HEALTH SECTOR ASSESSMENT

FOR KENYA

September, 1979

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A report entitled "A Working Paper on Health Services Development in Kenya: Issues, Analyses and Recommendations", was published by the Family Health Care Institute in May of 1978, based on the contribution of Drs. Stanley Scheyer, James Jeffers, John Rafferty and Messrs. John Alden, Jeremiah Norris and Alan Fairbank, who collectively spent 14 weeks in Kenya early in 1978. This was followed up by additional papers by Drs. Rafferty and Jeffers.

An outline for the Health Sector Assessment was drafted by Mr. John Alden and Dr. James Jeffers in May of 1979 after they had assumed positions of Chief, Health, Nutrition and Population, USAID/Kenya and HRA/DHEW health economist, respectively. Subsequently arrangements were made for Dr. John Rafferty to return to Kenya under contract HRA 232-OPEL-0023(9) with Expand Associates during the period August-October, to draft the entire document, assisted by Dr. Jeffers,

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HRA/DHEW health economist and Mr. Louis Gardella, Acting Chief, Health, Nutrition and Population, USAID/Kenya. Mr. Gardella and Dr. Jeffers oversaw the printing of the document in its final form in late October, 1979.

The USAID Mission, Kenya, wishes to express its appreciation for the efforts of the various individuals and agencies that contributed to this study.

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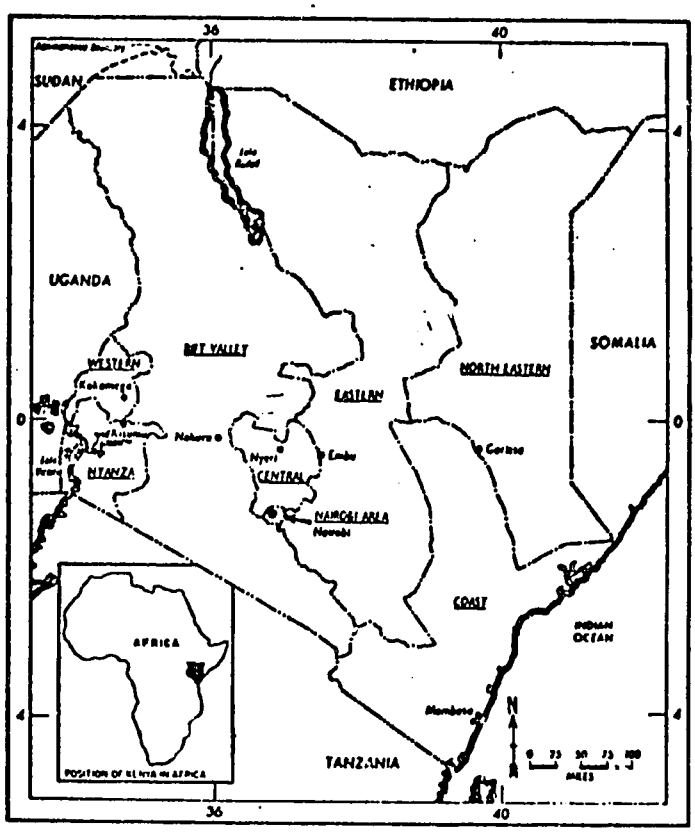
MAP OF KENYA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CHAPTER I

INTRODUCTION

Over the past seven years, USAID activities in support of health care have required the preparation of a formal, technical analysis of the health care sector of each host country. However, the exact nature, purpose and scope of such Health Sector Assessments (HSA's) have varied over time, particularly with growing experience that revealed the necessity of tailoring the individual HSA to the needs and circumstances of the particular setting.

The present HSA reflects these changes, in that its nature and scope are based on the unique circumstances of the Kenyan health care system. In fact, even within Kenya itself, the definition and scope that would be appropriate for an HSA has changed considerably with the events and experience that have transpired over only the past few years. As a result, in order to place this HSA in focus, it is necessary to describe the origins and evolution of the USAID/Kenya health sector program of which it is a part, and that is the purpose of this Chapter.

The following section briefly indicates the general guidelines for HSA preparation and their gradually increasing flexibility. Then the second section describes the evolution of the current USAID/Kenya program in health, and its present status and perspectives. Within that context, the specific nature and objectives of this particular HSA are then indicated.

A. GENERAL HSA OBJECTIVES

Formal Health Sector Assessments were used first in 1972 in Columbia and then in 1973 and 1974 in Bolivia and the Dominican Republic.[1] The HSA was viewed as primarily a host country activity, and as a major undertaking involving planning as well as research and analysis. The general objectives of the HSA were (1) to improve the planning capability of the host country, (2) to identify the major health problems and health goals of the host country, and to identify strategies for achieving those goals, and (3) to provide a basis for identifying efficient investment patterns, on the part of both the host country and USAID.[2] These basic objectives still pertain, but many original views regarding the nature and scope of the HSA have changed over time. In fact, the first HSA's were begun without formal definitional guidelines, so that soon there emerged differences between Washington and Mission staff as to just what the appropriate nature and scope of this exercise should be: multiple objectives of the HSA were sometimes found to be in conflict; host country commitments to the HSA exercise varied; and, the problems of data collection, which differed from one host country to another, produced variations in what could be feasibly accomplished.

By late 1976, formal guidelines for HSA's had been established, but these indicated explicitly that there was not a "standard format or model to which all health sector assessments should conform."[3] When the entire process was evaluated under contract by Westinghouse,[4] a key conclusion was the need for flexibility, with a range of

alternative approaches to be tailored to the particular situation of the host country involved. Four specific "alternative HSA Models" are suggested, and the first two are pertinent to the Kenya HSA. The first model is suggested in situations where the very extensive HSA undertakings (such as those requiring raw data collection) are not favored by background factors, and where the Government has limited interest in program planning, or where the country has already been studied adequately. Thus the HSA would be prepared by USAID staff and/or consultants, and place minimal burdens on the Mission and the host country government, and would address the HSA objectives as possible projects. The second model is similar to the first, except that a limited number of objectives or tasks would be added, and would be selected on the basis of negotiations with host country officials.[5]

The present HSA is most consistent with the first of these alternative models, but it incorporates some elements of the second model as well. It is essentially a USAID program plan, prepared by USAID rather than the host country, and is based largely on previous study and experience in the host country rather than requiring very extensive new research. However, while a USAID program is outlined in terms of a package of possible projects, these also include varying degrees of certainty about their feasibility, and one project has already been developed on the basis of extensive negotiations with the host country carried out over the past year. Thus, some elements of the second alternative model are included.

These characteristics of the Kenya HSA, and its general focus

and scope were designed in agreements by USAID/Kenya and Washington staff, in response to the unique series of events and conditions which preceeded its preparation. These evolving circumstances are now discussed in detail in the following section.

B. BACKGROUND EVENTS IN KENYA

Origins of the Health Program. -- USAID became involved in the general Kenyan health sector as an indirect result if initial activities in Maternal and Child Health and Family Planning. In 1972 the Government of Kenya, in collaboration with the World Bank, embarked on a major rural health care initiative.[6] A large part of that planned program was a National Maternal and Child Health/Family Planning component. When other assistance was sought for the MCH/FP component, USAID responded, and became one of five donors supporting the activity, which was initiated in 1974.

In 1976, USAID/Kenya sought an evaluation of the project.[7] The consultant team employed noted that the success of the MCH/FP activities were being limited by several constraints -- notably a shortage of manpower, inadequate numbers of services delivery sites, and general resource and organizational inadequacies. As a result, the consultants recommended that USAID consider providing broader support for rural health services in Kenya.

The effect of that recommendation was a series of consultations between the Ministry of Health and the Kenya Mission, which led to general agreement that USAID would in fact provide broader support for

rural health. An initial short-term technical consulting team was proposed as a first fact-finding step, to be followed by provision of two long-term consultants who would assist in defining specific projects for subsequent funding. The first team, which consisted of M. Alfred Haynes and Reginald F. Gipson, produced an overview report[8] with specific recommendations. The report played a major role in determining the initial shape of the planned USAID health sector program in Kenya.

The Haynes-Gipson Report. -- The most salient characteristic of this report was its focus on medical resource constraints. Noting that the World Bank rural health program was far behind schedule, Haynes and Gipson suggested that the highest priorities be given to manpower development and to capital investment in rural health care facilities. However, concern was explicitly expressed about the question of whether or not recurrent expenses could be met after capital investments had been made. The authors stated that they remained in doubt about the question, despite assurances that the recurrent expenses would indeed be met, but they were not able to ascertain the adequacy of financial resources at that time. As will be seen later in this report, their doubts on this matter were well justified.

In addition, the Haynes-Gipson report called attention to the importance of sound management and planning, and recognized the apparent weaknesses of the Ministry of Health in these respects. In fact, the Ministry's management and planning capability cannot

be divorced from the problems of projecting and meeting budgetary needs, and these gaps were soon to be demonstrated in the evidence of a growing recurrent cost problem, as Haynes and Gipson had suspected might occur.

While two important potential problems were suspected, the consultant's report did not suggest specific assistance to deal with these issues (which shortly afterwards became increasingly visible). The suggested program emphasized the training of manpower and expansion of facilities (and some lesser priority for a preventive health information system and programs for the prevention and control of communicable disease). The specific recommendations of these consultants, along with the associated events and previous documentation, led to the development of a USAID/Kenya program focused on rural health.

The Initial Rural Health Strategy. -- The Direct descendant of the Haynes-Gipson report was a USAID/Kenya Project Identification Document intitled "Rural Health Delivery."[9] The PID, project 615-0177, was submitted and approved in May of 1977. As had been recommended by previous consultants, it called for the provision of two long-term technical advisors to work with the Ministry of Health. These consultants were to be a health economist planner and a public health physician generalist; they were to assist the MOH in preparing the Health Chapter of Kenya's 1979-1983 Development Plan, which was to be in preparation during late 1977 and early 1978, and were also to specify and develop individual health projects in the areas suggested by Haynes and Gipson (health personnel and manpower development, development of rural health

care delivery facilities, preventive health information systems, and prevention/control of communicable disease). The health planning assistance and the package of discrete projects in the four general areas were viewed as an appropriate rural health strategy for USAID/ Kenya.

Delays in Implementation. -- The first requirement of this rural health strategy was the recruiting of the long-term health planning consultants. For this purpose, a Participating Agency Service Agreement (PASA) was established between USAID and the Health Resources Administration, Department of Health, Education and Welfare (HRA/DHEW) in September, 1977. However, HRA/DHEW experienced difficulty in carrying out this recruiting activity.

In the meantime, MOH staff in Nairobi were obliged to begin preparation of the formal health plan. In order to provide technial assistance for the activity, in the absence of the desired long-term planning consultants, a TDY consulting team was organized and was sent to Kenya in January, 1978. The team, under the leadership of Dr. Stanley Scheyer (Family Health Care Institute), consisted of Dr. James Jeffers (University of Iowa), Dr. John Rafferty (DHEW) and Mr. John Alden (USAID/Washington). Dr. Jeffers and Mr. Alden remained for one week, while Drs. Scheyer and Rafferty were then joined by Mr. Jeremiah Norris (FHCI), so that there was a team presence for approximately 6 weeks. Dr. Jeffers returned for 2 additional weeks in March and 6 weeks in May and June. Dr. Jeffers remained, and in June assumed the position of the long-term economist planner under a USAID

PASA with HRA/DHEW. The position of long-term physician planner was planned under the PASA but has never been filled. Various short-term consultants have been made available under the PASA to assist Dr. Jeffers in carrying out the development of the project.

Evaluation of USAID Rural Health Strategy. -- As was indicated above, the strategy of the original PID was based largely on the Haynes-Gipson report. In that report, certain reservations were expressed, particularly with regard to MOH absorbtive capacity and recurrent funding ability, and adequate management and planning capability. These reservations were incorporated in the PID as two of several major assumptions upon which the success of the PID strategy was predicated.

With the passage of time it became evident to USAID/Kenya that these two assumptions were not tenable. First, as observed by Dr. Jeffers, [10] there was evidence that the MOH had been unable to spend more than some 75 percent of its rural health funds for 1974-1979. Second, the MOH had been requested by the Ministry of Finance to reduce its planned number of projects in rural health so as to conform to realities. Third, MOH executives, in a series of meetings with Dr. Jeffers, were in accord that one of the major problem areas for development of rural health programs was the ministry's lack of capacity and capability for planning such programs. They therefore recommended to the Minister of Health the development of a Planning and Implementation Division in the MOH.

The foregoing events reflected the unfortunate fact that the major

assumptions underlying the original PID strategy could no longer be considered tenable. These were the assumptions previously employed by Haynes and Gipson, that (1) the MOH would be able to meet the recurring expenses that would be generated by the proposed USAID investments and that (2) the MOH would have adequate capability for carrying out the management and planning activity that would be required if the proposed investments were to be effective. Haynes and Gipson had expressed concern about the validity of these assumptions, but had not been able to evaluate them; the subsequent events just described, however, did provide the evidence that Haynes and Gipson had lacked. As a result, when it did become evident that these basic premises of the PID were not valid, it was apparent that the original PID strategy should be changed. Thus, primary emphasis was then shifted away from the original focus on manpower and rural facilities, and the first priority became the development of a planning project. In addition, other component projects of the program were shifted away from contributing to the development of the physical capacity of the rural health system, in response to the indicated limitations of the absorbtive capacity of the MOH in this area.

This series of events and shifting circumstances obviously affected what would be the appropriate nature and scope of a Health Sector Assessment to be prepared at this particular stage of health program development in Kenya.

C. NATURE AND OBJECTIVES OF THE KENYA HSA

The basic, general objectives of HSA's were indicated earlier in

this Chapter, as was the wide flexibility in the current guidelines. The Westinghouse report discussed the appropriate scope of HSA's in different settings, and related this scope to several factors. These include the degree to which the host country has already developed a health plan and is committed to the planning process, the degree of host country interest in a HSA as an independent activity, and the availability of host country resources for such an undertaking.

Kenya has engaged in formal health planning since its independence in 1963, and while its planning capability has been severely limited, its commitment is clear and has recently been expanded. In addition, the MOH is already involved, under the IBRD program, in preparing a rural health Master Plan extending to the year 2000, and has indicated its strong lack of interest in the additional burdens of any further assessments. Further, the TDY team in 1978 engaged in substantial activity of an assessment nature, and thereby produced considerable information to provide a basis for preparation of a formal HSA.[11]

As indicated, in fact, a general health sector strategy has been articulated in previous consultants' reports, and has been revised and focused as a result of subsequent events and USAID experience.

In view of all these factors, an appropriate HSA strategy has gradually emerged. It is obvious that a host country activity, as originally envisioned in early HSA guidelines, would presently be inappropriate in Kenya. In view of the level of past activity by the USAID/Kenya Mission and its consultants, the design of a massive HSA document based on extensive data collection is also both unnecessary

and inappropriate. Consequently, a consultant-prepared internal USAID document is the HSA mode that has been agreed upon. Thus, the present HSA draws heavily on previous experience and documentation, and on existing MOH plan materials and data. And, since a general health sector strategy has already evolved within USAID/Kenya, the HSA is one that analyzes the basis for the present strategy, and clarifies and expands upon the experience already gained.

The result of these considerations has been the design of an internal HSA document which, compared to some of the earlier HSA efforts, is relatively modest in scope. Nevertheless, it is a "reasonably comprehensive, case-specific, health sector analysis."[12] It presents a relatively brief overview of the major relevent characteristics of Kenya, its people and their health (Chapter II), and examines the historical roots of the present health care system and its problems (Chapter III). Major emphasis is placed upon analysis of past and current health sector strategies of the Government of Kenya, as expressed in its formal objectives and goals as well as in its actual performance and budgetary experience (Chapter IV). On the basis of this documentation, the nature, scope and potential implications of Kenya's major health sector problems and constraints are then identified and discussed (Chapter V). These analyses lead to an articulation of an appropriate USAID/Kenya strategy in health, in terms of immediate activities and subsequent project phases (Chapter VI). Finally, to provide additional perspective on the appropriateness of this strategy, the activities of other donors involved in Kenya's health sector are also reviewed in Annex A of this paper.

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NOTES, CHAPTER I

1. Westinghouse Corporation, Reports for the Evaluation of Health Sector Assessments, June 30, 1978.

2. S. Loomis, "Guidelines for Health Sector Assessment," January 24, 1975 (mimeographed).

3. S. Loomis, "Procedures for Health Sector Assessments," AIDTO Circular A-611, November 11, 1976.

4. Westinghouse, op.cit.

5. Ibid., page 38.

6. The specific plan was set down in the WHO document "Proposal for the Improvement of Rural Health Services and Development of Rural Health Training Centers in Kenya," 1972.

7. See the discussion in USAID/Kenya, Health Planning Project Paper, June, 1979.

8. M.A. Haynes and R.F. Gipson, "Consultants' Technical Report: Kenya Rural Health Program," Nairobi, 1977.

9. This discussion of the PID and of subsequent events draws heavily on material presented in the USAID/Kenya Health Planning Project Paper.

10. Discussed in J. Jeffers, "Comment on Revised Rural Health Strategy and on Drafting an Health Sector Assessment," internal memorandum, USAID/Kenya, February 9, 1979.

11. See Family Health Care Institute, A Working Paper on Health Services Development in Kenya, May 1978.

12. As suggested by Bureau for Africa, USAID, Health In Africa, January, 1975, page 2.

CHAPTER II

THE COUNTRY, ITS PEOPLE AND THEIR HEALTH

This Chapter presents a general profile of the modern Republic of Kenya, with emphasis on those features which are particularly relevant to the assessment of the health sector. The first section offers a very broad sketch of the country's general characteristics. Then the population is discussed, from the principle viewpoint of its current rapid growth, which poses a most critical threat to human welfare in general and to the development of the health services sector. The nature, status and current outlook of Kenya's economy are then reviewed, from a macroeconomic perspective. This is followed by sharper examination of the nature and extent of poverty. Finally, the last section deals with the nature and pattern of illness and disease.

A. GENERAL COUNTRY OVERVIEW

The Republic of Kenya was a British colony and a protectorate until attaining its independence in 1963. The Republic covers an area of almost a quarter of a million square miles located on the equator and bordered by the Indian Ocean.[1] The narrow coastal plain is hot and humid. From this coastal region the land rises in a series of plateaus, to a temperate highland area (at about 6000 feet in the Nairobi area). The highlands include Mt. Kenya, Africa's second tallest peak (at 17,058 feet). This highland area is divided roughly north and south by the Great Rift Valley. The northern and northeastern parts of the country are primarily arid plains, sparsely populated

by semi-nomadic tribes. Only about one-seventh of Kenya's land area receives reliable annual rainfall of 30 inches or more per year; these areas of reliable rainfall are generally the coastal plains and the highlands of the southwestern portion of the country. Total rainfall is highly erratic.

The population of Kenya was estimated at approximately 13.3 million in mid-1975, with a 3.5 percent annual rate of growth; more recent estimates project a total 1980 population of nearly 16 million and a growth rate or 3.9 percent.[2] About 98 percent of the population is African, and consists of over thirty different ethnic groups. The largest of these are the Kikuyu, Luo and Luhya (at approximately 20, 14 and 13 percent of the population, respectively). About 90 percent of Kenya's population is rural, with two major urban centers -- Nairobi in the highlands and Mombasa on the coast. The official languages are English and Swahili, but there are over thirty distinct languages and dialects. About 54 percent of the population is Christian, while indigenous religions account for some 40 percent and about 6 percent are Muslim.

Kenya has a complete mixed government-private educational system, primary level through university. Education is free to the fourth year only, and is non-compulsory. Literacy rate estimates vary widely, from 15 to 50 percent, but in general literacy is increasing rapidly.

Kenya achieved relatively high rates of economic growth in the early years of independence, but the rate has slowed since 1973. The economy is primarily cash crops and subsistence agriculture, with

heavy dependence on exports of coffee, tea, sisal, and phyrethrum, to provide foreign exchange earnings that permit imports of intermediate and final industrial products.

In addition to the general characteristics of Kenya and its population discussed here, those particular factors which are most pertinent to assessment of the health sector are now dealt with in more detail below.[3]

B. POPULATION

Growth Rate. -- Under-attention to the rapid growth of population in Kenya is probably the most critical flaw in its development effort. As previously indicated, the most recent estimates project a total population of just under 16 million for 1980, and an annual rate of growth of nearly 4 percent.

