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COMMUNITY-BASED HEALTH CARE IN KENYA:
A SOCIOLOGICAL PERSPECTIVE

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COMMUNITY-BASED HEALTH CARE IN KENYA: A SOCIOLOGICAL PERSPECTIVE

Dissertation in Partial Fulfillment
of the Requirements for the Award
of the Degree of
Master of Philosophy

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"It has always been a perplexing situation to realize that medical science today has a store of knowledge which, if applied, would make the world a happier place to live in, and yet we don't apply it ... We can fly to the moon, but we can't begin to cover, even using aeroplanes, the remote parts of the globe, and so for the time being the unfortunate rural people of the developing world and many in the cities will miss out on the marvelous benefits that are available, and yet not available, to them ..."

Go An Extra Mile: Adventures and Reflections of a Flying Doctor

Michael Wood

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I. INTRODUCTION

Background for the Study

In September, 1978, a world conference was convened jointly by the World Health Organization (WHO) and the United Nations International Childrens' Educational Foundation (UNICEF) in Alma Ata in the Soviet Union to discuss the world's health care problems. Of the world's population at that time, 800 million were considered "poor" with 70%-95% of the populations in the poorer countries having no access to modern health services. (Bryant,1980,pp.381-386)

The goal of "Health for All by 2000 A.D." was set by the conferees at Alma Ata. Most participating nations endorsed this goal, proposing to extend Primary Health Care (PHC) to their underserved majorities, especially in the rural areas, often through the vehicle of Community-Based Health Care (CBHC). (WHO/UNICEF,1978)

Out of the Alma Ata Conference emerged a more focused notion of the concept of Primary Health Care and a declared dedication on the part of all participating nations to address themselves to the improvement of Primary Health Care delivery in their own countries.

Statement of the Problem

The World Health Organization acknowledges that most countries, developed and developing, have health systems which are currently based heavily on a curative structure of hospitals requiring highly trained manpower and sophisticated

technologies. Yet, it has been noted in survey after survey (WHO, UNICEF, World Bank) that many diseases and ailments afflicting the poor majorities could be significantly diminished by adequate preventive measures in the health environments of the people concerned.

Primary Health Care is thus conceived as concentrating on preventive and promotive measures, using simple curative measures primarily as entry points to communities.

Justification for the Study

The World Health Organization encourages the instigation of a system of Community Health Workers (CHW's) as part of Primary Health Care, called Community-Based Health Care, to extend the outreach of the existing health services, both public and private. These CHW's help their communities improve their own health through preventive and promotive and sometimes simple curative measures.

If CBHC is intended to be the mechanism by which nations of the world and/or private communities attempt to reach the Alma Ata goal of "Health for All," it is essential that the parameters of this concept be investigated.

The need for this type of study is iterated by Were (1982) with particular reference to Kenya:

> "The establishment of CBHC activities within the structure of the MOH (Kenya) is going to be a new undertaking for the MOH. There will, therefore, be many unknowns. These include questions on the needed support structures, management structures and supply logistics. It is envisaged that there will, therefore, be a strong research component in the first few years of getting the CBHC activities streamlined within the system." (Were,1982,p.145)

Scope of the Study

It is the purpose of this paper to describe and analyze the experiments of one country in East Africa, Kenya, in Community-Based Health Care, from a sociological perspective.

When the Alma Ata Conference was held, Kenya endorsed its Declaration. According to an MOH Circular:

> "An important component of the proposed Integrated Rural Health Services and Family Planning Programme is Experimental CBHC ... Only a small percentage of the Kenyan population have easy access to modern health services: the coverage is estimated to be approximately 30%. CBHC is considered as a potentially powerful strategy to achieve wide coverage at a relatively low cost."
> (GOK,MOH,#11,1981)

In 1983 at least 15 experiments were in progress, one of them supported fully by the Government of Kenya as a pilot effort.

Definition of Terms

The following terms will be used throughout the study as defined below:

Primary Health Care (PHC)

Primary Health Care is defined by WHO/UNICEF as "essential health care based on practical scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their

development in the spirit of self-reliance and self-determination." (WHO,Alma Ata Declaration,1978)

Primary Health Care aims at permitting people the opportunity to attain a high level of health by emphasizing the integration of promotive, preventive, curative and rehabilitative activities. It entails the participation of health workers at all levels, including trained lay persons in the community. These health care activities should be consistent with the cultural mores of the communities and ideally should involve community members to the greatest extent possible.

Primary Health Care includes several minimal aspects: immunization against major diseases; supply of safe water and improved sanitation; education concerning prevention of health problems; promotion of adequate food supply and nutrition; appropriate treatment of common diseases and injuries; provision of essential drugs; and maternal and child health including family planning.

Community-Based Health Care (CBHC)

Community-Based Health Care has been proposed as a means of filling the gap between the existing capability of available health services and the enormity of the people's needs in many countries of the world. In the Kenya Ministry of Health's (MOH) March 1980 document, A Proposal for the Integrated Rural Health and Family Planning Programme , CBHC is defined as follows:

"CBHC: A system of health care firmly rooted

> in the community; i.e. it makes full use of human resources within the community to maintain the health of constituent individuals and families. The community and its leaders express their perceived health needs and take the initiative as well as the responsibility in ameliorating those needs. Government and non-government organizations may provide guidance, training, and financial support through a Village (Community) Health Committee, to assist the community's efforts. The VHC may utilize part of this financial support to train and pay CHW's (Community Health Workers)." (GOK,MOH,1980,p.70)

Community Health Worker

One definition of a Community Health Worker (CHW) is given by the Kenyan Ministry of Health in the 1980 Proposal :

> "CHW: A CHW is a person chosen by the community in which he/she works and lives, and:
> - may be paid by the government (indirectly) or non-government organization
> - who performs health care activities needed in the community
> - who is administratively supervised by the Village Health Committee (village leadership) and medically by the most peripheral unit of the health system (Dispensary ECN and Health Centre ECN-Trainer)
> - who is trained for 1-3 months in a health centre by an ECN and CO
> - who is community-oriented
> - who may be part-time or full-time."
> (GOK,MOH,1980,p.70)

A CHW is variously referred to as a VHW (Village Health Worker), a VHCT (Village Health Caretaker), a PHA (Public Health Aide) or a VHTH (Village Helper Towards Health) in this study, depending on the community under discussion.

Sub-Problems of the Study

Community-Based Health Care is a relatively new concept of which the implementation has taken various forms according to

the implementors and the needs of the communities involved. Although it will remain a flexible approach, if it is to serve individual communities effectively, nonetheless certain issues are fundamental to its implementation. For example, who can be a CHW? Who chooses this person? What is a CHW expected to do? Who trains CHW's? What is the content of the training? Is a CHW paid? If so, how much and by whom? Who supervises CHW's? What sort of evaluation techniques are used to measure the success of CBHC? These sub-problems are clarified below.

I. Definition of a CHW

A CHW may play a simple supportive role to the existing health services on a paid or voluntary basis or may function far more broadly as a real community organizer. These health care activities are defined differently in various projects and perceived differently by various communities. What activities are considered essential to the role?

II. Selection

Just as the roles vary, so do the individuals chosen to serve as CHW's. Some communities and supporting institutions are very specific in their requirements; others are much more flexible. Who therefore can qualify to be a CHW? Who is effective? What are the procedures for selection?

III. Training

Training to become a CHW varies from program to program. Nonetheless, certain basic themes and styles tend to

be consistently present. What kind of training is appropriate for CBHC? What should be the content of a training program?

IV. Supervision and Support The CHW is related to his or her community and the support institution in a variety of ways, beginning with the selection, including both financial and psychological support, and continuing through to supervision. The relationship styles are as various as the numbers of existing programs. What relationships have proven effective in existing programs?

V. Evaluation of Impact

For CBHC to be recommended for replication on a national or international scale, its impact must be measured. How can this be done? What are the mechanisms for evaluation? What is the impact on health in the programs existent to date?

These are the issues which will be considered in detail in this study, with specific reference to Kenya.

II.

REVIEW OF THE LITERATURE

General Themes

Kenya-Specific Themes

Kenya Country Profile

Health Sector

History of the Health Services

Health Infrastructure

Medical Manpower and Training

Community-Based Health Care in Kenya

Community Participation

Health Policy

II. REVIEW OF THE LITERATURE

General Themes

A review of the literature regarding health care in developing nations reveals several consistent themes. Underlying all of them is the understanding that making Primary Health Care available and accessible to the now largely underserved rural majorities, though an explicit political goal, may remain a paper objective due to a number of constraints. Resource constraints are self-evident but other obstacles may intervene as well, including historical, social, political and cultural factors. Unless a new form of health care is discovered, which can bypass these impediments, the rural majorities will continue to remain underserved. It is for these reasons that CBHC has been proposed.

Since the Alma Ata Conference (1978) when the concept of PHC was first articulated in an international arena, it has become the main thrust and focus for the promotion of world health. The Alma Ata Declaration represents a new vision of world health, a new ideal, in which health is perceived as a positive state of being rather than merely an absence of disease. Fundamental to this conception is a realization that good health emerges from a complex combination of social, cultural and economic factors as well as biological ones. There is thus a new emphasis on equity and justice, on the belief that health is a basic right of every individual, not just the privileged. (Cole-King,1981)

The concept of PHC emerged from the recognition that current health strategies and technologies in the developing world are based on models developed by Western industrialized countries, transferred with little adaptation to the very different realities of the recipient populations. Allopathic medicine was introduced to Africa in the nineteenth century, for example, (Beck,1974) and other developing countries as the most advanced scientific approach to curing maladies which were ravaging the continents. And, indeed, early on, miraculous progress was made in the eradication of crippling epidemics and in the treatment of debilitating chronic ailments. Smallpox is no longer a scourge: it has officially been proclaimed eradicated by the World Health Organization. A disease such as tuberculosis need no longer be the cause of social ostracism due to techniques for domiciliary treatment which, if effectively administered, can enormously lessen suffering and decrease the risk of community contamination. (King,1966; Park,1980; Banerji & Anderson,1963)

But the political and historical forces behind the development of modern health services in developing countries often resulted in a rupture of the traditional systems prior to adequate establishment of the modern. (Beck,1974) Furthermore, the motivation behind the introduction of allopathic techniques was not initially, if ever, altruistic. (Cleaver, EPW,Vol.XI,#36) The first concern of the colonists was to safeguard their own health; secondarily, they were anxious to keep their labor supply healthy. Only the missionaries concerned themselves with the suffering of the "natives."

(Beck,1974; Banerji,1977)

The institutions which were introduced by the colonists led to the development of a totally foreign system of medicine, unrelated to existing socio-economic conditions and in violation in many ways of indigenous health cultures. "Health culture" encompasses the entire disease panorama and efforts to cope with it psychologically, anthropologically, sociologically and technologically, both from within the community and from without. (Sahu,1981; Banerji,1981) It is this health culture which may be seriously violated by inappropriate external interventions. (Marriott,1957) On the other hand, it has also been well-demonstrated that people's health behavior is rational and when a new method is introduced which is effective in coping, people will respond to it very rapidly even if it does not fit in exactly with traditional patterns. (Banerji,1974; Djurfeldt & Lindberg,1976) It need only be proven effective.

Many communities may not, however, perceive health problems as a "felt need", even though, on any external scale, the communities may indeed have "real" health needs. (Valentine,1968) Individuals coping with the hardships of unemployment, lack of food and insecurity of flood and famine -- in short, the misery of abject poverty -- may decide that a chronic cough is tolerable by comparison. Given a choice between spending a day visiting a health centre to seek treatment for the tolerable cough, and utilizing the same time to earn another day's wage, desperately needed, an individual will undoubtedly choose the latter. (Banerji & Anderson,1963)

One way to avoid this problem is to conduct community diagnoses in which a community's "felt needs" are considered. (Department of Community Health, University of Nairobi) Thus, if health improvement is not verbalized as a "felt need" because water supply or improved economic status is far more pressing, government planners should endeavor first to resolve the community's felt priorities. Policy makers have assessed their countries' needs and written policy documents to address them, as they have perceived them. Rarely have they consulted the populace which will be affected by the policies if they are implemented. (Myrdal,1970) Development Plans are "top-down" rather than "bottom-up" documents. (UNICEF/WHO Joint Study)

On paper, the referral systems of many countries appear excellent. (National Plans) A patient is ideally treated by the lowest level of health facility. Any problem which cannot be handled at the bottom is referred to the next most sophisticated facility. Thus, only the most severely ill patients should ever reach the prestigious national hospitals which form the apex of each system. Unfortunately, however, this ideal pyramid approach does not function in reality. (Alger,1973) First, there are not enough outreach centres. Thus, patients with mild problems clog the district hospitals with their complaints. Or, even if there is a health centre nearby, a patient may choose to spend his one free day and few pennies to travel to a better facility where he is more assured of satisfactory results on the basis of his past experience. Finally, and most fundamentally, if the health services were functioning according to their mandate, the minor complaints

would be stopped before they even developed through improved environmental sanitation and health practices and more accessible cures. (Werner,1977)

The gap between official government health policy and the actual availability and accessibility of health services has often been enormous. Anthropologists and government planners have been quick to point to communities' preferences for traditional practitioners because of cultural reasons. (Carstairs,1957; Kimani,1981; Miller,1982) Also, with the government structure divided into two streams, the technical and administrative, a tension exists between the professional and the administrative. Physicians who are trained purely in medical skills are called upon to make administrative decisions for which they are totally unprepared. (Merton,1957; Madan,1972)

But the developing world is now at a different stage of development. Health needs have changed. Survey after survey (WHO, UNICEF, World Bank) of the most prevalent diseases reveal that it is not the dramatic diseases like leprosy which take the greatest toll. Rather, it is measles or diarrhea, easily preventable through proper preventive measures; or it is malnutrition which is not a health service problem but demands far more fundamental socio-economic changes to allow for improved agriculture and a better distribution of the existing wealth. (Djurfeldt & Lindberg, 1976; Waitzkin,1978; Illich,1976; Navarro,1976)

Health planners now acknowledge these realities and make policy statements in favor of preventive measures. Yet

economic investments continue to favor the curative sector. In Kenya, for example, Kenyatta National Hospital absorbs over 25% of the GOK's health budget. (FHI,1978) Ivan Illich (1976) has argued that the medical establishment itself has become a threat to health. D. Banerji (1977) has contended that dependency on foreigners leads to erroneous investments. USAID (1979) has warned that investing in Kenya's rural health sector may allow the GOK to avoid making necessary hard decisions . And WHO has started a worldwide movement of CBHC in an effort to dispel the myth of the all-knowing doctor with simple measures which maintain persons in a state of good health. (WHO,1978)

Community-Based Health Care attempts to address the basic tenets of the Primary Health Care philosophy by making good health accessible to all members of the community through relevant health services extended into the community on a self-reliant basis. Community Health Workers are trained to teach appropriate health technology which is cost-effective and culturally relevant but not "second class." CHW's enable basic health services to be extended into outlying communities where costs prohibit the construction of static facilities. (Cole-King,1981) They offer an alternative in situations where medical professionals are ill-equipped by their training for service. (Ramalingaswami,1972; Madan,1977)

India was one of the first countries to experiment with Community Health Worker schemes. Indeed, it has been a leader in the Primary Health Care field. Unfortunately, many of these schemes have been discontinued since it was discovered that the

Indian social structure often made it impossible for the ideals of the system to be met. Indeed, having a CHW often only added an additional need for the already over-burdened health services to undertake more training and supervision. The medical staff called upon to perform the training and supervising were themselves ill-prepared for community service, much less training others for it. And, since the CHW's chosen were not truly representative of the community, they did not offer the needed services to the underserved population. (Bose, et al. ,1978)

But CBHC schemes have been successful elsewhere. The classic example is the "barefoot doctors" program in China from which the whole concept was born. (Sidel & Sidel,1975) The Jamkhed Project in India has succeeded because the originators have been so dedicated. (Arole & Arole,1975) David Werner documents successes in Latin America in his Where There Is No Doctor (1977). And now Kenya is experimenting with Community-Based Health Care.

Kenneth Newell examines the case studies presented in his book Health by the People and notes that three types of cases are represented: cases of national change, such as China, Cuba and Tanzania; extensions of the existing system to a lower level, as in Iran, Niger and Venezuela; and real local community development, exemplified by projects in Guatemala, India and Indonesia. His excitement is conveyed in his closing remarks:

> "It is possible that the world is now at a stage when it should no longer cause surprise that something can be done and that simple primary health

> care works. Health by the people may have come of age." (Newell,1975,p.202)

Despite Newell's optimism, the transition to "health by the people" is not an easy one. National political will must be mustered to allow for a reallocation of scarce resources. Health services personnel must be exposed to a new approach to health and health care. Communities must be mobilized to serve themselves. And, in the words of one commentator, "there is a need to shock each individual into an awareness of the fact that the prime responsibility for his/her health belongs to him/her and no-one else." (HPC Working Group Report,p.4)

Community-Based Health Care is thus enthusiastically endorsed by numerous reviewers, but with caveats, as a valid alternative approach to overcoming the resource constraints and historical, social, political and cultural factors which now impede the achievement of "Health for All by 2000 A.D."

Kenya-Specific Themes

Kenya Country Profile

Kenya is a country with a population of 19.5 million (June 30,1984 est-CBS,p.7) in an area of 225,000 square miles. (US Embassy,1980) Situated on the equator, it is bordered by Tanzania, Uganda, Somalia, Ethiopia and the Indian Ocean.

Ninety-eight percent of its population is African, including thirty ethnic groups; the remaining two percent of the population are Asians and Europeans. (USG,HSA,1979,Sec.II,pp.1-3)

Kenya's population is approximately 86% rural with agriculture, including export commodities, providing the base of Kenya's mixed economy. Only one-seventh of the land is arable and the population growth rate is 4% annually, the highest in the world. (USAID,CDSS,1980,pp.8-14)

Kenya has enjoyed relative political stability since its Independence from the British in 1963. Only an abortive coup attempt on August 1, 1982, mars this record.

Health Sector

Although Kenya is comparatively better off than its neighbors whose economic and political policies have wreaked havoc with living standards, 46% of Kenya's population is judged to be living in a condition of poverty. (ILO) Along with this poverty goes a disease incidence pattern typical of tropical African countries and a health infrastructure which does not adequately address itself to these needs.

Amongst the major diseases noted in Kenya is malaria which is endemic along the Indian Ocean coastline and around Lake Victoria. Upper respiratory infections such as pneumonia are the most frequest cause of hospitalization. One million cases of schistosomiasis are reported annually. Measles was the third highest cause of death amongst Nairobi children under seven in 1977. One hundred thousand cases of leprosy exist in

pockets throughout the country. Tuberculosis is prevalent, especially in the urban areas; and filariasis is found along the Indian Ocean coast. (FHI,1978,pp.30-31)

Additionally malnutrition may be one of the most consistent contributors to ill health and disease, especially amongst children, since one-third of all rural children and one-fourth of urban children under six suffer from Protein-Energy Malnutrition (PEM), anemias, and/or Vitamin A deficiency, with the accompanying dysenteries and parasites. (FHI,1978,pp.30-31)

The average ratio of doctors / population in Kenya is 1/50,000; in Nairobi, the capital city, the figure stands at 1/3500. (Githagui,1981) In 1970, 13% of all nurses, 30% of the enrolled midwives and 55% of the trained health technicians were assigned to the rural areas. (Githagui,1981) Only an estimated 30% of Kenyans have access to modern health services. (GOK,MOH,#11,1981)

Life expectancy in Kenya is 53 years (1977), up from 42.5 years in 1960. Infant mortality is 83/1000 (1977), down from 159/1000 in 1960. (USAID,CDSS,1980) Only 15% of Kenyans are estimated to have access to safe water. (USAID,CDSS,1979)

History of the Health Services

Introduction

The history of the health services in Kenya is a classic tale of colonial concern for the colonists first and the suffering "natives" second in the early days of Kenya's modern development. It represented a valiant and largely successful effort at "curing" and eradicating major diseases which were impeding settlement and development at the time. But the patterns established early continue to be repeated with only recent recognition of the changing needs of the population.

Pre-Colonial Era

The earliest British arrivals to Kenya were missionaries and traders for the Imperial British East Africa Company (IBEA) in the 1890's. They brought with them their own medical personnel to treat themselves who eventually began treating their employees as well. IBEA continued to limit its medical services in this way but the next arrivals, the missionaries, in their zeal, began to branch out to provide curative services to the surrounding population as well. Medical supplies were, however, never very regular in reaching their destinations and medical staff were never enough, limiting the impact of even the generous missionaries. (Beck,1974)

Early Colonial Era

In 1895, the British Foreign Office took control, in order to regulate the religious and economic penetration of its East African Protectorate. IBEA's medical staff was taken over in the same year by the British Government. In 1897, a Principal

Medical Officer (PMO) was appointed, Dr. R. U. Moffet. In 1901, a Medical Department was created as one of eight civil departments of the central administration. The department consisted of seven doctors, three nurses and seven hospital assistants, the last mostly Asians.

In the early years of this service, the PMO faced overwhelming odds. The Foreign Office was eagerly expanding ever further into the interior. Lack of funds and personnel meant that the Medical Department could effectively deal with emergencies only. In 1902, however, a plague in up-country Nairobi, now Kenya's capital city, which was by then a considerable centre of population due to the arrival of the railroad in 1898 and its suitable location as a base from which to expand into Western Kenya and Uganda, forced recognition of the need to improve living conditions. Three programs were thus inaugurated: one for rat control, one for mosquito control, and one for clean water. Additionally, housing quarters were segregated so that Africans, Indians and Europeans had defined residential areas.

A new PMO, Major Will, from the military, was appointed in 1908. With a larger budget and a more disciplined approach, he established the first hospital, for Europeans, in Nairobi, built native hospital facilities, created laboratories and dispensaries, and appointed a special medical officer to the port of Mombasa. Still, the emphasis remained largely curative.

Under Dr. A. D. Milne, PMO from 1911-1915, a major thrust on behalf of public health was initiated. He argued

strenuously for legislation to regulate water supplies and for building codes for housing. He initiated a scheme for extending medical services into the "reserves", vastly increasing his department to 280 in 1912 and 471 in 1913. However, with the onset of World War I in 1914, all of Milne's initiatives were temporarily abandoned. (Beck,1974)

World War I

The War wreaked havoc with life in many ways, even in East Africa, and yet, in other subtle ways, it provided a stimulus for change which benefitted the health sector. Many Kenyan soldiers died during the War-- 4300 -- but only 30% were killed in battle. The remainder succumbed to disease. Also, of the 350,000 porters used in the War, 42,000 died of illness. Thus, the East African Medical Corps was formed under Major G. J. Keane to provide medical services for the porters and troops. The Corps was made up largely of young secondary school graduates who were flexible and enthusiastic and proved to the British that Africans could be trained for such service. (Beck,1974)

Extension into the Reserves

Immediately following the War, a famine (1918) and an influenza epidemic (1919) emphasized the need for an extension of medical facilities beyond the cities into the reserves. Dr. John L. Gilks, the new PMO, "scolded the English Government for not doing its duty by the African people and he reminded the colonial office that changes in policy were urgently needed."

(Beck,1974,p.95) His motives were humanitarian. He implanted one Medical Officer for each 100,000 Africans and one Medical Officer of Health for each 450,000. "It seemed that a turning point in Kenyan medical history had finally come. The Medical Department was now firmly established as a department of government for the maintenance of health of the entire population and for the improvement of the living conditions in rural areas." (Beck,1974,p.95)

Annual medical reports began to be issued in the 1920's. Medical policy was clarified and a healthy life defined. This definition -- "proper feeding, cleanliness and a certain degree of culture which made people want to attain a better life" (Beck,1974) -- although somewhat pejorative, did become a factor in bringing about social change. Gradually it had been agreed that the African as well as the European was entitled to a healthy life. Gradually, also, greater priority had been given to training African staff. (Beck,1974)

Local Native Councils

A new development occurred in 1924 when Local Native Councils were created and given the authority to pass resolutions on public health matters, including voting funds for hospitals and dispensaries and participating in the control of venereal diseases. Nonetheless, the Annual Report of 1926 stated:

> "The native still lives and dies under the age-long conditions of insanitation...Sickness and death, the result of poor nutrition, poor housing, harmful habits and customs and complete lack of sanitary precaution, remain uncontrolled"

(Beck,1974,p.96).

