A Working Paper on Health Services Development in Uganda
Issues, Analyses and Recommendations

Contract No. AID/SOD/PDC-C-0198
Work Order No. 2

By:
Family Health Care, Inc.
1211 Connecticut Avenue, N.W.
Washington, D.C. 20036

Submitted:

In Draft: March 1, 1980
Kampala, Uganda

Final Edition: April 15, 1980
Agency for International Development
Washington, D.C. 20523

A Family Health Care Repo.

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FOREWORD

This review of the health sector of Uganda was conducted as part of a comprehensive assessment of three sectors--agriculture, education and health--being undertaken by AID's Mission in preparation for USAID's overall country strategy. Performing the review and analyses that are contained in this report was a team composed of professionals from the staff of Family Health Care, Inc. and USAID's Office of Health.

The field visit phase of the project was conducted during the month of February 1980 by the following three-member team:

Stanley C. Scheyer, M.D., Team Leader, FHC

David Dunlop, Ph.D., Health Economist, USAID Office of Health

Alan Fairbank, Deputy Director, International Division, FHC

Extensive materials were collected and a relatively comprehensive interview and facilities review process was made possible through a tightly scheduled itinerary, arranged with the fullest cooperation of the Ministry of Health staff, both centrally and in the field, representatives of other Ministries, and the missions. In addition, visits and interviews were also conducted by the team and the Mission Director, Charles Grader, on a three day trip to the Northern Karamoja region of Uganda. This was made possible by the accompaniment of Mr. Peter Okello, Ministry of Health and Mr. John Bulinda, Ministry of

Economic Plan. Mr. Okello provided extensive socio-cultural information during the course of these visits, as well as detailed, direct health-related information.

A list of persons and institutions visited is included in Appendix L. The team had regular and indepth discussions with principals in the Ministry of Health, international and private organizations, and spoke with individuals in the Ministries of Finance, Planning, and Local Administrations. Hospitals visited included Mulago, Mbale, Moruto, Abim, and Gulu. A number of health centers and dispensaries were seen, as well as the private clinics and pharmacies in Kampala. The government's Central Medical Stores in Entebbe were also visited. Finally, other individuals and institutions were contacted so that a relatively representative sample of health needs and of health and health-related services and personnel, in both the public and private sectors, was made possible.

In addition, extensive resource materials were collected in the U.S., with the assistance of the Family Health Care staff. The extensive research and resource materials made available by Dr. David Dunlop's doctoral dissertation on the Uganda health system were extremely valuable in our analysis.

The authorship of this report was a combined effort of the entire team. The team wishes to especially thank May Lee, USAID/Kampala, whose patience and dedication made our work in Kampala so pleasant and easy. Avis Ritchie of our FHC staff provided her usual efficient

assistance in the preparation of our final document. Finally, our team could not have completed our work in Uganda in the short time that we had without the support, advice, and warm hospitality of Sheila Grader.

SUMMARY STATISTICAL PROFILE OF UGANDA

General	1970	Most Recent Estimate
Per capita GNP	737	NA
Population (mid-year, in millions)	9.8	13.2
Land area (thousands of sq.km.)	236	236
Agricultural land area (thousands of sq.km.)		
Population density per sq.km.	42	56
Population density per sq.km. agricultural land		
Urban population (% of total)	6%	7
Labor force in agriculture (%)		86.0
Age structure (%):		
0 - 5 years	19.4	20.2
0 - 15 years	45.4	48.4
Adult literacy rate (%)	35	35
Electricity consumption (kwh/yr. per capita)	-	-
Income distribution		
% of private income received by:		
Highest 5% of households		
Highest 20% of households		
Lowest 20% of households		
Lowest 40% of households		
Health Status		
Life expectancy at birth (years)	46	
Crude birth rate (per 1,000 pop./year)	48	45
Crude death rate (per 1,000 pop./year)	16	14
Population growth rate (% increase/year):		
Total	3.3	3.1
Urban		