In general, the demographic trends occurring in Kenya are not unlike those in many other countries at roughly the same development stage. Fertility levels tend to be high, and mortality levels are often on the decline. Kenya, however is unique in one respect -- the combination of a very high fertility level with rapidly declining mortality. This combination now prevailing in Kenya is "virtually unprecedented in demographic history".[4]

General Implications. -- The general socio-economic implications of such rapid population growth are apparent. Any given gross domestic product (GDP) is obviously reduced on a per capita basis, the higher the population. But per capita income is even more significantly affected by the rate at which population grows and its distribution by

age groups. With Kenya's high rate and roughly 48 percent of the population under 15 years of age, particularly large proportions of the GDP must be diverted to consumption rather than investment, with obvious heavy burdens placed on the relatively small economically productive segment of the population. (Further, to the extent that some degree of per capita economic growth is achieved in spite of these constraints, this success has offsetting effects by its tendency to further increase fertility and to reduce mortality.)

Such population behavior also poses serious potential unemployment levels, since the economy must expand at an increasing rate to provide employment opportunities for the increasing number of youths appearing in the labor market. Extended periods of education tend to slow this flow into labor markets while simultaneously improving labor productivity, but higher educational levels will only occur to the degree in which the educational system is able to cope with rapid growth in the school age population. These strains on the educational system themselves present substantial budgetary and manpower problems.

All of these considerations are amplified when the total population growth in Kenya is viewed in terms of its rural-urban distribution. Although Kenya's total population is about 90 percent rural, in recent years the populations of the major urban centers -- particularly Nairobi and Mombasa -- have been expanding at approximately twice the national average rate. The effects of such rapid urbanization become increasingly apparent in terms of unemployment, crime rates, and general socio-economic unrest.

Population Outlook. -- The existence of a population growth problem is openly expressed in current official documents of the Government (such as the Economic Survey, 1979), as well as by various individual government officials. However, "official" recognition of the problem is not new, and dates back at least to the first Development Plan, for 1964-1970, but little has been accomplished in dealing with the problem. The Family Planning Program begun in 1974 (under the support of several donors, including USAID/Kenya) had the goal of reducing the annual population growth rate from the then estimated 3.3 percent to a 3 percent level. It is quite obvious that the program has not produced visible effects. This is partly attributable to the fact that emphasis to date has been on infrastructure -- development of facilities and personnel, and the original demographic goals were overly optimistic.

On the other hand, experience to date indicates that the dropout rate of initial acceptors of family planning methods is about 80 percent. The reasons for this high rate of rejection, and in fact for the high birth rate itself, are simply not documented. However, they appear to be lodged in very deep-seated socio-cultural traditions that seem to permeate virtually all levels of Kenya society.[5] A strong commitment to Family Planning, beyond mere rhetoric, does not yet appear to exist very widely at high government levels, and there is even some open opposition although some observers see recent evidence of some change. Under the present conditions, however, the currently projected doubling

of Kenya's population over the next 17 or 18 years may well indeed occur.

C. THE ECONOMY

Some 85 percent of Kenya's population depend on agriculture for a livelihood, but development in this sector has not kept pace with industrial growth.[6] In general, Kenya's development was especially successful during its first 10 years, with substantial growth in both the agricultural and industrial sectors. Real GDP increased by 8.4 percent per year between 1964 and 1973, a 4.7 percent increase on a per capita basis; agriculture grew at a 4.6 percent rate, while manufacturing expanded at the impressive rate of 8.1 percent.

This performance in the initial period of independence could not be sustained. By 1973 Kenya had passed through the "easier" initial phase of development; in addition, it suffered the impact of a number of external developments which have impeded its economic progress. Oil prices were increased in 1973, and, as is expected for primary-product-exporting countries, Kenya was buffeted by the 1974/75 world wide recession as well as by international inflation. Other factors were the collapse of the East African Community and another large increase in oil prices in 1979.

As a result of these factors, Kenya's GDP, which had risen by 8.4 percent annually in the first decade, rose at only 5.8 percent per year between 1973 and 1978. Further, the rapidly rising population cut this to about 2.1 percent on a per capita basis. Agricultural production did no more than keep pace with the growth of the agricultural population

during those years. Nevertheless, the manufacturing sector alone did maintain the strong rate of expansion of 11.3 percent annually during the period.

The Government has been successful in preventing wage rates in the urban/formal sector from outpacing rural/agricultural income levels, via direct wage and price policies: the average rate of inflation has been exceeding wage increases in the formal sector, while agricultural product prices have been increased, with the net result favoring the rural poor.

Although the long-run prospects for Kenya's structural economic health are generally considered to be sound, the immediate short-term outlook is unfavorable. A world-wide recession appears likely, and the 1976/77 coffee boom is disappearing, while oil prices continue upward and general inflation continues. Consequently, the GDP of Kenya is not expected to grow at all in 1979 and 1980. Kenya's heavy dependence on unstable agricultural earnings are always a threat, as is typical of LDCs. And, at present the overall rate of unemployment is estimated at about 25 percent. In addition, recent events in East Africa and the Horn have led to dramatic increases in military expenditures. While military spending constituted only 5.5 percent of Kenya's FY 1976 budget, it is expected to account for 20 percent by 1980, creating a severe drain on budgetary resources in general and on foreign exchange reserves in particular. These conditions will obviously drain resources away from Kenya's plans for health sector development, apart from their broader impact on social welfare in general.

D. PATTERNS OF POVERTY

Approximately 80 percent of Kenya's rural population live in a condition of "absolute rural poverty", according to IBRD standards.[7] In urban areas, some 25 percent are below the urban poverty level. The identification of the poor by the Government of Kenya has been based on two independent systems of classification -- by geographic region and by socio-economic characteristics.

Geographical Categories. -- The two geographic areas are Western Kenya and the arid and semi-arid lands (ASAL). In Western Kenya, the land area is virtually all of high or medium potential. However, this area has been persistently deprived of government services and infrastructure development, despite the fact that portions of Western Kenya have the country's highest population densities. The reasons for this deprivation are a complex set of political, historical and social factors. The ASAL areas have similarly received disproportionately low government investment, but the economic potential of these areas is low, population is sparse, and they present formidable technical and social development problems.

Socio-Economic Categories. -- The socio-economic classification consists of four groups. The "poor smallholder farmer" represents almost 40 percent of the total population, with an average holding of 2.1 hectares and average household income of about $200 per year (1974/75). These farms are generally not sufficient in food production, producing less than half the household food consumption, with additional support provided by off-farm employment, remittances from relatives, and

and sale of some off-farm surplus. Maize and pulses are the principle crops, and the average household has 7 members, half below the age of 15. Women play a major role in both farm work and household management, largely due to migration of male heads-of-household in search of employment.

The second socio-economic group are the "pastoralists", whose living patterns are regulated by seasonal changes and the availability of grazing land and water. Provision of government services is feasible only to the extent that some degree of settlement is introduced. Generally, government efforts at settlement have not been successful. Drought is the principle source of hardship, forcing the sale of household items, leading to livestock starvation or slaughter for food. Starvation then affects humans as well as livestock, especially the elderly, the very young and pregnant women. Some find government famine relief, others become client herdsmen or migrate to towns or cities where they tend to remain unemployed. There were slightly under one million pastoralists with an average annual household income of $250 in 1974/75.

The "landless squatters" are the third category of poor, constituting some one and one-half million Kenyans. These are either totally landless or have only limited land rights. Being landless they are dependent on employment, but urban employment is difficult to find, rural non-agricultural employment is seasonal and uncertain, and they consequently have extreme difficulty meeting basic needs.

The final group are the urban poor. These were estimated at roughly 142,000 persons in 1974/75, but extremely rapid urban growth

in subsequent years suggests that this number has increased very substantially and will continue to rise, as employment opportunities lag far behind the level of urban migration. Kenya's plans for development and for increased equity in income distribution are focused on the rural poor, and the current USAID/Kenya target groups do not include this urban poor category.

E. PATTERNS OF ILLNESS AND DISEASE

This section provides a general overview of illness and disease patterns in Kenya; such an overview is necessary to the understanding and evaluation of past and present government policy in the health sector, and to the development of an effective health strategy by USAID/Kenya. General disease patterns are first profiled on the basis of major climatic zones by which those patterns tend to be differentiated.[8] Then observations based on recorded morbidity data are briefly indicated.[9] An evaluation of the nature of Kenya's most prevalent disease patterns is then presented, from the perspective of their implications for appropriate strategies aimed at the improvement of the population's health status. For more detailed descriptive information on the major individual disease, the reader is referred to the extensive coverage provided in L.C. Vogel, et al., Health and Disease in Kenya, 1974.

Disease Patterns of the Arid Zones. -- The arid zones are those semi-desert areas discussed previously in which populations are semi-nomadic and dependent on cattle raising or camel herding. In these areas, the sparseness of population and the nomadic life-style are the root of the major health problems, but these characteristics also limit the amount of specific disease information that is available. Nutritional problems are severe and markedly seasonal, often at the level of famine, for which direct government relief is required. Eye diseases are also

common. Among the communicable disease, malaria is infrequent, and there is no schistosomiasis. Kala-azar occurs sporadically. Brucellosis is believed to be prevalent, and tetanus is common. A particular parastic disease problem of this area is hydati disease. Outbreaks of haemorrhagic febrile disease have occurred in recent years. Immunization status among these semi-nomadic groups is poor, as is follow-up where such procedures are appropriate.

Disease Patterns in Marginal Areas. -- In these areas disease patterns tend to be seasonal, in relation to rainfall, which is erratic; prolonged drought is common. Populations tend to be semi-nomadic in the drier areas, but more settled on the higher, less arid ground. Malaria is seasonal, with unstable patterns. Schistosomiasis is focal, with some areas of intense transmission. Kala-azar occurs, frequently in epidemics. Diseases associated with cattle are prevalent, especially brucellosis, anthrax and tetanus. Anemia is a substantial problem, along with general nutritional disorders, and famine relief is required intermittently.

Disease Patterns of the Highlands Areas. -- These are intensely populated agricultual areas. Malaria is rare at these altitudes, but epidemics have nevertheless occurred. Schistosomiasis tends to occur in the lower valley areas. Amoebiasis, with both dysentery and liver abcess, is a particular problem. Outbreaks of common communicable diseases, especially respiratory disease, tend to be epidemic. Plague has occurred in the past.

Disease Patterns of Hot, Humid Areas. -- Populations in this zone are settled and agricultural, tending more toward extended family grouping rather than village formation. Malaria is widespread, with its main impact on infants and young children. Schistosomiasis is endemic. Soil transmitted helminths, especially hookworm and ascaris, are frequent, salmonella and shigella infections occur seasionally, and typhoid became epidemic in 1975. Certain arbovirus infections, especially those involving cattle reservoirs, are endemic. Leptospirosis is common and relapsing fever was endemic in the past. About 25 percent of the population is heterozygous for sickle cell haemoglobin, and some 2 percent have sickle cell disease.

Recorded Morbidity. -- Data on morbidity in Kenya have generally been derived from information on utilization of various health services facilities. As a result, such data must be interpreted with caution: first, record-keeping has not been well developed, particularly at smaller rural delivery points lacking manpower and efficient record storage facilities; second, since it is estimated that only some 20 percent of the population is reached by these medical facilities, the morbidity data are based on a small and perhaps biased sample.

The principle causes of morbidity as seen on a hospital outpatient basis are the same that are the leading causes of recorded deaths: respiratory, infective and parasitic diseases.[9] The major causes in rank order are malaria, gastroenteritis, conjunctivitis and ophthalmis stomatitis, pneumonia, skin infections, scabies, ascariasis, gonorrhea and chronic ulcers.

Infective and parasitic diseases rank first as causes of hospital admission. Next are respiratory diseases, deliveries (normal and otherwise) and accidents.

Implications For Health Services. -- Generally, the data suggest that the disease incidence patterns in Kenya are not unlike those of other countries of tropical Africa. Infectious respiratory, parasitic and vector-borne diseases constitute the bulk of illness. Fecally-transmitted and water-borne intestinal diseases, which make up a major part of the preventable illness, are caused by unsafe drinking water and poor sanitation, while malnutrition and high fertility rates increase common disease incidence for mothers and small children. The critical implication of this is the environmental and preventable character of much of Kenya's morbidity. The principle cause of health problems is more the general environment -- lacking safe water, reasonable nutrition and adequate standards of hygiene and sanitation -- and therefore the solutions to health problems are far more complex than the provision of modern health care services, which alone can have no lasting effect. These facts have implications for health strategy that are certainly obvious, but they nevertheless have been neglected in the past GOK health strategy, especially in the light of comparison of budget allocations between curative medicine and preventive and environmental programs.

NOTES, CHAPTER II

1. This and the general overview materials that follow are drawn primarily from Kaplan, Area Handbook for Kenya, 1976.

2. Economic Survey, 1979.

3. For more detailed information on topics not examined in depth in this report, a number of excellent references are readily available. The Area Handbook for Kenya has already been mentioned. Individual chapters in Vogel, et al., Health and Disease in Kenya, 1974, will be found highly useful as well.

4. R.A. Henin, "Recent Demographic Trends In Kenya and Their Implications For Economic and Social Development," page 32, unpublished manuscript, Population Studies and Research Institute, University of Nairobi 1979; abstracted in the Economic Survey, 1979.

5. The relationships are discussed and analyzed by S.H. Ominde, "Demography and Ethnic Groups", in Vogel, Health and Disease in Kenya.

6. See USAID/Kenya, Country Development Strategy Statement: 1981-1985, and C. Penndorf, Kenya: Twelve Month Economic Oulook: July 1979 - June 1980, draft manuscript, USAID/Kenya, August 1979. The present section draws heavily on material presented in these documents.

7. Classifications and characteristics of the poor in Kenya are discussed in detail in USAID/Kenya, Country Development Strategy Statement: 1981-1985.

8. The discussion of climatic zone disease patterns is drawn from GOK/MOH, "Integrated Rural Health Services Programme Interim Progress Report," June 1978.

9. For more detailed discussion see J. Bonte, "Patterns of Mortality and Morbidity," in L.C. Vogel et.al., Health and Disease in Kenya, 1974, from which the statistical data reported in this section have been drawn.

CHAPTER III

KENYA'S HEALTH CARE SYSTEM IN HISTORICAL PERSPECTIVE

"Conditions of today are largely the result of decisions made yesterday"[1]

Health care in Kenya today is provided by an extensive and multi-faceted system that has its roots in earlier periods. To a surprising extent the structure and character of the modern health sector, and several of its important strengths and weaknesses, are traceable to specific events or recorded decisions in Kenya's past -- in the colonial period as well as in the period of transition to independence.

These roots -- to the extent that they seem to apply to current health care issues -- are identified in the current Chapter. Such historical background helps to provide perspective for a more realistic understanding of current issues and problems, since such difficulties do not arise spontaneously. Rather, they tend to evolve almost imperceptably over the years. So it is, at least, with the health sector in the modern republic of Kenya.

The material is presented chronologically, for the most part, essentially along the lines employed previously by Beck,[2] on whose work the present analysis is very heavily based.

A. THE EARLY COLONIAL PERIOD

The first influence of western style medicine appeared in the area that is now Kenya shortly before the beginning of this century.

The Imperial British East Africa (IBEA) Company arrived in 1888, and Catholic and Protestant missions appeared in the 1890s. Although the mission activities failed to emphasize significant levels of medical care, at least in the earlier period, the IBEA did develop a hospital in Mombasa and maintained physicians in its employ. This medical care, however, was aimed at IBEA personnel, and not at the indigenous African population.

The First Medical Department. -- In 1895, the British Foreign Office assumed responsibility for Kenya, and the British Government thereby took over the IBEA medical staff. Then, when a central colonial administration was formally established in 1901, it was organized into eight civil departments. One of these was a medical department including seven physicians, three nurses and a number of medical assistants. These were under the direction of a Principal Medical Officer ("PMO", the term used in Kenya today for the Medical Officer of each Province).

Early medical activities were centered around medical emergencies. These began with a first outbreak of plague in Nairobi in 1902. There was some sleeping sickness, further outbeaks of plague, and constant problems with malaria. Various efforts at mosquito and rat control and projected sanitary improvements were begun, but these were disrupted by the arrival of the First World War.

However, these beginnings were oriented toward the care of colonists and those in their employ. In the reserves, it was the scattered missionary efforts that provided the only source of western-oriented medicine for the native population. But the missionary role in medicine

in Kenya was to change several times, and is in fact changing again now.

B. THE WAR AND INTERWAR YEARS

Effects of World War I. -- One of the most dramatic early impacts on medical care in East Africa arose indirectly when British troops attacked the German Colony of Tanganyika in 1914. Africans were then recruited in large numbers to serve as carriers for British troops. Part of the recruitment process was a physical examination, a procedure which led to remarkable discoveries: very large proportions of Africans were rejected from service as porters en masse, and about a third of the recruits for estate labor were found to be unfit.

These discoveries of poor health status among the native populations were startling. The war brought the physical stresses and strains of social disruptions, introduction of machine technology and western values, not to mention the high death tolls, all of which had dramatic negative effects on native life in Kenya. On the positive side, however, the revelations experienced by the colonial government gradually led to the introduction of western medicine for the African population at large.

The First African Medical Personnel. -- This provision of medical care began with service for porters and troops. From the point of view of the present report, what was of major significance in the period was the recruitment of young Africans to serve as medical staff. The resulting "East African Native Medicine Corps" was undoubtedly a milestone

in Kenya's medical care history. It not only served effectively in the war, but it provided clear evidence to the British authorities that African youth possessed the potential to be educated for independent medical service and for advanced medical responsibility. Although the historical lines are not direct and continuous, this development offers an early precedent for the paramedical "clinical officers" of today, who independently provide diagnostic and curative services at rural facilities throughout the Republic.

The First Rural Dispensaries. -- A second major advance in Kenya's medical history came about after World War I. The training of young Africans for medical science had begun, and the medical service itself was by then well established. Then, in the 1920's, the medical department began to establish local dispensaries out in the native reserves. Despite budgetary problems during the post-war inflationary period, this development continued, and it did so with emphasis on the training and deployment of native African staff, providing the model and the principles which are still emphasized in Kenya's health policy today.

The Changing Missionary Role.-- One effect of the new emphasis on developing a dispensary system was a decline in the cooperative relationships between the colonial government and church medical facilities. As the official policy evolved during and after the war, the necessity of the mission activities became recognized, but during the 1920s government subsidies were nevertheless reduced. An uneasy truce developed and has prevailed, but it has continued to be uneasy,

even since independence. At present the Kenyan government openly expresses the intention of taking over the missionary hospitals, but the budgetary implications make such action totally impractical for the foreseeable future, and subsidies are being continued.

Failures of Preventive Medicine and Public Health. -- Despite the laudable advances in the dispensary system and training of native staff, the success of the system were limited at best to progress in the face of epidemic threats. Sickness and death was largely traced to problems of nutrition, poor hygiene, unhealthy traditions and customs, and a virtual absence of sanitary procedures. Massive efforts at education (with use of world "propaganda") were launched, and for a time became a routine component of the medical department's activities. But these efforts appear to have had little success, both as a result of low per capita incomes and inadequate budgets of the colonial authority. As is evident in subsequent Chapters of this report, this is an area in which the potential return to health investments seems to be most dramatic, but after a half century of development the same complaints are validly voiced today.

In addition, with the new stresses imposed by the start of the Second World War, another persistent problem established its early roots — the growing dichotomy between basic medicine at rural sites and the growth of a professional, modern-technology bias centered in Nairobi.

The Beginnings of Urban Medicine. -- During the late 1930s, when African staff were being trained for paramedical service, the most noteworthy gap was a complete absence of African physicians. With an intensification of medical problems during World War II, three areas were given major emphasis. First, the development of rural health centers throughout Kenya was recommended. Second, a general extension of paramedical training was proposed. Third, to close the gap involving the absence of native physicians, the PMO recommended the construction of new and larger medical training facilities, to be located in Nairobi. Along with these new initiatives, the medical budgets also grew.