It went on to state:

> "Medical progress had been made when epidemics threatened the population. But in normal times, curative and preventive medicine were lagging behind." (Beck,1974,p.96)

In 1930, as a result, a systematic massive "propaganda" campaign was inaugurated. Articles on good health habits appeared regularly in the press. Health exhibits were set up at fairs. Model villages were constructed. Medical personnel attended local meetings to convey correct medical concepts.

The PMO appointed in 1933, Dr. Paterson, intensified the rural dispensary policy, placing European staff in major centres. His emphasis was on sanitation. But he had fewer funds than earlier -- &200,000 as opposed to &250,000 in 1931 -- due to the Depression. Additionally, he was the first to note the interrelationships between health and economics, arguing that Africans needed higher incomes to improve their health status.

By 1934, there were 43,000 in-patients in the East African Protectorate, an increase from the 36,000 recorded in 1931. According to the Annual Report, "the figures showed that medical services were wanted by the African and that medical progress might well be achieved with proper financial backing." (Beck,1974,p.96) African staff were still being trained, including hospital assistants, compounders and health workers, but as yet no doctors, since it was claimed that there were no Africans with the "proper" background.

Dawson Report (1920): Health Centres

In the meantime, in 1920, a report was prepared in England called the Report of the Future Provision of Medical and Allied Services , otherwise known as the Dawson Report. This document put forth the concept of integrated preventive and curative services through the health centre. Furthermore, it extended the scope of personal health services from the patient to the environment. This Dawson Report not only became the basis for the National Health Service in Britain but also became the foundation for health centre development in Britain's colonies. The Health Organization of the League of Nations recognized the brilliance of the health centre concept in the Dawson Report in the 1930's and encouraged its extension to rural areas throughout the world. The Pholela Health Centre in South Africa became one of the first established in 1940 and set an example for Kenya (Alger,1973,p.169).

World War II: Troughton Report (1946)

The Second World War brought with it more problems and more needs. Following the War, as a result, the Medical Department of the Committee on Postwar Development of the British Colonial Government published a two-volume report popularly referred to as the Troughton Report. In this 1946 report, which focused on general development, the primary objective was stated as "the use of the natural resources of the country, including manpower, in a manner calculated to increase the national income of Kenya in the shortest space of

time so as to raise as quickly as possible the standard of living of the majority of the inhabitants." (GOK,Troughton Report,1946,Vol.II,pp.3-7)

In order to develop the human capital of the country, a health services system was to be created based on a policy of "new directions" following the precedent of the Dawson Report, which aimed at preventing disease instead of just curing it, or, in the words of the Report, which aimed at "keeping a man fit...getting at him before it is necessary for him to go to a hospital and so keeping him in action in the battle to increase the national income." (GOK,Troughton Report,1946,Vol.I,pp.10-11)

Three recommendations emerged to allow this:

1) that health centres be established throughout the colony

2) that new and larger Medical Training Centres (MTC's) be constructed, including in Nairobi

3) that a major hospital be established in Nairobi.

(Alger,1973,p.108)

> "The needs of a modern medical service had finally been accepted in departmental budgets and &360,000 were allocated to health in 1945, increasing to &580,000 in 1948." (Beck,1974,p.97)

The 1946 Troughton Report fully endorsed the concept of the health centre, although for Africans only. Twenty centres were envisaged to be created over ten years, at the cost of &5,000 each, half independent and half attached to hospitals. The health centre was to be the "general practitioner

substitute" for Africans. A true general practitioner service for Asians and Europeans remained separate. (Alger,1973,p.193)

By 1949 two health centres were opened. In 1950 an article was published by A. J. Walker in the East African Medical Journal which laid the theoretical framework for health centre development in Kenya. Maurice King, a well-known author in the health field, was to comment in his 1966 volume, Medical Care in the Developing World :

> "Kenya's health services system and more specifically its adaptation of the health centre concept has been accepted as a model for the provision of rural health care in the developing world. By orienting its health services around a system of rural health centres, Kenya has been able to extend preventive, curative and promotive health care to a predominantly rural population." (King,1966,pp.1-15)

Emergency

But the early 1950's saw a severe setback in medical progress in Kenya due to the Mau Mau insurrection in which the Kikuyu ethnic group in particular violently protested the settlement of their land by Europeans and forced the Government to proclaim a State of Emergency. Nonetheless, by 1955, nineteen health centres had been opened, especially in the North Nyanza District, largely due to the efforts of N. R. E. Fendall and because it was not a prime Mau Mau area. Although the centre/population ratio was 1/345,000, a long way from the original goal of 1/10,000, the authors of the 1955 Medical Department Annual Report concluded that the health centres had successfully relieved the patient load off the District

Hospitals as hoped. (Alger,1973,p.208)

One year later 58 centres were either planned, under construction or completed. Unfortunately, the 1956 Report indicated that the intended community outreach efforts of the centres had been overtaken by demands for curative services at the centres. This dilemma had been warned against from the very beginning on the basis of South Africa's experience. By 1959, the dichotomy of curative versus preventive had intensified. An attempt was made to return to the preventive focus by developing sub-centres to fill the gap between health centres and dispensaries and also to compensate for the lack of trained manpower. This emphasis continued right up until Kenya's Independence from Britain in 1963, at which time there were 141 health centres and sub-centres in the country. (Alger,1973,pp.206-7)

Independence

The transition to Independence in 1963 led many to query whether medical services would decline. However, Beck (1974) made the following comments:

> "Recent developments have dispelled these fears. Medical development plans are indicative of the determination of the various governments. Medical planning has stressed...1) the preventive aspects of medicine and 2) the urgent need for the extension of the health services in the rural areas."
> (Beck,1974,p.105)

Plan I: Health as an Investment in Human Capital

The first of these Development Plans (1964-70) continued

to envisage investment in health as an investment in human capital, important for economic development, following the philosophy of the Troughton Report. It was taken as a self-evident truth that there was an integral relationship between a country's productivity and the health of its people. However, in addition to desiring a healthy labor force, the Government also proclaimed its commitment to the social welfar of the people and pronounced a "duty" and "obligation" to provide adequate health facilities for its population. (Abilla,1980)

Plan II: Rural Health Training Centres

The Second Plan (1970-74) reiterated the same themes, though in a more cautionary tone. Here the Government of Ken recognized the need to balance infrastructural investments in health with those in agriculture and industry in order to create a self-sustaining productivity. But the balance was never clearly spelled out.

The priorities of the Second Plan in the health field were:

1) the construction, renovation and upgrading of new and existing facilities;
2) an increased investment in medical manpower training;
3) preventive and promotive health programs;
4) assistance to church health services; and
5) the transfer of county council health services to the central government.

(Alger,1973,p.121)

The Plan made a commitment to steadily increase facilities "with particular emphasis on the rural areas and manpower."

However, in budgetary terms, the main financial priority of the Plan was the curative hospital sector, receiving 72.5 % of the development health budget. Health centres, by comparison, were to receive but 2.5 % of the development health budget. (Alger,1973,p.127) Since the pattern of development expenditure necessarily shapes the pattern of future manpower needs and recurrent costs, the Ministry of Health had already committed itself heavily on the side of curative facilities, especially hospitals.

One definite accomplishment during the Second Plan was the transfer of rural health services from the local authorities to the Central Government, Ministry of Health. The 1969 Transfer of Functions Act had paved the way for the 1970 transfer. Prior to that time, the local County and Municipal Councils had maintained health centres and dispensaries while the Central Government had been responsible for district, provincial and national hospitals. The District Medical Officer of Health was employed jointly by the two authorities and served a liaison function. (Alger,1973,pp.139-144)

The 1946 Troughton Report had recommended a full transfer of these functions to the Central Government. Nothing happened until 1968 when the County Councils experienced a budgetary deficit due to increased educational costs. The actual transfer took place in 1970, allowing for standardization and theoretical equalization of services and for upgrading of facilities. Only the eleven Municipal Councils retained control of their own health facilities. (Alger,1973,pp.139-144)

Another landmark during the Second Plan was the drafting

of a Proposal for the Improvement of Rural Health Services and the Development of Rural Health Training Centres in Kenya in 1972. In the proposal, six Rural Health Training Centres (RHTC's) were to be created between 1973-76 to train Medical Assistants, Community Nurses and Health Assistants. Eight teams would be trained in each centre each year. These teams would then give on-the-job training to others on their staffs. The intention was to create more appropriately trained paramedical staff to serve in the rural health centres which were destined to be rapidly increased. The project was to be funded by the IBRD, NORAD, UNICEF, and WHO and was to include the construction of 27 Demonstration Health Centres as well. According to the project participants, in order for the project to succeed beyond the length of the external funding, the percentages of the MOH's health budgets devoted to rural health needed to increase from less than 1% to 20% of the development health budget and from 15% to 20% of the recurrent health budget. (GOK, Proposal ,1972)

Plan III: Rural Health Care

Kenya's Third Plan (1974-78) was written with far greater attention to detail. The two main elements of its strategy were a master plan for rural health care in which the health centre was recognized as the "linchpin of public health policy," important as the coordinator of curative and preventive services in the rural areas, and a greatly expanded training program for non-physician health personnel. (FHI,1978,pp.39-40) These foci provided "some evidence of a

growing real commitment to the principles of equity established earlier by the GOK." (USG,HSA,1979,Vol.IV,p.17) 'Health centres increased from 131 to 191 during the Plan period, although partly as a result of upgrading sub-centres. Dispensaries totalled 536 by 1978, 120 more than in 1974. And the number of hospital beds was up by three thousand. (FHI,1978,pp.39-40) The construction of rural health facilities actually exceeded planned targets by 66%. Yet, recurring rural health costs dropped from 13.7% of the recurrent budget to 10%. (USG,HSA,1979,pp.15-17)

Plan IV: Rural Health Units and CBHC

The recent Plan document (1978-83) focused on the Basic Human Needs theme in a rural development context. In the health sector, the Rural Health Unit concept predominated. In 1978, the Rural Health Planning and Implementation Unit of the Ministry of Health introduced its new Rural Health Unit (RHU) concept in an effort to "orient rural health services toward the most important rectifiable health problems." The major health problems to be addressed were five:

1) Maternal and child health
2) Malnutrition and undernutrition
3) Communicable diseases
4) U.R.T.I./gastro-enteritis
5) Diseases resulting from inadequate environmental sanitation.

(GOK,RHS,1978,p.1)

Each Rural Health Unit was designed to serve a population varying from 50,000 to 70,000. The RHU Headquarters serves various sub-centres and dispensaries, offering technical

assistance and serving as a referral institution. A total of 254 RHU's were proposed in 1978. (GOK,RHS,1978,p.1)

The goals of the RHU concept were clearly stated by the MOH. They included (to be reached by 1984):

1) 50% reduction in infant mortality
2) 400%-500% better coverage of expectant mothers
3) 26% reduction in communicable diseases
4) 18% reduction in environmental problems
5) 56% reduction of nutritional diseases
6) 30% reduction of digestive and respiratory conditions.

(GOK,RHS,1978,p.4)

The overall philosophy/objective was the classic Alma Ata goal, "to provide essential health care for all by the year 2000."

The means to achieve these goals were two-fold: conventional clinic-based health care and community-based health care. Community-based primary health care was defined as "essential health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation and at a cost that the community and the country can afford." (GOK,RHS,1978,p.4) In 1980 the GOK prepared a Proposal for the Integrated Rural Health and Family Planning Program to take account of the Alma Ata focus on CBHC. At the time the proposal was written, there were fourteen such projects, predominantly non-governmental, experimenting with the concept of Community-Based Health Care (CBHC). The goal of the MOH at that time was to review the projects sufficiently to devise specific models which might be applied to the whole country.

The problem was defined by the MOH as follows:

1) Health care demands (mainly curative) are outgrowing the resources of a rapidly growing community.

2) The Western-inherited health service structure is favouring a small, largely urbanized community (80% of the budget is spent on 20% of the population).
(GOK, Proposal ,1980)

The options open to and acknowledged by the Government included expanding the health services proportionate to the burgeoning population, demanding large investments, high recurring costs and the training of additional health workers far beyond the capacity of the MOH, or mobilizing community resources to complement the existing health service structure.

The Ministry has given expressed support for the latter option, that of Community-Based Health Care through the development of Community Health Worker schemes, even though it means coping with the mobilization of communities and the re-orientation of the existing health service structure to support the CBHC approach.

Plan V: A Healthy Nation

The current Plan (1984-88) emphasizes national good health:

> "Good health is obviously of direct benefit to the individual and the family. From a national point of view, a healthy nation will learn more rapidly, work more steadily and productively, and manage its tasks more efficiently." (Plan,Sec.6.112)

In order to have national good health, "effective medical care, particularly when preventive in nature and directed to the rural areas" is essential. (Plan,Sec.6.112)

The following major health policies have been set forth in the Fifth Plan to achieve national good health:

> 6.113 Increase coverage and accessiblity of health services in rural areas.
>
> 6.114 Preventive and promotive health programmes, if adequately supported, can be cost-effective.
>
> 6.115 Further consolidate urban, curative and preventive / promotive services.
>
> 6.116 Increase emphasis on MCH and FP services in order to reduce morbidity, mortality and fertility.
>
> 6.117 Strengthen MOH management capabilities with emphasis at the district level.
>
> 6.118 Increase inter-ministerial coordination.
>
> 6.119 Increase alternative financing mechanisms.

Community-Based Health Care is mentioned occasionally, once as an alternative financing mechanism along with harambee efforts (6.119), once in connection with health education efforts where CHW's and local health committees "will be trained in selected rural health activities" (6.125), and once with regard to "reducing pressure on existing static health facilities in rural areas" (6.129).

Health Infrastructure

The Central Government through the Ministry of Health is the major provider of allopathic health services in Kenya as is

the case in most Third World countries. However, additional health facilities, provided by missions, private parties, voluntary agencies, international donors and traditional practitioners, comprise a more significant portion of the health infrastructure in Kenya than in many countries.

Ministry of Health

The Ministry of Health (MOH) is responsible for the general overall health of the nation. Its formal responsibilities include formulating health policy and development plans, organizing and administering the central health services, training health personnel, promoting medical science and coordinating with other government departments and organizations on health-related matters.

The MOH is organized on four levels, the Central/Headquarters, the Provincial, the District and the Rural. The Minister, a political appointee, is a member of both the President's Cabinet and the Parliament. He is aided by two Assistant Ministers. A functional division exists at the sub-ministerial level, between the administrative and the medical/professional, with a Permanent Secretary (PS) handling the former and a Director of Medical Services (DMS) handling the latter.

A Provincial Medical Officer (PMO) oversees the health activities in each of Kenya's seven provinces. He is responsible for coordinating and administering all government and non-governmental health services within the province. The

District Medical Officer of Health (DMOH) with his team of administrative, technical and professional personnel carries the supervision lower to the district level. Rural health care is provided through a varied system of health centres, dispensaries and mobile units, depending on the availability of staff and facilities. These personnel report to the DMOH. (USG,HSA,1979,IV.,pp.1-4)

The Hospital Sector

The health system in Kenya is pyramid-shaped, based on the concept of referral upwards. Kenyatta National Hospital in Nairobi is the national referral hospital, at the apex of the system. It is a modern teaching and research facility with 1848 beds, employing the most sophisticated imported techniques. (FHI,1978,P.41) It was recently modernized, with the new facility operational in 1980, and is now the largest hospital in East Africa.

Immediately below it in the system are the Provincial Hospitals with a catchment area of 1 - 2.5 million people, offering some specialty services. The District Hospitals, serving between 200,000 and 500,000 people, are the link between the basic rural health services and the hospital pyramid. The DMOH is in charge of the hospital and the rural facilities which feed into it. (Alger,1973,pp.145-150)

In the country there were 57 District Hospitals, seven Provincial Hospitals and one National Hospital (GOK, Proposal ,1980,pp.16-17)in 1978, providing 19,616 beds (FHI,1978,p.43). The 1980-84 Plan called for a 30%-40% increase in beds

(USG,HSA,1979,p.21) based on the occupancy rate for hospital beds of 150%. (FHI,1978,p.44)

The Rural Health Unit

In 1978, the Rural Health Unit (RHU) concept was first articulated. The country was divided into 254 RHU's with each one encompassing a population of 50,000 to 70,000 depending on the density of the population. Within each unit there is to be one health centre, which will serve as headquarters, and between four and six dispensaries. Where the population is dense, one or more of the dispensaries may be upgraded to a health sub-centre. (GOK, Proposal ,1980,pp.16-17)

The staff of the health centre should ideally include one Clinical Officer, five Enrolled Community Nurses, four Family Health Field Educators, one Public Health Officer, three Medical Attendants, one Laboratory Technician, one Clerk and five General Attendants as well as other non-medical staff such as a driver, a cook and a watchman. A dispensary should be staffed with two Enrolled Community Nurses, one Public Health Technician, two Family Health Field Educators, one attendant and one cleaner. (GOK, Proposal, 1980)

In addition, for rural health, the MOH maintains six Rural Health Training Centres and 27 Rural Health Demonstration Centres. (FHI,1978,pp.46-47)

Community-Based Health Care

The GOK's most recent new focus is CBHC which is only in its incipient stages. There is currently one GOK pilot scheme

in operation which is experimenting with Community Health Workers in Western Kenya.

Other Allopathic Health Care Providers

Municipal Councils

The City of Nairobi is one amongst eleven municipalities to provide health care for its residents. The City Council operates six health centres, ten dispensaries, 34 maternal and child welfare clinics and a maternity hospital. These local operations are what remains after the Central Government takeover from the County Councils in 1970 which used to administer most public health care. (Vogel,1970)

The National Hospital Insurance Fund

The National Hospital Insurance Fund (NHIF) was started in 1966 by the MOH. It benefits those who earn one thousand shillings (Ksh. 1000) or more per month. Membership is compulsory for any citizen in that category, including government employees. Both the individual and the employer contribute Ksh. 20 monthly to the fund. After an individual has been enrolled for a minimum of twelve months, he or she is eligible for the benefits. (FHI,1978,p.44)

GOK / Non-MOH

Other government ministries in Kenya in addition to the Ministry of Health run programs which affect directly or

indirectly the health of the Kenyan population. The Ministry of Housing and Social Services manages nine Family Life Training Centres (FLTC's). The objectives of these centres are to assist individuals in their efforts to improve their family welfare by training mothers in improved methods of hygiene and nutrition; to prevent malnutrition amongst children by teaching mothers preventive health; and to treat malnourished children with a high-protein/calorie diet. Those mothers with at risk children who are identified are invited for a twenty-one day live-in program of health education and proper child feeding. This program was initiated by the Kenya Red Cross and taken over by the GOK in 1974. (Meyers,1979,pp.96-100) The Ministry of Housing and Social Services also runs a pre-school feeding program and a Women's Bureau. (Meyers,1979,pp.96-100)

The Ministry of Agriculture is initmately involved with the health of the nation with its programs designed to improve subsistence food crop production. The Food and Nutrition Research Centre and the Karen College of Nutrition likewise focus on the nutritional problems of the nation. The Ministry of Education conducts a school milk program to counteract some of the difficult circumstances in which children live. (Meyers,1979,pp.96-100)

Missions (Church-related Non-Governmental Organizations)

The Missions, or CRNGO's, were the earliest to recognize the need to offer allopathic health services to the African

populace in Kenya. They continue to provide valuable services today but under strict coordination with the Ministry of Health.

Between 1889 and 1903, three religious groups established missions in the East African Protectorate. The Church Missionary Society settled in the port of Mombasa while the Church of Scotland Mission and the Catholic Missionary Holy Ghost Fathers moved inland. Prior to 1910, these Missions had little contact with the Government, except for requesting supplies. The Missions, with a zeal both to heal and to convert, trained Africans from the beginning and established the first permanent hospital in the Protectorate in Kikuyuland in 1908. (Beck,1974,pp.91-105)

With World War I, the Government proclaimed Kenya a colony and ended its loose but supportive relationship with the Missions. The 1920's were an era of uneasiness. By the 1930's the Government was still willing to concede that Missions provided a useful service but the Government wanted clear control of medical policy. By World War II, the Missions, desperately in need of funds, were willing to accede to the Government's requirements in order to get essential subsidies (Beck,1974,pp.91-105).

Today there are 42 Mission Hospitals providing 30% of the nation's hospital beds. The CRNGO's operate mostly in the rural areas, on a fee basis, supported additionally by GOK grants and private donations. They have been the most innovative in experimenting with community outreach programs and are especially involved with pilot CHW schemes.

Private Voluntary Organizations / Non-Governmental Organizations

Voluntary organizations which are private and are not religiously affiliated are variously referred to as PVO's and NGO's. In Kenya, they include the World Food Program (WFP), the Medical Research Centre (MRC) in Nairobi , Catholic Relief Services (CRS), Coordination in Development (CODEL) and the African Medical Research and Educational Foundation (AMREF). One of the most important and innovative of these in Kenya is the last, AMREF.

The African Medical Research and Educational Foundation is a non-profit voluntary organization which has been intimately involved with health care in East Africa for twenty-five years. AMREF currently supports 41 projects in East Africa, many of them in Kenya, through the assistance of numerous funding agencies, including DANIDA, USAID, OXFAM, the EEC, and SIMAVI. (Wood,1980) In the 1980 AMREF pamphlet, entitled AMREF in Action 1980 by Michael Wood, the current Director, AMREF's involvement is spelled out as follows:

> "AMREF's programmes include the investigation of new ways of providing health care within the economy of the countries in which it works by helping to train appropriate cadres of health workers; studying and applying health behavior methods; demonstrating new approaches in public health, preventive and curative medicine in the field; using modern communications to telescope logistics and geographical problems; publishing health manuals and magazines; and critically evaluating its programmes." (Wood,1980,p.3)

One of AMREF's major programs in Kenya is the Kibwezi

Rural Health Scheme. Kibwezi Division in Machakos District is a semi-arid region with a population of about 100,000. AMREF started its project there in 1978 with the goal of developing an entire health services structure which could serve as a model for rural communities elsewhere in the country. The project emphasizes community participation and includes Community Health Workers. (Wood,1980.pp.5-6)

One of AMREF's other innovative programs is the Flying Doctor service. AMREF maintains a fleet of small planes which make regular flights to outlying districts to provide curative medical services and may also be called on an emergency basis. (Wood,1978)

Private-for-Profit

The private-for-profit sector includes hospitals, pharmacies, and personnel. In 1973, there were 2600 private-for-profit hospital beds in the country. (USAID,HSA,IV,pp.5-8) Between 60% and 70% of the physicians in the country are employed outside the public sector, mostly in the cities. (Alger,1973,p.363) The private-for-profit sector, which is more remunerative financially, attracts many of Kenya's health personnel away from public service, even though the Government has paid for their training.

Traditional Practitioners

Traditional medicine has often been either ignored or disparaged as unmodern by health planners in Africa. Yet,

"traditional healing is the most widely available form of health care in Kenya. Although it is not formally accredited by the government, traditional medicine is "functionally inter-connected with modern medicine through patients' joint use of both systems." (Good and Kimani,1980,p.301)

In Kenya, allopathic health care delivery breaks down. The authentic benefits of modern medicine are often available only to the well-off or the urban-based. Thus, while one cannot argue that traditional medicine should be adopted as the only method of health care, many aspects of it may be taken and merged with the modern. For many people traditional medicine is the most convenient form of health care available.

