participating health staff have tried to draw parallels between indigenous concepts and their biomedical counterparts. Both healers and their clients may already have drawn some such parallels, but AIDS educators assisted the process by reinforcing and sanctioning them and by drawing others. Once healers and AIDS educators feel they are both "talking the same language," there appears to be maximum chance for effective communication and behavior change. This may sound easy, but too often AIDS and other health educators pay lip service to indigenous beliefs and the importance of culture, then go ahead and teach about AIDS in language laced with concepts and terminology that are alien to healers and their clients.

Should Emphasis Be on Using Condoms or Reducing the Number of Sexual Partners?

Despite intensive promotion of condom use in some African countries (e.g., Uganda, Zambia, Zaire, Zimbabwe, Tanzania), there has been scant "payoff." For example, by late 1992, regular condom use among the general, sexually active male population in Uganda was only about 2% (Serawadda, 1992a, 1992b). And, according to the Demographic and Health Survey in Zambia, 1.4% of Zambian women 15–49 years of age were current condom users and 9.2% were "ever-users" (Brunborg et al., 1993). Therefore, by this time, the GEMT felt that it made more sense to put even more emphasis on where the payoff seems to lie: promoting avoidance of sex outside of marriage, with strangers, and with prostitutes. The message that AIDS and other STIs can be avoided by abstinence or fidelity to one partner is one that reinforces what Mozambican traditional healers—as well as local Christian and Muslim clergy—already believe and to some extent promote.

The last comment deserves explanation. It seems that Mozambican healers do not ordinarily offer gratuitous advice about preventing illness—their job is thought to be one of explaining and curing illness. Cynically, preventive advice could even be seen as bad for future business. Yet healers may be willing to promote fidelity or avoidance of indiscriminate sex more actively if they are made to feel that this puts them in partnership with their health ministry and government, which is often regarded as enhancing their prestige and bestowing a new, "modern sector" legitimacy (Fassin and Fassin, 1988; Ventevogel, 1996). The

GEMT is therefore developing a strategy to motivate and empower healers to take a more active role in "preaching" what they already believe to their patients and perhaps to others in their communities.

Preliminary evidence from Uganda, Zambia, and parts of Tanzania indicates that both STD and HIV incidence have declined markedly since about 1993. Male condom use rates remain too low to account for this apparent decline, although some might argue that condom use in high-risk encounters such as with commercial sex workers has contributed to the decline. Healers interviewed in Zambia in 1995 noted a decline in STIs and attributed it to a reduction in multiple or indiscriminate sex partners. This seems reasonable: with 25% or more of the sexually active populations of Uganda and Zambia HIV positive, it is safe to say that everyone knows someone who is dying, or has died, of AIDS. (This is not true in Mozambique, at least not yet.) Fear causes people to change entrenched sexual behavior. Yet most have not adopted condom use; instead they appear to change behavior toward reduction in the number of partners (Asimwe-Okiror, 1995; Pool et al., 1996). Traditional healers as well as clergy and church leaders are well positioned to promote and reinforce this type of behavior change.

The Current Program in Mozambique

Since the initial pilot research and collaborative workshop in Manica in 1991, the pilot and workshop have been replicated in other provinces in Mozambique. From 1993 to 1995, ethnomedical research and collaborative workshops were carried out in Zambesia, Maputo, Inhambane, and Nampula. Workshops have continued in Manica itself, sponsored by UNICEF, the Mozambique Red Cross, and at least one foreign nongovernmental organization. In Manica, topics have expanded beyond diarrhea and AIDS/STDs to include tuberculosis, acute respiratory infections, asthma, mental health, and water/sanitation. The suspicion over government motives encountered in Manica in 1991 has diminished and there are now many more healers wishing to participate than can be accommodated. In some areas, the healers' association, AMETRAMO, has taken the initiative to train its members in what the GEMT has taught in its workshop, with no requests for outside assistance.

Although there has been no evaluation of the impact of the pilot Manica workshop, there has recently been an evaluation of workshop impact in Inhambane province. The programmatic strengths and weaknesses found there are probably representative of programs elsewhere in Mozambique. In this evaluation, 20 healers out of the 30 who participated in a workshop in June 1994 were reinterviewed in October–November 1995 (the other 10 were not available to interviewers at the time of the evaluation). We also interviewed an additional healer who had been trained by a healer who had been to the workshop, and a small sample (N=8) of diarrhea and STI patients of the 20 healers were also

interviewed. Patient interviews provided a means of verifying healers' self-reported behavior and yielded valuable insights into the healing process and the reinterpretation and dissemination of information and advice presented at the workshop.

Among the most important findings relating to STIs were that 85% of healers had learned that AIDS is caused or transmitted by sexual contact with a person with the illness and that use of condoms or fidelity to one (uninfected) partner can prevent AIDS. The role of blood, or "contaminated blood," in HIV/AIDS transmission was well understood. Virtually all healers said they now use only one clean razor per patient, or boil a razor if they must reuse it, or sterilize the blade in bleach. Most (81%) claimed that they had promoted condom use with their STI (*siki*) patients. We were unable to verify this from interviews with former STI patients, since these patients were reluctant to identify themselves because of the stigma associated with STIs. (We were able to interview mothers of diarrhea patients, and we found corroboration of healer-derived information on diarrhea treatment.)

The condoms distributed by healers in almost all cases were those supplied by the GEMT in the 1994 Inhambane workshop; most healers had never been resupplied, nor had they taken their own initiative to find condoms. Among other weaknesses encountered, there was still confusion about transmission of HIV/AIDS through superficial contact, for example, using the same toilet, eating food touched by a sick person, using clothes of a person with AIDS, or kissing a sick person. There was also poor understanding about the role of STIs in increasing vulnerability to AIDS.

The GEMT program has been less active in developing workshops for traditional healers since 1995, due to personnel changes in the Ministry of Health. This is often the fate of programs operating in the public sector in Africa (Green, 1988). Collaborative programs involving healers have proven to be very fragile, and they are never high priorities in an African ministry. Nevertheless, the GEMT achieved its general objective of developing collaboration between traditional healers and a variety of agencies and organizations, in diverse areas of public health, and in most regions of Mozambique. Many nongovernmental organizations are currently working with Mozambican healers following the general model developed by the GEMT. The combined resources of these organizations is far greater than those of the GEMT, as is the public health impact of their programs.

Notes

1. STDs are defined as sexually transmitted diseases, STIs, as sexually transmitted illnesses. The former denote biomedical concepts, whereas the latter denote indigenous or "folk" concepts, (Hahn, 1984): syphilis is an STD; *chimanga* (discussed later) is an

public health; it is distinguished from African "traditional" (although dynamic, adaptive, and changing) systems of "indigenous medicine."

2. Some health officials in Mozambique and elsewhere have only agreed to allow—or participate in—collaborative programs involving healers when assured that "discouraging the damaging practices" was an objective.

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