This reasonable strategy, however, marks the beginning of a major health sector problem of modern Kenya -- the drain of health budgets into hi-technology, urban-based curative medicine, in the face of continued formal commitments to basic rural health. The Mau Mau emergency of 1952 also contributed to some degree, by reducing the budgets and activity levels in the native reserves. In any event, by the late 1970s the major teaching facility developed in Nairobi -- Kenyatta National Hospital -- was to be seen absorbing a fourth of the entire nation's recurrent health budget, while a substantial proportion of government-trained physicians began draining into urban-based, private curative medicine.

C. SUMMARY

The arrival of western medicine on the shores of Kenya has been traced to the last decade or so just prior to the turn of

the present century. Perhaps it is appropriate to note, however, that the events discussed here refer to western medicine per se, not to medical care in the broader sense. Traditional medical practices, often deeply grounded in magic and mythology, have existed for unknown periods. What is more, traditional folk medicine is still widely practised today, although not much is known about the extent, nor about the degree to which it is effective (although some practices do appear to be sound). Historically, however, the lines between traditional medicine and western (that is, scientifically-based) medicine in Kenya have been kept distinct (at least until very recently, as discussed below in Chapter IV). Under the colonial government the principle interaction involved efforts to curtail selected practices of a fairly certain detrimental nature.

In tracing out the historical development of health care in Kenya, several points have been identified which were to evolve into common themes which persist at the present time. Medical care itself has been accepted as a major responsibility of government since around 1900. But at the same time, even then the activities of private missionary groups were an essential source of medical care in the rural areas, as is still the case today.

One of the widely hailed accomplishments of Kenya's health system has been its ability to establish a base of non-physician paramedics -- the "clinical officers" - who supervise the provision of medical care at rural outposts throughout the Republic, virtually without supervision. As noted, this achievement is traceable to the

training and use of African medical staff by the colonial government during the First World War.

Similarly, the colonial regime increasingly accepted a responsibility for the health of the population at large, first by the establishment of dispensaries in the 1920s, and later after World War Two by emphasis on the development of rural health centers and on the training of African personnel to operate them. These facilities were subsequently to be identified as the "linchpin" of Kenya's health care system after independence.

At the same time, however, the role of western medicine's fully trained physician never diminished, and the same package of recommendations which helped the spread of rural access to western health care also contained the seed of what was to grow as a major threat to that rural focus. The development of physician training capacity within Kenya, recommended by the colonial government well before independence, has also produced a high-technology professional bias which is urban oriented, and which is increasingly draining funds from the basic rural objectives.

At the same time, the elementary environmental and hygienic factors which were identified as the principle causes of disease in the 1920s and 1930s were never improved, and these continue to wreak devestating effects on health status to the present day.

And finally, the always insecure position of the rurally-oriented church facilities continues, although then as well as now these services have been recognized as indispensable to rural populations in many parts

of the country.

With these general historical themes established as background, the modern health sector in Kenya may be examined in detail.

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NOTES, CHAPTER III

1. L.C. Vogel, Health and Disease in Kenya, page 91.

2. A. Beck, "History of Medicine and Health Services in Kenya (1900-1950)," in Vogel, et al., Health and Disease in Kenya. For additional background see also Z. Onyango, "Health Facilities and Services in Kenya," also in Vogel, et al., and The World Bank, Into the Second Decade.

CHAPTER IV

THE HEALTH SECTOR AND GOVERNMENT HEALTH STRATEGY

The historical background presented in the preceding Chapter provides a backdrop for an examination of the current health care system in Kenya. This Chapter therefore first describes the general organizational structure of the principal health care provider in Kenya -- the Ministry of Health. Other providers of health care are then discussed -- local governments, private voluntary organizations, church groups, the private for-profit sector and, finally, providers of traditional folk medicine.

Government health strategy is then examined in the context of Kenya's five-year development plans. These are first discussed in general terms; then the recent and current health strategies that are reflected in the plans are explored in terms of particular categories of resources -- the hospital system, rural facilities, manpower, and so on. Finally, a summary evaluation of Kenyan health plans and strategies is then presented.

A. THE MINISTRY OF HEALTH

As is the case in many countries, the central government is the largest single provider of health services. This section outlines the major formal functions of the Ministry of Health, describes the relationships among the headquarters (central) level and the regional subdivisions of the Ministry, and then examines the administrative structure at the recently reorganized headquarters level. This

particular administrative structure may have significant implications for the directions of future health services development in Kenya.

Overall Ministry Functions. -- Kenya's Ministry of Health is charged with general overall responsibility for the health of the nation. Some local government units have limited authority delegated to them by the central government to provide specific services, but the MOH is generally answerable to the nation in all health matters.[1] Its formal responsibility includes health policy and development plans, organization and administration of central health services, training of health and allied personnel, health regulations, promotion of medical science, maintenance of health standards, coordination with other government departments and other organizations on health matters, and international health regulations.

MOH Organizational Structure. -- Kenya is politically divided into seven administrative provinces (plus Nairobi, which is treated as an urban extra-provincial district).[2] The provinces consist of districts, which are subdivided respectively into sub-districts, locations, and sub-locations. The organization of the MOH follows these political subdivisions only in part; it is organized on four levels -- central (headquarters), provincial, district and "rural".

Central and Regional Responsibilities. -- Policies and decisions which involve broad political, administrative and professional issues are made at the central level of the MOH, under the politically appointed Minister of Health. The Minister, who is presently assisted by two

Assistant Ministers, is a member of both the President's Cabinet and the Parliament. Below the Minister, administrative aspects of the Ministry are under the direction of a Permanent Secretary (PS), while the "professional" aspects of the MOH are the responsibility of a Director of Medical Services (DMS). The various departments and sub-departments are set out in the organization chart -- Figure IV-1.

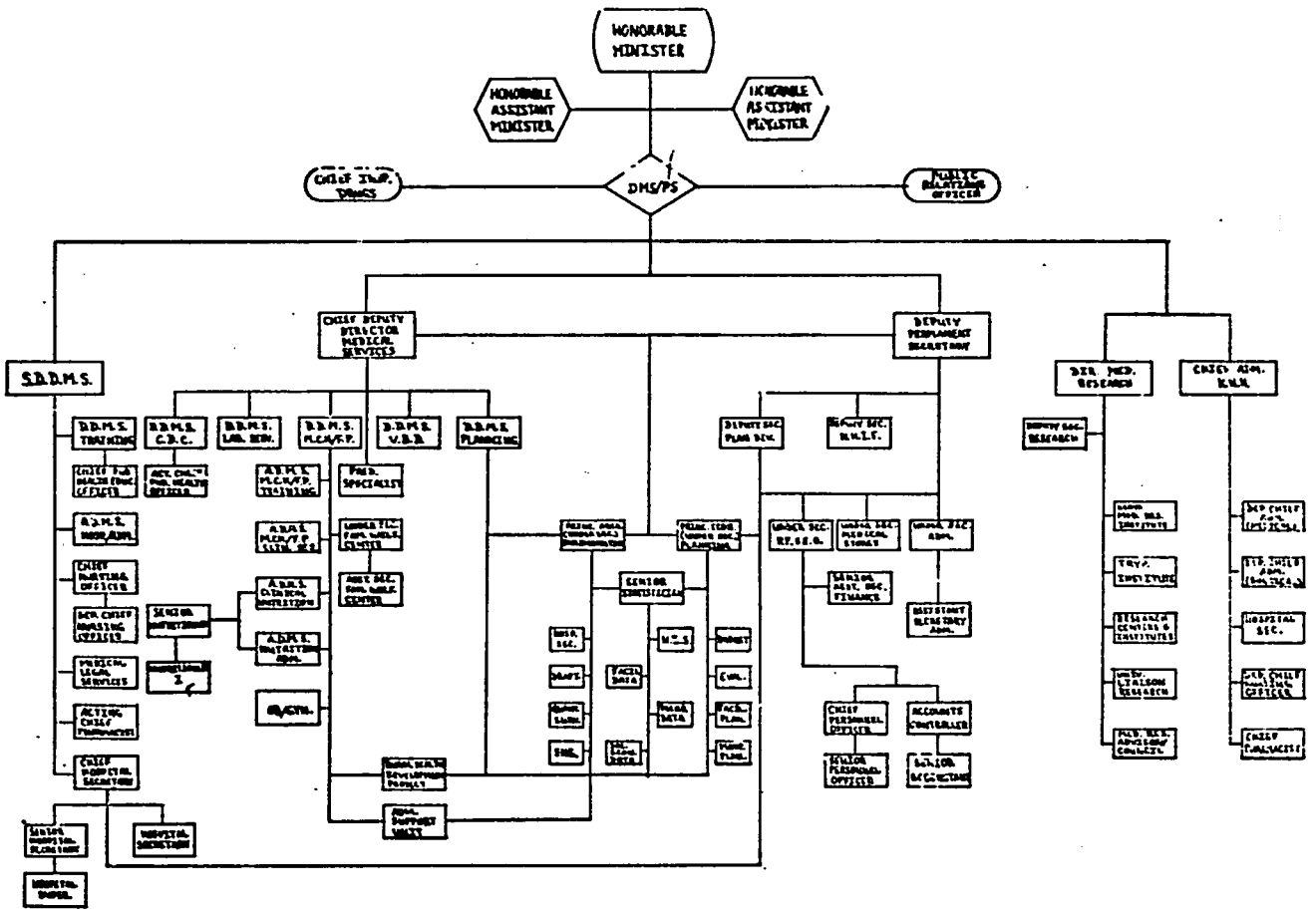
At the level of each Province is a Provincial Medical Officer (PMO). This senior medical officer is responsible for coordination of government and non-government health services and for the overall administration of government health services within that province. For each district, a District Medical Officer of Health (DMOH) answers to his respective PMO, has charge of basic health programs within the district, and is assisted by a "district health team"-- a staff of administrative, technical and professional personnel.

Health care at the "rural" level is provided by a system of health centres, dispensaries and mobile units, differentiated primarily on the basis of staffing patterns and the availability of facilities. Personnel involved in rural care answer to the DMOH.

Pertinent Features of the Headquarters Level. -- The Headquarters level of the MOH has recently been re-organized (Figure IV-1), and some additional changes are under consideration at the time of this writing. Two particular points are of special relevance here. First, the overall MOH structure is laid out in two major groupings that are profoundly distinct. The Deputy Permanent Secretary heads what may be designated

FIGURE IV-1

MOH ORGANIZATIONAL STRUCTURE



an "administrative track", under which are found such functions as finance, supply, personnel management, accounting, etc. Under the Chief Deputy Director of Medical Services, however, is the second major grouping, which is distinctly "professional". The administrative units in this track are under the direction of physicians. Thus, "administrative" matters are sharply distinguished from "professional" matters; this creates an organizational structure in which any prediliction or bias attributable to traditional western-oriented medical training may be readily transmitted to MOH policy. Some important implications of this are discussed below.

Second, the MOH appears at this time to be more deeply committed to the development of a technical planning capability than has heretofore been the case. This has been reflected in a number of formal meetings during the past year in which weaknesses of the current 1979-1983 Plan have been freely and openly discussed (partly as a result of the Family Health Care team activities and, most directly, as a response to efforts carried out by Dr. James Jeffers, HRA/DHEW long-term health economist consultant to MOH, Kenya). The implication of these developments is a potential partial reorganization to formally introduce a meaningful planning/implementation capacity. This too is further discussed below (Chapter VI).

B. OTHER HEALTH CARE PROVIDERS

Local Government. -- Prior to 1970, the various County Councils had substantial responsibility for the operation of health centers and

dispensaries, and for the provision of other public health services. (These activities accounted for approximately 11 percent of total recurrent health expenditures in Kenya in 1966/67.[3]) These rural services were taken over by the Central Government in 1970. However, six municipalities still provide primary-level care for urban residents.[4] The most important of these is the City Council of Nairobi, which theoretically operates some six health centers, 10 dispensaries, 34 maternal and child welfare clinics and a maternity hospital.

Private Voluntary Organizations. -- A number of non-profit groups, either community self-help or philanthropic in nature, provide a variety of health services in Kenya. Some of these charge fees to cover costs; some receive government grants, others rely on charitable donations. They include the African Medical and Research Foundation (which provides the "Flying Doctors" service and conducts primary health care activities widely in Kenya), the Kenya Society for the Blind, the Kenya Society for Deaf Children, the Family Planning Association of Kenya, and the National Christian Council of Kenya.

Church and Missionary Groups. -- Church provision of hospital services has been and continues to be of critical importance in Kenya. In 1978 there were 42 church-operated hospitals, and these provided roughly 30 percent of the total hospital beds in the nation. The church hospitals operate almost entirely in rural areas, on the basis of fees, voluntary donations and (increasingly) grants from the Government of Kenya.

The Private For-Profit Sector. -- The Government of Kenya respects the right of its citizens to seek medical care outside of the government system. Aside from the church-operated rural hospitals, this private health sector consists of pharmacy services, dentists and physicians in private practice, and -- of particular significance --, private for-profit hospitals. Both the private physicians and the proprietory hospitals tend to be located in the major urban areas, and are financed primarily by private payments, payments from employee allowances by parastatal organizations (e.g. the Kenya Tea Development Authority[5]) or -- of special significance to be discussed below -- through payments from the National Hospital Insurance Fund (NHIF). The NHIF is a government-operated insurance system in which membership is voluntary, but is compulsory for individuals with an income of K£600 per year or more. Contributors pay KSh. 20/- per month (unchanged for 12 years) and receive a per diem allowance for in-patient hospital care received by the enrollee or his/her family. Since NHIF funds received by government hospitals must be turned over to the Treasury, there is a tendency for government facilities to overlook collections; as a result the bulk of NHIF benefits paid are received by private-sector hospitals.

Contributions to the Fund exceeded benefits paid out each year, from its inception in 1966, until 1976/77 -- at which time the Fund ran the first of what appears to be a chronic deficit.[6] In the absence of modification of its financial arrangements (which is now under active consideration[7]) growing deficits can be anticipated. What is most

significant in this trend, however, quite apart from Fund solvency, is the evidence the trend provides for growth in the private proprietory hospital sector, about which scarcely any up-to-date information is available.[8] The number of non-government, non-missionary hospital beds were estimated at 1500 in 1963, 2000 in 1970, and 2600 in 1973, the last year for which reasonably reliable data is reported.[9]

Traditional Medicine. -- It is conventionally accepted that no more than 20 percent or so of Kenya's population has access to medical care, but this observation refers (implicitly) to modern medicine. Traditional ("folk") medicine is widely practised, however, and is often effective.[10] However, little is known yet about either the extent to which it is practised or the degree to which it is beneficial or otherwise. Matters are further complicated today by a blurring of the sharp distinction between modern and folk medicine, because of the increasing use of modern medicines (legally or otherwise) by "informal" practitioners. Further, the acquisition of medicines by these practitioners also tends to have indirect deleterious effects upon the level of government drug supplies, and inappropriate use of some drugs has apparently contributed to the appearance of resistant forms of disease.[11]

A limited amount of research is being conducted on traditional healers, but with emphasis more on the scientifically interesting question of which herbs or practices are effective rather than on the policy issue of how the government might go about integrating

traditional and modern medical care effectively. This is extremely important in view of funding and other resource constraints that confront the system now and in the future.

C. GOVERNMENT HEALTH STRATEGY IN PAST DEVELOPMENT PLANS

> A fundamental characteristic of African Socialism is its strong commitment to central economic planning as the organization and technique for marshalling the nation's resources in efficient pursuit of Government's economic and social objectives. Planning is intended to coordinate activities in the private and public sectors, to ensure that actions in each sector complement those in the other and to influence development in both sectors for the common good.[12]

Having inherited a medical care system from the colonial administration, Kenya has, from the time of its independence in 1963, given explicit recognition and increasing attention to the health needs of its population. The basic precepts of its position on medical care were reflected in Sessional Paper No. 10, in which the government committed itself generally to a more equitable distribution of income, access to education and to health services for all the people, and a long-term objective to provide an adequate level of free basic social services to all citizens. This overall philosophy, and the government's general objectives in health care, provide a continuous theme which run through its successive Development Plans. The levels of projected and recurrent expenditures, and the actual expenditure levels which ultimately occurred, are summarized by Table IV-6 at the end of this Chapter.

The First Development Plan: 1964-1970. -- Kenya's first comprehensive effort at central planning was presented almost immediately after independence, in a relatively modest 137 page document. It was explicit, however, that the plan was not to be considered as a "final product", because of the brief tenure of the new government and because of its necessary preoccupation with the transition to independence. Thus, while planning for the 1964-1967 period was assisted in some degree by guidelines provided by the World Bank,[13] the plan was otherwise presented as only a brief outline.

The health care sector in this plan was treated as one section in a chapter on "Basic Services". Three important factors affecting health policy were noted: the high rate of population growth (3% per year, on the basis of the 1962 census), the great regional disparity in the availability of health facilities, and the limited availability of physicians as well as other medical personnel. (These three concerns were to be carried through the two subsequent plans, and into the current plan document for 1979-1983.)

While holding out the long-term objective of ultimately providing free care to all citizens, the plan recognized the inadequacy of current capital outlays even for keeping pace with the growing population, and stated the general goal of simply increasing health expenditures "as rapidly as possible" in the hope of being at least apace with population growth by 1967/68.

Brief statements of relatively modest (but specific) goals were

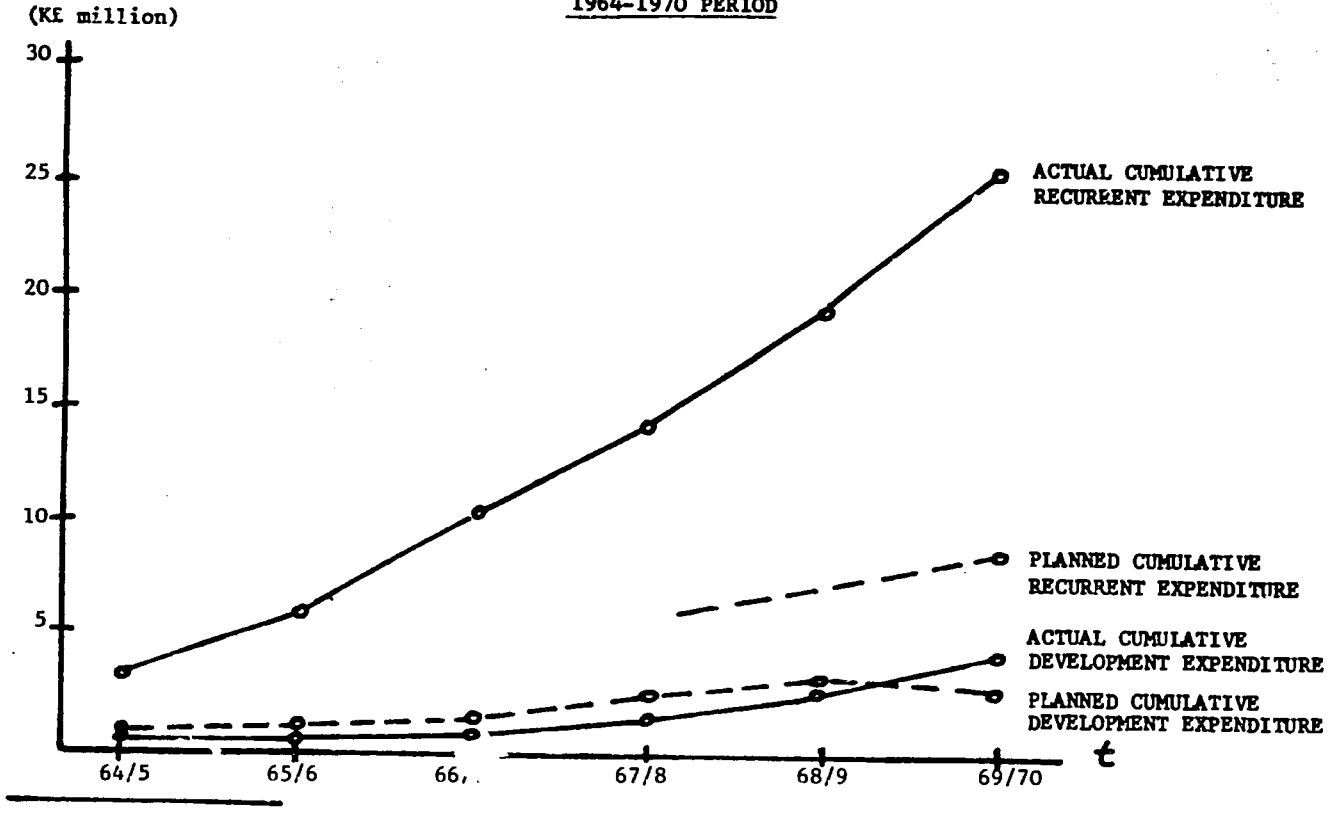
provided with respect to Hospitals, Health Centers, Medical Education, Training of Medical Support Staff, Research, and Nutrition Education. The rural health center, described as the "linchpin of Kenya's health policy and the fulcrum for coordination of curative with preventive and promotive medicine," is given major emphasis. On the other hand, self-help (Harambee) projects, family planning, maternal/child health, the private sector and other health programs were not specifically mentioned.