In Kenya, as elsewhere in Africa, the belief that ill-health arises from supernatural causes prevails. Diseases are classified into three types: the self-limiting; those curable by indigenous methods; and those for which modern techniques are essential. "Illness" is considered to be supernaturally inspired, with the disease symptoms mere signs of a deeper problem while an "ailment" is the result of natural causes. (Professor Mugo, University of Nairobi,lecture) For example, in Western Kenya malnutrition is not seen as a health problem. A child with <u>ayienya</u> (kwashiorkor) is said to be bewitched by a neighbor or a jealous co-wife. Similarly <u>obuanya</u> (marasmus) is associated with infidelity on the part of either the mother or the father of the child. Help is not sought because community ridicule is feared as infidelity is considered disgraceful (Githagui,1981,p.74). Because of the very scientific nature of modern allopathic medicine, a patient

may be cured of the symptoms of an illness but still suffer from the belief that the underlying cause of those symptoms has not been eradicated. There is thus a great deal of psychological impact associated with traditional healers.

A mganga (pl. waganga), the Swahili word for a traditional healer in Kenya, may be male or female, practising full or part time. He or she need have no officially recognized qualifications to practice, except that he or she is held in high esteem by the community. Techniques vary, from the simple use of herbal remedies to trances, rituals and sacrifices. Some waganga , such as the traditional birth attendants (TBA's), are specialists. Most waganga are legitimate but some are quacks, forming a "peripheral" system of self-styled, often unscrupulous, exploiters, including fortune tellers, palmists, astrologers, "bush doctors" and street and bus-depot "doctor-boys." (Kimani,1981,pp.333-340)

Under the British no attempt was made to interfere with benevolent herbalists. However, in 1925, an ordinance was passed in Kenya outlawing witchcraft. Because many of these waganga were associated with witchcraft by the British, correctly or incorrectly, there is a lingering sense of shame or guilt often associated with visiting a mganga for some, despite the Government of Kenya's now official recognition of the validity of many of these healers and of a project to try to integrate them into the nation's health care system. (Kimani,1981,pp.333-340)

Medical Manpower and Training

Medical Education for Physicians

The University of Nairobi first opened a Faculty of Medicine in 1967. Prior to that, all medical training for doctors had been done in Kampala, Uganda, at Makerere University as part of a cooperative scheme of education amongst the three members of the East African Community, Kenya, Tanzania and Uganda. By 1967, however, the needs had become too great for Makerere to handle. The first 80 graduates emerged from Nairobi in 1972. By 1974 about one hundred students were being taken in per year. (Mungai,1974,pp.141-145) This number remains the same today.

The Faculty was created along traditional British lines with an emphasis on curative medicine, on science and on professionalism. The course offered currently is a five-year undergraduate program with a three-year post-graduate follow-up. (Abilla,1980,p.10) All medical students are required by the GOK to spend three years after graduation in service to the government since they are all educated at government expense. Approximately 75% are assigned to Kenyatta National Hospital. (Bloom,Conversations with medical students and faculty)

There is one compensating factor, the Department of Community Health in the Faculty of Medicine. This department is charged with the mandate of exposing potential doctors to the realities of the medical problems of the country. During

their second year of medical education, the students spend one three-month term in the department, taking courses and participating in a two-week field exercise. Then, during their fourth year, they again spend a term focusing on community health problems and approaches, this time emphasizing field work. They prepare community diagnoses and analyze the data; they spend a week in a rural health centre, participating in its functions and analyzing its strong and weak points; and they are exposed to various urban health problems in Nairobi. (Bloom,Conversations with medical students and faculty)

According to J. M. Mungai, a one-time Dean of the Faculty of Medicine, the standards of the school are quite high. But he argued in 1974 that "university-based medical education is quite irrelevant to the health needs of the country." (Mungai,1974,p.142) He agreed that there is a desperate need for doctors in Kenya, as the doctor/population ratio is very low, and highly skewed in favor of the cities, despite a predominantly rural population. But, he contended, simply educating more doctors who are irrelevantly trained does not help Kenya's health situation. In his own words:

> "The medical school programmes need to be reviewed by all those who are in the business of medical education and health service to insure that they are training competent doctors, who will be motivated to and capable of giving relevant health care according to the observed needs of the country." (Mungai,1974,p.145)

These sentiments are echoed by Michael Wood, Director of AMREF:

> "The graduates from our universities today shy away from the job which needs to be done and often prefer to huddle with their comrades in the ivory towers of our large cities discussing the intricacies

> of some disease which is of no real consequence to the overall health problem.
>
> "It is a criticism of the medical profession today that it is doctor and hospital-oriented but not patient-oriented...For a long time to come medical auxiliaries wil be bearing the brunt of rural practice and in many ways they are better suited to it." (Wood,1978,p.84)

An additional serious problem is that many of the health cadre trained at government expense leave government employ soon after their three-year bondage is over, if not earlier. This is exascerbated the more sophisticated the degree of training. Thus, doctors have more opportunity to enter the private sector than paramedical staff. The USAID staff, in its aid to manpower training in the health sector, estimates that it must train three persons for every one position it intends to fill due to the drain into private practice and comments that "the GOK finds it difficult to retain trained persons in government service." (USAID,CDSS,1980,p.58) This drain increases with more specialized training; yet, an analysis of the 1978-83 health budget shows an allocation of 50% of the training budget for specialty rather than basic training. (USG,HSA,IV,1979,pp.26-28)

Training of Medical Auxiliaries

Training of medical personnel in Kenya is not solely restricted to the University of Nairobi. There is also training offered in thirteen government-sponsored Medical Training Centres (MTC's) and six Rural Health Training Centres (RHTC's) and at various Christian Mission Hospitals.

The foundation of the rural health services is the paramedical team, an outgrowth of the paramedics who were trained in service during World War I, including medical assistants, dressers and dispensers. These names have since been changed and today the Medical Assistant (MA) is called the Clinical Officer (CO). He may head a rural health centre or work in a hospital. A certified CO has one year of training at an MTC beyond his professional Enrolled Nurse (EN) training while a registered CO has three years of MTC training beyond his East African Certificate of Education (EACE). Other paramedics include the Public Health Technician (PHT), the Public Health Officer (PHO), the Entomological Field Laboratory Technician, the Enrolled Nurse (EN), the Enrolled Midwife and the Community Nurse, who is a multi-purpose worker. (Migue,1974,pp.147-154) Most of these personnel, like the physicians, are bonded to the government for three years following their training. (Alger,1973,p.394)

Community Health Worker Training

Despite the relatively high quality of training offered by the institutions training auxiliary personnel for the health services, there was recognition as early as 1974 by M.R. Migue, the Principal of Nairobi's Medical Training Center, that:

> "In the rural areas we probably need more than what is anticipated, a really local worker who is trained at the health centre, coming from the very community he/she is serving, living where he/she is born, a person unlikely to migrate to the urban areas: the Village Health Worker."
> (Migue,1974,pp.153-154)

Community Health Worker training in the fifteen or so pilot endeavors in Kenya where the Community-Based Health Care concept is being implemented has tended to utilize the Paolo Freire method, focusing on local "felt needs" and preparing the volunteers to be really relevant to their communities.

Community-Based Health Care in Kenya

As of June 1983, there were at least fifteen CBHC projects in Kenya, with a possible eight additional schemes includable in a summary document. (AMREF Chart;Willms,1980)

All of the current schemes, except one, are supported by private institutions, predominantly church-related. Some of them receive additional support from international donor agencies. The one non-private scheme is a pilot project run jointly by the Ministry of Health and the University of Nairobi, Department of Community Health, with UNICEF assistance. The schemes are more or less dependent on their affiliate institutions, depending on the strength of their support in the community.

CBHC PROJECTS IN KENYA (1983)

Bungoma District
Bukoli and Ndivisi locations
East African Yearly Meeting

Busoga Multi-Sectoral Development Programme
Diocese
Dr. Joyce Nsubaga

Chogoria Health for the Family Programme (May 1980)
Presbyterian Church of East Africa (PCEA)
Family Planning International Assistance (FPIA)

Kabras (1977)
Ministry of Health / University of Nairobi / UNICEF
Dr. Miriam Were

Kagando
Local community
Dr. R. Morris and Sister Andrea

Kamweleni Human Development Project (1978)
Institute of Cultural Affairs (ICA)
Model for projects in 27 districts in Kenya

Kapsowar
Marakwet
Local community / OXFAM

Kibwezi
AMREF / CHWSU
Dr. Roy Shaffer

Kisii Public Health Aides Programme (Nov. 1975)
Kenya Catholic Secretariat
CEBEMO / Canada Interchurch
Sister Joan Devane and Sister Gill Horsefield

Kitui Community Development Health Workers
Proposed pilot project
Coordination in Development (CODEL) / USAID

Machakos Village Health Workers Programme (Sept. 1978)
KCS (CEBEMO) and Diocese
Sisters Joan Devane, Geraldine Huising and Beata Ndunge Muli

Maua Health Development Project (July 1977)
Methodist Church Hospital / World Neighbors
Sister Meg Bailey

Mushahga
World Neighbors
Sister Francis Nasuung

Nangina Hospital Community Health Programme (1976)
KCS / Misereor
Dr. Leda Liboon

Saradidi Rural Health Development Project (Feb. 1979)
Dr. Dan Kaseje
FPIA

Tigania
Parish Council of Catholic Mission
World Nieghbors

Others

AMREF's Mobile Team, Ngoryika, Maasailand
Busia District Training Project, Sio Port
Chulaimbo Rural Health Training Centre
KCS, Membu
Kiambu District pilot project
Life Ministry at Letain Mission Hospital, Kericho
Rhamu Service Centre
Turkana (NORAD)

(Willms,1980)

The Ministry of Health, in its 1980 Proposal , indicated the intention to review all of these schemes with a goal of finding a model or several models which might be replicable on a national basis.

Historical Background

The histories of some of these projects are instructive for demonstrating how CBHC schemes become implanted in a community.

One of the oldest programs in Kenya is the Nangina Hospital Community Health Programme in Busia District, Nyanza Province. The hospital, run by the Medical Mission Sisters, was well-known for its emphasis on community outreach long before its Community Health Workers Program was initiated in 1976. In 1966, a weekly Well-Baby Clinic had been started followed in 1969 by a Public Health Aides Project. In 1970,

four Under-Fives Clinics with mobile units were started, including the involvement of community Public Health Committees. These have since been expanded to fifteen. In 1975 eight Nutrition Aide Field Workers were trained to follow up on the Under-Fives Clinics with health and nutrition education for mothers of malnourished children. (Willms,1980)

Although not all of these efforts were equally successful, they stimulated a response in the community such that, in 1976, the local Christian Community Groups, in a desire to help each other following the model of the early Christians who felt a responsibility to their fellow men, asked advice from the Sisters at the hospital as to what they could do. It was out of this desire that the CHW program was begun in Samia Location where 50% of the 44,000 population were being served in 1979 by the 60 CHW's remaining from the 77 trained. (AMREF,Nangina Report,1979)

Another project, the Machakos Village Health Workers Program, was conceptualized in the Diocesan Development Office in Machakos, patterned after the Nangina program and one in Kisii. When a team from the community approached the Kenya Catholic Secretariat for staff to help, Sister Geraldine Huising was recruited from the Netherlands. She came to Kenya in 1978, studied the Nangina and Kisii programs, and reviewed the entire health services structure in Machakos District. Once she had determined what was feasible and once her demand that a Kenyan counterpart be located had been met, the program was launched at Katangi in September 1978. Between 1978 and 1980, Sister Geraldine and Mrs. Beata Ndunge Muli expanded the

program to Ekarakara and Masinga. A total of 46 VHW's had been trained by 1980 with only two drop-outs. (Willms,1980) By 1983, the number had increased to 108, with eight drop-outs. (Bloom, Conversation with Sister Geraldine)

Chogoria's history is different. In 1968, a Child Welfare and Health Education Program was started at Chogoria Hospital in Meru District, run by the Presbyterian Church of East Africa, following the success of the Mwana Mujimu Clinic in Kampala. OXFAM and the Church of Scotland supported the hospital and its programs. Subsequently, an MCH/FP Clinic was begun at the hospital with monthly mobile clinics out to three existing harambee satellite dispensaries. The communities supported these outreach efforts by forming Dispensary Building Committees at the village and sub-location level with Area Health Committees formed later. In 1974, Family Planning International Assistance (FPIA) began funding the project. In 1975-76, thirty Family Health Field Educators (FHFE's) were trained with these funds following the training curriculum used by the MOH. Two FHFE's were assigned per dispensary, paid equivalently to the GOK FHFE's. In 1978, this "Health for the Family" program was further expanded to include the training of Family Health Workers for the village level. (Willms,1980)

In Western Kenya, where the Saradidi Project is located, the local community recognized the paucity of health services available to it despite the presence of mobile clinics run by the Diocese of Maseno South and the appointment of some "health secretaries" to administer simple drugs. Through conversations with Dr. Dan Kaseje, a member of the community, it was decided

to initiate CBHC through the local congregation of the Church of the Province of Kenya. Beginning with the already extant Rural Development Committees, Interim Task Groups were formed to mobilize the total communities by creating awareness of health problems. Each village then selected a Village Health Committee. Representatives from each VHC then created the Project Committee of the Saradidi Rural Health Development Project. Since 1979, twenty-eight Village Helpers Towards Health have been trained to serve in four sub-locations. Dr. Kaseje, who "facilitated the articulation of needs and organized a response to meet those needs," remains the Project Director but an Executive Committee has emerged to sustain the project in his absences during his work with the Department of Community Health at the University of Nairobi. (Willms,1980; Kaseje,Conversations)

Another project, in the Machakos area, was started by the Institute of Cultural Affairs. ICA, an informal federation of nationally autonomous, non-profit organizations, headquartered in Chicago and working in forty countries, began its first Human Development Project in Kenya in 1975 in Kawangware on the outskirts of Nairobi West. Since then, local people in the community in cooperation with both public and private sectors have begun a comprehensive health programme including a clinic staffed by two full-time nurses and a part-time doctor supported by fourteen community health caretakers, started a pre-primary and primary self-help school, continued instructing 150 people in adult literacy in conjunction with the Ministry of Adult Education, begun constructing a community center with

the help of the University of Nairobi and the Building Research Establishment and engaged seventy-five families in a family planning program. (ICA Brochure)

The concept was extended to the rural areas in 1978 when a similar clinic was opened in Kamweleni in Machakos District. In July 1980, ICA's project was intensified in Muputi Location where all the villages in the location were invited to participate in a "cluster" project. Following a baseline survey and various half-day, six-day and four-day consultations at the village, sub-location and location levels respectively, a two-year timeline of projects according to local priorities was established involving all 34 villages. (ICA Brochure)

Since then, the following accomplishments can be measured: 1300 compost pits and 500 latrines have been dug; 60% of the villages have initiated construction of or upgraded nursery school facilities; each village has erected an entrance signboard; nine roads have been constructed or improved; 600 farmers have participated in a training program to improve their techniques; and, in the health field, 183 villagers have been trained as Village Health Caretakers (ICA Brochure). This impact can be multiplied manyfold as ICA has already trained over 850 VHCT's in Machakos District who all push these countable measures in their "spins" as well as engaging villagers in countless development activities through their DOOP (Do Our Own Project) concept. (ICA Brochure)

The Kibwezi Project, on the main road to Mombasa at the southern end of Machakos District, was conceptualized by the staff of the African Medical Research and Educational

Foundation (AMREF) in 1974. AMREF has been active in East Africa for twenty-five years. It is most famous for its Flying Doctor service in which doctors provide medical service to outlying areas with airplanes. AMREF also has other departments, however, including a Health Behavior and Education Department, which publishes journals such as Afya and The Defender , and a Community Health Worker Support Unit (CHWSU) which promotes and backstops CHW schemes.

It was the latter group at AMREF which envisaged the Kibwezi Project. A 1975 request for donor assistance was unsuccessful but the request repeated in 1977 yielded results. Funding was provided by and continues to be provided by external donors, including USAID, SIDA, CIDA, Norwegian Church Aid, Brot fur die Weld and the Foundation of Swiss Civil Servants for Leprosy Relief. (AMREF, Project Year 1 Annual Report,1981)

The project involved construction of a health centre at Kibwezi which would serve as a centre for community outreach. The Kibwezi Health Centre was completed in 1980 and opened for outpatients in January 1981. While the buildings were under construction, AMREF staff began their community outreach with barazas in the communities to explain CBHC and a baseline survey to determine actual community needs and conditions. Four "clusters" of villages were chosen for the project, two from each of two locations, representing four discrete types of communities. Randomly selected households from these clusters formed the sample for the survey, conducted under the direction of AMREF's Kenyan sociologist. (Owuor-Omondi,1980)

The first targeted "cluster" for the project was Kai Cluster, an immigrant community with a deficiency of health facilities but a tradition of very effective self-help groups known for their village projects. The others included Gandani Cluster, a settled area with a good cash economy, good government infrastructure and health facilities including a government dispensary and a Mission clinic. Mangalete Cluster is located in a dry area. Its residents are quite mobile, not particluarly good at _harambee_ activities and lacking community self-confidence. Finally, Muthingingi Cluster was selected because of its remoteness combined with a tradition of effective self-help endeavors. (Owuor-Omondi,1980)

The AMREF project, which envisaged "maximum local participation," was intended as a vehicle to institutionalize CBHC in a manner to allow ultimate transition to the Ministry of Health. The undertaking is joint with the staff parti ally supported by AMREF and partially seconded by the MOH. To date AMREF has trained 80 CHW's out of Kibwezi. (Muli, _et al._ ,1983)

The Kabras Project, the only one now officially sponsored by the Ministry of Health, began with a 1975 survey conducted by Dr. Miriam Were, a local doctor who was serving in her own community, simply to discover the principal diseases in her own community and the main users of the hospital. Dr. Were talked to the elders about the project beforehand. The elders then called _barazas_ to allow the people to choose the surveyors. Following the survey, the results of the survey were taken back to the people involved as a form of feedback. Since it was recognized from the survey that most of the diseases in the

community were preventable, both Dr. Were and the community members began to query what they could do together to solve their health problems. (Black,1978)

Dr. Were then spent a year in the United States earning a Master's in Public Health from Johns Hopkins University and becoming sensitized to the real possibilities of community participation in Primary Health Care. When she returned, the Kabras Project was launched. Three government ministries cooperated to compose two teams, each consisting of a health worker, a social worker and a statistician. The Ministry of Health appointed a project supervisor for each. A chief's baraza was then called in each of the two communities to explain the project and discuss its details. Health Committees were formed and "First Aiders" were chosen. (Black,1978)

The teams began in Tiriki and South Kabras, two remote areas where the communities felt the teams could do the most good. Tiriki Location, with a population of 79,600 in 1979, had been the centre of a 1974-75 community diagnosis. It was because of the interest shown by the community that the pilot effort in CBHC was undertaken. Tiriki benefitted from good roads and power mills indicating its economic viability, a 120-bed church hospital with a school of nursing, a government health centre with three others nearby, and a 27% literacy rate amongst women. (Were,1982,pp.24-33) South Kabras Location, with 55,200 people, was more rural with no experience in community health work, no health facility in the interior and only one on the location boundary, and only a 20% literacy rate amongst women. Together the two locations were made up of 92

communities, each comprising between 70 and 376 households. Approximately 50% of the population was less than fifteen years of age. (Were,1982,pp.24-33) In 1980 the project was expanded to take advantage of the Rural Health Unit concept. Tiriki was joined with Nyang'ori under the Hamisi RHU (94,750 people) and South and North Kabras united under the auspices of the Malava RHU (102,116 people). (Were,1982,p.33) The Kabras Project was initiated to counteract the inaccessibility of people to the GOK health services. Although the health services had modified their old-fashioned "facility-based" approach years ago into a "community-oriented" outreach approach, coverage had increased only marginally, from 15% to 25%. (Were,1982, pp.8-9) Mobile services for the provision of immunizations and health education helped but the context continued to be "those who know going to those who don't know" with little effort made to understand the pre-existing health culture of the people involved. (Were,1982,p.9) Furthermore, curative emergencies at the health centre often frustrated the best intentions of health workers to focus on preventive measures.

The National Pilot Project aims to foster the community-based approach in which the health system and the community are partners. Communities are expected to participate actively in decision-making regarding both the organization and the types of services at the community level. Without such community interest and support, the project could not succeed. By the same token, the project aims to test the ability of the MOH to absorb this new concept within the

already-existing structures, using personnel already in place. Since 1977, 243 CHW's have been trained in the project. (Were,1982)

Community Participation

Kenya has a strong tradition of self-help. Its first president, Mzee Jomo Kenyatta, quickly recognized the limits of government and called for *harambee* (self-help). Communities were told to pull together their resources for their own improvement to be met halfway by the government. This has resulted in thousands of community buildings, including schools, dispensaries and community centres, which have been built on a *harambee* basis. (Mureithi,1982)

Nyambura Githagui, in her Ph. D. thesis entitled *The Application of Community Development Principles in Primary Health Care: The Kenyan Case* , has referred to numerous self-help groups in Kenya, including most prominently the *Mwethya* group which convenes for shared work, the *Ielo* group which offers help in cash or kind through grants or loans to the needy, and the *Nduu ya Unyanie* which begins as a women's trade group and usually expands into a friendship and/or work group. (Githagui,1981,pp.66-67) Regarding the spirit of *harambee* or self-help, she remarks: "In Kenya, and in many African communities, there exists a strong tradition of community self-help activities although much of it is not well-documented. Schools, dispensaries...have been built in

the spirit of 'harambee.'" Also, "It has been observed that certain communities in Kenya reject handouts, supplements, etc. as they hurt their pride as people who are able and can work for themselves." (Githagui,1981,p.65) She concludes: "It is this popular participation in decision-making at all levels that would make primary health care an appropriate technology for health improvement in Kenya." (Githagui,1981,p.118)

Furthermore, as Dr. Miriam Were has pointed out:

> "The health profession has been very protective traditionally and has taken a monopoly over peoples' health. But in Kenya, 78% of the people are looking after themselves, delivering their own babies, and so on, because they are not in contact with proper health facilities. So it is obviously nonsense of the medical profession to try and maintain that it has a monopoly when in practice that is impossible." (Githagui,1981,Appendix VII)

To quote Miriam Were (1982) again:

> "The concept of community participation is not a new one to Kenya. The Harambee (self-help and pulling together) movement that gained momentum at Independence has significantly contributed to the development effort. However, in the health sector, most Harambee efforts have been directed towards the putting up of buildings which the people hoped would be developed by the government or religious groups into functional units...The preoccupation with buildings is a reflection of the preoccupation of the health professionals with hospitals, a preoccupation that puts disease rather than health as the focal point. It seems reasonable to expect that this existing interest in health, expressed in the rather dead-end preoccupation with putting up buildings, could also be channelled into health promotive and disease-preventive activities that could be undertaken by the people in the context of community participation." (Were,1982,p.10)

Miriam Were concludes: "What I do know is that people know a lot about their own problems and would like to find answers to them. This is where we start off the search -- together."

Health Policy

The 1946 Troughton Report under the Colonial Government gave Kenya's health sector a praiseworthy health policy from which to launch its modern health services system. It emphasized the need to focus on the preventive and promotive rather than the curative; it delineated the health centre concept; and it stressed the need to increase paramedical personnel as well as physicians.

The Ministry of Health of the Government of Kenya has made subsequent policy statements along the same lines. Immediately after Independence, Sessional Paper #10 was issued in which the Government committed itself to a more equitable income distribution, to access to education and health services for all people, and to the long-term objective of providing an adequate level of free basic social services to all citizens. (USG,HSA,1979)

The Development Plans have continued the themes of the Sessional Paper. There has been constant emphasis, rhetorically at least, on the underserved rural majority. In 1972, Rural Health Training Centres and Rural Health Demonstration Centres were proposed. In 1978, the Rural Health Unit concept was delineated. And in 1980, the Proposal for the Integrated Rural Health and Family Planning Program was issued, including a detailed description of plans to evaluate existing Community-Based Health Care schemes with the idea of proposing appropriate models for national replication.