The total health expenditures projects in the plan are illustrated, cumulatively, by Figure IV-2. The actual total development expenditures which occurred proved to be close to those that were projected. The projected and actual amounts were, respectively, £300,000 versus £220,000 for 1964/65 (about 3 percent of the total government budget) and £815,000 versus £1,800,000 for 1969/70 (about 1.4 percent of the total government budget).[14] However, for this entire budget period total (cumulative) recurrent health expenditures were projected at £873,000, whereas in fact the actual total recurrent cost for the period turned out to be approximately £2,540,000. As is discussed later in the present report, this pattern of unanticipated recurrent cost increases, which was established in the first plan period, was to become one of the major development problems of the health sector and a dramatic symptom of inadequately developed planning capabilities.

The Second Development Plan: 1970-1974. -- At the start of this plan period the central government (i.e. the MOH) took responsibility

FIGURE IV-2

PLANNED VS. ACTUAL HEALTH EXPENDITURES, CUMULATIVE, 1964-1970 PERIOD



Sources: Planned Expenditures from Development Plan, 1964-1970; Actual Expenditures from Economic Survey and Statistical Abstract volumes for pertinent years

5.7

for health services previously provided by the County Councils. In 1966/67, these services initially accounted for roughly 11 percent of all recurrent health expenditures in Kenya. However, the costs of these services equalled about 29 percent of the recurring expenditures of the Ministry of Health in that year.[15]

It is notable that this second plan drew immediate attention to the importance of the private health sector, noting that total private expenditures in health constituted 40 percent of Kenya's total recurring health expenditure in 1966/67. (Note that unfortunately no such comparisons were provided in the subsequent health plan.) The need for "closer supervision and integration of all health services by the MOH" was explicitly recognized in this period, but with little if any subsequent follow-up or results. Consequently, although potential problems were sensed at an early date, implications of the growth of the private sector, like the growth in recurrent costs noted above, were not pursued and consequently became one of the most critical issues facing the MOH in the subsequent decade.

The plan lists a number of now-familiar factors to be considered in settling priorities and goals: population growth (especially urban), distributional disparties, manpower constraints, some administrative inefficiency, financial limitations, trade-offs between curative versus preventive care, coordination of public and private service, and limitations in planning capability. Apart from this litany, however, specific priority-ordering and goal-setting are

either absent, vague, or unsupported, even though there is explicit discussion of each of the major program areas.

Particular attention is given to the question of recurrent costs in this plan, but the treatment given to this critical issue is highly misleading. The plan document notes that MOH recurring costs had been rising at 5 to 7 percent per year, but that "a higher rate of increase is necessary if health services are to expand at a more acceptable pace..."[16] Annual recurrent expenditures are then stated to be increased from the approximately K£ 7 million level of 1969/70 to an annual level of K£ 9 million by 1973/74. This reflects a rather fundamental misconception or lack of understanding of the relationship between development outlays and subsequent generation of recurrent cost requirements in later periods. That is, the recurring costs are treated implicitly as if they were development costs ("... a higher rate of increase is necessary if ...") rather than as a function of development expenditures: the tail seems to be seen as wagging the dog.

Since projected annual health development expenditures were to be roughly K£ 3 million for each plan year to 1973/74 (producing a total of approximately K£ 15 million), and since the planned increase in recurrent spending was independently set to increase by K£ 5 million over the same period, these data were interpreted as "... yielding an incremental capital/recurrent ratio of 3.1". However, in fact, if such an annual increment is accepted as valid, the planned total development expenditure of K£ 15 million should have yielded a cumulative total

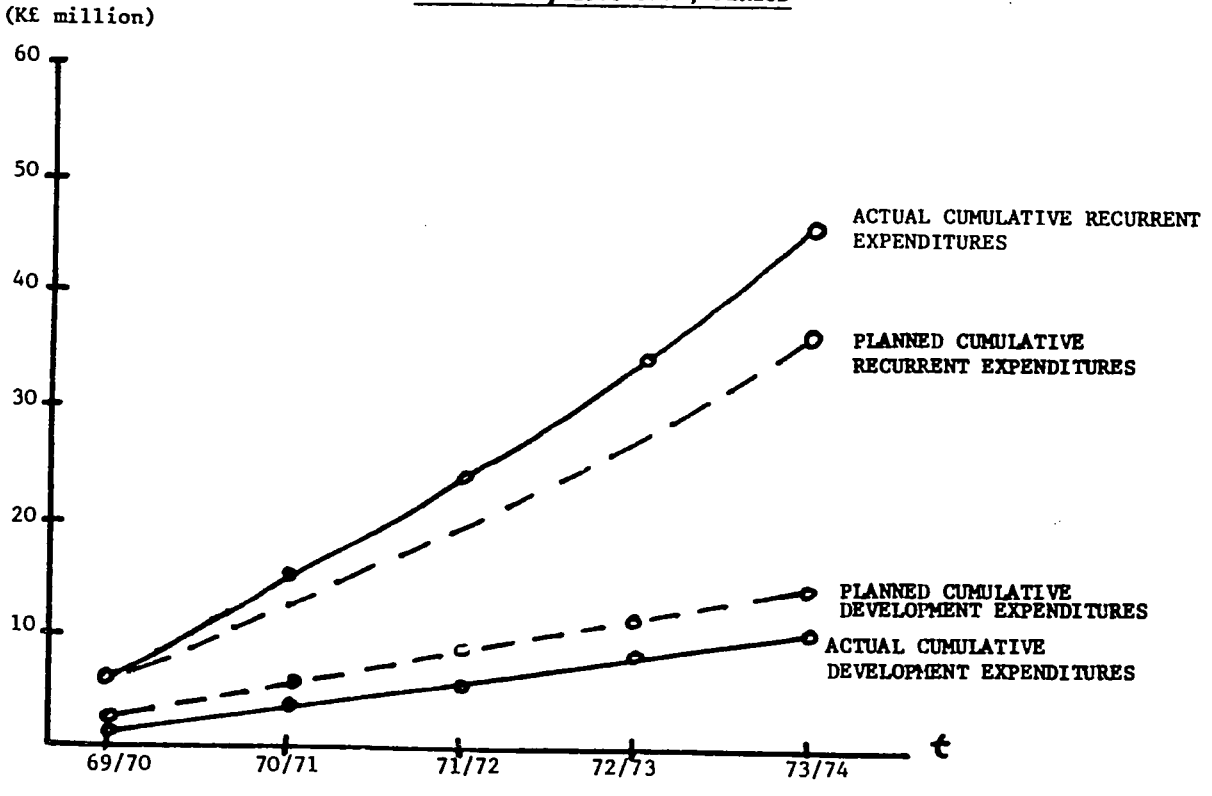
increase in recurrent cost of K£15 million, rather than K£5 million because the K£1 million of recurrent cost generated by the planned K£3 million investment in the first plan year occurs again in the second year, plus the increment generated by that year's investment, and so on. These data are illustrated by Figure IV-3. That is, the cumulative effect of the recurring costs generated by any annual development expenditure seems not to be understood.

Moreover, in the actual (ex post) budget data the total recurrent expenditure over the plan period came to roughly K£46 million rather than the projected K£37 million, even though the total development expenditure was only K£11.5 million rather than the projected K£15 million. Again, this basic problem of unrecognized cumulative recurring costs which is evident early in Kenya's planning experience has persisted, and has become one of the most critical problems facing the health sector.

The Third Development Plan: 1974-1978. -- The most notable single single feature of this third plan in comparison with its predecessors is a significant increase in detail. This applies to budgetary data ("Part II", a separate volume) and data on facilities and personnel. Again constraints are briefly cited under a few broad headings, and two main elements of strategy are indicated -- the expansion of paramedic training, and development of a master plan for rural health care. However, although some specific quantitative goals are indicated. particularly for manpower training and hospital projects, the documentation provides little or no indication of the origin or rationale for

FIGURE IV-3

PLANNED VS. ACTUAL HEALTH EXPENDITURES,
CUMULATIVE, 1970-1974, PERIOD



Source: Same as for FIGURE IV-2

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the quantitative goals or budget allocations.

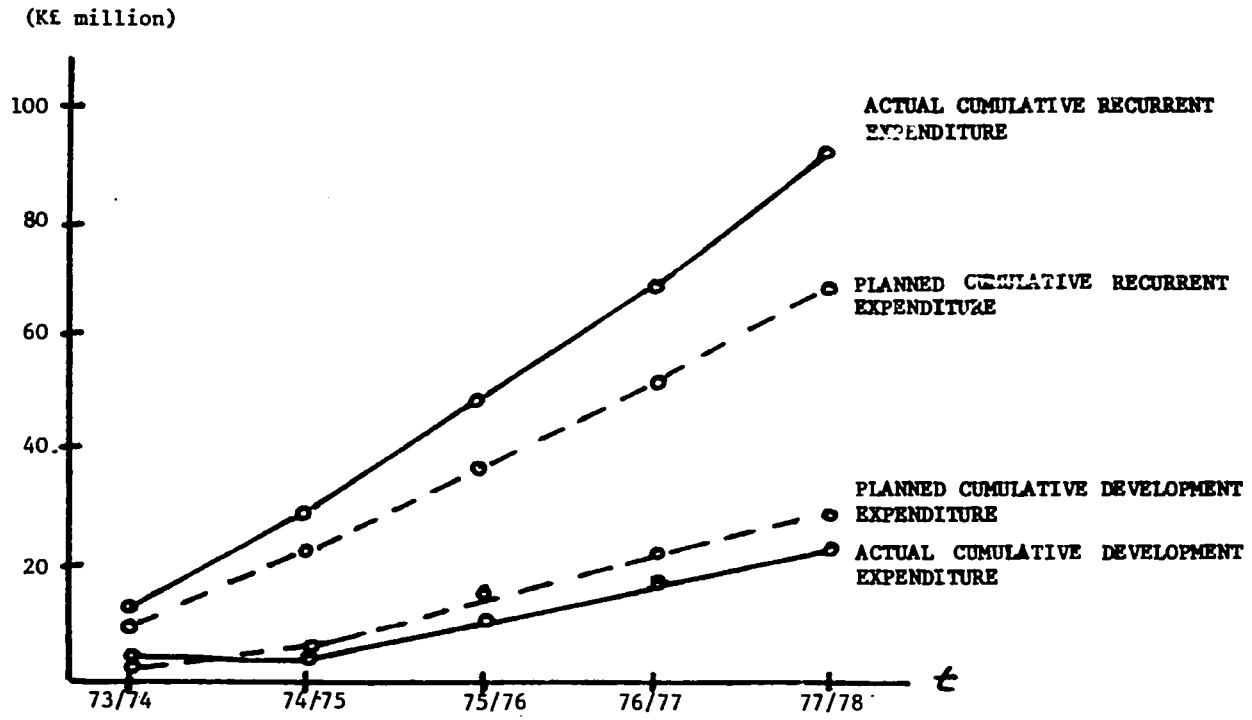
However, it should be noted that this plan period did provide at least some evidence of growing real commitment to the principles of equity established earlier by the Government of Kenya, especially with regard to the availability of rural versus urban facilities. The plan called for physical improvements for more than one fourth of the existing rural facilities, and for improvements in staffing of rural facilities that were to be oriented toward preventive and promotive services, such as health and nutrition education, family planning services and vaccinations. This general commitment was reflected in expected budgetary changes: the Plan states that the recurring costs associated with rural health were expected to rise from the then present level of 10 percent of the recurring health budget to 20 percent by the end of the plan period. In fact, during the 1974-78 period, the construction of rural health facilities appeared to exceed planned targets by 66 percent.

On the other hand, this gain seems to have been offset at least in part by a relative shortfall in the level of services actually provided: recurrent costs for the "rural health care" budget component are reported to have declined from 13.7 percent of the MOH recurrent budget to 10 percent between 1974 and 1978.[17]

During the overall plan period, in any event, actual annual development expenditures were slightly below but roughly in pace with levels projected in the plan. Recurring costs, however, as indicated by Figure IV-4, again ran far ahead of the projections.

FIGURE IV-4

PLANNED VS. ACTUAL HEALTH EXPENDITURES, CUMULATIVE, 1974-1978 PERIOD



Sources: Same as other two figures

D. HEALTH STRATEGY IN THE CURRENT DEVELOPMENT PLAN

This section first presents a general overview of the Development Plan for 1979 through 1983, contrasting it with the previous plans in terms of broad approach, focal areas, and general budgetary expectations. Then each main health program area or subsector is examined individually in more detail, so as to provide the basis for a summary evaluation of health strategy which is presented in the final section.

Overview of the 1979-1983 Plan. -- The overall development objectives for the next five years are broadly stated in terms of the alleviation of poverty in Kenya, focusing on the "Basic Human Needs" theme, and that of reducing inequities among groups. The plan is generally set in a "rural development" context. It is observed that the "easier" phase of development has now been passed, and that Kenya now faces more difficult "second generation" options in the effort to alleviate poverty and develop rural areas.

This basic overall orientation of the plan is reflected in the health sector plan to some degree, but much of this appears to be cosmetic. Most notably, in presenting the forward budgets, nearly all health programs are placed under the single heading of "Rural Health Facilities and Supportive Services". Nevertheless, the hospital sector still receives the lion's share.

When the FHI team was in day-to-day contact with MOH personnel during preparation of the current plan, the basis of priority ordering

was clearly (but informally) indicated. In brief, MOH personnel had a felt need to give first priority to those projects which were already under way and/or to which the government was already formally committed (and these commitments were mainly to the hospital sector). Priorities then declined generally to previously planned projects not yet begun, and then to those more recently planned. This general perspective is thus reflected in the relatively large budgetary commitments to the high-technology, urban-oriented Kenyatta National Hospital, and to the hospital sector in general, despite continued statements of commitment to improving the more basic services in rural areas. A second consideration in the continued large share of funds to hospital development was the critical shortage of health manpower and the role of hospitals as training institutions aimed at relieving that continuing manpower constraint.[18]

These underlying points are generally reflected in the projected expenditures (Table IV-1). Large shares of the development funds are still parcelled out to hospitals, but there is a gradual projected shift over the period from Kenyatta National Hospital and Provincial Hospitals towards rural health units, and a relatively constant allocation to Rural District Hospitals. Thus, the projections appear to be treading a narrow line between previous commitments -- which favored urban high-technology curative care -- and current emphasis on basic needs -- which favors basic services more equitably distributed to rural populations.

In the recurrent budget, however, the data continue to ignore realities. In the final plan document the total forward recurrent budget reflects annual increases of approximately 10 percent per year over the plan period. The document offers no discussion of functional relationships between recurring costs and the various types of development investments by which they are generated, nor is any basis indicated for the simple projections that are offered.

The Hospital Sector. -- The health system that has evolved over the past plan periods in Kenya is a pyramid-shaped system. Rural dispensaries, health sub-centers and health centers form a base; district hospitals and then larger provincial hospitals are at the intermediate level, with the major teaching/referral Kenyatta National Hospital in Nairobi at the peak. In principle, at least, the system offers a logical framework of referral from the bottom up.

The expansion of the hospital system between 1973 and 1978 is indicated by Table IV-2, in terms of numbers of facilities and beds. While the final 1979-1983 Plan does not specify complete details on the number of beds to be added, an expansion of bed capacity in the order of 25% had been anticipated, and this appears to have crept up towards 30 or 40 percent.[19]

The general implications of these data have been summed up by Dr. Jeffers: during the previous plan period (1974-1978), "the bulk of recurrent and development funds were allocated to the curative sector, with roughly 58 percent of development costs and nearly 68 percent of recurrent costs spent on hospitals, respectively."[20] For

the 1979-1983 plan, as Dr. Jeffers has indicated, the development expenditures for hospitals decline, but by only 2 percent (from 58 to 56%). With regard to projected recurrent costs for hospitals, the decline is 2.4 percent; this still represents some 65 percent of the recurrent expenditures contemplated for the plan period, and experience suggests that (1) actual overall recurrent expenditures will far exceed projections and (2) recurrent costs generated by hospital investments will be high relative to other types of health projects.[21] Include then the fact that Kenyatta National Hospital is a very high-technology facility, and the expectation of severe recurrent cost pressures from the hospital sector appears inevitable, despite the repeatedly stated commitments to basic rural needs.

It is observed in the plan that most district hospitals are in fact located in rural areas; they thereby constitute part of the rural health system, and should be distinguished from urban hospitals in terms of their contribution to the principle of equity in the distribution of health resources. However, such hospitals have very limited catchment areas (perhaps 10 miles), so that only a very small portion of the rural poor enjoy these benefits.[22] (In fact, the observation by Jeffers that four or five rural health centres, each with a catchment area of 5 to 8 miles, could be built and operated for the same outlay required for a district hospital was recently echoed by Mr. James Osogo, the Minister of Health, in a speech before Parliament in which he indicated that the 1979 plan would be amended to replace

one planned district hospital with 5 health centres.[23])

In any event, the bulk of the funds for hospital development will go toward the completion of the Kenyatta National Hospital, a new Nairobi provincial hospital and a new hospital in Mombasa, with obvious adverse effects upon the equity of access, even for hospitals per se, since there are still substantial disparities in hospital beds per capita across the provinces (Table IV-3).

Rural Health. -- Rural facilities consist of the district hospitals (in some instances) and the remaining base of the health network -- the health centres, sub-centres and dispensaries, and some mobile units. During the last plan period (1973-1978) the number of health centres was increased from 131 to 191 (partly via up-grading of some sub-centres, which declined in number), and dispensaries were increased from 416 to 536. In view of the rhetoric focused on rural care, and the degree of actual hospital expansion during the period (about 3000 beds), these seem like very modest accomplishments in terms of professed rural strategy.

In addition, there also exists considerable variation in the per capita availability of health centres across districts. The district average ratio for 1978 was one centre per 72,000 population, and this varied between 1:166,000 (Turkana) and 1:10,000 (Lamu).[24]

As was indicated in Chapter II, the bulk of the illness and disease seen at rural health facilities is largely preventable, or could be cured by earlier intervention, and the bulk of these illnesses also tend to be

centered on women and children. Since so much of this illness is preventable, the potential benefits form investments in the health of rural populations seem particularly great. It is for this reason that the large current budgetary allocations to urban hospital care are widely seen as inefficient allocations of scarce financial resources in the relative sense -- that is, in comparison with the human benefits to be achieved by rural health centres. The primary criticism is less that of inappropriate or incorrect rural programs so much as the limitations on the extent of these high potential programs that result from the drain of both development and recurrent budgets to the urban/curative services.

In fact, the continued existence of political or professional biases towards high technology curative care creates an additional threat to donors. As discussed in detail by Dr. Jeffers,[25] donor contributions which are earmarked for rural services, as is currently the common practice, may only provide the means for internal transfer to the curative sector of government funds that might have otherwise gone to rural health. Donors must therefore choose carefully among potential projects, so as to avoid pushing on a string -- that is, to avoid funding rural services which the recipient government would have funded in the absence of support, so that the donor contributions serve only to permit political and professional pressures to cause internal transfers that expand curative services, which in turn swell future recurrent budgets.