When the Alma Ata Conference was held, Kenya endorsed its Declaration, including its emphasis on CBHC:

> "An important component of the proposed 'Integrated Rural Health Services and Family Planning Programme' is 'Experimental CBHC'...Only a small percentage of the Kenyan population have easy access to modern health services: the coverage is estimated to be approximately 30%. CBHC is considered as a potentially powerful strategy to achieve wide coverage at a relatively low cost." (GOK,MOH Circular #11,1981,p.2)

Nonetheless, as one observor has noted:

> "It is no wonder that the principles of Alma Ata have been accepted in principle. It remains to be seen whether the principles will be translated into viable policies and programmes. Time will tell. So far no African country has shifted the emphasis of public expenditure towards primary health care or general public health care. That is the issue. Therein lies the potential tragedy." (Mburu,1981)

III.

RESEARCH METHODOLOGY

III. RESEARCH METHODOLOGY

Focus of Study

This review of Community-Based Health Care in Kenya:

1) describes current CBHC schemes in Kenya

2) analyzes five selected factors in the Kenyan schemes on the basis of secondary data sources
   a) Definition of a CHW
   b) Selection of CHW's
   c) Training of CHW's
   d) Supervision and Support of CHW's
   e) Evaluation of Impact of CBHC

3) substantiates this secondary data analysis using primary data from three case studies

4) compares private schemes to the MOH's concept of CBHC as exemplified in the National Pilot Project

5) provides recommendations for future CBHC schemes.

Perspective

The perspective is sociological rather than medical. The sociological perspective dictates consideration of these projects utilizing concepts of power, charisma, motivation, organizational structure, class, leadership, ethnicity, democracy and social change. The necessity of this perspective is articulated by WHO and UNICEF in their 1978 Joint Report, as follows:

> "Enough is already known about primary health care for it to be put into practice immediately. However, much still needs to be learned about its application under local conditions, and during its operation, control and evaluation problems will arise which require research. These may be related to such questions as the organization of primary health care within communities and of supporting services; the mobilization of community support and participation; the best ways of applying technology available or the

> development of new technologies as required; the planning for and training of community health workers, their supervision, their remuneration and their career structure; and methods of financing primary health care."
> (WHO/UNICEF,1978,pp.41-42)

Literature Review

A literature review on health care issues was undertaken with an emphasis on public health care in developing countries, using the resources available in New Delhi, India where the study was begun and in Nairobi, Kenya where the study was completed.

A Kenya-specific literature review followed, emphasizing documents on CBHC in Kenya, including minutes from meetings, training manuals, evaluations, theses, and a published book. This review of the current experimental CBHC programs underway in Kenya in 1982-83 revealed fifteen which had been functioning long enough to be considered well established.

Familiarization with the Kenyan Health Sector

As a familiarization technique to Kenya's overall community health approach, the researcher joined the Department of Community Health at the University of Nairobi as a Research Associate. In that position, the researcher was able to participate in classes with the second and fourth year medical students who spend a term in the Department each of those years. It was also possible to join them on several field outings, to health centres and communities, where they received orientation and prepared community diagnoses.

The researcher was also thus given access to the professors, two of whom are active in CBHC having founded CBHC schemes (Dr.Dan Kaseje, Saradidi and Dr. Miriam Were, Kabras), a third who has been very vocal in his criticism of the MOH (F.M.Mburu), and a fourth who has extensively studied the interplay between traditional and modern medical activities in Kenya (V.M. Kimani).

Interviews

Interviews were then held with the Nairobi-based principals of selected CBHC projects. The interviewees included the following:

Dr. Miriam Were, Kabras
Dr. Dan Kaseje, Saradidi
Sister Geraldine Huising, KCS/ Machakos
Dick and Linda Alton, ICA/Kamweleni
Dr. Roy Shaffer, AMREF/Kibwezi

Case Studies

As a result of the literature review, the familiarization process and interviews with Nairobi-based principals, the researcher decided to conduct selected case studies to substantiate the secondary data. As it was impossible in a study of this size for all Kenyan CBHC projects to be visited, a limited number was decided upon.

Three projects were selected, located amongst the Kamba people in Machakos District in Eastern Province. These three were selected as case studies for more intensive study according to the following criteria:

1) ethnic similarity
2) non-governmental sponsorship

3) willingness of principals
4) researcher's familiarity with Kamba people and Machakos area due to field visits with University students.
5) accessibility to Nairobi.

The three projects are:

I. The Kenya Catholic Secretariat's (KCS) project run out of Machakos Town by Sister Geraldine Huising.

II. The Institute of Cultural Affairs' (ICA) Village Health Caretaker scheme based in Kamweleni.

III. The African Medical Research and Educational Foundation's (AMREF) CHW scheme associated with its model Health Centre in Kibwezi partially affiliated with the MOH.

Field visits were undertaken to each of the Machakos projects where selected interviews were conducted with CHW's and project organizers affiliated with each case study.

Interview Schedules

Two survey instruments were designed for this purpose, one for organizers of CBHC and another for CHW's. (See Appendices) Although not pretested, they were designed with the assistance of one organizer of CBHC, Sister Agnes Runkemeyer of ICA, who had just spent nine months training supervisors of CHW's in Machakos.

The interview schedule for organizers of CBHC was designed to collect more specific information about each project. It was able to be personally administered as all project organizers spoke English. The project organizers all had advance notice of the interview.

The interview schedule designed for CHW's was revised

after the first field visit. Its purpose was to collect information to substantiate or challenge the information offered by the project organizers. It was also designed to test the perceptions of the CHW's and their attitudes toward CBHC. None of the CHW's were forewarned.

No questionnairé was created for the general populace as it was deemed too methodologically complex and time-consuming to perform a household survey for this size study.

Field Visits

The field visits were not intended to provide statistically significant information but were rather to provide support and confirmation for the literature review and additional insights not revealed through reading. Further, they provided a testing ground for the designed instruments and approach for additional research in the future.

The field visits varied according to the group visited. For the KCS project, as it was impossible to visit all 108 VHW's due to the widespread placement of their home villages, Sister Geraldine invited the researcher to spend a full day with 40 of her VHW's during a refresher workshop held in Machakos Town. Through full participation in the session, it was possible for the researcher to understand the nature of the training the VHW's had received and to observe their interaction with each other and the project organizers. As time allowed, throughout the day, VHW's were singled out for interviews, some at random, some on a selected basis. An interpreter was used when the VHW was uncomfortable in English.

It was also possible during that day to interview the project organizers other than Sister Geraldine.

For the ICA project, the researcher was invited to observe the Human Development Training for a day and to "circuit" with the Kenyan Health Project Coordinator, Monica Muthuli, and two Kenyan Health Auxiliaries for three days. One sub-location was visited on a random basis, where the team travelled with VHCT's, stayed with them in their homes, witnessed barazas , participated in a work day and interviewed villagers as well as VHCT's.

The AMREF field visit was the most difficult to organize. As the project is well-known and prestigious, AMREF staff in Nairobi were reluctant to allow yet another researcher to visit their project. They were very open with their documentation but guarded about a field visit. Finally the researcher was invited to accompany a World Bank team of Africans from 14 countries on a one-day visit to the Kibwezi Health Centre. The group observed the health centre staff in action, toured the health centre and participated in five separate field outings. A group discussion was held at the end of the day to evaluate the visit in light of similar experiences in other countries.

Comparison to the MOH Pilot Project

These three projects were then compared to the MOH's pilot project in Western Kenya, extensively documented in Dr. Were's 1982 publication, in terms of the selected factors. A field visit to that project was disallowed due to a concern for over-exposure by outside evaluators.

Recommendations

Recommendations are offered for future projects based on the assumptions that, if CHW's can be 1) appropriately defined, 2) selected according to the community's wishes, 3) well trained, 4) adequately supervised and supported, and 5) integrated into the traditional health culture, then CBHC will make a health impact.

IV.

PRESENTATION AND ANALYSIS OF DATA

Sub-Problems of CBHC

Definition of a CHW
Selection
Training
Supervision and Support
Evaluation of Impact

Selected Case Studies from Machakos District

Background

Machakos District
Kamba People
Health Environment and Attitudes

Kenya Catholic Secretariat

Institute of Cultural Affairs

African Medical Research and Educational Foundation

Ministry of Health Pilot Project

"It has been shown in several areas of the world that a man with common sense and who is trusted by his community can make a vital contribution to health at the village level even if he has only a primary education."

Go an Extra Mile:
Adventures and Reflections of a Flying Doctor

Michael Wood

IV. PRESENTATION AND ANALYSIS OF DATA

Sub-Problems of CBHC

As outlined in the Introduction, the intent of this paper is to isolate five factors associated with Community-Based Health Care, using Kenya as a source of data. These factors, or sub-problems, are presented here with examples from the Kenyan programs.

Definition of a CHW

A Community Health Worker is a person "who performs health care activities needed in the community," according to the Ministry of Health. (GOK,MOH, Proposal ,1980) These health care activities are defined differently in various projects and perceived differently by various communities.

In one of the oldest programs, in Kisii, the health workers, called Public Health Aides, are trained to act as a link between the villages and the dispensaries. Unlike in most programs, these PHA's are paid salaries for full-time work (Ksh. 305/month) by the Canada Interchurch Fund for International Development. They are expected to play a dual role, reinforcing the need for immunization and MCH care in the community through health and nutrition education clinics and influencing the nurses to be more community oriented. (Willms,1980)

The Nangina Hospital Community Health Programme, which, as stated earlier, started in 1976 as a follow-up to a variety of

other outreach programs from this community-oriented hospital run by the Medical Mission Sisters, set down the following very specific goals for the Community Health Workers:

> 1) To improve the health and nutrition status of the community, particularly of children, pregnant and lactating mothers, and to lower morbidity and mortality rates
>
> 2) To make available minimal health and nutrition education to the maximum number of people and services relevant to the community in terms of effectiveness
>
> 3) To attain better environmental sanitation which is a necessary measure for the prevention, control and eradication of communicable diseases
>
> 4) To create a better understanding and to promote good relationships between the hospital and patients from the community
>
> 5) To make every father and mother a health educator in their own homes.
>
> (Willms,1980)

To achieve these goals, the CHW's assist in the hospital's monthly mobile clinics, charting children on the "Road to Health" charts, taking blood pressures, measuring heights, and giving brief health education talks. Additionally they do home visiting two or three afternoons a week covering 60-80 families, emphasizing preventive and promotive health measures. Nangina's CHW's are equipped with a basic First Aid Kit which is refilled any Wednesday at the hospital. (AMREF,Nangina,1979)

The Chogoria program has a narrower perspective in that it focuses exclusively on Maternal and Child Health and Family Planning activities. Its Family Health Workers try to improve

the rural Satellite Clinic activities and, more specifically, to develop a set of tested and proven MCH/FP strategies for rural Kenya. The Chogoria program is supported by FPIA. (Willms,1980)

The Maua program approaches the problem from a rather different perspective, aiming primarily at "helping the people to help themselves." The program began in 1977 after an evaluation of the one-day monthly clinics indicated that the clinics were not really promoting health and thus there was a need to develop ways in which the communities could continue to receive clinical outreach services from the Methodist Hospital but in a more meaningful way. Furthermore, there was a need to avoid creating unnecessary dependencies and to work within available financial resources. Hence, Village Health Promoters were trained.
(Willms,1980)

The Saradidi, proposed Kitui and Kabras projects place a greater emphasis on the integral relationship between health and development. Dan Kaseje's Rural Health Development Project in Saradidi Location of Siaya District acknowledges that health improvement depends as much on improved water supplies, more available nutritious food and access to cash through income generation as it does on the availability of appropriate and convenient health facilities. The Nyamrerwa (Village Helpers Towards Health) in Saradidi work on improving the general quality of life in the community on a part-time basis, two to three hours a day, visiting each household every two weeks. (Willms,1980) In Kitui, where CODEL (Coordination in

Development) has proposed a CBHC pilot project to be funded by USAID, the volunteers will be called Community Development Health Workers to indicate their broad focus. (Morris/Smith,1981) And in Kabras, Miriam Were observed that "in a community such as this one where good health is seen as the ultimate prize of the 'good life', the broad understanding given to health lends itself to comprehensive community development activities with health as the entering wedge for development." (Were,1977)

Thus, a Community Health Worker may play a simple supportive role to the existing health services on a paid or voluntary basis or may function far more broadly as a real community organizer.

Selection

Who qualifies to be a CHW? Just as roles vary, so do the individuals chosen to serve as CHW's. Some communities and supporting institutions are very specific in their requirements; others are much more flexible.

In Saradidi, one must be married and belong to the area. Preference is given to women although males are not excluded. A volunteer should have children and be between the ages of 25 and 35, although in actuality the age range is 20-49. Educational background is not a criterion here and some current volunteers have no formal education while others have completed some secondary schooling. Most importantly, a Village Helper Towards Health in Saradidi must be compassionate and respected by the community. (Willms,1980)

In Chogoria, only married women over 28 years are chosen, preferably literate. They must above all be respected community members. (AMREF,Limuru Conference,1980) In Maua, both men and women are selected, with the current ratio 1:3. Again, the main criterion is community respect.(Willms,1980) The Nangina Christian Community Groups who select their CHW's choose older men or women with no specific qualifications except that they are respected and well-motivated community leaders.

The procedures for selection involve the community in each instance. With the Kenya Catholic Secretariat program in Machakos, any village group may nominate a candidate who is then sanctioned by the project organizers with the advice of the sub-chief. In the Institute of Cultural Affairs' project in Kamweleni, the "stakes" (20-30 homes) each nominate two potential Village Health Caretakers with the sub-chief choosing between them. AMREF's Kibwezi CHW's are chosen by the Village Development Committee and the community.

An interesting style of selection can be noted in Kabras where each committee member on the Health Committee selects several candidates from his or her geographical area. Rather than have the final CHW's chosen by secret ballot, then, the people line up behind their preferred candidate, a process known in Kabras as "deciding in the daylight." (Black,1978)

Training

Training to become a Community Health Worker varies, as does everything else, from program to program in Kenya with

regard to length, location, philosophy, techniques and curricula. Nonetheless, certain basic themes and styles tend to be consistently present.

All of the programs involve both clinical and field experience. All tend to incorporate the participatory method of training to a greater or lesser degree. Some are conducted in English, some in the vernacular. Some follow a prescribed syllabus; others base their entire program on the elicited felt needs of the participants. In all cases the training is done by health professionals from outside the community, usually from a nearby health facility.

The Macnakos Kenya Catholic Secretariat training technique has been emulated by several other programs. It is known as the psycho-social method developed by Paolo Freire. In his method, the training program is based entirely on the "felt needs" of the participants as elicited through dialogue and discussion rather than on a pre-set curriculum. This method is used as well in Nangina, Maua and Chogoria.

The KCS approach contrasts dramatically with the ICA approach which is thoroughly didactic. Each training cycle is like all others in its strict adherence to a seven-lesson syllabus in the ICA Health Caretakers Manual . Participants listen to didactic presentations and then are encouraged to ask questions about them. On the other hand, the VHCT's can easily assimilate the seven lessons and follow-up is regular through the institution of Health Auxiliaries who "circuit" to the villages frequently.

The Kibwezi Training Program run by AMREF includes the

following substantive topics:

1) Personal and community hygiene
2) Environmental sanitation
3) Well digging
4) Simple physical examinations
5) Maternal and Child Health/ Family Planning
6) Simple record-keeping
7) Health administration (the "health network")
8) Communicable disease control
9) Nutrition and conservation
10) Communication techniques
11) Human relations
12) Self-evaluation methods

(AMREF,Position Paper #1,1979)

The training is a compromise, being flexible rather than dogmatic, although AMREF is in the process of preparing a Community Health Workers Manual for Kenya. Open sessions are used with a "coordinator" rather than an "instructor." Role playing is important. Cluster training is used to develop a team feeling with all the CHW's from one area trained at the same time. Participatory research entails the preparation of community diagnoses of the area. The volunteers are trained at the health centre but they live in their own homes and come for training in the afternoon. (AMREF, Position Paper #1,1979)

The Chogoria program trains between six and eight Family Health Educators at one time using the psycho-social discussion method, focusing on real problems but in the vernacular rather than in English. The three-month experience is divided into pre-training discovery activities, training at the health centre for one month, one week of field application, another three weeks at the health centre, four weeks at home for practical application and a final week at the health centre for wrap-up discussions. This training is then supported by

monthly in-service refreshers. (Willms,1980)

Some programs emphasize continuing education. KCS provides annual week-long refresher courses and AMREF continues its training on a weekly basis over three months. ICA follows up its seven lessons with quarterly visits from Health Auxiliaries. Nangina Hospital offers only two weeks of initial training but follows this with a monthly meeting and an annual refresher course. The training in Maua takes place only two days per week at Maua Methodist Hospital for five weeks. The fifteen CHW's trained in each group come from the same sub-location and continue their training at the monthly MCH clinic in their area. In Saradidi the training consists of an initial 2-1/2 weeks in the village, followed by one day per fortnight at the health centre, given by the Community Nurse, making a total of six months in training hours over the two-year duration of training.

In the National Pilot Project in Kabras, training was conducted first for the facilitating team in the form of a seminar/workshop organized by the Institute of Adult Studies at the University of Nairobi with input from UNICEF and the Department of Community Health, University of Nairobi. The psycho-social approach was featured, stressing roles, team spirit and communication skills. (Were,1982,p.45)

Training for the CHW's followed, lasting approximately twelve weeks, including eight weeks in which the CHW alternated weekly between the community and the health centre and four weeks in the community, supervised by the facilitating team. The activities which comprised the training included:

1) Topical discussion meetings on identified problems
2) Home visiting for observation of environment and persons
3) Screening services for identification of those who need health care in the health centre and those who can stay in the community
4) Curative services. (Were,1982,p.108)

The topics covered in the training included ten subject units:

1) Personal hygiene
2) Environmental sanitation/water
3) Food handling practices
4) Food intake (balanced diet and food storage)
5) Child health
6) Pregnancy and delivery-related problems
7) Child spacing and modern contraception
8) Specific disease entities
9) Data collection and vital statistics
10) Discussion and leadership skills

(Were,1982,p.44)

Despite the differences exhibited by the various training styles in Kenya, all project organizers feel their workers are appropriately trained.

Supervision and Support

The Community Health Worker is related to his or her community and support institution in a variety of ways, beginning with selection, including support, both financial and psychological, and continuing through to supervision. The relationship styles are as various as the numbers of existing programs.

The intent of most programs is to begin with a Village

Health Committee which is "an elected, representative body of village elders who initiate and promote health activities." (GOK,MOH, Proposal ,1980,p.71). In most cases, "the committee is responsible for the choice and selection of the CHW's and coordinates and deploys the activities of the "CHW's." (GOK,MOH, Proposal ,1980,p.71) It must also raise funds to support the CHW.

AMREF's community sensitization for this purpose was exemplary. Before any CHW's were selected, VDC's were organized, solidified and institutionalized. (AMREF, Position Paper #2,1979)

Where specific Village Health Committees do not exist, often other community groups fill the gap. For example, in Nangina, the Christian Community Groups select and support their volunteers. Sometimes, the community does not have the final say. For example, in Kisii, the Parish Council recommends the name of a potential Public Health Aide but the final selection is made by the trainers. This is undoubtedly because the Kisii PHA's are actually salaried employees, responsible primarily to the health institution and not to the community. (Willms,1980)

In contrast, the Saradidi Project is adamant that each Village Helper Towards Health is a community , not a dispensary , worker. Each VHTH is paid a part-time salary by the VHC, up to a maximum of Ksh. 250/month. This money is intended to be used as "seed money" for income-generating projects. Payments are monitored by the Project Director and Executive Committee. (Willms,1980)

In Maua, where the health workers are unpaid part-time workers, the only official recognition offered is a modest cash award given annually to the best CHW in each sub-location, as designated by the other CHW's. To compensate for this basic lack of remuneration, the CHW's in one sub-location, Athiru Gaithi, formed the Athiru Gaithi Atithes Group Project, a voluntary association with a Ksh. 5 registration fee. The CHW's meet weekly on a rotational basis at each others' homes, helping each other with necessary tasks. An additional Ksh. 5 fee is contributed each week: this fund then becomes either a project fund or a fund available for emergencies. (Willms,1980)

In Kabras, a fee-for-service is charged, with the funds going into a Community Account. The KCS VHW's are offered a gift at the end of a year of service by the Kenya Catholic Secretariat. But the ICA volunteers, like all ICA personnel, agree from the beginning to serve on a voluntary basis, motivated by the strong symbolism and group identity provided by ICA.

Patterns of supervision also vary. The KCS staff in Machakos visit their VHW's annually or correspond with them by letter. ICA has Health Auxiliaries who "circuit" periodically to provide a link with the outside world for the VHCT's. The Kibwezi AMREF supervisors live in with the CHW'S for awhile to allow for a real dialogue before relinquishing this role to the VHC and the elder CHW's to reduce dependency on the support institution. In Nangina the CHW's are expected to report once or twice monthly to their sponsoring groups while the Kisii PHA's are directly supervised and paid by their trainers.

Evaluation of Impact

Most of the schemes have some built-in mechanisms for evaluation. Some are internal, done by the CHW's themselves. These are usually record books in which the CHW's record each home visit and attempt to summarize any apparent improvements in the health environment or in health practices. Other programs have or have had external evaluations either on an *ad hoc* or a regular basis.

In Saradidi, the VHTH's give regularly generated data to the Executive Committee who compare it to the data generated every three months by a WHO Evaluation Team. The Nangina program has an internal data collection system for use by the CHW's where the number of new latrines is recorded, the number of people attending clinics is noted, and so on. Furthermore, external evaluations have been conducted by at least four people.

The KCS VHW's in Machakos are regularly convened by KCS for evaluatory workshops. The 46 VHW's from the Yatta area, for example, gathered in Matuu August 11-16, 1980, to evaluate their achievements and discuss their problems. In Kisii the Public Health Aides are themselves evaluated in the field by their trainers. Their visiting books are checked, their attendance records are noted, and their work is observed. In addition, the PHA's contribute to an ongoing evaluation of their contributions at their annual five-day refresher course. AMREF's Kibwezi CHW's have been evaluated by the AMREF Community Health Worker Support Unit (CHWSU) staff and by

outsiders, a USAID team. Similarly, the Chogoria program was evaluated by an independent university team early on, in 1978.

These evaluations have elicited both positive and negative feedback. On the constructive side, the VHW's at the Machakos workshop in Matuu/Yatta, for instance, were able to report numerous improvements in the health environments of their communities. They noted that two new women's groups had been started, that scabies had been eradicated at one primary school, that fifteen children had been rehydrated, that six latrines had been built, that twelve homes were now cleaner, and so on, with each VHW contributing similar noted improvements to the discussion. (Huising ,1980) The Kabras volunteers indicated that latrines and draining platforms have increased in abundance while the community reported that program to be a success since they could recall no deaths since the program's inception and because health care had become less costly with a CHW nearby obviating the need to expend bus fare. (Black,1978) Similarly, the Nangina Hospital staff reports that more latrines have been built, that environmental sanitation has improved and that better agricultural methods are being employed. The ICA's health program, in conjunction with their HDTP, reports phenomenal successes.