It must be noted that the projected development expenditures in the 1979-1983 plan for Rural Health Care have been increased dramatically from the previous plan period -- from 3.9 percent to 21.2 percent of the health development budget. And the total plan period budget has itself risen substantially, even with allowance for inflation. Nevertheless, some doubts about the realities of this commitment do arise when the other health budget lines are examined.

The potential future drain later in the plan period caused by recurrent hospital costs, which have been prone to exceed projections, has already been duly noted. Also, the projected rise in recurrent cost for Rural Health Care does not seem consistent with the increased development expenditure: the recurrent cost was 9.0 percent of health recurrent expenditures in the last plan, and is projected at only 10.9 percent in the current plan. It thus seems possible that projected development expenditures will suffer in order to accommodate recurring expenses. Also, as Dr. Jeffers has observed[26], projected supply costs have traditionally been underestimated in the past, but have been proportionately even further reduced in the current plan versus the preceding document. Finally, while preventive and promotive services would have the most dramatic impacts on actual rural health status and, as a result, on the demands of rural curative care, the development expenditures for these programs have declined in relative importance, and projected recurrent expenditures for these programs are increased only insignificantly.

The net result of this examination of this current plan budget in comparison with the previous plan therefore gives rise to two sources of concern regarding the Rural Health Care component. First, there arises some doubt as to the likelihood that the projected 17.3 percent increase in the relative share of Rural Health Care in the development budget can actually be achieved. Second, even if this projected development expenditure does occur, the levels in other budget lines (most notably in prevention programs versus hospital care) indicate that "very little impact is likely to be made toward bringing about greater balance of accessibility to health services on the part of rural as compared to urban residents."[27]

Manpower and Training. -- The principle single constraint facing health services development in Kenya is the availability of health manpower and the capacity for increasing that supply. "The numbers of health personnel available and their spatial distribution largely determine accessibility to services."[28] This theme has been carried consistently through all of Kenya's Development Plans.

In the 1979-1983 plan, projected increases in the number of each category of health personnel in government service are presented, along with the corresponding levels which existed in 1974 and 1978. Data for selected cadres of personnel are given by Table IV-4. The 1983 projections reflect continued shortfalls from estimated requirements at the end of the plan period, and these shortfalls are indicated for selected groups in Table IV-5. It should be noted, however, that these estimates were made on the basis of a creditable but very tentative methodology:

an assumed configuration of facilities and standard staffing patterns were used to estimate 1983 requirements for selected personnel categories, and actual supplies were projected on the basis of existing stocks, trainee levels, likely attrition rates, and losses from government service. Since the assumed configuration of facilities was not justified, the results must be viewed as tentative. However, they reflect a mixed degree of consistency with broadly stated health sector goals, in terms of the relative reduction of shortfalls of urban/hospital-care oriented physicians and rural-care oriented clinical officers, public health officers and technicians, and both registered and enrolled nurses.

The plan discusses the role of hospitals as training centers critical to the future supply of health manpower, a point which is always cited in defence of curative (hospital) budgets. Similarly, the training of rural health workers via a network of Rural Health Demonstration Centres is briefly discussed.[29]

An important feature of planned health training that is not apparent in the plan document is identified and discussed by Dr. Jeffers:[30] this is the difference between basic training to increase numbers of personnel versus specialty training to improve qualifications and/or promotional potential of personnel (and thereby to assist in retaining these personnel in government service). In data produced in detailed drafts of the plan, some 50 percent of the training expenditures are for specialty training (mainly physicians, nurses and public health officers). It is not clear, however, to what degree this very heavy commitment to

specialty training is consistent with formal MOH objectives of expanding rural services. Some training denoted as "specialty" may involve new skills required for effective performance, but some doubt about the degree of consistency does arise, because of the total absence of any modern medical care for the majority of the rural population, and the rather basic nature of the bulk of their medical care needs.

Aside from the direct budgetary and total supply implications of the basic/specialty training mix, specialized training may also contribute to another problem -- the drain of government health personnel to the private sector. In Kenya, however, this drain to the private sector is simultaneously a drain to urban settings, and as such it reflects the nearly universal problem of maintaining desired levels of health services in rural, often remote locations. Little has yet been accomplished towards solving this widespread problem. This issue of manpower drain is further discussed in connection with the problem of growth in Kenya's private health sector, which is dealt with later in this report.

MCH/FP. -- The general proportions of Kenya's population growth were indicated in Chapter II, and in a preceding section it was indicated that a major portion of the illness and disease in Kenya are in the maternal and child health category. These facts, and their essentially rural implications, make the importance of MCH/FP programs obvious.

The National Family Planning Program is integrated into the health infrastructure. The first clinic opened in 1968, and the number had grown to 300 by 1973.[31] In 1978 the number of delivery points (primarily

at rural health facilities) was 345, with the 1979-1983 plan calling for an additional 315 to bring the 1985 total to 630. As a sub-program, capital expenditures for family planning do not appear separately in the plan budgetary data.

The 1979-1983 plan addressed the current MCH/FP situation realistically. It observes that the principle activities in the previous plan period involved the development of infrastructure -- particularly personnel. This phase has been successful, but -- as the plan document indicates -- the number of active users of family planning techniques is very low, and the drop-out rate of initial acceptors is approximately 80 percent.

In general there does not appear to be any significant motivation or commitment to family planning in Kenya at this time. Despite the alarming rate of population growth and its myriad implications, the whole issue is mired in political, economic and socio-cultural complexities. USAID activity in this area is now approaching a standstill, and although other donors are continuing to be involved, the situation is not promising. It remains to be seen whether the results of the nationwide census in progress at the time of this writing (August 1979) will be sufficiently alarming to produce action.

Preventive and Promotive Health Activities. -- Previous sections of this report have indicated the dramatic potential of preventive and promotive health activities. This potential exists because so large a portion of Kenya's illness and disease is preventable by essentially simple improvements of a public health/environmental nature. These include diet, water quality, sanitation, hygiene, immunization and

programs to control vector borne diseases. The 1979-1983 Plan gives ample space to discussion of these problems. However, the government's strategy for these programs themselves is not presented in any detail in terms of needs, objectives or goals; the budgetary allocations are relatively small in view of the potential benefits of these activities, as well as their relevance to the rural and equity emphases of the current and recent plans. For the current plan period, Preventive Medicine and Promotive Health (which encompasses Communicable and Vector-borne Disease Control, Environmental Health, MCH/FP, the National Health Laboratories, Health Education and Nutrition) is allocated K£ 7 million of the health development budget (about 10 percent) and K£ 11.6 million of the recurrent budget (about 16 percent).[32]

Medical Supplies and Drugs. -- The first-hand experience of the Family Health Institute team early in 1978 revealed extensive problems in the distribution and availability of medical supplies and drugs.[33] Rural facilities were alternatively overcrowded or empty according to whether drugs had been received on that particular day. (In some localities, one function adopted by chiefs was that of informing the populace as to whether or not the trip to the local health facility would be worthwhile.) Supply shortages and errors were also a major problem mentioned by personnel at District and Provincial Hospitals, and occasional serious drug-supply problems were even indicated in interviews at Kenyatta National Hospital in Nairobi.

A major part of the general supply problem appears to be the

structure of the system, which has been served by a single Central Medical Stores facility in Nairobi (built in 1915). This problem was recognized in the 1974-1978 Plan, during which period decentralization was to begin via construction of regional sub-depots (Mombasa, Kisumu and Nakuru) and improvement of the Nairobi facility. However, only K£ 283,000 was allocated for Medical Stores development for the entire budget period.

The same intention -- regionalization plus improvement of the central facility -- is voiced again in the current plan, with a development allocation of only K£ 794,000 for 1978-1983 period.

Equipment Maintenance. -- Another constant difficulty observed throughout the field trips and interviews of the FHI team was a seemingly universal absence of maintenance of vehicles, equipment and facilities. Walls were permitted to peel throughout a major provincial hospital because of prohibitive red tape and delays which seemed to characterize transactions between the MOH and Ministry of Works. During the outbreak of typhoid in Tanzania in 1978, public health officers involved in border area surveillance were observed relying on buses and foot transportation to cover remote areas, while vehicles sat idly by awaiting repairs. Again, even at Kenyatta National Hospital there were strong complaints reflecting ineffective logistics for attaining routine maintenance. The current 1979-1983 Plan states that "a number of maintenance units will be set up at both central and regional levels", but the budget allocations appear very small. The total for the entire 5-year period,

covering projects at nine locations, is K£ 1,050,000.

Health Insurance. -- The nature of the National Hospital Insurance Fund was presented earlier in the discussion of the hospital sector. As was indicated, the NHIF has been more or less self-supporting throughout its existence since 1963. Since it has not presented a drain on the government budget, and since it is consistent in principle with some degree of freedom of choice in the medical care sector, it has not been viewed as a problem. Some attention has been directed at the NHIF, however, because of the obvious obsolescence of its K.Sh. 20/- monthly premium, established by law over a decade ago. Further attention has arisen as a result of its first deficit, when benefits paid exceeded receipts in 1976-1977. The plan documents, however, provide only brief reference to the Fund and merely enumerate the modest recurrent costs associated with its operation.

From the broader viewpoint of the general structure and trends in Kenya's health care system, there are reasons for viewing the NHIF with considerably more concern. However, since the Fund has played no significant role in conscious MOH planning or strategy, discussion of these potential problems will be left to the next Chapter.

E. SUMMARY EVALUATION OF HEALTH STRATEGY

It is apparent from the earlier plan documents as well as from the current plan that the Government of Kenya is strongly committed to a rural emphasis in its general economic development. In the health sector

specifically, the Ministry of Health expressed a formal commitment at least. However, it is also quite apparent that budgetary realities have not kept pace with broadly stated goals and formally established intentions, however well-meaning the latter may be. The reasons for this dichotomy are many and varied, with some of them rooted in the earlier colonial period. But the reality is that high-technology western medicine and an expanding private, urban-oriented health sector continue to drain the bulk of the health budget, at the expense of more basic and potentially more cost-effective promotive, preventive and primary curative programs aimed at the vast rural majority.

Numerous causative factors have been mentioned. The early efforts by Kenya to produce its own physicians led inevitably toward western style professionalism. This bias tends to affect policy in part because of the distinct "professional" versus the more administrative track in the MOH organizational structure itself. Local pride in modern facilities coupled with political motivation also contribute to the emphasis on hospitals. Recent indications of a more determined effort to trade off hospital facilities for health centres have appeared, but are not consistent with budgetary realities.

There has been a persistent underestimation of recurrent budgetary needs, and this seems to be continued in the forward budget of the current plan. This is clearly attributable in large part to the absence of any strong planning capability or continuing planning responsibility in the MOH. However, it is also attributable in part to the general LDC

nature of Kenya's economy, and the resulting inherent financial/economical uncertainties that prevail. In a setting characterized by these kinds of difficulties, the value of more realistic planning seems not to have been appreciated. Thus, given a prevailing uncertainty about the government's general financial strength, even in immediate future periods, the planning process in the MOH has become an exercise lacking commitment. The forward recurrent budget is therefore still a simple extrapolation, ignoring the implications of large development expenditures, especially those on Kenyatta National Hospital.

At the same time, the private sector growth creates an additional drain, especially on government-trained manpower, and it contributes to the deepening urban bias of Kenya's health care system.

It was only recently that these problems involving Kenya's health care system were persuasively brought to the attention of MOH personnel, almost entirely through the efforts of USAID. What does not seem to have occurred yet, however, is the analysis of the implications of all of these combined problems for the health sector as a whole, as well as for the government's persistently stated objectives, and the revision of priorities, programs, budgets and policies that is called for.

In fairness it must be stressed that many sources of weakness in health strategy arise from the intensity in Kenya of the classic economic problem of resource scarcity. This combines with environmental and cultural factors to create difficult choices--and sometimes seemingly impossible choices--for public policy. But it is also a fact that a

substantial part of the weakness in Kenya's health strategy is traceable to inconsistencies or conflicts among public policy goals. It is useful to examine these different problem sources and sort them out, and therefore such an analysis is the objective of the next chapter.

TABLE IV-1

DEVELOPMENT AND RECURRENT BUDGETS, HEALTH, 1978/79 - 1982/83 PLAN

HEALTH DEVELOPMENT EXPENDITURE 1978/79-1982/83

(*K£'000*)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total 1978-83
RURAL HEALTH FACILITIES AND SUPPORTIVE SERVICES—						
Facilities:						
Rural Health Units	1,435	2,[illegible]	3,989	4,407	4,707	17,183
Rural District Hospitals	3,323	2,990	2,583	2,992	2,443	14,331
Church Hospitals	100	200	250	250	250	1,050
*Preventive Medicine and Promotive Health	232	937	1,718	1,878	2,254	7,019
Supportive Services:						
Training—						
Medical Training Centre	69	54	—	—	—	123
Community Nurse Training Schools	730	587	550	547	500	2,914
Rural Health Demonstration Centres	232	319	689	683	684	2,607
Rural Health Training Centres	69	—	—	—	—	69
National Family Welfare Centres	30	—	—	—	—	30
**Other Training Institutions	198	200	360	750	965	2,473
Supplies and Equipment—						
Central Medical Stores	—	100	150	150	100	500
Regional Medical Stores	85	49	80	80	—	294
Equipment Maintenance	—	—	—	—	30	30
Drugs Quality Control	30	70	70	50	10	230
CENTRAL AND/OR REFERRAL FACILITIES AND SERVICES—						
Kenyatta National Hospital	1,159	1,316	1,000	40	40	3,555
Provincial Hospitals	2,271	1,987	1,728	2,172	1,713	9,871
***Urban District Hospitals	100	100	100	100	300	700
Psychiatric Units	40	175	350	450	900	1,915
Research	235	262	330	515	655	1,997
General Administration	1	100	100	—	—	201
GRAND TOTAL	10,339	12,091	14,047	15,064	15,551	67,092

*Includes health education, environmental health, nutrition, communicable and vector-borne diseases, public health laboratories and family planning.
**Includes both basic and post-basic or post-graduate training.
***Nairobi and Mombasa Districts respectively.

HEALTH RECURRENT EXPENDITURE 1978/79-1982/83

(*K£'000*)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total 1978-83
RURAL HEALTH FACILITIES AND SUPPORTIVE SERVICES—						
Facilities:						
Rural Health Units	2,903	3,560	3,984	4,322	4,688	19,457
Rural District Hospitals	8,035	9,105	10,023	10,852	11,750	49,765
Church Hospitals	1,072	1,152	1,268	1,373	1,488	6,353
*Preventive Medicine and Promotive Health	1,835	2,015	2,339	2,574	2,862	11,595
Supportive Services:						
Training—						
Medical Training Centre	1,016	1,006	1,117	1,207	1,313	5,659
Community Nurse Training Schools and other training institutions	2,045	2,030	2,080	2,180	2,280	10,615
Supplies and Equipment—						
Central Medical Stores	865	795	800	850	900	4,210
Regional Medical Stores	—	—	75	98	126	299
CENTRAL AND/OR REFERRAL FACILITIES AND SERVICES—						
Kenyatta National Hospital	4,322	4,889	5,382	5,827	6,310	26,730
Provincial Hospitals	4,846	5,198	5,752	6,252	6,795	28,843
Psychiatric Units	913	1,086	1,196	1,295	1,402	5,892
Research	756	783	829	872	920	4,160
National Health Insurance	176	182	191	199	207	955
General Administration	1,342	1,325	1,459	1,579	1,710	7,415
GRAND TOTAL	30,126	33,126	36,465	39,480	42,751	181,948

*Includes health education, environmental health, nutrition, communicable and vector-borne diseases, public health laboratories and family planning.

Source: Development Plan, 1979-1983, Part I, page 145.

TABLE IV-2

GOVERNMENT AND CHURCH HOSPITAL BEDS, 1973 AND 1978

TYPE OF FACILITY	NO. OF HOSPITALS 1973	NO. OF BEDS 1973	NO. OF HOSPITALS 1978	NO. OF BEDS 1978	% INCREASE IN BEDS SINCE 1973
Government National General Hospitals	1	1199	1	2285•	10.6
Government Provincial General Hospitals	7	2262	7	3103	37.2
Government District Hospitals	32	4196	33	4576	9.1
Government Sub-District Hospitals	22	1555	24	1992	28.1
Government Leprosy Hospitals	2	106	2	201	89.6
Government Psychiatric Hospitals	2	1322	2	1612	21.9
Spinal Injury Infections	1		1		
Armed Forces Hospitals	2	108	2	108	0
Government Prison Hospitals	7	303	8	329	8.6
Church Hospitals	40	5128	42	5410	5.5
T O T A L	116	16179	122	19616	21.2

Source: Development Plan, 1979-1983, Part I, page 132

TABLE IV-3

GOVERNMENT AND CHURCH HOSPITALS AND BEDS BY PROVINCE, 1978

PROVINCE	POPULATION (000)	GOVERNMENT		CHURCH		OTHER		TOTAL		BEDS PER THOUSAND
		HLS.	BEDS	HLS.	BEDS	HLS.	BEDS	HLS.	BEDS	
CENTRAL	2237	10	1854	10	1250	--	-	20	3104	1.39
COAST	1285	12	1464	2	207	4	258	18	2180	1.70
EASTER	2502	11	1437	7	1018	-	-	18	2455	0.98
NAIROBI	818	1	2270	1	145	5	1163	7	3578	4.37
N. EASTERN	271	3	364	-	-	-	-	3	364	1.34
NYANZA	2958	5	1514	4	632	-	-	9	2146	0.73
RIFT VALLEY	2933	20	2175	11	1162	-	-	31	3337	1.14
WESTERN	1870	38	612	7	996	-	-	10	1608	0.86
OVERALL TOTALS	14874	65	11941	42	5410	9	1421	117	18772	1.26

Source: J. Jeffers, "Background Information On Situation of Health Service in Kenya in 1978". Ministry of Health, Nairobi, April 1979. Omitted are military, prison, special leprosy, spinal injury and psychiatric units, and church hospitals without a resident physician.

TABLE IV-4

NUMBER OF MEDICAL AND HEALTH PERSONNEL IN THE MINISTRY OF HEALTH 1974, 1978 AND 1983 (PROJECTED NUMBER)

Staff Category	Number 1974	Number 1978	Projected Number 1983	Percentage Increase by 1983 over 1978 Figures
Doctors	398	542	834	54
Dentists	14	22	126	473
Pharmacists	14	30	114	280
Clinical Officers	760	1,002	1,474	47
Public Health Officers	224	250	295	18
Registered Nurses	890	1,223	1,607	31
Laboratory Technologists (Med.)	126	180	212	18
Laboratory Technologists (Ent.)	—			
Pharmaceutical Technologists	200	221	306	38
Physiotherapists	87	116	188	62
Occupational Therapists	32	45	102	127
Dental Technologists	13	15	24	60
Orthopaedic Technologists	—	12	44	266
Radiographers (Diagnostic)	68	115	168	46
Radiographers (Therap.)	—			
Enrolled Nurses (all)	3,241	4,009	5,243	31
Laboratory Technicians (Med.)	199	284	472	66
Laboratory Technicians (Ent.)	20			
Radiographic Film Processors	74	102	116	14
Public Health Technicians	528	642	979	52
Nutrition Field Workers	52	210	406	93
Family Health Field Educators	—	430	1,334	210
Dental Therapists	—	—	44	—
Other Professions: Radiophysicists, Parasitologists, Biochemists, Entomologists	12	14	17	23
TOTAL	6,952	9,464	14,105	49

Source: Development Plan, 1979-1983, Part I, page 139.

TABLE IV-5

HEALTH MANPOWER PROJECTIONS
(PUBLIC SECTOR)

Manpower Category	Current Employment 1978/79	Current Shortfalls	Projected Employment 1982/83	Projected Shortfalls	Percentage change in shortfalls, 1978/79 - -982/83
Medical Doctors	542	454	834	436	- 4
Dental Doctors	22	123	126	34	- 72
Pharmacists	30	128	114	66	- 48
Clinical Officers	1002	595	1474	366	- 38
Registered Nurses	1222	647	1607[a]	653[a]	190[a]
Enrolled Nurses	4009	2751	5243	2657[b]	- 3
Public Health Officers	250	140	295	95	- 32
Public Health Technicians	642	2099	979	1287	- 15

Source: Constructed from calculations by James Jeffers, presented in "Health Manpower Development" section of Health Development Plan, prepared by MOH/GOK. Note that projected shortfalls are considerably larger than those shown in the official Development Plan, 1979-1983, page 482, which was prepared independently by the Treasury.

a Does not include number trained in non-government facilities, and includes shortages due to maternity leave contingencies.

b Does not reflect training of 340-400 in non-government facilities, half of which are expected to find employment in government service.