On the other hand, many CHW's have noted problems. The Machakos VHW's have complained that they have too much work, too many homes to visit, and too great distances to walk with no allowance made for transport costs, in short, an unrealistic work load. Without an adequate supportive structure in the community, such as a Village Health Committee, the people are

not familiar with the concept of CBHC and thus are not willing to listen. Even the elders often refuse to cooperate. The VHW's also report ignorance on the side of the "educated", in the health services as well as in the community. They also complain that there are no medicines in the nearby dispensary when they refer people to it. Finally, some argue that they work too hard for no pay. (Huising,1980)

In Kai sub-location of Kibwezi, many of the health workers are equally peeved about the lack of compensation and have threatened to quit, since they incorrectly understood at the beginning that they would be compensated for their work or at least reimbursed for their expenses such as bus fare. Also, in Kibwezi, volunteers note that the great respect for traditional ways has led to an unwillingness to change in the community. (AMREF,CHWSU,1980)

Outside evaluators of the Machakos projects have pointed to the inadequate baseline data available for the KCS and ICA projects against which to measure achievements. (Bennett,1981; Mburugu & Chitere,1981) AMREF's project, on the other hand, is very well grounded due to an extensive initial survey. (Owuor-Omondi,1980)

Evaluators are also frequently critical of the lack of drugs and pay in the various programs as, for example, in the following observation regarding the AMREF program:

> "It is conclusive from data in the table that if VHW's were given medicines for headaches, coughing, malaria and other minor illnesses, they would be contacted by more households." (Mburugu and Chitere,1981,p.41)

The only evaluator to date of the MOH/UNICEF Pilot Project has been Miriam Were, its creator. She has been reluctant to allow outsiders to come in for fear of disrupting the communities. Her observations include the following summary of achievements:

> --Establishment of an organizational framework through which community participation can take place.
>
> --Initiation of a dialogue between the people and health workers through the established community structures.
>
> --Visible changes of a positive nature in the communities with great potential for enhancing their health status and general development.
>
> (Were,1982,p.104)

For the Kenyan MOH to consider embarking on any CBHC program of national scope, it must be cognizant of these factors which may either favor or impede its replicability throughout the country, as it has acknowledged in its plan for evaluating the current schemes in its 1980 Proposal for the Integrated Rural Health and Family Planning Programme .

Selected Case Studies from Machakos District

The three case studies of CBHC selected for study from Machakos District are the Kenya Catholic Secretariat's project as an outreach from Machakos Town, the Institute for Cultural

Affairs' health program based in Kamweleni, and AMREF's initiative with the MOH affiliated with the Health Center in *Kibwezi*. These case studies provide an intensive look at the sub-problems of CBHC isolated for analysis in this study and offer corroborative data to support the insights available through the literature.

Background

Machakos District

Machakos District, located in Eastern Province, lies in Kenya's heavy population belt despite its arid and semi-arid land. The central town, Machakos, is only an hour's drive from Nairobi on a good tarmac road. The 1979 census revealed a population of 1,019,216 people in a 14,000 sq. km. area. (Huising, 1981) With a CBR of 7.2, the population is projected to double by the year 2000. (Huising, 1981)

The district is inhabited mainly by agricultural smallholders living in two ecological zones, the uplands with fertile soil and regular rainfall and the dry lowlands with low agricultural potential. The wealthier smallholders market predominantly coffee as a cash crop while the poorer raise only subsistence crops such as maize, beans and vegetables. Small livestock, cattle and donkeys are also kept. (Genberg,1982,p.11)

Water is of major concern to most people in the area, many of whom must travel 5-15 km. daily in search of water. Food is

often equally scarce due to the aridity of the area, the poor soil, and the smallness of the farm units. Incomes are occasionally supplemented by off-farm activities such as selling charcoal and water. (Mburugu & Chitere,1981,pp.2-4)

Kamba People

Machakos District, known as "Ukambani" traditionally, is the home of the Kamba people (Wakamba), a Bantu ethnic group who migrated into the area in the 16th century from the Kilimanjaro area and the Chyulu Hills. Their social structure is based on 25 dispersed totemic patrilineal clans. These clans are not highly structured, they have no effective authority and they hold no lands, but they are nonetheless important. The rule of exogamy dictates that persons must marry outside of their own clan. (Huising,1981)

The effective kinship units are the nuclear and extended families and the descent group. These form the basis of the self-governing homesteads (museji), for in Kamba society there is no centralized political authority. There are no chiefs, no hierarchy. Several homesteads are administratively linked into a village (utii) although geographically separate. (Huising,1981)

Amongst the Wakamba, women are the backbone of the family while the men are often mobile, travelling to nearby centres in search of employment. Livestock is a form of wealth but personal relations are more important than wealth. (Huising,1981) In one reviewer's assessment: "Kamba society is an adaptable, amorphous society with considerable flexibility.

The Kamba people have long been recognized as highly individualistic. Intelligence and self-control are virtues to strive for..." (Huising,1981, p.8)

Health Environment and Attitudes in Machakos

The health facilities in Machakos are better than average for Kenya. There is a District General Hospital in Machakos Town with 345 beds and an outpatient clinic. Attached to the hospital are an Enrolled Community Nursing School for 168 students and an MCH/ANC/FP clinic. Three other hospitals, at Makindu, Kangundo and Makueni, eight health centres, 23 health sub-centres and 47 dispensaries, both public and private, complete the health facilities in the district. These are supplemented by a variety of traditional practitioners and dukas (shops) which offer medicines for sale. (Huising, 1981, p.7)

In an AMREF-conducted survey of the disease environment in the Kibwezi area of Machakos, the author made the following observations:

> "A majority of diseases and conditions believed to be harmless and of short duration are either ignored or self-treated with home-made traditional medicaments or shop-medicines for a few days...
>
> "Local traditional healers are available within walking distance of 85% of households and seem to attract a lot of customers in spite of fees that vary a lot but are surprisingly high...
>
> "Low morale among health workers and almost permanent shortages of drugs and other medical supplies at government dispensaries and health centres may well be more discouraging in the eyes of potential visitors than

> high transport costs, particularly in areas where most common drugs are easily available in local shops."
>
> (Nordberg,1981,p.13)

Nonetheless, in another paper, the Wakamba of Kibwezi were portrayed as having a "friendly and generous attitude toward modern medical aid." (Molvaer,1981,p.84) They are committed to "progress," open to new ideas, and cooperative. They perceive dirt as "bad," visit hospitals when ill, send their children to school and grow cash as well as subsistence crops. (Molvaer,1981,p.84)

Similarly, "the Kamba have a tradition of working together and the health workers have managed to harness this force." (Bennett,1981,p.16)

Kenya Catholic Secretariat

Machakos

Introduction

The Machakos Village Health Workers Program was conceptualized in the Diocesan Development Office in Machakos, based on the Nangina and Kisii programs. Sister Geraldine Huising was recruited from the Netherlands to run the program in 1978. The program was launched at Katangi in September 1978 with the help of her Kenyan counterpart, Mrs. Beata Ndunge Muli. (Willms,1980)

The objectives of the project were defined as follows:

1) To create awareness of preventable diseases
2) To stimulate enivronmental health
3) To teach recognition and simple cures for common diseases
4) To improve child feeding
5) To stimulate interest in and self-reliance in health
6) To provide a link between the community and health facilities
7) To encourage women's groups
8) To train VHW's (CHW's) as a liaison.
(Huising & Ndunge,1980)

The project's major financing came from, and continues to be supplied by, CEBEMO, a Dutch aid agency, now at $4500 annually. This pays for training supplies, petrol, staff salaries, office equipment, seminars and staff housing. (Bennett,1981) Additional support comes from the MOH with a yearly grant of Ksh. 20,000 and from the villagers who provide space and food during training and circuiting. (Bennett,1981)

Since 1978, Sister Geraldine, Mrs. Beata Ndunge Muli and her successors have expanded the program to Ekarakara, Masinga, Kathonzweni, Mbitini, Kilala and Kaumoni. A total of 108 VHW's have been trained with only eight drop-outs. (Conversations with Sister Geraldine)

The Village Health Worker Defined

The major vehicle for the project's overall goal of support for the existing health service system through preventive and promotive education is the Village Health Worker, or Community Health Worker, as alternate names are used. These VHW's are expected to work without remuneration on a part-time basis, approximately two to three afternoons per

week. Each VHW is responsible for 50 to 100 homes. In *barazas*, through home visits, at women's and church groups and in primary schools, they use role playing, discussion, flannel boards, plays and demonstrations to convey their messages, especially in the maternal and child health arena. Their motto is:

> Go to the people.
> Live among them.
> Learn from them.
> Create a better society
> to live in.
>
> (willms,1980)

Selection of the VHW's

The criteria for selection of these VHW's were defined by Sister Geraldine. To be a VHW in Machakos, one must be a married woman with a minimum education of Standard 6 whose husband agrees to having his wife work in this capacity on a voluntary basis. Furthermore, the woman must belong to the area and be a respected member of the community. (Willms,1980) Following these criteria, any village group, whether a women's group, a church group or a cooperative, may put forth a volunteer's name for sanctioning by the local sub-chief.

Training

Once the VHW's for an area have been selected, they are trained to be the vehicle of improved health in the community. The training takes place in a central village in the sub-location over three months. The trainees come together for the entire training, leaving their homes and *shambas*

(fields/gardens) in the care of their husbands and neighbors. A group of about 40 is trained during each session.

The training is conducted by Sister Geraldine, her Kenyan counterpart and two assistants, all trained nurses, midwives or social workers. There is no fixed curriculum, although general topics to be covered are kept in mind. The trainers begin with the "felt needs" of the women, eliciting suggestions from them through dialogue as to the subjects to be discussed.

This psycho-social method, devised by Paolo Freire in Latin America, aims at "transformation of the world" through "education for all" using "dialogue" in order to assure that the "solutions are ours." (Huising,1981) Reflection leads to action followed by further reflection and so on. The women, although initially unsure of themselves, quickly learn to participate fully in the training, in effect training themselves through using the trainers as facilitators. The training is conducted in both English and Kikamba.

To elaborate, using Kathonzweni sub-location of Lower Makueni Location in Machakos District as an example, the training took place as follows. In April, 1980, a Health Awareness Workshop was initiated by the local community. Seventy women attended. The Kenya Catholic Secretariat was invited to participate. KCS was represented by Sister Geraldine and Beata Ndunge Muli, who had been instrumental in all the KCS Machakos CBHC projects. At that time, women were proposed by the chief, sub-chief or elders of the area, following the usual KCS criteria, for further training. Nineteen of these women were selected by KCS and a training

program was scheduled for August 25 - November 14, 1980. (Huising & Ndunge, Kathonzweni,1980)

During the three-month training program, the women spent most of their time together in Kathonzweni, sleeping in teachers' homes and meeting Monday through Friday from 8:30 to 4:30. Training methods included play acting, discussions, use of a flannel board and practical experiences such as making a dish stand. In addition, the women performed a market survey and did practice home visits. Twice during the three months they returned to their home villages for field work. Throughout the program there was evaluation of their progress by themselves and their trainers. Finally, in January, each VHW was formally introduced to her village in her new role by the trainers. (Huising & Ndunge, Kathonzweni,1980)

Five similar training sessions have been held, one each year since 1978. Facilities and food are provided by the community, books and other needs by KCS. The trainers spend the three months in the village camping in tents.

Additional training is held in annual week-long refresher courses for the VHW's, allowing cross-fertilization of successes and problems.

In addition to VHW training, Traditional Birth Attendants (TBA's) have been the focus of one special session held in Ekarakara in 1982. Thirty-five TBA's spent one week upgrading their skills while another 35 had to be turned away. The training will be repeated. This was a case of a collaborative effort between NGO's as AMREF helped with the training.

Sister Geraldine's reputation has spread and she is

repeatedly asked to share her skills and insights. Thus, she is conducting Training of Trainers (TOT) sessions on a quarterly basis with participants from all over Kenya. To date, she has held three sessions and trained 90 trainers.

Sister Geraldine's goals for future training are to become even more "grass-roots" oriented and better integrated into local structures.

Supervision and Support

The community support for the Machakos VHW's includes selection, psychological support and help during training through food contributions. Villagers will also help the VHW's families care for their shambas during training.

Machakos VHW's are not paid, however, although there is talk of giving them a stipend of Ksh. 100/month after one year of dedicated service. The problem is that "prevention does not pay," according to Sister Geraldine. Although there has been very little attrition as a result of this issue, the few who have defaulted have done so largely because of criticism from their families who chastise them for using bus money and wasting time.

The Village Health Committee concept is only just being formulated by the VHW's themselves. To date, the VHC's have largely succeeded only in raising funds for buildings. Many of these committees collapse after the fund-raising. As conceptualized by the VHW's, however, the VHC should have a much broader function, depending on the needs of the community. The five - seven committee members, who are regular individuals

rather than village leaders, should know the problems of the community and be able to articulate them to the VHW. In turn the VHC should explain the role of the VHW to the community and help identify potential VHW's. The VHC members should learn about solutions to health problems in order to help the VHW with her tasks, as "health helpers." The VHC can be a buffer and a link between the community and the VHW's.

Other functions of the Village Health Committee may include, according to the VHW's:

1) To know the dawas (medicines) from the First Aid Box
2) To carry out health teaching and follow-up
3) To deal with chronic diseases in people who have refused hospital treatment
4) To educate the community about good and dangerous customs
5) To go home visiting if the VHW is ill
6) To help organize local barazas (meetings)
7) To help the VHW evaluate her work
8) To help in campaigning during outbreaks of diseases
9) As men, to discuss health problems with the male members of the community
10) To revive the VHW when worn out -- to "wake up those who have fallen asleep"!

(Presentation at Workshop)

The Diocese also provides supervision and support following training. In addition to offering books to the VHW's and responding to letters of inquiry, the trainers visit each VHW after 1 to 1-1/2 years to evaluate her work. More frequent contact is provided by an Area Coordinator, one VHW who has been given further training and who is paid a salary of about Ksh. 500/month by KCS. The Diocese can also draw on its other program specialists to provide advice and support.

Evaluation of Impact

The VHW's in this project are encouraged to participate in periodic self-evaluation. They have monthly "tally sheets" which they complete and return to the Machakos Diocesan Office. They are also encouraged to keep home visiting books, although these tasks are difficult for some.

The VHW's are usually left on their own for the first 1 to 1-1/2 years at which time they are visited and evaluated. If they have been functioning diligently and effectively in their roles, they are rewarded with a certificate and a First Aid Box containing malaria prophylaxis, aspirin, bandages and other simple items. This box is called "self-reliant" to indicate that medicines are not given away but sold at cost, below market price. The box is then refilled by the Area Coordinator. The VHW's are also given a present such as a she-goat or a blanket.

Following this initial visit they are each visited annually for one day by the facilitators, Sister Geraldine and one of her three Kenyan assistants. Annually also week-long refresher workshops are held for each group to solicit information regarding problems. The 46 VHW's from the Yatta area, for example, gathered in Matuu August 11-16, 1980, to evaluate their achievements and discuss their problems. These VHW's were able to report numerous improvements in the health environments of their communities. They noted that two new women's groups had been started, that scabies had been eradicated at one primary school, that fourteen children had been rehydrated, that six latrines had been built, that twelve

homes were now cleaner, and so on, with each VHW mentioning similar noted improvements during the discussion. (Huising & Ndunge,1980)

Many Machakos VHW's have noted problems. They have complained that they have too much work, too many homes to visit and too great distances to walk with no allowance made for transport costs, in short, an unrealistic work load. Without an adequate supportive structure in the community, such as a Village Health Committee, the people are not familiar with the concept of CBHC and thus are not willing to listen. Even the elders often refuse to cooperate. The VHW's even report ignorance on the side of the "educated," in the health services as well as in the community. They also complain that there are no medicines in the nearby dispensary when they refer people to it. Finally, some argue that they work too hard for no pay. (Huising & Ndunge,1980)

Three outside evaluators assessed the project variously. Bolle (1981) recorded the people's perceptions in Syokisinga where she followed the activities of two VHW's intimately for a period, noting that there was little real understanding of the VHW's purpose. The people want medicine and do not get it from the VHW's. Some villagers also criticize the expatriate involvement. Bolle adds that villagers frequently denied receiving visits from the VHW's even though these visits were dutifully recorded in the VHW's home visiting books. (Bolle,1981) Bolle's conclusion was that the program was basically a failure, at least in Syokisinga:

"It should be noted that not only the course

> leaders are disappointed with the VHW's lack of success. The VHW's of Syokisinga themselves are also disappointed. One of them is even so frustrated that she stopped working altogether and the other one is about to give up as well...
>
> "...in my view the main reason for its failure is the fact that it is not really the people's project." (Bolle,1981)

Another evaluator, Dr. F.J. Bennett of UNICEF / Nairobi (1981), pointed to the good selection procedures and criteria and good training, leading to a low drop-out rate. He commented favorably on the program's impact, noting improved grain storage techniques, utensil drying racks, new latrines and well-constructed homes where the VHW's had been active. New crops had been introduced, cement water storage jars had been built, dams had been constructed and cattle dips had been started. Villagers also appeared to have learned the causes of diarrhea. Bennett further complimented the organizers on their thorough follow-up and noted good liaison with the dispensaries. (Bennett,1981)

On the other hand, Bennett found the links to other sectors weak, felt the VHW's were expected to cover too great distances with no transport, and supported the VHW's request for minimal remuneration, e.g. Ksh. 100/month, after some period of service, perhaps a year. He was also concerned that the facilitators were too few to allow for adequate program expansion. (Bennett,1981)

A third evaluator, Preston Chitere (1981), noted:

> "We have in this section shown that the Catholic...health projects are grounded on the real health problems of an area. Local persons who are respected or influential and who have attained at

> least Standard VI education are selected and trained as VHW's. The conditions of work for these VHW's, however need to be urgently improved. The projects seem fairly well liaised with existing static facilities in the study areas." (Mburugu and Chitere,1981,p.35)

Summary

Although the impact on health in the communities serviced by the KCS VHW's cannot be well measured as Sister Geraldine never conducted a baseline survey, by countable or subjective measures, the impression is that greater preventive and promotive measures exist in the communities with VHW's than before. There are more pit latrines; houses are cleaner; scabies have diminished.

In her follow-up visits to VHW's after 4-1/2 years with the project, Sister Geraldine was impressed by the improvements in health as articulated by the people. Countable measures were easy to cite but the more subtle decline in measles mortality was also noted, attributed to better food and home care rather than inoculations, as well as the eradication of scabies and the end of childhood deaths due to diarrhea because of the VHW's knowledge of rehydration techniques.

Sister Geraldine has generated a real spirit of enthusiasm amongst the 100 women by her personal style. Her VHW's are devoted to the tasks they have undertaken. They have learned the participatory method well and contribute to all discussions. Although they complain that too much is expected of them and that they cannot complete all of their family responsibilities as well as serving as VHW's, one senses a

commitment amongst them. They want to serve and intend to serve a lifetime, unless lack of community support or family problems intervene. After all, as they contend, the knowledge they have gained is theirs: it cannot be taken away. It is one step toward Sister Geraldine's motto: "Helping Others Help Themselves."

Sister Geraldine acknowledges the enormity of the task ahead but comments: "With patience and the cooperation of all, we will yearly come a step forward."

Institute of Cultural Affairs

Kamweleni

Introduction

The Institute of Cultural Affairs' Kamweleni project was started in 1978 following their strategy of "cognition" and "consciousness." Their Human Development Training Program aims at establishing a management and planning system for a local community which will allow sustained development in a self-reliant manner. The Institute is a catalyst only for this integrated development approach, bringing with it techniques but not financial support.

The health project is a side aspect of the major development thrust with two levels of health workers, the Village Health Caretakers (VHCT's) who are village volunteers and the Health Auxiliaries (HA's) who are secondary school

leavers trained as specialist graduates of ICA's basic Human Development Training Institute.

The ICA's goals are to foster development through small-scale projects designed by villagers using local materials. These projects should be replicable in other situations and comprehensive rather than singular in focus. The "bottom-up" approach, in the words of the ICA brochure, is to avoid making people "policy endurers."

The ICA does not intend to limit its endeavors to Machakos but wants at least one project in each of the 27 districts in the 90% population belt of Kenya and one project in the nomadic area by the end of 1984, according to their motto: "Cast a stone in still water and ripples spread in ever-widening circles."

The Village Health Caretaker Defined

The VHCT is ICA's version of the CHW. He/she is expected to be a more knowledgeable villager in health, able to promote a better living environment through example, lecture, motivation and general leadership. Prevention is stressed rather than cure: VHCT's have no medicines, only the right to referral to the health services. No financial rewards are given: ICA health training is offered only to willing volunteers.

The VHCT is expected to volunteer at least one half-day per week, working with 20 - 30 families. Emphasis is placed on measurable improvements in the living environment, including installed dishracks, improved choos (latrines), home gardens,

and compost pits. VHCT's work closely with ICA's DOOP (Do Our Own Project) volunteers who foster development in nine arenas, under the broad titles of economic, social and cultural. (ICA Brochure)

Selection of the VHCT / Health Auxiliary

ICA divides its villages into five areas called "stakes," each consisting of 20 - 30 homes. Each "stake" nominates two VHCT's using the following general criteria. A VHCT should be mature and intelligent and, as a result, respected by the other villagers. He or she must be literate, preferably in English. The VHCT must be willing to give time and energy to the undertaking and must be ready to attend seven training sessions over a two-week span. A VHCT may be either sex, although each village should have at least one male out of ten nominees. The sub-chief makes the selection from the nominees. (Gikonyo,1982)

Other categories of ICA volunteer staff are also important for the project. ICA's focus is divided into two areas: general development and health. Persons from all over Kenya are recruited for six-week training sessions in DOOP at the Kamweleni Human Development Training Institute. These volunteers come at a minimum from ICA's project villages , for each village with a project is requested to send ten volunteers for training. They are then sent to one of ICA's project centres to spread the message of self-help development if they agree to continue working with ICA, or they return to their homes. Graduates from the program may be selected for six weeks of additional training specifically in health at the end

of which they are called Health Auxiliaries. These Health Auxiliaries are then responsible for traveling out to sub-locations to train and supervise the VHCT's.

Training

Training of the VHCT's takes place in the sub-location over a two-week period. Mornings in the first week are devoted to visits to the homes of the VHCT selectees. Health lessons are taught in a central location in the afternoons. Participants continue to reside at home, attending sessions during the day.

The syllabus consists of seven lessons, including:

1) Role, Personal Hygiene, Records, Home Visitations
2) Sanitation (Water, Waste), Protection against Disease
3) Nutrition (Home Gardens, Malnutrition, Diet)
4) Illnesses (Treatment, Prevention)
5) Maternal and Child Care
6) First Aid
7) Review - & Family Planning, Dental Care, Venereal Diseases

(ICA Training Manual)

These lessons were originally taught by the project initiator, Sister Ramona Meurer, an American, and her Kenyan colleague, Monica Muthuli. This role has since been assumed by the ICA Health Auxiliaries, supervised by Monica.

In the second week the VHCT's make home visits with the trainers to villagers' homes, completing the series of lessons in the afternoons. The teaching style is basically didactic, in Kikamba, Kiswahili or English, depending on the trainers' abilities. Questions are encouraged. Techniques such as

posters and demonstrations are taught. VHCT's listen first, then demonstrate later through practice teaching. At the end of the training, a certificate is awarded to each VHCT who attended at least five of the seven lessons.

Training costs are largely borne locally as the villagers are expected to house and feed the trainers and to identify an appropriate venue for the training sessions. Additional administrative costs come from ICA's general funds, donated in Kenya by NORAD, the EEC and the Ford Foundation.

Supervision and Support

ICA's recently introduced method of supervision is through a new category of ICA staff called the Health Auxiliary. These individuals are Kenyans from throughout the country who may be any age but tend to be in their early 20's. They have been selected from the graduates of ICA's general development training of six weeks. About forty have been trained to date; eight of them work out of Kamweleni. They are volunteers in spirit, although they do receive a monthly stipend (when funds are available) of Ksh. 270, standard for all ICA staff regardless of position, in addition to food, lodging and reimbursement for transport costs.

The HA's train and supervise the VHCT's according to an elaborate schedule. They "circuit" in pairs to a different sub-location each week, spending the entire week in the community, talking with VHCT's and other local leaders, strengthening health understandings where necessary, observing techniques, participating in work days, encouraging health

"guilds", identifying resources, establishing timelines and encouraging cooperation amongst the various sectors. They culminate the week with a health lesson and demonstration on Thursday or Friday involving all VHCT's from the sub-location. The VHCT's house and feed the HA's while they are on circuit.

Each VHCT should be visited quarterly in this manner, although realistically they are probably visited twice annually.

Evaluation of Impact

The health project's evaluative process is often intermingled with the human development effort. In the Human Development Program, two ICA staff circuit to each village monthly to review the village's development timeline. Meetings are held monthly at the sub-location level to evaluate plans and prepare for the next month's activities. Similar meetings are also held at the location level.

The HA's, as they circuit, are expected to make reports for central perusal and filing. They build upon their exposure to record keeping learned while in the earlier Human Development Training.

The VHCT's are encouraged to keep home visiting books in which to record each visit, discussions, and improvements made. Additionally, a mother-child form has been recently introduced, although enough copies have not yet been made available.

The evaluative process is a constant one with ICA. Just as VHCT's are expected to live their roles, so are ICA's other staff. The HA's spend the week in the village and return to

their project headquarters, in this case Kamweleni, on weekends where they review their week's experiences and plan for the next week on that basis.

The impact on development and health generated by all this activity appears to be considerable. In Kenya, there are now over 560 ICA staff, with only 25 - 35 of them extra-nationals, from a variety of countries. In Machakos District alone, these staff have been able to train over 850 VHCT's who are currently being supervised by some of the 40 Kenyan Health Auxiliaries. (Gikonyo,1982)

Some of the accomplishments mentioned in a report covering the July - September 1982 period included the following:

Economic Development

Demonstration farms started	83
Terraces dug (meters)	384,815
Grass planted (meters)	3,500
Trees planted	
Banana	5,145
Other fruit	9,609
Coffee	3,947
Shops built	
Poultry houses built	48
Bee hives installed	35
Maize stores built	23
Other (less than 50 each)	
Rock quarry industry	
Cattle dips	
Pig houses	
Bakeries	
Welding	
Snuff business	
Mills	
Carpentry	

Human Development

Trees planted	214,524
Tree nurseries begun	272

New houses built	278
Water trenches dug (meters)	46,137
Road repairs (meters)	67,542
Bricks made	884,352
Earth dams built	65
Flower gardens started	54
Signboards built	215
Self-help groups formed	217
Other (less than 10 each)	
Community centres built	
Churches built	
Choirs formed	
Dancing groups formed	
Development committees formed	

Social Development

Toilets built	1557
Compost pits dug	3973
Dish racks made	3459
Health Caretakers trained	585
Bathrooms constructed	15
School buildings constructed	184
Adult classes formed	28
Sports clubs started	13
Other (less than 10 each)	
Funeral associations	
Youth groups	

Meetings

8650 stake, community assembly and guild meetings
1021 stake and community work days
2787 leaders meetings

(Gikonyo,1982,p.11)

These activities involved 180,000 people living in 202 villages.

Two external evaluations (1982) have also been conducted to estimate whether these boasted accomplishments have been actual or exaggerated. The Ford Foundation and the Swedish Cooperative Centre were involved.

The Ford Foundation found an almost universal belief amongst respondents in the positive impact of the general development program in getting people mobilized, although the

technical skills imparted were considered minimal. In the health program, however, "the health caretaker training shows more promise in delivering practical knowledge as well as management skills to its recipients. The VHCT's were favorably reported as raising villagers' knowledge of health issues." (Mureithi et al. ,1982,p.15)

In terms of general impact, the Ford evaluation suggests that the accomplishments seem inflated. As there is no good baseline data on pre-existing measurable development variables or the social structure, it is difficult to assess the accuracy of ICA's boasts. (Mureithi, et al. ,1982,pp.16-17)

The Swedish Cooperative Centre report likewise emphasizes the difficulty of assessing the impact of ICA's programs due to the lack of baseline data and the inadequate formalized reporting system. Some counted activities were almost certainly established before the advent of the ICA program, according to the SCC evaluators. Also the emphasis is on quantitative measures for a program of which the thrust is qualitative; it is thus difficult to assess the social impact of the "symbols/signs and ceremonial behavior applied by ICA in order to rapidly create a level of mutual identification." (Genberg,1982,p.1)

The SCC comments on the ICA's common model which is insensitive to existing social structures but has nonetheless produced no conflicts. On the contrary, the common model, making extensive use of symbols, rituals and jargon, has created a sense of unity and purpose in the ICA program staff. As a result, "despite the hard working and living conditions,

the Kenyan staff carries out an exceptionally good job. They are skilled in leading meetings, sensitizing, and organizing the village communities." (Genberg,1982,p.7)

The health program itself receives high praise for enhancing the role of women and offering preventive care which is "appreciated by the villages." (Genberg,1982,p.15) This preventive health care is valued by the ICA team as well as providing an entry point for social mobilization. (Genberg,1982,p.16) To quote: "This program is well-received and satisfies one of the basic needs. The government health authorities have taken a positive attitude towards this program and have assisted ICA in the training." (Genberg,1982,p.15)

Furthermore, the program is highly cost-effective due to the emphasis on "in-kinding" or self-support. According the the Ford paper, the cost per village in 34 villages was Ksh. 7350 for a year (1981) (Mureithi et al. ,1982,p.16) although the costs did not accurately reflect the numbers of persons affected.

Summary

ICA is attempting to revolutionize the villages of Kenya. The movement is truly a populist one which, while instigated from without, has become impressively local. The strength of its program is its grass-roots involvement with people. The ICA staff, such as HA's, stay in local homes on their "circuits,", relying on them for food and lodging. They use local transport or go on foot. These visits give strength to the notion that the greater outside world cares and helps

establish ICA's credibility with the villagers.

The ICA VHCT is firmly grounded in the village and, although less extensively trained than CHW's in other projects, receives regular support from Kenyan ICA staff. The VHCT thus has a sense of participation in something greater than the village. This "spirit of development" forms a firm basis for motivation. ICA obviously hopes that, once catalyzed, this spirit will become self-perpetuating.

The ICA manages to generate outstanding enthusiasm amongst its staff, most of whom are young and undoubtedly perceive the experience as a form of national youth service. They are offered the opportunity to become involved in building their nation for a flexible time commitment and have a chance to travel and meet other people their own age. Although in spirit volunteers, they do have their basic needs cared for and do earn a monthly stipend, minimal but helpful.

The VHCT training, although brief, may be all that is necessary, and feasible, for this stage of the project. Furthermore, the seven lessons can be grasped by the Health Auxiliaries who can supplement the professionals as trainers. A health manual is available in English and Swahili, although it has not been reproduced in sufficient quantities for all to have one. It also has not been translated into Kikamba.

The spectacular improvements in health and other environmental areas recorded by ICA, if accurate, are spectacular. Where the ICA program may collapse, however, is in the "Replication Strategy" as they expand rapidly to vast numbers of villages following their motto: "Cast a stone in

still water and ripples spread in ever-widening circles."

African Medical Research and Educational Foundation

Kibwezi

Introduction

The African Medical Research and Educational Foundation's (AMREF) Community-Based Health Care Project was conceived as a model to show the potential for cooperation between the GOK Ministry of Health and a Non-Governmental Organization (NGO). It is based in the Kibwezi Health Centre, opened in 1980. This well-equipped health centre is the MOH's designate as the Rural Health Unit Headquarters for Kibwezi Division.

While the health centre was under construction, AMREF staff began their community outreach with *barazas* in the communities to explain CBHC and a baseline survey to determine actual community needs and conditions.

An AMREF Community Health Worker Defined

A CHW, in AMREF's context, as conceived in an initial "talking paper" at the beginning of the project, should perform three major functions: preventive / promotive / rehabilitative; curative; and administrative. As health promoters, the CHW's should concern themselves with environmental sanitation, malaria control, nutritional

education, family planning, communicable diseases and water supply. In a curative capacity, they should administer first aid, provide malaria treatment, help with child delivery where there are no midwives, advise about simple ailments, and offer pre-, peri-, and post-natal advice. They refer very sick patients to medical personnel. They are expected to cooperate with TBA's and other traditional healers. From an administrative standpoint, CHW's should perform community diagnoses, record births and deaths, keep records, write progress reports and stock drugs. They liaise with the Village Health Committee. (AMREF,Position Paper #1,1979)

These functions are the ideal. In practice, however, CHW's do not perform all these functions. For example, CHW's have no medicines or first aid equipment and thus cannot fulfill the curative function.

Selection of the CHW's

CHW's are chosen by the community with the help of the Village Development Committee. Ten criteria are expected to guide this selection:

1) Respect / Acceptance
2) Strong community roots
3) Active participation in community programmes
4) Leadership qualities
5) Readiness to sacrifice time
6) Thorough understanding of community beliefs / values
7) Ability / readiness to learn
8) Ability to communicate
9) Mature personality
10) Any education level

(AMREF,Position Paper #2,1979)

Training

The training takes place over three months with an initial week held at the health centre in Kibwezi followed by weekly sessions in a central location nearer the CHW's homes in their "cluster." After that, follow-up sessions are held monthly. The style of teaching is informal discussion. Training is flexible rather than dogmatic, although AMREF is in the process of preparing a Community Health Workers Manual for Kenya. Open sessions are used with a "coordinator" rather than an "instructor." Role playing is important. Cluster training is used to develop a team feeling with all the CHW's from one area trained at the same time. Participatory research entails the preparation of community diagnoses of the area.

The substantive topics covered in the training include:

1) Personal and community hygiene
2) Environmental sanitation
3) Well digging
4) Simple physical examinations
5) Maternal and child health / Family planning
6) Simple record-keeping
7) Health administration
8) Communicable disease control
9) Communication techniques
10) Nutrition and conservation
11) Human relations
12) Self-evaluation methods

(AMREF,Position Paper #1,1979)

At the end of training, each successful trainee is given a badge in Kikamba identifying the wearer as a "Promoter of Community Health."

Supervision and Support

Supervision for the AMREF/Kibwezi project is multi-faceted.

The community, through a Village Development Committee, is supposed to provide grass-roots support. AMREF's VDC is an example of how such community involvement can take place. An entire year was devoted to the development of the VDC's in each sub-location before any attempt was made to field CHW's because

the VDC was perceived by AMREF as the starting point for Primary Health Care. It was to serve as the link between the central support system, AMREF, and the local support system, the community. The VDC should ideally be a representative cross-section of the community consisting of seven, eight or nine members: it should not form a new social stratum. (AMREF,Position Paper #3,1981)

The VDC in Kibwezi is given the following very specific functions:

1) Serves as bridge between the people, the health centre and the hospital
2) Helps select CHW's
3) Assists in maintaining good relationships
4) Organizes meetings to explain primary health care
5) Coordinates health-oriented activities
6) Supports CHW's
7) Helps organize mass campaigns
8) Supervises drug supply
9) Organizes construction of village health posts
10) Executes an acceptance survey of the CHW's
11) Reports on the work of the CHW's
12) Mobilizes community resources
13) Ensures intersectoral coordination

(AMREF,Position Paper #2,1979)

In addition to the VDC's, more and more the older CHW's will provide guidance to new CHW's.

In Kibwezi, the District Health Management Team, including health centre staff and others from the MOH, are directly responsible to the Kibwezi Health Centre. As a fully staffed health centre, it has twenty-one employees, including one Clinical Officer, three Community Nurses, one Midwife, one Public Health Technician and additional subordinate staff. There is also a Clinical Officer who is responsible only for the outreach CBHC program. One CO is an AMREF employee; the

others are from the MOH. (Muli, et al. ,1983)

The health centre staff, under the leadership of Mr. Samuel Muli, a Kenyan CO paid by the MOH, conducts community sensitization exercises, leads training sessions and provides backup supervision. Supervisors are expected to live with the CHW's for a time to gain adequate insight into the realities of their lives.

From the AMREF side, the AMREF/Nairobi staff are instrumental in providing leadership. Dr. Chris Wood, as Medical Director, is the Project Director. Dr. Roy Shaffer, as head of the CHWSU, is constantly called in for consultation. His unit continuously generates help and advice for any interested CHW groups, not only in Kibwezi but throughout the country.

Evaluation of Impact

An external evaluation performed of the Kibwezi project revealed the following: the communities appeared well-sensitized to the CBHC concept and receptive to the CHW's activities, except for some school teachers who perceived them as a threat. People generally associated their fewer trips to the hospital with the presence of CHW's (Morris & Kagia,1981, Annex D,p.13).

On the other hand, "whether CHW's strengthen community health services and are effective still remains to be proven." (Morris & Kagia,1981, Annex D, p. 11) Also, the HC staff was considered overworked and the evaluator queried how long they would continue to serve with such great demands. There were

complaints of no drugs and concern that there was no remuneration for CHW's. And the integration with the GOK rural health scheme was unclear.

Another evaluation by external evaluators of Kai and Muthingini Clusters showed general success of the program. The CHW's knew their roles and had assimilated the knowledge conveyed to them in training. However, the Kai CHW's complained of the lack of both drugs and remuneration. Apparently the initial community sensitization had been unclear, resulting in confusion and a subsequent high drop-out rate. With a more thorough sensitization in Muthingini, however, these problems were alleviated and the CHW's appeared committed and enthusiastic. (Mwanzia,1981)

A third evaluator commented that "the Catholic and AMREF health projects are grounded on the real health problems of an area....The conditions of work for these VHW's, however, need to be urgently improved. The projects seem fairly well liaised with existing static health facilities in the study areas." (Mburugu and Chitere,1981,p.35)

Summary

The AMREF project has been undertaken in collaboration with the MOH. It has considerable support from above and has many professionals involved, both expatriate and indigenous.

Yet, despite all the research and support surrounding the project, it is not without problems. Three issues clearly need resolution in the project: drugs, remuneration and transition to the MOH. The drug issue has been a touchy one. Should

there be drugs? What is the reason for excluding them? AMREF does not issue drugs or First Aid kits, preferring to foster independence by insisting that community members buy available drugs at local shops. Is this possible when these dukas (shops) are far away? The organizers are fearful that the CHW's preventive and promotive role will be misconstrued if a curative dimension is added. Can there not be a phasing process by which CHW's first establish their role and later acquire a First Aid box?

Regarding remuneration, should there be any at all? The CHW's are recruited to be volunteers. They are not remunerated but may be paid in kind through help in their shambas, with their school fees, and so on. Since false hopes were raised initially amongst the CHW's about money, some of them have dropped out. If there is pay, should the MOH, AMREF, or the community pay? Should it be cash or, for example, a bicycle? Will the program lose more CHW's with remuneration or without it?

The organizers, two GOK CO's, claim that most health centres are able to run CBHC programs, although they acknowledge that in some cases other activities may have to be curtailed.

> "...although Kibwezi has no more resources than those recommended for a Kenyan major health centre, we are aware that in eastern Africa today, most health centres have considerably less. There is a shortage of trained staff, equipment is incomplete and generally in an unsatisfactory state of repair, and supplies are often inadequate. Starting and supporting a community-based health program is difficult under these constraints but it is still possible in most cases. Certain reductions in the existing health centre programme can free up staff

time for community-based activities...

> However, "without this coordinator and his vehicle, the health centre would still manage to implement the CBHC programme; but only by cutting down some of the other activities..." (Muli, et al., 1983)

The excellent beginning made by AMREF simply cannot be escalated indefinitely as there are already too many strains on the overworked health centre staff. As it is now, with 80 CHW's, the CO in charge must spend the entire month travelling out to visit four CHW's per day. It is unrealistic to expect that Kibwezi Health Centre can adequately support the envisaged 200 or more CHW's in the same manner with monthly visits.

Ministry of Health Pilot Project

Kakamega

Introduction

The one CBHC project in Kenya which is officially affiliated with the MOH is known as the Kenya National Pilot Project on Community-Based Health Care. It is situated in Kakamega District, Western Province and is partially funded by UNICEF.

The project, sometimes referred to as the Kabras Project, began with a 1975 survey conducted by Dr. Miriam Were, a local doctor who was serving in her own community, to discover the

principal diseases in her community and the main users of the hospital. Dr. Were talked to the elders about the project beforehand. Following the survey, the results of the survey were taken back to the people involved as a form of feedback. Since it was recognized from the survey that most of the diseases in the community were preventable, both Dr. Were and the community members began to query what they could do together to solve their health problems. (Black,1978)

The project, launched in 1977, was designed to answer the following questions:

1) Were the people interested in participating in their own health care?
2) In communities where people had not voiced a perceived need to participate in their own health care, could a dialogue be started and interest stimulated so that they begin to look into this question?

3) If interest was present or had been stimulated, could people at the community level establish an organizational framework through which they could participate in their own health care?

4) Was it feasible for the organized commuity efforts to take place within the context of the health services of the MOH? What needed to be provided by the health system in order to form a bridge between the people in the communities and the formal health system?

(Were,1982,p.i)

When the project was launched, three government ministries cooperated to compose two teams, each consisting of a health worker, a social worker and a statistician. The MOH appointed a project supervisor for each. A chief's <u>baraza</u> was then called in each of the communities to explain the project and discuss its details. Health Committees were formed and "First

Aiders" were chosen.

The teams began in Tiriki and South Kabras, two remote areas in Kakamega District where the communities felt the teams could do the most good. Tiriki Location, with a population of 79,600 in 1979, had been the focus of the 1974-75 community diagnosis. It was because of the interest shown by the community that the pilot effort in CBHC was undertaken. Tiriki benefitted from good roads, power mills indicating its economic viability, a 120-bed church hospital with a school of nursing, a government health centre with three others nearby, and a 27% literacy rate amongst women. (Were,1982,pp.24-33)

South Kabras Location, with 55,200 people, was more rural with no experience in community health work, no health facility in the interior and only one on the location boundary, and only a 20% literacy rate amongst women. Together the two locations were made up of 92 communities, each comprising between 70 and 376 households.[1] Approximately 50% of the population was less than fifteen years of age. (Were,1982,pp.24-33)

In 1980 the project was expanded to take advantage of the Rural Health Unit concept. Tiriki was joined with Nyang'ori under the Hamisi RHU (94,750 people) and South and North Kabras united under the auspices of the Malava RHU (102,116 people). (Were,1982,p.33)

Since 1977, 243 CHW's have been trained in the project.

The CHW Defined

The Kabras CHW is a worker selected from within the community who undergoes twelve weeks of training in order to be

able to carry out health functions within the community in three areas:

1) health promotive (e.g. kitchen gardening, balanced diet
2) disease prevention (e.g. immunization)
3) curative services (e.g. malaria treatment.

The CHW carries out these functions through home visiting, individual discussions and group meetings. (Were,1982,p.34)

Selection

Fundamental to the National Pilot Project is the notion of baraza , the Swahili word for an open-air meeting in which decisions are reached by consensus after lengthy discussions. Involved is an element of the supernatural as reaching consensus is perceived as a reflection of the influence of the ancestral spirits (Were,1982,p.35).

The dynamics of the project involve "facilitation," defined as the "process for enabling communities to take action of a self-development nature." (Were,1982,p.ii) Facilitation is deemed necessary to stimulate primary health care efforts in these communities for, if it were not essential, spontaneous CBHC would already be occurring, in Were's opinion.

The selection of CHW's was designed as a two-step process. Once the community has been awakened to the concept of CBHC, the community is expected to select three or four individuals for presentation to the MOH "facilitation team" for final selection of one CHW.

The criteria were set by the people. A CHW should be a permanent resident "strong in spirit," e.g. "not fainting at

the sight of blood or vomit." (Were,1982,p.61) Since most emergency conditions were anticipated to involve women and children, the people generally preferred a female CHW. A CHW should be literate "so as to truly become our eye to the outside." If a woman, the CHW should be married in the community (Were.1982,p.61).

Training

Training was initially conducted for the facilitating team in the form of a seminar / workshop organized by the Institute of Adult Studies at the University of Nairobi with input from UNICEF and the Department of Community Health, University of Nairobi. The psycho-social approach was featured, stressing roles, team spirit and communication skills. (Were,1982,p.45)

Training for the CHW's lasts for approximately twelve weeks, including eight weeks in which the CHW alternates weekly between the community and the health centre and four weeks in the community, supervised by the facilitating team.

The activites which comprise the training include:

1) Topical discussion meetings on identified problems
2) Home visiting for observation of environment and persons
3) Screening services for identification of those who need health care in the health centre and those who can stay in the community
4) Curative services.

(Were,1982,p.108)

The topics to be covered include ten subject units:

1) Personal hygiene
2) Environmental sanitation / water
3) Food handling practices

4) Food intake (balanced diet and food storage)
5) Child health
6) Pregnancy and delivery-related problems
7) Child spacing and modern contraception
8) Specific disease entities
9) Data collection and vital statistics
10) Discussion and leadership skills
(Were,1982,p.44)

Supervision and Support

The Director of the project, Dr. Miriam Were, endeavors to simulate the role of the District Minister of Health in terms of planning and overall coordination. The Clinical Officer who heads each Rural Health Unit handles detailed supervision of the field activities of each facilitating team.

Each location has a team of facilitators consisting of one Enrolled Nurse Midwife from the MOH, one Community Development Assistant from the Department of Housing and Social Services in the Department of Community Development and an Enumerator from the Central Bureau of Statistics. These employees were assigned to the project through the regular bureaucratic procedures without the director's intervention in order to avoid biasing the project's outcome. (Were,1982,p.44)

A Community Health Committee was considered essential in the formulation of the CBHC program in Kakamega. This committee is to consist of the Liguru (chief) as the automatic Chairman, three men and three women representing different geographical sections of the community and the three CHW-designates, one of whom was selected and the others not. The CHC's main task is to mobilize community members to identify problems in the community, to mobilize community

members for meetings and to implement action through sub-committees. The CHC is responsible for keeping the community informed of their findings and for catalyzing the community to take action. (Were,1982,pp.66-67) The CHC is supposed to meet weekly and to hold monthly community barazas.