TABLE IV-6

PROJECTED AND ACTUAL GOVERNMENT EXPENDITURES, 1964-1983
(K£ million)

	PLAN/ACTUAL TOTAL BUDGET		PLAN/ACTUAL TOTAL DEVELOPMENT		PLAN/ACTUAL TOTAL RECURRENT		PLAN/ACTUAL TOTAL HEALTH		PLAN/ACTUAL HEALTH DEVELOPMENT		PLAN/ACTUAL HEALTH RECURRENT	
64/65	22.0	73.5	16.5	13.6	5.5	56.9	0.3	3.2	0.3	0.2	-	3.0
65/66	22.6	77.5	14.2	14.3	8.4	63.3	0.6	3.7	0.6	0.2	-	3.5
66/67	25.0	84.9	12.0	16.4	13.0	68.5	0.7	4.0	0.7	0.2	-	3.8
67/68	22.2	94.0	12.2	19.6	10.0	74.4	0.8	5.1	0.8	0.9	-	4.3
68/69	21.5	104.9	12.7	29.7	9.8	75.2	0.8	5.9	0.8	1.2	-	4.7
69/70	19.0	121.5	13.0	35.1	6.0	86.3	0.8	7.9	0.8	1.8	-	6.1
70/71	-	156.8	37.8	45.5	-	111.3	-	10.1	3.0	2.6	-	7.5
71/72	-	180.5	38.1	51.8	-	128.6	-	12.2	3.1	2.6	-	9.6
72/73	-	201.4	40.9	61.8	-	139.6	-	12.7	3.1	2.2	-	10.6
73/74	-	230.2	43.8	66.4	-	163.7	-	14.4	3.2	2.3	9.0	12.1
74/75	264.9	301.4	88.0	92.5	176.9	208.9	18.2	20.3	5.0	3.5	13.2	16.8
75/76	295.7	373.1	101.7	124.5	195.0	248.5	21.0	24.3	6.3	4.8	14.3	19.5
76/77	312.0	409.8	105.7	122.8	206.3	287.0	22.8	29.6	7.4	8.3	15.4	21.3
77/78	343.8	590.4	107.0	188.1	236.0	402.3	24.6	36.9	7.7	7.7	16.9	29.2
78/79	709.5	751.8	258.0	268.1	451.5	483.6	40.8	40.8	10.3	9.9	30.1	30.9
79/80	762.7		269.3		493.4		45.2		12.1		33.1	
80/81	802.9		275.3		529.6		50.5		14.0		36.5	
81/82	906.6		274.1		632.5		54.5		15.0		39.5	
82/83	901.0		296.4		604.5		58.3		15.6		42.8	

Sources: Development Plan, Economic Survey and Statistical Abstract volumes for pertinent years. 1978/79 Actual Expenditures from government estimates. Data for some years vary by source because of updating and corrections in subsequent years.

NOTES, CHAPTER IV

1. See Development Plan, 1970 to 1974, and the discussion by Z. Onyango in Vogel, et al., Health and Disease in Kenya.

2. As indicated earlier, the provinces are Central, Coast, Eastern, Northern, North Eastern, Nyanza, Rift Valley and Western.

3. Development Plan, 1970 to 1974.

4. As of 1978 these were Eldoret, Kisumu, Kitale, Mombasa, Nakuru, and Nairobi.

5. See, for example, the interview with Mr. Ogessa of the Kenya Tea Development Authority in Family Health Institute, A Working Paper on Health Services Development in Kenya.

6. Economic Survey, 1979.

7. Development Plan, 1979-1983, page 138.

8. The general gap in information about the private sector is recognized explicitly in the Development Plan, 1979-1983, page 135.

9. Economic Survey, 1979.

10. See Kaplan, Area Handbook for Kenya (1976), page 142-3.

11. Discussed in the Development Plan, 1979-1983, page 136.

12. Development Plan, 1964-1970, page 4.

13. Economic Survey Mission of the World Bank, The Economic Development of Kenya, December 1962.

14. Projected amounts are from the Development Plan, 1964-1970; actual amounts are those reported by the Economic Survey and Statistical Abstract volumes covering the pertinent years.

15. Calculated from Table 18.1, Development Plan, 1970-74.

16. Development Plan, 1970-74, page 503.

17. Source: USAID/Kenya, Country Development Strategy Statement: 1981-1985, page 21. It would be noted however, as previously observed, that Kenya budget data tend to vary by source and as a result

of ongoing revisions in past data; also, many budget items such as district hospitals, MCH/FP, and public health projects are directed at rural population, though not incorporated directly in the "rural health" budget line.

18. See the discussions in Family Health Institute, A Working Paper on Health Services Development in Kenya.

19. See USAID/Kenya, Health Planning Project Paper, page II-35.

20. J. Jeffers, "Critique of the Kenya Health Sector Plan", Page 28.

21. This point is made in USAID/Kenya, Health Planning Project Paper, page II-36.

22. Ibid.

23. Reported in the Nairobi "Standard", August 9, 1979.

24. J. Jeffers, "Background Information on Situation of Health Service in Kenya in 1978", page 2.

25. J. Jeffers, "Development of LDC Rural Health Delivery Systems as an Appropriate Technology Transfer", unpublished manuscript.

26. J. Jeffers, "Critique of the Kenya Health Sector Plan", page 25.

27. Ibid., page 29.

28. Ibid., page 18.

29. A detailed description of this network funded by WHO may be found in "Proposal for the Improvement of Rural Health Services and the Development of Rural Health Training Centers in Kenya", MOH, 1972.

30. Jeffers, "Critique of the Health Sector Plan", page 21 ff.

31. For a brief background discussion see Kaplan, Area Handbook for Kenya (1976), page 140 ff.

32. Development Plan, 1979-1983, page 145.

33. See discussions in Family Health Institute, A Working Paper on Health Services Development in Kenya.

CHAPTER V

CRITICAL PROBLEMS AND CONSTRAINTS

A variety of problems and constraints have become evident in the process of examining Kenya's health services sector in previous Chapters. However, these points have previously arisen in the general contexts of their past and present institutional settings. In the present Chapter, the specific individual issues are identified and organized so as to place them into sharper analytical focus. Thus the Chapter provides a conceptual structure and perspective that leads to the specification of a logical and appropriate USAID health sector strategy, which is then presented in the next Chapter.

There are any number of ways in which problems and constraints of the health sector might be categorized, and the choice among these is largely arbitrary. The process is made complex by the fact that individual "problems" tend to arise because of the existence of one or more "constraints". Thus the constraints themselves may be viewed as problems, since they inhibit the achievement of goals. Further, various problems and constraints tend to be overlapping and interdependent. The result of all this is that any particular classification used for identifying problems in terms of "points for intervention" is likely to be imprecise.

The health strategy of the Government of Kenya is expressed in the context of general Development Plans, which reflect the universal economic

condition of inadequate resources relative to wants. This suggests an economically oriented focus on basic resource constraints. The health problems themselves, however, have been shown to be very largely the results of broad environmental factors, so that characteristics of the environment provide an equally appropriate basis for identifying useful points of intervention. Finally, the discussions of previous sections reveal a variety of complex policy and institutional situations which themselves create difficulties or impede progress. The more important of these appear to be largely the manifestations of inadvertent conflicts among seemingly reasonable goals.

The foregoing observations, which arise out of the materials of previous Chapters, suggest a useful categorization of problems and constraints, one that avoids definitional and semantic entanglements while providing a relevant framework for the development of intervention strategy. Thus, the following three sections deal respectively with basic resource constraints, problems of the health environment, and problems arising out of conflicts among policy goals. These considerations are then summarized by a final section which focuses on the next five years.

A. BASIC RESOURCE CONSTRAINTS[1]

The LDC Economy.-- Underlying most of Kenya's basic resource constraint problem is the general set of economic circumstances that tends

to be common to LDC countries. These include a major dependence on agriculture with relatively low productivity and a heavy emphasis on primary products for export. Varying levels of demand in foreign markets and volatile international prices leave the LDC economy largely the victim of external circumstances beyond its control. Export earnings affect foreign exchange balances, which are critical to economic development, and variations in export earnings produce fluctuations in government financial resources, affecting both expenditures on development as well as current government services. The predominantly rural character of the population and its consequent wide geographic dispersal, extensive poverty and limited levels of education combine to produce poor health status with a prevalence of illnesses for which preventive or curative measures exist, were the resources available.

The extreme scarcity of resources relative to health needs makes it all the more crucial that meaningful goals and priorities are set, and that the resources allocated for health are used to maximum effect. On the other hand, the general uncertainty of government budgets tends to inhibit commitments to planning, even though continuous planning, implementation and oversight activity is a prerequisite to efficient resource use.

All of these general circumstances apply to Kenya and her health care sector today. General budgetary constraints appear now to be most

threatening in the area of recurring costs, since donors have been generally unwilling to assist with operating expenses while providing development assistance which leads to continually rising recurrent financial burdens. Kenya's immediate economic outlook, which is largely the result of the generally familiar external factors, is presently very bleak, with a likely prospect of zero growth for the next year or so; this can be expected to severely hamper health sector development, and will particularly exacerbate the recurring cost squeeze, which is probably the health sector's most critical single problem.

Health Care Facilities.-- Over past and current plan periods the bulk of development expenditures have obviously been devoted to health care facilities. However, despite continuous commitments to basic rural needs, actual budgetary patterns have continued to favor the development of hospitals, and primarily those serving urban populations.

In principle, Kenya's health sector, with its pyramid structure from rural dispensary upward, constitutes a logical referral system culminating at major hospitals and, ultimately, at the modern Kenyatta National Referral Hospital in Nairobi. In reality, however, this theoretical logic appears to be largely myth. Where hospitals are accessible, primary care facilities tend to be circumvented; the mix of patients at the more sophisticated levels of hospital facility do

not appear to reflect a more complex case-mix, as would be expected if a true referral system was operating. Thus, the configuration of medical facilities has swung away from the rural dispensary orientation that had once appeared in the colonial period, to a system that is actually oriented toward curative hospital care and an urban emphasis. As far as facilities are concerned, the current resource constraint is primarily in rural facilities -- health centers, sub-centers and dispensaries, and the constraint upon rural development will be largely the result of prior commitments to hospitals, which produce a disproportionate drain upon recurrent budgets.

In addition, apart from the financial strains, direct constraints on the supply of medical personnel also limit the ability of the government to man additional rural facilities. Thus the general recurring budget pressures and manpower constraints limit the potential for expanded rural care, even if donor contributions provide funds for facilities development.

Manpower and Training.-- One reflection of the absence of a committed planning activity in the Ministry of Health is a continued absence of reasonably precise information on the qualitative and quantitative characteristics of the health delivery system -- especially in the area of manpower. The availability of trainers is widely viewed as a primary constraint, especially regarding non-physician medical personnel. Current plans project continued shortages of staffing,

especially for provision of very basic primary care in unserved rural sites. Nevertheless, current plans allocate a major part of the manpower development budget to specialized, postgraduate training. (Indeed, there is some question about whether the clinical officers serving in rural health centers may not in fact be over-trained for the kinds of simple tasks they seem to end up performing, with little or no equipment, and very little in the way of medical supplies.) Also, training for new categories of health personnel is provided for (e.g., dental therapists, anesthesiologists) without clear indication of why.

In addition, there are problems of attracting and retaining paramedical staff as well as physicians in remote rural sites. The weakness of existing incentives for such service may partially explain the high budgets for specialized training, which provides ultimate opportunities for professional advancement. In any event, the bonding mechanism for physicians trained by the government does not work very well. One result is that presently about 70 percent of Kenya's physicians are in urban private practice.

One of the serious manpower problems that receives scant attention is the limited availability of managerial expertise within the Ministry of Health, either in terms of full-time professional managers or physicians who have received some management training. At present, the major managerial/administrative activities in the MOH are handled by physicians, not only at the central level but at the provincial and

district levels as well. Further, the eventual future development of a rural health delivery system even approaching that which is being presently planned will present management and administrative tasks far beyond existing managerial capabilities.

Planning and Implementation Capability.-- In past periods planning by the Ministry of Health has been carried out on an intermittent basis, only when preparation of a plan document was formally required. At such time the planning function has been carried out mainly by staff selected largely on an ad hoc as well as a temporary basis. Thus there has been no serious commitment or sustained responsibility for the planning process, and no development of planning experience or expertise. While the staff involved with individual health programs may well practice foresight within their individual areas of responsibility, the development of a set of comprehensive, internally consistent MOH objectives has thus been absent. Thus the lack of planning/implementation/oversight capabilities constitutes a basic resource constraint which hampers health sector progress. The result is a national health plan that really displays very little in the way of clear, measurable objectives or goals, ordered priorities, implementation strategy, or any mechanism for evaluating results. Thus very little attention is being directed to many important issues -- such as the recurrent cost squeeze, the future budgetary implications of investment in hospitals versus simpler primary care facilities, the

comparative effects of expenditures on preventive versus curative services and of non-health-sector investments in health-related areas such as nutrition and water, and the levels of free health care that the government is likely to be actually able to provide in future periods under realistic budgetary expectations.

While some individuals in the MOH are well informed and concerned about matters such as these, they are heavily burdened with responsibilities that are more immediate, and lack the staff support that would be needed for the processes of planning and for educating other government policymakers about matters of health. Thus much past health policy has been made on an ad hoc basis, often by individuals outside the MOH and MOP, individuals who are not well informed about the workings of the health sector. This constraint which is imposed by the absence of a committed and sustained planning/implementation capability has pervasive effects on all aspects of MOH performance.

Logistics of Maintenance and Supply.-- The effectiveness of both health facilities and personnel in Kenya are seriously constrained by problems involving the maintenance of facilities and equipment and by supply logistics in general. Maintenance problems seem to have been primarily a result of inefficient internal procedures involving the MOH and Ministry of Works: efforts to provide maintenance services have required MOW involvement, extensive paperwork and long and unpredictable delays which have hampered or actually precluded the provision of maintenance services. One of the serious supply problems

has been breaks in the cold chain, which have resulted in the loss of potency of large proportions (estimated at 70 percent!) of vaccines -- which are nevertheless being administered. Extensive problems in the distribution of other drugs and medical supplies appear to be largely the result of an outmoded and ineffective central distribution system, although planned budgets for developing a decentralized system presently appear very small.

Supply and maintenance logistics also produce particularly binding constraints in the provision of rural water supplies. Since supply and maintenance are but two aspects of a pervasive infrastructure constraint affecting water supplies, that will be treated separately in a subsequent section of this Chapter.

Absorptive Capacity of the Ministry of Health.-- Basic resource constraints in the individual health sector components together comprise a general condition that should be viewed as a kind of "bottom line" from the perspective of potential donors. This general condition, which may be viewed as a resource constraint from the donor's perspective, is the absorptive capacity of the relevant host country sector. In Kenya's health sector, the ability to effectively utilize donor financing has become a matter of increasing concern. While donor financing tends to reduce the burden of development costs relative to recurring costs, the increase in development expenditures today raises the level of recurring costs that must be met by the host country

tomorrow. But the evidence of a growing recurrent cost squeeze has already been emphasized in preceding sections of this report. In addition, other constraints that have been previously discussed also apply, including the availability of manpower in general and of the required administrative/management expertise in particular. Therefore it is crucial that the strategy of donors be developed with absorptive capacity in sharp focus. In Kenya's health sector, this suggests strategies which minimize future recurring cost burdens, help alleviate personnel and especially managerial constraints, and which take advantage of the Government of Kenya's generally receptive posture to the role of various private voluntary organizations that may play a direct role in the provision of services.

B. PROBLEMS OF THE HEALTH ENVIRONMENT

> An African housewife gets up in the morning and soon begins to fetch water. She walks through the thicketed savannah to the water source. This is the habitat of tsetse flies and she is exposed to their unpleasant bites and the risk of sleeping sickness. She reaches the water source in a valley bottom and has to wait her turn. This is the habitat of disease-bearing mosquitos and of a different tsetse fly more efficiently transmitting sleeping sickness. The stream contains snails transmitting bilharziasis if it is sluggish, or breeds the vectors of onchocerciasis if it is rapid, or may contain guinea worm larvae if it is a mere muddy hole. She collects the water, which today bears a highly dilute load of human excreta and may contain typhoid bacilli or hepatitis virus. She returns, past the tsetse flies, to her home. As a result of her trip she has been unable to do any digging for the past hour and fewer crops are grown. She prepares the family's main meal. The scarcity of

> water discourages the washing of hands before the meal and makes washing-up after the last meal perfunctory. Some decayed food may be left on the utensils. Some unboiled water is drunk by her thirsty family, who pick up the germs from it. Two days later father falls sick; the cattle are not tended properly and the cotton is not planted -- later in the year there is no money for school fees since not only was the harvest small but part of the available cash had been spent on medicines. A little had also been expended on getting the children vaccines and the rest had been eaten up by taxes, some of which were spent by the government on medical facilities used in treating the waterborne disease, or insecticides to kill mosquitoes breeding in and around the water-holes, and on providing chlorinated water for a nearby town.[2]

Water and Sanitation.--[3] The foregoing passage aptly suggests both the direct health threats and the extensive indirect implications that emanate from the use of traditional water supplies in Kenya. Diarrheal diseases, which are typically water-borne, alone constitute something in the order of a fourth of all reported illnesses, and are the second leading cause of death in the country. Further, infant mortality rates, which are often used as a surrogate measure of general sanitary conditions, are at least ten times higher in Kenya than in Western countries generally. It has been estimated that only about 15 percent of Kenya's rural population has convenient access to safe reliable water. These facts suggest dramatically, if imprecisely, the degree to which problems of water and sanitation generate present and potential future demand for curative health services in rural Kenya.

The effects that improved water supplies can have on health have been demonstrated in a formal study involving the analysis of data on morbidity associated with the provision of a piped rural water supply in Zaina, near Nyeri, in 1962. Data for a period four years after inauguration of a gravity-fed chlorinated water system indicated a decline of 50 percent in days of illness for children under 12, while there was an increase of 18 percent in the nearby control area of Thegenge.

The Government of Kenya has been spending large sums on water development, with extensive donor help. Between 1974 and 1978 water development expenditures were approximately 15 percent of the non-military GOK budget, with about 15 percent of those funds allocated to rural projects. During the past decade there has been improvement in terms of the proportion of the rural population with access to improved water sources, which has risen from 9.4 to 15 percent. However, because of rapid population growth, the absolute number of rural Kenyans without such access has increased (from 8.9 to 10.6 million).

There is presently an unusually large number of donors active in Kenya's water development, and loans and grants to be initiated this year alone are expected to amount to more than $60 million. Although there is virtually no donor coordination, total funding does not constitute a critical constraint, at least in the short-run (although the GOK goal of providing universal access to improved water supplies by the year 2000 is still probably not realistic).

Rather, the principal constraint in this sector has been inadequate infrastructure, most notably manifested in poor operation and maintenance. This problem applies to the projects of the Ministry of Water Development, which has dominant responsibility for the bulk of the water development activity; this is shared modestly with the MOH which has incorporated small scale water projects in its "Environmental Sanitation Programme" since 1960. Very little of Kenya's efforts to improve water supplies focuses on health benefits to users. Agricultural, industrial, and other benefits appear to be of dominant concern.

Generally the whole infrastructure has been found to be weak -- in terms of inadequacies in quantity and training of staff, poor implementation of preventive maintenance, absence of spare parts, weak procurement and transport logistics, inadequate laboratory support, slow repairs, poor record-keeping, infrequent inspections, weak supervision and poor public relations. About half the water supply systems that have been built over the past decade are inoperative; only about one system in four provides safe, reliable water for eight hours a day, so that half the population served by systems that do operate still draw water from traditional sources.

Nutrition.-- The direct effects of nutritional deficiencies on health status have not been quantitatively adequately assessed, but enough information exists to suggest that malnutrition in varying

degrees is a principle and pervasive factor underlying much of the illness and disease in Kenya.[4] Thus malnutrition is suspected as a substantial source of much of the demand for curative health services, even though much of the malnutrition is marginal in degree, with severe malnutrition appearing sporadically or in localized areas. The principle nutritional deficiencies found in Kenya, as in other developing countries, are goiter, nutritional anemias (especially iron anemia), protein-energy malnutrition (PEM), and vitamin A deficiency to some extent. PEM in young children is Kenya's most widespread form of malnutrition. However, because of the wide topographical, agro-ecological and cultural diversity that characterizes Kenya, broad generalizations on the nature, causes and extent of malnutrition are difficult to make; even at the provincial level, generalizations must be interpreted cautiously, since nutritional practices and conditions can vary widely even locally. Hence this section first briefly describes the major categories of nutritional deficiency, and then presents a rough overview that suggests the general causes of malnutrition, although they do vary widely from place to place. Then current policies dealing with nutrition are discussed.

Main Nutritional Problems.-- As noted above, the most widespread form of malnutrition in Kenya is PEM in young children, as manifested by

wasting, stunting, and in more severe forms kwashiorkor (edema and biochemical abnormalities) and low weight. PEM results from either low food intake or improper food balance. Research in 1977 indicated that, for rural Kenyan children between ages 1 to 4, about one-third were at least moderately malnourished, although the rates varied regionally.[5] In 1979, similar conditions were found to exist for 25 percent of the urban children aged 3 to 6. Generalizations about specific causes of PEM are not yet possible, because of the complexity of interactions among socio-cultural, agro-ecological, economic and physiological factors that are involved.

Similarly, little is yet known about the general prevalence and distribution of anemia. Iron deficiency anemias are common where malaria is endemic, where high rates of other parasitic infection are also common. Such areas are most notably the Coastal Province, Lake Victoria and the Tana River regions. Young children, adolescent women and women of childbearing age are most prone to this anemia. It is also found in pastoral areas. Generally, anemia is very widespread among pregnant women in Kenya, and appears to be most severe in the pastoral areas.

Several studies of goiter have found rates ranging from 15 percent to as high as 75 percent in school children in Kenya, and have generally indicated that at least a moderate degree of compensated iodine deficiency exists in the goiter areas in Kenya, and that

national control measures were warranted. Results of such control efforts have been disappointing, however, apparently because of original errors in estimating population salt intakes, more widespread use of imported non-iodized salt than anticipated, and absence of legislation making use of iodized salt compulsory.

The extent of vitamin A deficiency has been subject to debate, but most recent views indicate that the problem is most likely to be in selected and limited areas or circumstances, especially prisons, population on rice schemes, and in conjunction with other deficiencies during drought.

Characteristic Causes of Malnutrition.-- As indicated above, the nature and extent of malnutrition in Kenya vary widely, even on local levels. So also do the specific causes of this condition. But it is nevertheless possible to indicate the general character of the causes of nutritional deficiencies, so long as these are interpreted with caution.

It is widely indicated that poverty and ignorance are generally underlying causes, as could be expected. Some of the worst malnutrition is found among the urban poor, where mothers may know what to feed their children, but lack the purchasing power required. In Central Province, generally, dietary adequacy appears to be largely a function of food availability. A particular problem affects children whose mothers work on estates or plantations as casual laborers (seasonally), especially

unmarried mothers; such children are highly prone to PEM. Similar conditions are common in Central Province towns, where landless and often unmarried mothers leave pre-school children with older siblings while they are employed all day, producing a low income that is inadequate for providing proper nutrition. In the drier areas, malnutrition is a result of small plots, long distances to water and poor roads. Still, some observers feel that the problem is less one of the availability of food than a lack of awareness about basic nutrition. Rapidly rising populations also reflect the close spacing of births, which has nutritional effects on mother and child.

In the Rift Valley, nutrition is not a serious problem among traditional pastoral groups, except around the settled areas or during periods of drought. In the settled areas, pastoralists experience dramatic changes in living patterns, with closer quarters, poor sanitation and unfamiliar foods, so that nutritional problems in such settings are potentially threatening.

In the Coast area, most nutrition problems tend to be associated with irrigation schemes (Lamu and Tana River districts), hinterlands (Kwale), and urban Mombasa. In the settlement schemes, a common problem is crop distruction by wild animals. Another source of difficulty is a frequent preference of residents to concentrate on cash crops rather than food for local consumption. The hinterlands problem is essentially

that which is common to semi-arid land and general poverty. In Mombasa, nutritional deficiencies seem to be common among the poor, especially the more recent immigrants. In addition, rural people around Mombasa have a financial incentive to sell all produce (including fish) for cash, thus depriving all families of nutritionally adequate diets. (A physician at Msabweni District Hospital, in commenting on this tendency for cash sale, referred to the growing tourist hotels along the Coast as "sponges for protein".)[6]

Poor weaning practices have also been identified as causes of nutritional deficiency, especially the late introduction of nutrition-rich supplementary foods. This seems especially prevalent in Western Province, where nutrient-poor cassava flour is widely used as a weaning food. Short spacing of children contributes to malnutrition via the cessation of breast feeding at the onset of pregnancy. Emphasis on cash crop production is also a contributing factor in the West.

Policy Status.-- In the current Development Plan, it is explicitly recognized that nutrition is one of the dimensions that must be addressed in the context of the broader goal of alleviating poverty. The plan does not set out a fully integrated set of nutritional policies, but does set up the institutional framework for formulating policies on nutrition and it provides a general overview of areas for focus. Much of the activity oriented toward nutrition is to be the responsibility of the Department of Agriculture; this emphasizes food production, and therefore

involves the implied assumption that increased production will improve nutritional status. But the foregoing observations, which reflect the complex interrelationships causing nutritional deficiencies, leave a question of the degree to which that assumption is valid. Investigation of the actual relationships between production and nutrition is needed. Also, nutrition would appropriately constitute an integral component of the overall rural health emphasis, and should therefore be viewed as such; nutrition workers might usefully be viewed as members of rural health teams, rather than as isolated specialists.

USAID/Kenya is now considering an array of potential activities involving nutrition. Since this is a new area of emphasis for both the GOK and USAID/Kenya, the immediate need is for development of a meaningful collaborative strategy with the GOK, with initial emphasis on identifying malnourished groups and areas for intervention. In addition, agricultural activities of the Mission will be designed with attention to potential nutritional implications.

Preventable or Controllable Communicable Disease.-- It is generally recognized in Kenya that the bulk of the illness and disease treated in existing health care facilities is actually either preventable or would have been curable through simple primary care had intervention occurred at earlier stages.

The health surveys that are available suggest that well over half of the outpatient care provided in recent years has been for treatment

of only a few categories of health problems -- upper respiratory tract illness and gastrcenterities (39 percent of all illness), environmentally caused cancer (30 percent) and pregnancy and delivery (5 percent). Projections indicate that if not changed by intervention, these conditions could account for utilization of 75 to 80 percent of Kenya's health services delivery capacity by 1983.

In terms of mortality, it has recently been reported[8] that five out of the eight leading causes of death in Kenya are generally associated with infant and childhood disorders. The leading causes of death for infants under age five are gastroenteritis and colitis, tetanus, kwashiorkor, measles and whooping cough. It is believed that in this infant group, 20 percent of all deaths are due to measles, 15 percent to gastroenterities and 15 percent to whooping cough.

It is estimated that some 10 million cases of disease annually are directly attributable to present environmental conditions. Further, with the current rate of population growth it is believed that in the absence of major improvements, this figure could rise to 16 million by 1984. The current large scale expansions of irrigation schemes are also a factor relevant to future health conditions, because of the spread of schistosomiasis that accompanies the projects. These potentially unmanageable future pressures on the rural health system would be mainly concentrated

around maternal and child health problems, communicable diseases (such as measles and whooping cough), nutritional problems, digestive and respiratory tract diseases, and vector-borne and water-borne diseases originating in the environment.

Clearly, the bulk of the diseases afflicting Kenya's rural masses are preventable. Implementation of effective measures of prevention and control in rural Kenya would dramatically improve the health of the vast rural population, and would thereby greatly reduce the present and potential future pressures upon diagnostic and curative health care facilities and personnel.

The Effects of Fertility and Mortality: the Population Problem.-- The details of Kenya's alarming rate of population growth and its various implications have been referred to extensively at several points earlier in this report. These details therefore require no further elaboration here. But the problem is presently so pervasive and acute, and it is so much a feature of Kenya's current environment -- particularly in the socio-cultural sense - that a discussion summarizing current health problems would be grossly incomplete without its inclusion. For that reason it is mentioned here, but without further discussion.

C. PROBLEMS INVOLVING CONFLICTS OF GOALS

A number of specific individual problem situations which presently exist in the health sector of Kenya are problems whose sources transcend

more resource constraints or conditions of environment. These are problems which are grounded, at least to some extent, in conflicts between individually reasonable goals. Since elements of most of these situations have been mentioned elsewhere in this report, lengthy discussion is unnecessary. However, it is still useful to identify the peculiar nature of these problems here: since they arise out of the policy context itself, they provide particularly graphic manifestations of the need for greater planning and oversight capacity in the Ministry of Health.

The Recurring-Cost Squeeze.-- The problem of rapidly increasing recurrent health sector costs results most directly from (1) a willingness by the GOK to accept virtually any development assistance, even though donors typically will not contribute to the future recurring costs that are generated by present development expenses, and (2) a built-in system bias towards curative hospital facilities, which are primarily urban oriented, in spite of a consistently articulated policy emphasizing rural health. Recurring costs have consistently outpaced naive projections in the past, and the curative hospital emphasis in the current Development Plan suggests that future recurring curative hospital expenses will even further hamper the achievement of rural objectives. Such conflicts indicate the acute need for the comprehensive

perspective that would be provided by development of greater planning capability.

Private Sector Trends.-- The objective of maintaining a free enterprise, democratic element in Kenya's health system is increasingly in contradiction with the government's formal objectives of improving equity in the access to health care. The free enterprise element of the health system depends substantially on the National Hospital Insurance Fund, which in some respects is essentially a hospital insurance program for the elite. While present benefits do not cover all of a beneficiary's hospital expenses, they do nevertheless provide a substantial source of revenue for private proprietory hospitals. Thus, the "free choice" objective is achieved at the inadvertent expense of the equity goal: the system subsidizes urban-oriented curative hospital services, also providing a drain of government-trained physicians and other medical personnel into the curative, urban, private health sector. The fact that some 70 percent of Kenya's physicians are in urban private practice is a current reflection of the effects. Continued movement in the direction of the present trend can only further undermine the competing objective of meeting the already excess and still growing demand for basic health care in rural Kenya, where it is estimated that some 80 percent of the population are without any accessible health care facility at all.

Professional Biases Versus Rural Needs.-- Kenya has expressed the objective of developing the capacity for providing first-class modern medical care, and is consequently training physicians in a modern, high-rise, western-oriented teaching hospital, where few medical students receive more than a brief exposure to community medicine or public health practices. The result is a built-in high-technology bias, which permeates the thinking of practising physicians in and out of government service, as well as the key personnel of the Ministry of Health, who are also primarily physicians. This bias is in direct contradiction to the government's professed intention of expanding basic health care to rural populations in the immediate future, for two reasons: first, the kind of modern medical training being provided has limited direct relevance to the very basic nature of the vast bulk of Kenya's health problems; second, because the present system provides little if any orientation to the areas in which improvements in health status are most promising -- prevention and control of communicable and vector-borne diseases, as opposed to curative medicine.

Compatability of Free Care with Stated Goals.-- Taken individually, both the goal of providing free medical care and that of meeting all Kenya's medical care needs for all citizens are clearly laudable. However, they are not mutually consistent, at least in terms of any reasonable period in Kenya's foreseeable future. The primary role of prices in any

sector is to provide a rationing mechanism when demand exceeds supply. In the absence of money prices, some mechanism (or set of mechanisms) will appear to perform the rationing process, whether that mechanism is formally imposed or arises out of existing circumstances (such as shortages and/or queues). The point is that in the absence of a pricing system, rational and equitable performance will require the government to make hard decisions regarding who is to receive how much of what. These basic economic conditions exist in the health sector as in any other area of production and distribution. In the absence of pricing, without formal policies to determine "what" and "how much" "for whom". it is difficult to imagine how any form of equity can be achieved. Further, rational policies in this respect are unlikely to appear in the absence of a much more effective comprehensive planning and implementation activity than presently exists in the Ministry of Health.

D. SUMMARY: PRINCIPLE HEALTH SECTOR PROBLEMS FOR NEXT FIVE YEARS

One impression that arises dramatically out of the discussions of the present Chapter is the degree to which various individual health sector problems in Kenya are interrelated. This single fact suggests the importance of a continuing technical capability and responsibility for sustained comprehensive planning in the Ministry of Health. In view of the complexity and variety of problems, and especially in view of the

degree to which they involve mutually inconsistent goals, it is difficult to perceive how significant progress over the current plan period can occur unless there is dramatic improvement in this sphere. Therefore a principle health sector problem facing Kenya in her next five years would appear to be that of implementing and institutionalizing a planning and implementation capability.

Planning ability alone will not solve Kenya's problems in health, but it would provide a significant start in bringing clearer focus and some degree of control over the other major problems of the current plan period. The recurrent cost problem could at least be placed in the context of its sources and its implications for other objectives, making difficult policy decisions clearer, and perhaps less difficult. Similarly, better perspective might be gained on the economic and social benefits of preventive and promotive activities, as an alternative to a portion of curative health budgets. The disturbing trend involving the private sector could also be placed in a logical framework along with its competing objectives. And the "high ground" position of a developed and functioning planning activity might provide a better view of the implications of a "free care for all" policy, leading to more equitable allocation of resources than is likely to result from a "head in the sand" position. Finally, it is even possible that the broad,

analytical perspectives that a planning/implementation program might bring could provide a respected and authoritative source of objective information on population implications, information that might hasten a more serious government commitment to face and deal with this sensitive, but crucial and pervasive issue.

Clearly, the establishment of a planning unit is not itself the solution to these present and future problems. Without it, however, it is difficult to see how any solutions can be expected to appear.

NOTES, CHAPTER V

1. The material in this section on resource constraints draws upon previous sections of this report, so that individual footnote references are not provided for the more general observations and conclusions presented.

2. G.F. White, D.J. Bradley and A.V. White, Drawers of Water, Domestic Water Use in East Africa, University of Chicago Press, Chicago (1972), as quoted in F.E. McJunkin, "Rural Water Supplies for Kenya: Program Proposals for AID". Report to USAID/Kenya, March, 1979.

3. The current water supply problem is dealt with in substantial detail by McJunkin, ibid., from which the present report draws heavily.

4. L. Meyers, "Nutrition in Kenya: Problems, Programs, Policies and Recommendations for Action", USAID Staff Report, August 2, 1979, presents a comprehensive review of current nutritional conditions in Kenya, and provides the basis for most of the material presented in the present section.

5. National Nutrition Survey, conducted by the Central Bureau of Statistics, as cited in L. Meyers, ibid.

6. Informal interview by Family Health Care Institute team, February, 1978.

7. See the discussion in USAID/Kenya, "Health Planning Project Paper", August, 1979, pages II-36 ff.

8. USAID/Kenya Staff Paper, "Rural Health/Maternal and Child Health/ Family Planning".

CHAPTER VI

STRATEGY FOR INTERVENTION

The analyses presented in preceding Chapters, and particularly the summarizing discussion of health sector problems and constraints in Chapter V, suggest a number of guidelines for current donors considering investments in health in Kenya. These suggested principles are presented in the first section. In the two following sections, then, a two-phase program for health services intervention by USAID/Kenya is described. The first component of Phase I of the program is a Health Planning project which is already well developed conceptually and is nearing implementation at the time of this writing.[1] Then a set of companion projects for the first phase are also indicated. These projects are highly consistent with the guidelines suggested above, and relatively early implementation seems feasible. Then in Phase II a second set of projects is indicated. These are also in concert with the suggested guidelines and with the Phase I components, but for various reasons, as indicated for each respective project, very early implementation of these is either not desirable or not yet feasible. Since this imposes a somewhat tentative nature on these projects, the descriptions of the Phase II components are necessarily brief.

The following outline summarizes the set of project components which would constitute a USAID/Kenya Rural Health Program.

PHASE I:

--- Planning Project

--- Environmental Control/Prevention (Water and Sanitation)

--- PVO Development of Community-Based Health Systems

--- Family Planning

PHASE II:

--- Environmental Control/Prevention (Schistosomiasis)

--- GOK Development of Community-Based Health Systems

--- Integration of Modern and Traditional Medicine (Research)

--- Rural Health Management Training Support

--- Nutrition (Research)

A. GUIDELINES FOR CURRENT DONORS

The most basic, primary factor to be considered by donors in the health sector of Kenya is obviously its present absorbtive capacity. Therefore, the kinds of health sector investments that would be most appropriate now would be of such a nature as to impose the least possible additional strain on the Ministry of Health's already constrained manpower, in terms of both medical/scientific as well as managerial expertise. Similarly, the future recurrent-cost burdens of current development expenditures are a major factor to be considered in determining feasible development assistance. It is obvious that investments oriented toward urban/curative hospital care in particular, and toward hospital development in general, appear highly undesirable and are inconsistent with the stated

goals of the Ministry of Health. With regard to investments oriented specifically toward rural health care, the most desirable of these might be such projects which would not otherwise have been undertaken by the MOH in any event, since external support that relieves the MOH of such obligations may only facilitate the drain of resources away from rural health and into urban oriented curative care.

Several general types of donor assistance would be consistent with such guidelines. Projects which relieved major MOH constraints are obviously desirable, especially those that would strengthen infrastructure where it is presently weak. Planning and managerial capabilities in general, and the infrastructure pertaining to water supplies in particular, stand out in this respect. As was true even in the colonial period, preventive and promotive health activities still appear to have the largest potential payoffs, and such investments on the periphery of the health services sector would seem to pose the least threat of facilitating an internal drain of funds back into curative hospital care. However, in all such activities the existing MOH infrastructure and manpower and management capacity should be considered, and should be strengthened as a part of the donor activity, if such strengthening seems to be required. The limited MOH absorbtive capacity, in conjunction with the favorable climate of cooperation between the MOH and private voluntary organizations in Kenya, also suggests that a search for donor support that would be channelled through PVO's could be fruitful.

Finally, since a very large number of donors are presently active in Kenya's health sector, but with almost no effective coordination, an attempt to emphasize areas of activity which are consistent with the foregoing guidelines, but which appear to be neglected by current donor programs, would seem to be appropriate.

Thus, the foregoing points may be summarized briefly in outline form: desirable health sector investments by donors to the Government of Kenya would be investments in projects which meet as many as possible of the following conditions:

--- Take explicit account of the consistency of the investment with absorbtive capacity of the GOK.

--- Place minimal demands on existing GOK health manpower and managerial capability.

--- Generally minimize future recurrent costs burdens for the MOH.

--- Deal with rural health rather than with urban hospital services.

--- Emphasize preventive and promotive health activities versus curative care.

--- Aim at the periphery of the rural health delivery system, so as to avoid relieving the GOK of its fiscal responsibilities to rural versus urban hospital care.

--- Strengthen MOH infrastructure where it has been neglected in the past, especially with regard to planning and managerial capability.

--- Emphasize assistance to Private Voluntary Organization where feasible.

--- Fill gaps left by present patterns of donor activity.

These observations are consistent in principle with the overall development strategy of USAID/Kenya,[2] although in health-related areas the Mission strategy is still evolving. This is so in part because these programs are mostly of recent origin, but also because the health targets of the Government of Kenya itself are still quite imprecise, and suspended judgement on the part of USAID has been necessary. This posture is presently most notable in the areas of Nutrition and Family Planning: agreeable positions are presently being worked out between GOK and the Mission, but the Nutrition program of the GOK is very new and the Family Planning program is now in a critical transitional period, so that it is too early to specify particular USAID targets.

At the other extreme, however, the Mission has already made dramatic progress in the development of a project oriented at strengthening the planning capabilities of the MOH. A Project Paper dealing with this component of a Rural Health Program has already been prepared and submitted. This current activity is thus described below as the first component of the program.