To support the project, each community is asked to establish a Community Account through household levies and voluntary contributions. Once the account becomes large enough, the money is placed in a Community Savings Bank Account to avoid tempting committee members. A treasurer is designated but no money can be deposited or withdrawn without three signatories. The account is augmented through a flat fee charged for curative services from the CHW paid into the account rather then directly to the CHW. (Were,1982,p.62)

Evaluation of Impact

The only evaluator to date of the MOH / UNICEF Pilot Project has been Miriam Were, its creator. Her observations include the following statement: "In a nutshell, it can be said that these communities were successful in establishing an organization frame through which they could participate." (Were,1982,p.83)

More specifically, with regard to community structures, the CHW selection procedures were followed closely in all communities with 90 women chosen and two men in the 92 communities. Each CHW averaged 70 home visits per month which were unique visits, not repeats. (Were,1982,pp.80-84)

Any concern about an underload for the CHW's due to a rejection of the concept was quickly allayed as the CHW's were overworked, if anything, due to their popularity. The CHW's were also well received by the health centres. Some health centre staff have even asked to have CHW's seconded to help them for a week. (Were,1982,pp.80-83)

The average attendance at monthly health-related meetings increased from 35 in 1977 to 41 in 1980, showing increasing interest. (The average attendance at regular _barazas_ ranged from seven to twelve historically.) (Were,1982,p.83)

The Community Account, predicted to be one of the most doubtful aspects of the project in terms of expected achievement, proved to be no problem. All 92 communities established the fund, though at various times. One community had a fund by the end of the fourth week, 61 others took five to twelve weeks and the remaining 30 took more than twelve weeks. Those who delayed did so because they reportedly feared losing their money through swindling. When the issue was left to the communities to control, they felt more confidence that the monies would go "to help ourselves and not to some big shot's pocket." (Were,1982,p.76)

The fund was augmented largely through payment for CHW services at a rate of Ksh. 3 per adult visit and Ksh. 2 for a child's visit. Community members preferred to "pay something small" for a consultation with a CHW than to spend money on bus fare and food to go to the health centre and find no drugs. It was far more difficult to collect household levies due to competition from _harambee_ fund-raising which often involved

forced contributions with no accountability.
(Were,1982,pp.78-79)

In addition to evaluating organizational successes, Dr. Were attempted to measure health variables as well, against an extensive baseline survey conducted in 1977. The survey involved a complete household count carried out by the facilitators with the Liguru and members of the community. Data were collected on household environment, kitchen gardens, water sources and child health. (Were,1982,pp.46-50)

The following tables demonstrate changes according to some of these variables:

Homestead Environment and Water-Related Activities *

Action Area	Oct 77	Apr 79	Jan 80
Dishrack Use	1	96	88
Latrine Use	1	95	91
Grass Cut Near House	15	90	85
Home Free from Potholes and Stagnant Water	14	84	85
Clean Water Source	12	77	81

*Mean percentage positive

(Were,1982,p.95)

Participation in Antenatal Care (ANC) *

Year	ANC with CHW	ANC at Clinic
1977	NA	14
1979	10	42
1980	48	35

*92 communities, Mean Percent Positive

(Were,1982,p.96)

Child Welfare Clinic Attendance and Immunization Status *

	1977	1979	1980
Child Welfare Clinic Attendance	26	12	41
With Polio Immunization	8	16	29
With BCG Immunization	10	38	48
With Smallpox Immunization	12	26	47
	(1703)*	(1905)	(1785)*

*Number of children observed.

(Were,1982,p.97)

Summary

The Kenya National Pilot Project for CBHC was conceived as a feasibility study to explore the parameters of how health workers employed by the MOH can be used as facilitators to promote community mobilization for health. The project was to investigate whether a viable partnership could be established between the health services and the community.

Although the health services modified their old-fashioned "facility-based" approach years ago into a "community-oriented" approach, coverage has increased only marginally, from 15% to

25%. (Were,1982,pp.8-9) Mobile services for the provision of immunizations and health education have helped but the context has continued to be "those who know going to those who don't know" with little effort made by health service personnel to understand the pre-existing health culture of the people involved. (Were,1982,p.9) Furthermore, curative emergencies at the health centres have often frustrated the best intentions of health workers to focus on preventive measures.

The National Pilot Project aims to foster the community-based approach in which the health system and the community are partners. Communities are expected to participate actively in decision-making regarding both the organization and the types of services at the community level. By the same token, the project aims to test the ability of the MOH to absorb this new concept within the already existing structures, using personnel already in place.

These goals are based on the following assumptions:

> 1) In the context of harambee spirit, in Kenya, the MOH and other government ministries will support community initiatives.
>
> 2) Health and medical professionals will accept the CBHC approach as essential and complementary rather than competitive or "second-best."
>
> 3) Health awareness and interest in problem solving can be generated in communities through appropriate stimuli.
>
> 4) A mutually acceptable relationship can be established between the health services and the community.
>
> 5) A general understanding of how CBHC can work will allow the MOH to establish CBHC on a nation-wide basis. (Were,1982,pp.14-15)

Dr. Were concludes that "the activities of the National CBHC Pilot Project relating to the existing administrative organization indicate that Community-Based Health Care is feasible in the context of the basic existing structure of the Ministry of Health service delivery system." (Were,1982,p.139) She then offers concrete suggestions as to how the MOH can absorb this additional responsibility, concluding that, if her prescriptions are carefully followed, "Health for All by the Year 2000" is a realistic target for Kenya.

(The three Machakos case studies and the MOH Pilot Project are compared tabularly by sub-problem in the tables following this page.)

COMPARATIVE ANALYSES OF MACHAKOS CASE STUDIES
AND MOH PILOT PROJECT

Table 1: Definition of a CHW

Category	Project			
	KCS	ICA	AMREF	MOH
Name	VHW	VHCT	CHW	CHW
Status	Volunteer	Volunteer	Volunteer	Volunteer
Time	2-3 afts/wk	1/2 day/wk		
Homes	50-100	20-30		70-376
Focus	Curative Preventive	Preventive	Promotion Admin.	Health Pro. Dis.Prev. Curative
Tasks	MCH	Measurable Improvemts.	Env. San. Mal Control Nutrition FP CD Water Records	ANC Environmt.
Techniques	Role Play Discussion Homes Schools Flannel Bds. Plays Demos. Barazas Groups	Barazas Home visits		Home visits Discussions Meetings
Pay	None (Ksh. 100/month?)	None	None	Fees-Ksh 3&2 Cmty Account
Medicine	First Aid Box	None	None	Yes
Other	Motto	Coop. w/ DOOP Vols.	Coop with TBA's	

COMPARATIVE ANALYSES OF MACHAKOS CASE STUDIES
AND MOH PILOT PROJECT

Table 2: Selection

	Project			
	KCS	ICA	AMREF	MOH
Criteria				
Age	Mature	Mature	Mature	
Sex	F	M or F	M or F	F
Education	Std. 6	Literate (Eng)	Any	Literate
Marital St.	Married	Any	Any	Married
Other	Respected From area Husb agrees	Respected Intelligent Free time	Respected Time Cmty roots Cmty work	Perm Res Good Spirit
Set by	Sr. Ger.	ICA	AMREF	Cmty
Procedure				
	Proposed by any gp. Sanctioned by sub-chf Approved by Sr. Ger.	Stakes nominate 2 Sub-chf selects 1	VDC & Cmty	Facilitation Baraza Cmty selects 3-4 Facs select

COMPARATIVE ANALYSES OF MACHAKOS CASE STUDIES
AND MOH PILOT PROJECT

Table 3: Training

Category	Project			
	KCS	ICA	AMREF	MOH
Length	3 mos	2 wks	3 mos	12 wks
Location	Central Village	Home	Kibwezi HC and home	Alt HC/Cmty
Style	Psycho-Social	Didactic w/ Q's	Inf Disc w/ Coord	Psycho-Social
Trainers	Sr. Ger.+ Kenyan Ctpt + Assts	Sr. Ramona + Monica + HA's	CO's from HC	GOK Team
Techniques	Plays Discs Flannel Bds Practicals Market Survey Home visits	Home visits Prac Tchg Posters Demos	Role Play Part Rsch Cmty Diags	Discs Home Visits
Syllabus	None Felt Needs	ICA HCT's Manual	Manual in process	
Topics	Open	7 lessons	12	10
Field Work	Twice in home vill	Mornings for 2 wks	Home-based	4 wks+
Language	Eng & Kamba	Eng,Swah,& Kamba		Eng & Luhya
Number	40	Sub-loc	Cluster	46
Total	108	850	80	253

COMPARATIVE ANALYSES OF MACHAKOS CASE STUDIES
AND MOH PILOT PROJECT

Table 4: Supervision and Support

	Project			
	KCS	ICA	AMREF	MOH
Community				
Selection	Yes	Yes	Yes	Yes
Training	Food Home Help	Food Place		
Pay	None	None	None	Fees Cmty Acct
VHC	Planned	DOOP (HDP)	Active	10 members
Fund Raising		In-Kinding		Cmty Acct
Mid-Level Staff				
	Area Coord	Health Auxs	Older CHW's	
Institution				
Staff	Sr. Ger. Prog Specs	Leaders HA's	Nbi Staff HC CO's	Dr. Were 3 GOK Mins.
Visits	Annually	Quarterly	Monthly	
Refresher Training	1 wk/yr	During HA visit	During CO visit	
Other	Books Letters Gift First Aid Box			
Donors				
	CEBEMO	NORAD EEC Ford Ftn Local	USAID MOH	UNICEF

COMPARATIVE ANALYSES OF MACHAKOS CASE STUDIES
AND MOH PILOT PROJECT

Table 5: Evaluation of Impact

	Project			
	KCS	ICA	AMREF	MOH
Internal				
Techniques	Monthly Tally Sheets Home Visit Books	Home Visit Books Mother-Child Forms	CHWSU (Nbi)	CHC Were (82)
Staff Visits	1 day/yr Workshp/yr	1 wk/quart Sub-loc mtg/ month (HDP)	1/4 day/mo	
Perceived Successes	Scabies down Latrines Clean homes Commitment	180,000 in 202 vills	Commties well-sens	Org frame for part Work overload Sel proc good Good recept by HC's Increased attend at health mtgs Cmty Account Viable part with GOK Good data
Perceived Problems	Too many homes Too much work Too far to walk No pay No VHC People unfam No coop from elders Ignorance in Health Serv No medicines in Disps		Dropouts	Household levies

Table 5 (cont)

	Project			
	KCS	ICA	AMREF	MOH
External				
	Bolle(81) Bennett(81)	Ford (82) SCC (82)	Morris/Kagia(81) Mwanzia(81)	
Successes	Good Sel Criteria Good trg Low dropout Thorough follow-up Good links w/ disps Good impact	High impact Many VHCT's trained	Cmties well sensitized VDC's active Receptive to CBHC	
Problems	Poor cmty understdg Too much expat involv Home visits over-counted Not people's project Weak links to other sectors Too few admins No medicines No baseline surveys	No baseline data No measure of qual impact No medicines Too fast growth	High dropout HC over-worked No drugs No pay Integration w/ GOK unclear Too few admins to expand	
Impact				
	Clean homes Dishracks Water storage Causes of diseases Crops better	180,000 in 202 villages		Dishracks Latrines Grass out Stg water Clean water ANC Immunizations Clinic attend

V.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Kenya, in East Africa, has a Third World status, indigenous cultures with an overlay of colonial influence and ethnic angers to cope with. It has only 19 million people; however, Kenya must cope with a burgeoning population, growing at a rate of 4% per year, the highest in the world. Nonetheless, in contrast to its neighbors, most of whom have recently suffered dramatic economic and/or political upheavals, Kenya benefits from a long period of relative stability.

Kenya faces the classic problems of most LDC countries where the economy is unpredictable in its productivity and earning capacity due to its dependence on agriculture, with a heavy emphasis on primary products for export. As a result, there is also an acute scarcity of resources for investment, especially in the health sector, which often has a low priority. Even the absorptive capacity of the MOH for donor financing is limited: there is not simply a lack of facilities and a shortage of trained manpower in Kenya's health sector. There is also a critical gap in managerial and training expertise to effectively improve the existing system. Furthermore, there has been an unwillingness to invest in areas where the impact would be greatest.

The current Development Plan in Kenya is clear in its stated priorities. Basic human needs, especially in the rural areas, are stressed. Inequities between groups are to be diminished and poverty is to be alleviated. However, in the

health sector, Kenya has a health services infrastructure which rhetorically caters to the masses and in reality significantly neglects them.

What is apparent from a review of Kenya's health sector is the preventable character of much of Kenya's morbidity since most health problems in Kenya arise from an unhealthy environment. Yet, the Ministry of Health continues to give the largest budgetary support to already existing projects, mainly the highly technological and prestigious Kenyatta National Hospital, and to static and curative facilities. In the 1974-78 Plan, hospitals received 58% of the development health expenditures and 68% of the recurrent while in the recent Plan, hospitals were budgeted to receive 56% of development health monies and 65% of the recurrent, a drop of only 2%. Kenyatta National Hospital alone takes 25% of the health budget.

Secondary priorities include training manpower through hospitals, largely again in sophisticated techniques. Emphasis has theoretically shifted in favor of paramedicals; yet 50% of the training budget is earmarked for unspecified "specialty" training. The medical establishment attempts to induct its new members into an "elite" society where laboratory research is more prestigious than community outreach and where working with high technology equipment is the norm. Yet, to meet health needs in Kenya, a physician must understand the epidemiology of the country's major health problems, the social, cultural and economic determinants of health, and ways of utilizing limited resources effectively as well as knowing the medical sciences. Only the rare physician is so broadly trained.

A regionalization of medical supplies and equipment maintenance is outlined in the Plan; but drug shortages and broken vehicles continue to plague the health services.

Kenya's most glaring problem, that of rapid population growth, is only given lip service. The population growth rate of 4% per year represents an increase from 3% at Independence in 1963 despite a family planning program which has been functioning since 1967 and was the first such program in sub-Saharan Africa. The Kenyan female's fertility rate was 8.1 in 1977, up from 7.6 in 1969, and the eight-child family is the norm. (USAID,CDSS,1980,p.25)

In the MCH / FP area, there is a targeted increase in service points from 1978's 345 to 630 by 1985 because "the Plan recognizes the heavy burden which the rapid population growth is placing on the economy and sets new target rates for family planning acceptors and trained field educators." Yet, the drop-out rate of new acceptors continues to be 80% and there appears to be "no significant motivation or commitment to Family Planning in Kenya at this time."

Only lastly are rural health centres accorded a portion of the budget. The verbal commitments appear to wax more liberal with time; yet, access to modern medical facilities remains the prerogative of the privileged minority. In the words of one commentator, "Policy statements exist in the development plans. But policy that is not implemented is not useful." (Mburu,1981)

The most concrete indication of a double standard is to compare policy statements with actual budget allocations.

Estimates vary as to the amount of money spent on health by the GOK. During the Second Five-Year Plan (1970-74), Onyango noted that 2.3% of the Gross Domestic Product was invested in health improvements. (Onyango,1974,pp.107-125) The World Bank calculated only 1.8% of the total Gross National Product or $4 per capita would be spent on health in 1976; this represented only 7.9% of the total GOK budget. (World Bank,1975) Michael Wood of AMREF offered a reduced estimate of $2 per person per year for health in 1978. (Wood,M.,1981)

In the current Kenyan Plan, expenditures for hospitals and other curative facilities, mostly urban, far outweigh the monies allocated to rural care despite rhetoric to the contrary. When the limited available funds for the health sector are squandered on sophisticated investments beneficial only to a small minority, a stated commitment to "Health for All by 2000 A.D." becomes an impossibility.

The national policy objective of "Health for All" is likewise incommensurate with the dominant philosophy of medical service still perpetuated by Kenya's health institutions. Health care in Kenya continues to follow the general pattern of the developing world where the emphasis is on cure over prevention. Furthermore, the medical establishment is reluctant to release its hold on its prestigeful position and on the knowledge it has worked so hard to acquire.

The reasons for this approach are several. For psychological reasons, Third World nations desire status in the eyes of the world. "Appropriate technology" may sound logical and innovative but it connotes Third World status whereas a

shiny modern hospital in the capital city complete with the most sophisticated imported technology suggests equality amongst the community of world nations. Furthermore, doctors trained in the colonially inherited systems who make most of the administrative and political decisions favor high technology institutions because they prefer to treat people with the most modern equipment. In fact, they are ill-equipped to function without it due to their socialization into the medical profession. The elite as well, who make the ultimate political decisions, want to ensure that they have the best medical care available for them. Thus, while they may argue for "appropriate technology" for the masses, what is appropriate for the poor is clearly not intended for the elite. These tendencies are reinforced by demands from the populace for "cure first, prevention second."

To quote F.M. Mburu:

> "The greatest health tragedy in Africa today is not so much the degrading widespread poverty, ignorance and a variety of environmentally induced diseases. <u>These are controllable.</u> The foremost tragedy lies in three different but related areas:
>
> First, health policies are not aimed at the priority areas.
>
> Secondly, the manner of the distribution of health resources ignores the realities of poorly equipped rural populations.
>
> Thirdly, and most important, the elite in Africa are more interested in proposing policies which are to their advantage."
>
> (Mburu,1981)

He continues: "Unwittingly, the poorer African countries have tended to copy both the philosophy and the development

priorities of the developed world, even though their problems and population structures are different. In following the health delivery trends of the technologically sophisticated countries, African countries have so far failed to make their health systems effective, let alone sufficient." (Mburu,1981) Perhaps it is because "recent history has demonstrated that political independence is not a sufficient condition for discontinuing the pre-existing colonial system." (Mburu,1981)

The World Health Organization has proposed Community-Based Health Care as a vehicle for rectifying some of these imbalances. The Ministry of Health in Kenya has endorsed Community-Based Health Care. It has opted for CBHC to complement the existing health service structure because of its relatively inexpensive cost and the lesser need for trained personnel. Various private institutions have likewise endorsed the concept and are experimenting with it. The MOH is in the process of evaluating the current CBHC schemes in order to devise a model or a series of models for national proliferation. It hopes thus to be able to reach the goal of "Health for All by 2000 A.D."

However, CBHC, as one evaluator has noted, "...adds a whole new dimension to the existing system of health care in Kenya, namely a permanent representative of the health care system right in the middle of the rural community." (Bolle,1981,p.98) Furthermore, "the step into community-based work is a big one, practically and philosophically. It can be threatening to the stability of an established health institution." (AMREF, CHWSU, First Annual Progress

Report,1980,p.5) Even the MOH acknowledges that CBHC "demands adaptation of the health service to be able to support community-based health care." (GOK,MOH, Proposal ,1980,p.67) In addition, the GOK is constrained by a lack of trainers qualified to prepare these personnel, since they themselves are not adequately oriented toward health care delivery to the rural sector.

Thus, one must ask whether this health care system can be adapted to accommodate such a development. Likewise, will the traditional health care system adjust? As Were remarks, Kenyans have been caring for themselves for a long time through self-remedies and traditional healers. How will the traditional healers deal with these intruders? Also, will community members trust a lay member of their community to treat their health problems? Furthermore, and perhaps more importantly, one must inquire whether it is realistic to expect Kenyan communities to produce and support individuals who are sufficiently motivated to work as CHW's, especially if there is no pay. Finally, even if the above adaptations prove possible, the impact of CBHC on health indicators must be demonstrable for such an effort to be encouraged for replicability on a national basis.

It is with these questions in mind that this study has been undertaken, in order to assess the extent to which Kenya will be able to reach the goal of "Health for All by 2000 A.D." through the institution of Community-Based Health Care.

Conclusions

The concept of Community-Based Health Care is an excellent one. In a country such as Kenya where resources for health investment are limited and where historical forces have created a health infrastructure which meets only some of the health needs of the populace, CBHC offers a hopeful alternative. It may in fact be the only feasible solution to the dilemma of inaccessible modern medical care for the majority of Third World citizens. At a minimum, it is a worthwhile endeavor in the effort to achieve the WHO goal of "Health for All" by the year 2000.

Why is CBHC a hopeful alternative? CBHC is community-based. Thus, it draws on the strengths of each community. It is flexible. Communities can fashion a program which is relevant to their needs and concomitant with their cultural and social norms.

CBHC can be oriented toward the curative or toward the preventive. In communities where modern health facilities are relatively inaccessible for curative needs, CHW's can be equipped with simple curative remedies. After satisfying the immediate "felt needs" of the community for curative treatment, a CHW may comfortably expand into more long-term educative campaigns on behalf of health promotion and disease prevention.

CBHC can provide an excellent link between the modern and the traditional. In communities where 70%-80% of the populace have only difficult access to modern health care, traditional practitioners have a respected reputation and serve a

necessary, though incomplete, function. CHW's can provide a linkage. These practitioners, such as TBA's, can be trained themselves as CHW's, thus having their skills upgraded through analysis for medical soundness and augmentation with modern techniques. Alternatively TBA's and CHW's can work in tandem.

Where can CBHC fail to provide a constructive addition to the health scene? CBHC will not succeed if it is not sufficiently rooted in its community. CHW's will fail to continue their work if the feel they are overworked and not appreciated. CHW's will not be tolerated if they are not credible within the community. CHW's will undoubtedly be rejected if they neglect the curative needs of the community. CHW's will lose spirit and quit if they are not given adequate guidance and supervision. They may be forced to resign if they pose a serious threat to traditional healers. If all these aspects fail, then the health impact of CBHC will necessarily be minimal or non-existent.

A quote from an evaluation of AMREF's Kibwezi scheme summarizes many of the pros and cons of CBHC:

> "The community being served is appreciably aware of the good work that the CHW's do. Some members of the community feel helpless in that their fellow people -- the CHW's -- walk for miles to help them without pay and, because of poverty, although they recognize the CHW's work and they know the CHW's deserve some compensation, they are unable to pay them.
>
> "There is another set of members of the community who ridicule these CHW workers. They tell them if they were qualified enough or trusted by AMREF, first because of qualifications, they would be paid and if trusted they would be given drugs to dispense. So they are not worth payment and are not trustworthy. This has created bad feelings amongst some of the

CHW's." (Mwanzia,1981)

The programs which have been started in Kenya have shown both the strengths and the pitfalls of CBHC. Although no programs have adequately documented the impact on health, it can be hypothesized that a structurally successful and sociologically sound CBHC program institutionalized in a community will succeed eventually in bringing about positive change. Thus, it is important to analyze how well a program is conceptualized, how appropriate it is for its community, whether adequate support is available for the CHW's and whether sufficient follow-up is sustainable.

AMREF's Community Health Workers Support Unit (CHWSU), at the Third Seminar on Community Health Workers convened by AMREF in Nairobi in 1981, concluded that, for CBHC to succeed nationally, the following ten tenets need to be heeded:

1) More government involvement is needed, both nationally and locally
2) Static health facilities need to be involved
3) Income-generating projects must be started to support the CHW's
4) The people and their felt needs must be the starting point, not the reverse
5) Budgeting must be taught to CHW's
6) The CHW's must be adequately supported
7) Recognition must be provided, as in the form of badges
8) Village Health Committees should precede the CHW program
9) Training ought to have a larger curative content
10) Liaison with other development workers should be fostered.

(AMREF,Third Seminar,1981)

On the other hand, the same group noted that "the unit to date has had some difficulty in establishing commonalities between

projects. This is largely due to the fact that community-based programmes are by definition designed to meet differing local needs and expectations in different communities and must therefore reflect the diversity of agro-ecological, socio-cultural, economic and political factors in their design and implementation." (AMREF,Third Seminar,1981) It is well to remember that, indeed, CBHC is a community venture which must originate within the community to be successful.

A comparative analysis of the three Machakos projects likewise allows the conclusion that certain elements are critical to the success of CBHC. Success can be measured in terms of longevity of service indicating structural change as well as impact on health indicators on the assumption that the mere injection of new health concepts into a community through dedicated local people will ultimately result in changes.

The starting point of the AMREF project is the community. With one entire year devoted to community sensitization and the development of the VDC, the communities were well prepared to accept the concept of CHW's and to work with them. Where AMREF failed initially was in communicating the nature of the job to the CHW's, neglecting to emphasize the voluntary nature of the commitment and the lack of curative supplies available to them, resulting in a high drop-out rate at the beginning of the project.

The KCS VHW's are the most thoroughly trained and dedicated. They have a sense of confidence and self-reliance engendered by the Paolo Freire training method. But they lack the community grounding and express a frustration that they

receive too little cooperation from community members. This program may thus falter due to its reliance on one individual, Sister Geraldine, a charismatic and dedicated woman who has achieved great success with "her" volunteers but whose ability to transfer her program may thus be limited. She has failed to institutionalize the program in the communities and relies on the goodwill she has generated amongst the VHW's.

ICA's Human Development vision is grandiose. However laudatory this vision may be, the program may collapse as a result of this grandiosity. By limiting the training of each VHCT to two weeks, but by supporting the VHCT's through regular "circuiting" by Health Auxiliaries, ICA hopes to provide sufficient incentives to keep VHCT's motivated. However, rather than concentrating on thoroughly grounding its existing VHCT's, ICA may spread its staff too thin and end by defeating its own goals.

AMREF's CBHC outreach effort is likewise very demanding on the Kibwezi Health Centre staff. The intention of AMREF is to prove that a typical government health centre can initiate and sustain a CHW program. Yet, even as well-staffed a health centre as Kibwezi is facing difficulties. Without additional assistance, the envisaged number of CHW's cannot be adequately trained and supported. This augurs ill for any national program, despite Were's comments to the contrary.