B. PHASE I PLANNING PROJECT

One of the most pervasive problems that has been identified, both directly and by implication, at numerous points throughout this report has been the underlying weakness of the planning/implementation capabilities of the MOH. Indeed, the internal conflict of continued budgetary emphasis on urban-oriented hospital services in the face of explicit formal commitments to rural health is a major symptom of this weakness.

Thus, while strengthened planning/implementation capability would contribute to all aspects of Kenya's health sector, it has become increasingly apparent that dramatic improvement of this capability is a prerequisite to the achievement of a true rural, "basic needs" emphasis in GOK performance. Consequently, the development of a planning project constitutes the first component of Phase I of the USAID Rural Health program. The underlying rationale has been indicated throughout this HSA, and is discussed in detail in the USAID/Kenya Health Planning Project Paper.

In brief, the project objective is to strengthen the GOK institutional capacity to plan and implement programs and policies in the health sector, with emphasis on developing the MOH planning/implementation capability for shifting health resources towards its rural goals. Within the MOH, the project focus is on (1) the establishment of a new "Division of Planning and Implementation" and a new Planning and Policy Coordination Committee, on (2) the training of a cadre of Kenyan health planners and policy analysts, and on (3) assisting the MOH to establish a base of data and information that will meet minimal requirements for comprehensive national health planning.

C. OTHER PHASE I PROJECTS

In addition to the planning component, several other projects may be identified which meet the general donor guidelines to a high degree, and which in addition could be undertaken in the near future with a reasonable degree of confidence in concomitant ability and commitment on the part of the MOH. These are projects dealing with

the health environment -- rural water and sanitation, and with PVO development of community-based health system. In addition, the critical priority of Kenya's population growth indicates that the Family Planning activity be kept in the Phase I category, even though the precise nature of further USAID activity cannot presently be ascertained.

Enrivonmental Control: Rural Water/Sanitation. -- The pervasive effects on health of Kenya's severely underdeveloped water and sanitation conditions have been suggested earlier in this report. Most relevant here is the fact that it is the "infrastructure" weakness that has been characterized as the critical constraint in this respect.[3] As noted earlier, there is very extensive donor investment in water development projects, and such projects have received a substantial share of GOK budgets. On the other hand, emphasis has not been on local rural water supplies (as opposed to agricultural applications and large development projects). Further, as previously noted, roughly half of the improved water supply systems provided in the past ten years are currently inoperative, and of those which do function, many do so for only a limited period each day. The absence of maintenance, parts, and other relevant aspects of infrastructure have been identified as the principle problem.

Consequently, a useful USAID/Kenya project would involve the provision of both short-term and long-term technical assistance to help expand the GOK capacity to supply water and provide necessary maintenance back-up for rural water and sanitation projects. Especially appropriate would be emphasis on the provision of assistance for self-help (Harambee)

community projects. Technical self-sufficiency in these respects could be developed within the GOK by the provision of training that would eventually enable the GOK to provide consulting engineer, management consultant and construction engineer services to such Harambee projects. A USAID/Kenya consultant report and its recommendations on this activity is now under Mission consideration.[4]

Private Sector Development of Community-Based Health Systems. -- The Harambee spirit of self-help is a pervasive force in the Kenyan development experience. In the health sector, numerous health care facilities have been initiated as community self-help projects. However, the established approach in Kenya has been development of such facilities by private sector action, with the facilities then being turned over to the government for staffing and for the financing of recurrent costs.[5] One resulting problem is that more projects tend to be completed than can be effectively taken over by the government.

However, there is one particular self-help project in Kenya which is unique in this respect. This is the self-help Community Based Health System in Kakamega, in which recurrent costs as well as initial development costs are being borne by the community. While this project is unique in Kenya, however, it is typical of the community-based health programs in many other countries. Therefore the Kakamega project provides a model in Kenya that could be used for fostering further similar development. A USAID/Kenya project to explore this possibility and, if found feasible, to pursue it, would be a highly appropriate activity.

Family Planning. -- The first phase of USAID/Kenya activity in Kenya's family planning program is drawing to a close at the time of this writing; the nature and extent of continued support in a second phase is presently unidentified. However, the critical proportions of Kenya's present population growth, and the population effects that accrue from expansion of health services (via their effects on fertility and mortality) dictate continued effort at expansion of family planning activities. Some recent evidence of increased GOK concern has been perceived by the Mission; for that reason, family planning should be viewed as a high Mission priority, and it is included as a Phase I activity for the purpose of encouraging continued AID/GOK dialogue on this area.

D. PHASE II PROJECTS

A second set of potential AID projects may be identified for high priority. These projects are also highly consistent with the guidelines indicated previously, but they are grouped into a second phase of the program because of their lesser degree of immediate feasibility. This second set of projects include (1) further environmental control -- here, that of schistosomiasis, (2) further expansion of Community-Based Health Services -- but here with more direct GOK involvement, (3) activities dealing with the integration of modern with traditional medicine, (4) assistance in the development of management training for key provincial and district health officers, and (5) development of a Nutrition program.

Environmental Control: Schistosomiasis. -- It was previously indicated that large proportions of the GOK budgets have been allocated to water development, but mostly to larger agriculturally-oriented projects. Very substantial expansion of these irrigation schemes is now scheduled. However, one of the side effects of such projects has made them notorious throughout Africa--the widespread incidences of schistosomiasis which accompanies them. On the other hand, schistosomiasis is one vector-borne disease for which effective and extremely low cost medical intervention techniques, techniques which are basically preventive in nature, have recently been developed. This combination of factors -- high and increasing incidence among rural populations, availability of effective preventive techniques, and low cost -- make it appropriate for USAID/Kenya to consider supporting a chemotherapy program for school-age children, as suggested in detail in the recent report by Kenneth Warren.[6]

Community-Based Health Services: Expansion by Government. -- One of the subtle but inherent problems generated by Harambee projects is that such self-help activities in Kenya inadvertently tend to perpetuate inequities in the provision of government health services. This apparent dichotomy occurs because of the Kenya practice whereby facilities developed under self-help activities are then turned over to the government for staffing and for financing of the operating costs. Thus, richer communities, which are more capable of initiating the development of facilities on a Harambee basis, then become beneficiaries of government

support as a result.[7] The Phase I activity suggested above would explore the potential of self-help groups to cover recurring costs as well. However, an additional approach worthy of exploration for possible USAID/Kenya support would be the provision of government assistance for self-help facilities, but on a basis which would reduce rather than perpetuate inequities, perhaps via development of a sliding scale or formula whereby selection of projects for support and/or levels of government support would be inversely related to per capita income.

Integration of Modern and Traditional Medicine. -- One of the continuing challenges of modern medical care in Africa is the search for effective techniques whereby scientifically based medicine might be integrated with the existing widespread use of folk medicine. A limited body of research on traditional medicine does now exist, but its perspective has been on the identification of folk medicines and medical practices which are effective. The implementation of basic research focused on potential methods of combining the traditional healer and scientific medical knowledge into acceptable vehicles for the delivery of rural health care has exciting potential, and is highly consistent with the guidelines set down above.

Rural Health Management Training Support. -- The major Planning project discussed as part of Phase I, above, will build management infrastructure at the central level of the MOH. However, key managers in the health system are those at the provincial and district level. These are physicians -- PMOs and MOHs -- who plan, manage and administer the health system. Presently, some PMOs and MOHs are being

given MPH training abroad, but many of these officials have not had such training. For most, the only alternative towards professional growth is specialized clinical training at Kenyatta National Hospital. Thus there is much turnover. In any event, there is no management career structure for physicians at the district level. These conditions in the rural health system suggest the need for a project that would mesh with the central-level planning project by strengthening the managerial capability of the rural health system from the bottom up.

The most appropriate sites for such training would be the Department of Community Medicine, University of Nairobi (DCM), and the Kenya Institute of Administration (KIA). However, despite interest in development of such a training program, these institutions presently have inadequate staffing slack to accommodate such new responsibilities effectively. Consequently, an appropriate USAID/Kenya contribution would be a project to strengthen the DCM and KIA faculties, help develop curricula, and provide the necessary coordination among these institutions and the MOH.

Nutrition. -- In Kenya the existence of nutritional problems is pervasive but complex. There are pockets of serious malnutrition, and a larger amount of malnutrition that is periodic or only marginal in degree. Much of this can be expected to diminish in the next decade if there is reasonable success in agricultural programs and a resumption of general economic growth. Further, the particular nature and causes of nutritional problems vary widely throughout Kenya, and even vary at the local level.[8] However, the MOH has a new degree of interest in nutrition,

and is interested in the process of expanding public knowledge about nutrition via the integration of nutrition field workers into rural health teams. Since it is not certain that increased agricultural production will insure availability of foodstuffs, nor that food availability itself will adequately improve nutrition, consideration of potential USAID/Kenya assistance to the . in this area should be considered a possibility.

NOTES, CHAPTER VI

1. USAID/Kenya, Health Planning Project Paper.

2. See USAID/Kenya, Country Development Strategy Statement: 1981-1985, January, 1979.

3. For detailed information see E. McJunkin, "Rural Water Supplies for Kenya: Program Proposals for AID". Report to USAID/Kenya, March, 1979.

4. Ibid.

5. This topic is discussed by J. Jeffers in "Proposed MOH/IBRD Project - Baringo", MOH/GOK memo, undated.

6. K. S. Warren, "Cost-Effective Control of Schistosomiasis in Kenya" The Rockefeller Foundation, 1979.

7. Discussed by Jeffers, "Proposed MOH/IBRD Project - Baringo".

8. These topics are discussed by L.D. Meyers, "Nutrition in Kenya: Problems, Programs, Policies and Recommendations for Action", USAID Staff report submitted under contract number AID-615-210T, August 2, 1979.

ANNEX A:

OTHER DONOR ACTIVITY IN KENYA'S HEALTH SECTOR

One obvious criterion to be considered by any potential donor to health care services in Kenya is the nature and extent of other donor involvement in the particular category of health service under consideration. Consequently it was felt that a useful annex to this Health Sector Assessment would be a compendium of the various current donor activities.

Unfortunately, preparation of a comprehensive catalog of such activity is a considerably more complex undertaking than one would like. At present approximately 30 bilateral and multilateral donor agencies are active in the various sectors of Kenya. Generally, there is little active coordination. Different donors bring with them a variety of objectives, project preferences and operating procedures, and the degree of general information exchange and even coordination at the project level are often poor (CDSS, page 5, USAID/Kenya, January 1979).

In the health sector specifically, these conditions also tend to be generally prevalent. With respect to cataloguing individual activities, there is no central source of specific donor involvement in the MOH. MOH personnel in individual health programs may have close interaction with representatives of donor agencies involved in their programs, and of course at higher MOH administrative levels there is general knowledge about broad general levels of donor

activity in health. However, the MOH receives its funding for individual projects from the central treasury source, without specific donor earmarking. Further, for any discrete time period there may be substantial differences between general levels of indicated donor commitment to an area or to a project, versus actual fund flows during that period; in addition, the billing of donor agencies is lagged, often by substantial periods, making actual levels of donor activity difficult to tag. (For example, USAID/Kenya has not been billed for its contributions in family planning for about two years)

On the other hand, the Ministry of Finance and Planning does maintain records of donor funding, but these are not presently organized on the basis of individual sector. Thus, although data on donor funding oriented specifically to the health sector do exist in the Ministry of Finance and Planning, the extraction of this information constitutes a task of considerable proportions, one that the Ministry was not able to undertake during the period in which this HSA was being prepared.

Consequently, in this Annex a summary of the general proportions of donor involvement in Kenya's development is first presented. Then such involvement specifically in the health sector is discussed, but with emphasis limited mainly to coordination of principle donor activities in the areas of primary USAID interest. Thus it should be understood that this overview is not considered to be either comprehensive or complete.

Overall Donor Activity.-- As indicated above, some 30 donor agencies are presently actively involved in assisting in Kenya's development (see CDSS, page 25 ff.). As of December, 1978, donor commitments for ongoing projects totalled approximately $1,450 million ($1,000 million loans, $450 million grants). Additional commitments for 1978 were roughly $625 million, plus some $150 million in debt cancellation (Sweden and the United Kingdom).

The largest commitment was $227 million by the IBRD (38 percent of total donor commitments); the major bilateral donors were the U.K. (13.5 percent), West Germany (7.5 percent), the U.S. (6.0 percent), and Sweden (5.6 percent), as indicated by UNDP (Compendium of Donor Assistance as of December 31, 1977).

The concentrations of donor commitments were in agriculture (31 percent), transportation and communications (24 percent), urban/housing (15 percent), health (8 percent), and education (4 percent). About 45 percent of all donor assistance was earmarked for rural development activities. USAID, however, has earmarked 81 percent of its assistance to Kenya for rural development, and ranks third in its contribution to total donor assistance focused on rural areas.

Coordination among donors is fostered by the bi-annual meeting of the "Consultative Group", which is chaired by the IBRD, and by meetings hosted periodically by the GOK. However, present levels of coordination leave very much to be desired, especially with respect to such concerns as the GOK's absorbtive capacity, recurrent cost

problems, population and family planning, and GOK plans for development of arid and semi-arid lands (ASAL). Consequently USAID/Kenya is especially interested in furthering donor coordination in its areas of major interest.

AID Health Interests and Coordination with Other Donors.-- One of the specified objectives of the USAID/Kenya Planning Project is to improve donor coordination in the health sector. This Mission initiative is responsive to the general Africa Bureau objective of exerting a "deliberate and organized effort to achieve an increased level of effective coordination with other health Donors in Africa" (Bureau for Africa, AID, Health in Africa, page 7). Thus one objective associated with the establishing of a Division of Planning and Implementation (DPI) in the MOH is to "provide central focus and direction to the various planning and implementation activities which presently are scattered among various offices and projects throughout the MOH, some of which are financed by other donors...." (USAID/Kenya, Health Planning Project Paper, page III-2, 3).

Consequently, the U.S. technical assistance team provided under this project will report directly to the Chief Deputy Director of Medical Services (CDDMS), MOH, who will in turn be assisted in his coordination role by the Planning Policy Coordination Committee (PPCC), which is also established under this project. Since the direct responsibility for coordinating the activities of this planning project with the inputs of other donors rests with the

Office of the Director of Medical Services, and the PPCC consists of officers in charge of directing the various individual donor-financed MOH projects, this structure provides the focal point for donor coordination that is presently absent.

The development of this machinery for health sector coordination should be especially helpful in those areas where new donor initiatives are needed, but where a substantial donor involvement already exists. One such area is family planning, in which current Mission strategy is not well defined at this transitional phase. The Mission recognizes that the present magnitude of Kenya's population problem will require a multi-donor as well as a multi-ministerial effort. Hence the development of MOH coordinating machinery is critical to further strategy development in this sphere. In addition, since nutrition is an area of new emphasis by both USAID/Kenya and the MOH, but is also related to current large-scale activity in agriculture which has extensive donor involvement, a coordinating capability is essential to development of specific interventions.

It should be noted however that some coordination among health sector donors has been accomplished, and in fact a part of this has been in conjuction with the program development efforts of the HRA/DHEW economist, who has been working closely with the MOH: he has participated jointly with representatives of other donor agencies in various provincial seminars, has assisted NORAD personnel

in costing out project components, projecting manpower requirements and providing policy issue papers on rural health strategy, and is currently serving on the DANIDA and IBRD task force dealing with rural health care delivery planning.

The nature of the activities of major health sector donors, particularly with respect to major current USAID interests, is briefly described below.

DANIDA has provided an Administrative Support Unit (ASU) in the MOH since 1977, to help strengthen and support management at all levels in the MOH. Past activities have concentrated on short-term management training and consultancy services, primarily conducted in the field. Areas of emphasis have included the management of outpatient services at district hospitals, management seminars for psychiatric nurses, short courses in planning and management for trainers of rural health facilities personnel and participation in district seminars sponsored by the RHDP (conducted for the purpose of informing District Heads about the Government's rural health system development strategy). As a result of the activities of a recent evaluation mission, priority areas include the strengthening of MOH organizational structure (including communications), review of job descriptions, job instructions and training, improvement in the conduct of MOH meetings, and building management, including utilization and office location.

In addition, the ASU will continue to conduct management training exercises in the field, with emphasis on training of trainers and assisting with management problems in connection with administration of Kenyatta National Hospital. A major effort is currently under way to study current drug supply problems in connection with rural health facilities in an effort to make recommendations concerning how drugs, supplies and equipment procurement and distribution on behalf of rural facilities can be improved. The unit consists of two expatriate experts, two B.A. Kenyan economists and supporting personnel, under the direction of a Deputy Director of Medical Services, MOH. The unit's activities are being coordinated by a Steering Committee comprised of MOH officials and DANIDA representatives.

During the course of the evaluation of the ASU during April 1979, DANIDA officials were apprised of the MOH decision to strengthen its planning and implementation capacity through USAID assistance. This decision was viewed as a "very much appreciated developmentment". It was agreed that the activities of the ASU and the new Planning and Implementation Division would be complementary. Indeed, in view of time lag involved from the time the USAID project is launched until its completion, the activities of the ASU in identifying and partially solving many important managerial problems will facilitate the work of the planning division in the future.

NORAD has supported the Rural Health Development Project (RHDP), which has concentrated primarily on the organization and training of

the staff of rural health facilities. Current staff consists of a Kenyan administrative secretary (who has only recently joined the group), two long-term expatriate advisors (one physician and one facilities planner), three Kenyan health professionals (clinical officer, nursing officer and public health officer), one Kenya regional planner, one short-term expatriate planner and staff supervised by a Deputy Director of Medical Services, MOH.

The planning work that has been performed by the RHDP for the past year or so has done much to elaborate the original WHO rural facility network design. The location of facilities has been tentatively fixed, taking into account topography, transportation service availability, population density and area. However, the RHDP focuses only on the rural health delivery system, with predominant emphasis on facility siting and the population coverage provided by static health facilities supported by mobile clinics. Broader policy planning issues, such as those concerning appropriate balance between hospitals, rural health static facilities, community based health systems, and mobile clinics--all in connection with recurrent cost implications-manpower deployment and training requirements, and the level and types of health services that can be expected to be provided are addressed only tentatively, and only on an ad hoc basis.

Efforts are being made by NORAD to replace the long-term facilities planner through advertising the post in Norway. Additional

efforts are being made to recruit expatriate personnel on a short-term basis at least until the arrival of USAID long-term planning experts and the completion of a significant portion of the training of Kenyan health planners under the USAID planning and implementation project described in this paper.

DANIDA has supported a physical planning unit (consisting of one architect and one building engineer) since 1977. Funds were also available for a local draftsman, but recruiting for the position was initiated only recently. The architect has resigned his position and was to depart by the end of June, and the building engineer's contract terminated in August. DANIDA is in the process of advertising these positions, which will be assumed by expatriate personnel recruited from abroad. It should be noted that although small, this unit has played a key role in the implementation of rural health facility projects.

SIDA in the recent past has provided support for expatriate assistance in planning in the MOH. During 1978, one U.S. national was supported to assist the MOH in developing the health development plan. More recently in 1979 further assistance was provided to support several months of effort of another U.S. national to assist the planning efforts of the RHDP. SIDA currently is supporting the services of Dr. Stig Lundin in connection with manpower development and planning for a period of two years beginning in July 1978.

The World Bank supported a health planner in the MOH during 1973-1977, and supported a Family Planning coordinator in the MOH Family Welfare Centre during years 1977-1978. More recently, the bank dispatched a Mission which arrived in Kenya early in 1978 to explore the possibility of committing a large volume of funds to expanding Kenya's rural health facility network, with an emphasis on integrating primary health and family planning services. In connection with this undertaking, the World Bank suggested the formation of various committees for the purpose of developing an "action plan" for implementating the project by early 1979. This did not prove feasible. As an alternative approach, a World Bank team of officials and consultants, in co-operation with MOH officers, will begin the formulation of an "action plan" for implementing the World Bank health care delivery expansion program during 1979. This exercise will be conducted over a period of six to eight weeks. The major activity has been preceded by the arrival of a manpower planner in June 1979, to make preliminary projections of health manpower needs and requirements. This World Bank exercise will be an important contribution to assisting the MOH in maintaining general momentum in its planning efforts.

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