The MOH may indeed face difficulties if it undertakes to replicate CHW schemes nationwide. Most of Kenya's experimental programs are private, involving motivated staff who are willing to invest considerable energy in initiating a demanding concept

and in following it up. Whether this momentum can be transferred to a government system is questionable. The Kabras project has endeavored to prove that the MOH, in its ordinary composition, can undertake CBHC. Many factors may impede it. There are insufficient qualified staff. The staff's orientation is not necessarily toward outreach in the rural sector. Health officials do not have the same vested interest in seeing the community prosper. Government service is not the same as service to a greater good such as a God. It would thus be unfortunate if the MOH were to discourage private CBHC projects in its desire to promote a national program.

While none of the programs in Kenya have been underway long enough to prove a measurable health impact or to allow for a serious adaptation of the health infrastructure to have taken place to accommodate them, these programs seem to be functioning satisfactorily and appear to be making accomplishments. The community in Kenya appears to offer a great resource in the development of CBHC if some of the details, such as clarification of roles, curative vs. preventive care, village support, recognition, and area size, can be resolved, due to an indigenous spirit of self-help. Social differentiation does not appear to be a major problem in local communities. Villagers seem to be motivated by a desire to serve, especially in the Christian communities. And there is a tradition of <u>harambee</u> projects which can set a precedent, exemplified by home gardens, community nursery schools and water systems.

This is certainly true amongst the Wakamba of Machakos.

Kamba society is not seriously stratified. CHW's are free to mingle throughout the community. They are often able to solicit help from the better educated and more affluent community members. The only real conflicts may come in the form of religious tension between Protestants and Catholics.

When one considers the availability of willing and motivated CHW's and community structures to support them in Kenya, various evaluations hint at the future. In the KCS Workshop held in Matuu with the Yatta VHW's, for example, the problems raised by the VHW's, of overly large areas to cover, of lack of community support through a VHC, of unfamiliarity with the concept and of no financial remuneration, suggest that CBHC may not be tenable until certain issues have been resolved. Roles need to be clarified. Communities need to be well-sensitized. The health services staff need to be appropriately oriented and allowance needs to be made for the additional workload of supervising CHW's. Whether or not drugs should be dispensed by CHW's must be decided; and the question of remuneration must be delicately handled. Perhaps alternative measures of recognition can be offered to acknowledge the work of the CHW's, such as badges, visits to other CHW programs, access to additional training opportunities or provision of agricultural inputs to be used in their own shambas (fields).

In terms of measurable health objectives, most programs indicate apparent improvement. But the initial baseline data available from community diagnoses is very sketchy. And the evaluations done subsequently are very qualitative and

subjective rather than being quantitative and statistically analyzable. Thus, while the Nangina Hospital staff, for example, reports that more latrines have been built, that environmental sanitation has improved, and that better agricultural methods are being employed, it does not document these so-called "measurable improvements" in a conclusive manner. Similarly, the Machakos VHW's document general health improvement in their record books and in their evaluation sessions. Yet, while this may boost the morale of the VHW's, there is still insufficient effort at documenting the specifics and the duration of these improvements. For example, do the new women's groups reported actually function? What do they do? What do they contribute to the community? Does scabies remain eradicated at the primary school mentioned due to improved hygiene and environmental conditions? Do the mothers of the fifteen rehydrated children understand the process well enough using appropriate technology to repeat the process if the need arises? Are the six new latrines properly installed, covered and kept clean? Are they actually utilized? These are the kinds of hard questions which need to be asked and documented.

The Nangina Community Health Project was evaluated in 1979 as a successful project by AMREF. AMREF's conclusions, as to the reasons for its success, included the following:

1) Consistent, loyal staff with good attitudes
2) Church-centered with a charismatic leader
3) People-focused, using community diagnosis for felt needs
4) Underlying unity in the community
5) No curative treatment by CHW's
6) Remote (near Uganda border)

7) Ethic of sharing and service in the commuity (AMREF,Nangina,1979)

Can these criteria be presumed to be present in other existing CBHC schemes in Kenya? If not, will the schemes be successful or are the criteria erroneous? How replicable is CBHC throughout Kenya?

How likely is it, for example, that the staff of a government health centre called upon to support CHW's will be "consistent" and "loyal" with "good attitudes"? That will depend partly on the MOH's policy toward staffing government health facilities, partly on the quality of the trainees accepted to fill staff vacancies and partly on the appropriateness of their training, including the attitudinal approach. Most of the CBHC programs in Kenya today are supported by private institutions where the staff was already predisposed towards CBHC. Only the one MOH-sponsored pilot project has offered suggestions as to how a government CBHC project might fare.

Is it necessary for a program to be church-centered to be successful? Will a CBHC program survive only in a strongly Christian community? It is here again where the Kabras project lends some interesting insights as this project is not church-centered and, although it was started by a charismatic leader, Dr. Miriam Were, she has from the very beginning been weaning herself of involvement with it.

It seems clear that a project must be people-focused, based on the felt needs of the community as established by a

community diagnosis before the inception of a CBHC program. In Bolle's intensive evaluation of the KCS VHW's in Syokisinga, Machakos, for example, she concludes "...in my view the main reason for its failure is the fact that it is not really the people's project." (Bolle,1981,p.97) It is here where Werner's comments about dependency vs. self-reliance are meaningful, i.e. that "alternatives are needed...that restore dignity, responsibility and power to the people on the bottom...so that they gain...greater control over their health and their lives." (Werner,1977,Introduction)

It is also here where one must note that, as Nyerere said, "We must see people as knowledgeable persons with whom to work cooperatively rather than see them as hopeless people we have to work for" (Githagui, 1981,p.iii) and trust to their assessment of their own needs. Admittedly their "felt needs" may not adequately cover all their "real needs," but until they are able to cope with some of their existing "felt needs," they will be unwilling to tackle others as yet unperceived. Once there is some confidence that a process will alleviate a felt need, communities may be willing to similarly address other real needs.

Are Kenyan communities generally unified? Or are they stratified by ethnic group, religious affiliation or social class? It would appear from the existing programs and the anthropological literature that social differentiation for whatever reason is not a major problem in local communities. On a national basis there are clearly ethnic and class distinctions which can be impediments to development. But

local communities appear to function in a genuinely participatory manner through traditional channels, with local elders as leaders, and through modern appointed chiefs and sub-chiefs and elected KANU representatives as well. Furthermore, the presence of numerous self-help groups and of a large number of harambee projects throughout the country indicates an ethic of sharing and service and bodes well for the future of CHW schemes. Villagers seem to be motivated by a desire to serve, especially in the Christian communities.

Regarding the dilemma of curative treatment offered by the CHW's, the philosophies of the different programs vary. Some allow no curative treatment by the CHW's in an effort to establish them as truly preventive health workers. Others provide basic first aid kits to allow the CHW's to handle minor problems while still intending for the dominant focus to be on health improvement through prevention rather than cure. There has as yet been no adequate evaluation of which approach is preferable, although the latter, if kept simple, might prove less frustrating and more realistic for both the community and the health worker. People have very real needs for curative treatment and to deny them this satisfaction because of a broader, more idealistic goal will ultimately be self-defeating. The curative focus allows an entry point for the CHW's.

AMREF's sixth criterion for the success of the Nangina project, that of remoteness, hopefully need not be essential for, despite the remoteness of many areas of Kenya, the vast majority of the population lives in a relatively small area.

For CBHC to be replicable throughout the country, one must assume that remoteness is not a prerequisite. On the other hand, it is the remote communities which will benefit the most from CBHC.

The final criterion, that of an ethic of sharing and service in the community, has been well documented. In fact, the hope for Kenya clearly seems to be at the "grassroots" level where CBHC schemes appear to be taking hold and making improvements despite all the obstacles which should impede it. It is not every Third World country which can boast reasonable ethnic homogeneity at the local level. Kenyan village structures may be unsophisticated but there is a spirit of cooperation, an egalitarianism: there have been no long-established chieftaincies. Power is new: it belongs to the nouveau riche . Where harambee may fall apart is in the linkage people make between phony harambee requests for financial support and corruption.

At the second AMREF-sponsored seminar in Kenya on Community-Based Health Care at Limuru in 1980, a discussion on training led to the consensus that the basic medical topics to be covered in any CHW training are food, water, sanitation, common diseases, accidents, mental health and MCH/FP, emphasizing primarily prevention but including instruction in basic curative first aid measures. These presentations need to be set in a context of community diagnosis for felt and real needs, of appropriate technology, of dependency vs. self-reliance, of resource availability, of techniques of communication, of the relationship between health and

development, and of total health culture. Furthermore, there ought to be some developed means, both internal and external, for evaluation of each CHW and of the total benefits from the program.

It is important to acknowledge the wisdom of the notion that Primary Health Care offers a "lever for development" and hope that communities in Kenya will be able to generate the spirit to permit such a movement to stop health from being a "weapon of oppression," to use Banerji's concepts.
A genuine harambee philosophy will need to continue to spread throughout Kenya if the rural majorities are to significantly improve their life potential. The medical establishment will have to be "de-mystified," in Illich's terms, and improved health must "allow the oppressed to be healthy enough to fight for their rights." Then only will there be a potential to reach the Alma Ata goal of "Health for All" at some future date, if not by 2000 A.D.

Recommendations

The following specific recommendations are an outgrowth of this study on Community-Based Health Care in Kenya.

I. CBHC must start with the community. Adequate community sensitization must precede the initiation of a project. A viable Village Development Committee or its equivalent must exist before CHW's can be chosen. If there is

not sufficient interest in the community, a CBHC project should not be started.

II. Baseline data of an epidemiological nature needs to be collected during the sensitization exercise to serve as a comparison for later evaluations.

III. CHW's must be chosen by the community according to their own criteria. Counsel may be given by the catalytic agency.

IV. Training should be appropriate to the situation. A good mix of intensive residential and home-based training is ideal.

V. The time commitment and coverage per CHW should be limited. One-half day per week with a coverage of 20-30 homes is recommended to allow the CHW to care for his/her other responsibilities.

VI. CHW's need identification and recognition to legitimize their positions. Certificates and badges are possible forms.

VII. The CHW role must include minimal curative functions. A self-reliant First Aid Box is excellent, allowing the individual responsibility for his/her own health care, at cost, and ensuring the availability of essential

drugs. The demand in most communities is curative first , and preventive second: curative care can thus be used as an entry point.

VIII. CHW's should be remunerated in some manner agreeable to the community. A fee-for-service may be charged, to be given to the individual CHW or for deposit in a community account. Transport costs may be reimbursed. In-kind support may be given. These costs may be shared between the community and the support agency.

IX. Consistent outside support is important. Follow-up visits, in-service training and monitoring are possible methods.

X. Regular internal evaluation techniques need to be institutionalized, supported by periodic external evaluations. Tally sheets and home visiting books are suggested methods.

XI. Traditional practitioners, particularly TBA's, should be encouraged to work with CHW's. It is critical to merge the modern with the traditional in communities where a large portion of medical care still is performed by traditional practitioners. Individuals should be able to choose the appropriate form of care. Traditional practitioners should have the opportunity to upgrade their skills through training programs.

XII. The private sector should continue to be involved in CBHC programs while at the same time the government expands to government-sponsored projects on a nationwide basis.

These recommendations should serve as a guide to groups, individuals and governments interested in initiating new CBHC projects, especially in Kenya.

As a closing remark, it is fitting to include the Community Health Worker's "Guide to Service" outlined in David Werner's Where There Is No Doctor: A Village Health Care Handbook :

CHW's Guide to Service

1) Be kind. Treat others as equals. Treat the sick as people.
2) Share your knowledge.
3) Respect your people's traditions and ideas.
4) Combine the modern and the traditional.
5) Add to culture -- don't take away.
6) Know your limits -- but also use your head.
7) Keep learning.
8) Practice what you preach.
9) Work for the joy of it.
10) Look ahead -- help others to look ahead.

(Werner,1977)

This Guide aptly exemplifies the spirit of Community-Based Health Care at its best and can serve as inspiration in Kenya for the Ministry of Health, private institutions and communities as they endeavor to bring Primary Health Care

closer to more Kenyans in an effort to meet the 1978 Alma Ata world goal of "Health for All by 2000 A.D."

APPENDICES

Appendix A

GLOSSARY OF ABBREVIATIONS

AMREF	African Medical Research and Educational Foundation
ANC	Ante-Natal Care
CBHC	Community-Based Health Care
CBR	Crude Birth Rate
CBS	Central Bureau of Statistics
CDSS	Country Development Strategy Statement
CEBEMO	Dutch Aid Agency
CHW	Community Health Worker
CHWSU	Community Health Worker Support Unit (AMREF)
CIDA	Canadian International Development Agency
CN	Community Nurse
CO	Clinical Officer
CODEL	Coordination in Development
CRS	Catholic Relief Services
CRNGO	Church-Related Non-Governmental Organization
DANIDA	Danish International Development Agency
DMOH	District Medical Officer of Health
DMS	Director of Medical Services
DOOP	Do Our Own Project (ICA)
EACE	East African Certificate of Education
ECN	Enrolled Community Nurse
EEC	European Economic Community
FHFE	Family Health Field Educator
FHI	Family Health Institute
FHW	Family Health Worker

FLTC	Family Life Training Centre
FP	Family Planning
FPIA	Family Planning International Assistance
GOK	Government of Kenya
HA	Health Assistant (Colonial Period)
HA	Health Auxiliary (ICA)
HC	Health Centre
HDTI	Human Development Training Institute (ICA)
HDTP	Human Development Training Programme (ICA)
HSA	Health Services Administration (USG)
IBEA	Imperial British East Africa Company
IBRD	International Bank for Reconstruction and Development
ICA	Institute of Cultural Affairs
IMR	Infant Mortality Rate
KANU	Kenya African National Union (Political Party)
KCS	Kenya Catholic Secretariat
KNH	Kenyatta National Hospital
LDC	Less Developed Country
MA	Medical Assistant
MCH	Maternal and Child Health
MO	Medical Officer
MOH	Ministry of Health
MRC	Medical Research Centre
MTC	Medical Training Centre
NGO	Non-Governmental Organization
NHIF	National Hospital Insurance Fund
NORAD	Norwegian Agency for International Development

OXFAM	Oxford Group for Famine Relief
PCMA	Protestant Churches Medical Association
PEM	Protein-Energy Malnutrition
PHA	Public Health Aide
PHC	Primary Health Care
PHO	Public Health Officer
PHT	Public Health Technician
PMO	Principal Medical Officer (Colonial Period)
PMO	Provincial Medical Officer (Post Independence)
PS	Permanent Secretary
PVO	Private Voluntary Organization
RHDC	Rural Health Demonstration Centre
RHS	Rural Health Services
RHTC	Rural Health Training Centre
RHU	Rural Health Unit
SIDA	Swedish International Development Agency
SIMAVI	Dutch Aid/Research Organization
TBA	Traditional Birth Attendant
TOT	Training of Trainers
UNICEF	United Nations International Children's Educational Foundation
URTI	Upper Respiratory Tract Infections
USAID	United States Agency for International Development
USG	United States Government
VDC	Village Development Committee
VHC	Village Health Committee
VHCT	Village Health Caretaker
VHTH	Village Helper Towards Health

VHW	Village Health Worker
WFP	World Food Program
WHO	World Health Organization

Appendix B

GLOSSARY OF TERMS

Swahili

baraza	meeting
choo	latrine
dawa	medicine
duka	shop
harambee	self-help
mganga (pl.waganga)	traditional medical practitioner
shamba	field, garden

Other

aiyenya	kwashiorkor (Luo)
obuenya	marasmus (Luo)
nyamrerwa	Village Helper Towards Health (Luo)
museji	homestead (Kamba)
utii	village (Kamba)

GOK Terms

sub-location	smallest formal Kenyan administrative unit headed by an Assistant Chief
location	50,000 - 70,000 people in ten or more sub-locations head by a Chief

ICA Terms

circuit	tour through constituent villages
spin	persuasive and educational talk
stake	part of a village (1/5 with 20-30 homes)

Self-Help Groups

Mwethya	shared work
Ielo	help in cash or kind
Nduu ya Unyanje	women's trade, friendship, and/or work group

Appendix C

THE SEVEN BASIC PRINCIPLES OF PRIMARY HEALTH CARE

World Health Organization

1978

* Primary health care should be shaped around the life patterns of the population it is to serve and should meet the needs of the community.

* Primary health care should be an integral part of the national health system, and other echelons of service should be designed in support of the needs of the peripheral level, especially with regard to technical supply, supervisory and referral support.

* Primary health care activities should be fully integrated with the activities of the other sectors involved in community development (agriculture, education, public works, housing and communications).

* The local population should be actively involved in the formulation and implementation of health care activities, so that health care can be brought into line with local needs and priorities. Decisions as to the community's needs should be based on a continuing dialogue between the people and the services.

* Health care offered should place maximum reliance on available community resources, especially those that have hitherto remained untapped, and should remain within the strictest cost limitations.

* Primary health care should use an integrated approach of preventive, promotive, curative and rehabilitative services for the individual, family and community. The balance between these services should vary according to community needs and may well change in the course of time.

* The majority of health interventions should be undertaken at the most peripheral level possible of the health services by those workers most suitably trained to perform these activities.

Appendix D

THE ALMA ATA DECLARATION

International Conference on Primary Health Care

WHO/UNICEF

9/12/1978

I. The conference strongly reaffirms that health, which is a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity, is a fundamental right and that the attainment of the highest possible level of health is a most important world-wide social goal whose realization requires the action of many other social and economic sectors in addition to the health sector.

II. The existing gross inequality in the health status of the peoples, particularly between developed and developing countries, is politically, socially and economically unacceptable and is, therefore, of common concern to all countries.

III. Economic and social development, based on a New International Economic Order, is of basic importance to the fullest attainment of health for all and to the reduction of the gap between the health status of the developing and developed countries. The promotion and protection of the health of the people is essential to sustained economic and social development and contributes to a better quality of life and to world peace.

IV. The people have the right and duty to participate individually and collectively in the planning and implementation of their health care.

V. Governments have a responsibility for the health of their people which can be fulfilled only by the provision of adequate health and social measures. A main target of governments, international organizations and the whole world community in the coming decades should be the attainment by all peoples of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life. Primary health care is the key to attaining this target as part of development in the spirit of social justice.

VI. Primary health care is essential health care based on practical scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of

self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the country. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.

VII. Primary health care:

A. Reflects and evolves from the economic conditions and socio-cultural and political characteristics of the country and its communities, and is based on the application of the relevant results of social, biomedical and health services research and public health experience;

B. Addresses the main health problems in the community, providing promotive, preventive, curative, and rehabilitative services accordingly;

C. Includes at least: education concerning prevailing health problems and the methods of preventing and controlling them; promotion of food supply and proper nutrition; an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against the major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs;

D. Involves, in addition to the health sector, all related sectors and aspects of national and community development, in particular agriculture, animal husbandry, food, industry, education, housing, public works, communications and other sectors; and demands the coordinated efforts of all those sectors;

E. Requires and promotes maximum community and individual self-reliance and participation in the planning, organization, operation and control of primary health care, making fullest use of local, national and other available resources, and to this end develops through appropriate education the ability of communities to participate;

F. Should be sustained by integrated, functional and mutually-supportive referral systems, leading to the progressive improvement of comprehensive health care for all and giving priority to those most in need;

G. Relies, at local and referral levels, on health workers, including physicians, nurses, midwives, auxiliaries and community workers as applicable, as well as traditional practitioners as needed, suitably trained socially and technically to work as a health team and to respond to the expressed health needs of the community.

VIII. All governments should formulate national policies, strategies and plans of action to launch and sustain primary health care as part of a comprehensive national health system and in coordination with other sectors. To this end, it will be necessary to exercise political will, to mobilize the country's resources and to use available external resources rationally.

IX. All countries should cooperate in a spirit of partnership and service to ensure primary health care of all people since the attainment of health by people in any country directly concerns and benefits every other country. In this context the joint WHO/UNICEF report on primary health care constitutes a solid basis for the further development and operation of primary health care throughout the world.

X. An acceptable level of health for all the people of the world by the year 2000 can be attained through a fuller and better use of the world's resources, a considerable part of which is now spent on armaments and military conflicts. A genuine policy of independence, peace, detente and disarmament could and should release additional resources that could well be devoted to peaceful aims and in particular to the acceleration of social and economic development of which primary health care, as an essential part, should be allotted its proper share.

Appendix E

INTERVIEW SCHEDULE

Organizers of
CBHC

Name

Affiliation
Role with CBHC
Length of time with CBHC

Nationality/Ethnic Group

1) Tell me about your CHW program.
   When did it start?
   How many CHW's have been trained?
   How many are currently serving?

2) Who can become a CHW? (e.g. Married? M/F? Educated? Length of time in community? Traditional practitioner?)

   Who chose these criteria? Why?

3) How is the community involved?
   Who chooses the CHW's?
   Does the community provide any support? Financial and/or psychological?

4) What are the motives of the CHW's?
   Service?
   Money?
   Status?

5) How long do they usually serve?
   Why do they stop?

6) What is the role of the CHW's in the community?
   How many hours do they work per week?
   Is their role preventive or curative?
   Do they dispense medicines?

7) How do the CHW's relate to traditional practitioners?
   Are they a threat to them?
   Are they accepted?
   Are they welcomed?

   Are traditional practitioners trained as CHW's?

8) How do the CHW's relate to the health services?
   Threat?

Accepted?
Welcomed (e.g. in hospitals)?

9) What is their training?
By whom? With what qualifications?

10) How long is their training? At home or at a center?

11) What training method is used (e.g. Paolo Freire)?
What is the effectiveness?
Is there evaluative feedback?

12) Is the program self-sustaining?
Who pays for the training?
What is the expatriate involvement in the program?

13) How involved are CHW's in general development?
Are they a "lever for development?"
How exposed are they to other agencies?

14) What has been their impact on health?
Actual measured improvements? What kinds?
How are these measured?

Or have there been only attitudinal changes?

15) What evaluation techniques are used for your program?
Internal?
External?

16) What are the problems with the program?
Dropouts?
Medicine distribution problems?
Does the program serve the "poorest of the poor?"

17) Do you feel the Kamba in Machakos District are particularly ready for CBHC? Hostile to it?

18) Can Kenya adopt CBHC on a national scale? Why/why not?
Are there regions in the country where CBHC will not work, in your estimation?
How will the MOH handle it as opposed to an NGO?

Appendix F

INTERVIEW SCHEDULE

CHW'S

Name

Age
Sex
Marital Status
Ethnic Group

Children

Length of time in community

Previous health training
Length of time as CHW

Project Name

1) Why did you decide to become a CHW?
   What do you get out of it?

2) Do you know any traditional practitioners or traditional birth attendants in your community?
   Do you work together?

3) Can you name the closest representative of the Ministry of Health?
   How far away is this person?
   How often do you see him/her?

4) Who visits and helps you?
   Someone from the MOH?
   From the community?
   From KCS/ICA/AMREF?

5) How long was your training?
   Was it long enough?
   Was it at home or away?
   If away, was that a problem?

6) Was your training effective?
   Did you feel you knew enough when you finished?
   Were you taught too much?
   Who taught you?
   Did you participate in the training?

7) How much time do you spend weekly as a CHW?
   Who comes to you for help?
   Why do they come?
   Do you also go out to homes?

   Tell me how you visit homes.
   Are there some people who do not want your help?
   Who are they?

8) Have you noticed any improvements in health as a result of your efforts?
How do you measure them?
Do you keep a record of these changes?
Does someone else?

9) How long will you continue as a CHW?
Why will you stop?

10) What are the biggest problems you have as a CHW?

11) How would you change the CHW program to make it better?

12) Do you think the CHW program takes care of most of your village's health needs?
Which ones are not helped?

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