Health Status (continued)	1970	Most Recent Estimate
Number of years for population to double	22	23
Infant mortality rate (per 1,000 live births)	120	NA
Family planning acceptors (cumulative, 000s)		47 (1977)
Nutrition: Per capita supply of:		
Calories (aver. calories/day as % of requirement)	NA	90%
Protein (grams per day)	NA	54

Health Resources

Government health expenditures (recurrent):		
Total (millions of U.Sh)	157	287
As % of all government expenditures		
Per capita		
Population per physician	9,900	23,000
Population per nurse	2,925	3,740
Midwives	3,770	5,500
Population per hospital bed	655	680
Community water supply (% of rural population with access)		35

Units of Valuation

The official unit of currency in Uganda is the Uganda Shilling (USh). The official rate of exchange is U.S. $1.00 = USh 7.3.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

The rehabilitation of the health sector in Uganda faces a number of complex issues which the Government of Uganda has only begun to address. The prioritization, sequencing, and timing of investments over the next few years will be critical to an orderly reestablishment of a health program that will reverse the negative trends in health status that have occurred since the early 1970s. In the analysis which follows, we estimate that it will take increases in the magnitude of eight to ten times the current level of recurrent expenditures by both national and district governments to reestablish the Uganda health infrastructure to the operating level it had reached in the early 1970s. This estimate is independent of estimates of the substantial capital expenditures required to rehabilitate existing facilities to restore them to the condition in which they once again can operate effectively.

It is therefore extremely important that the Government understand both near- and long-term implications of both the capital and program investments being made at this time. It is highly probable that the future patterns of investments, while well intentioned by both the Government and those donors committed to assist the government, could result in demands on the recurrent budget which, on the one hand, the Government would not be able to meet, and on the other, divert scarce resources from investments in the income-producing sector, investments which, if carefully planned,

could also favorably impact the health status of the Ugandan people.

We are therefore not recommending at the present time a major health sector investment by USAID and other donors. We have, however, identified a number of activities which, if the Ugandan Government desires, will help them better understand and formulate a future health sector development strategy. We recommend that USAID, along with others, be prepared to assist the Government of Uganda in strengthening its capability to further examine the realistic alternatives available in the health sector. External donors could, for example, provide assistance to the Ministry of Economic Planning, the Ministry of Health, and the Ministry of Local Administrations and others in helping them formulate a health strategy in the context of overall Ugandan socioeconomic development. Such a policy group, under the jurisdiction of the above ministries, would have to address such issues as:

1. Can the Government of Uganda continue to provide free medical care to all its citizens?

2. What reforms in the existing health infrastructure are required to initiate village or subparish self-help schemes--schemes which many of those with whom we spoke consider highly desirable?

Perhaps more than any other African country, Uganda has a rich history of research and experience in rural health delivery which provides a sound basis on which to build. The reshaping of the health

system in the future should examine the lessons learned from the past, select and prioritize those activities which previously worked for Uganda and which can be incrementally reintroduced within the economic constraints the Government is now facing.

In our recommendation section we have taken the liberty to suggest a number of activities, priorities, and approaches which, in our judgment, the Government should consider as it begins again the process of improving the health status of its people. We recommend that USAID and others be prepared over the next year to discuss with the Ugandan Government how they might be of assistance in those areas.

Finally, we recommend that USAID, in concert with other donors, continue to provide the Ugandan Government emergency relief with essential drugs, food, and supplies in the immediate future.

I. HEALTH AND DEVELOPMENT IN UGANDA

A. THE DEVELOPMENT CONTEXT

Health and health services play an important role in socioeconomic development because of the cumulative and mutually reinforcing manner in which health improvements interact with development processes. This theory underlies the rationale for the increasing emphasis given to "basic human needs" by development planners in some developing countries, and it recognizes increasing evidence that simultaneous improvements in nutrition and health, declines in fertility, and increases in income are necessary prerequisites (as well as being benefits) of overall socioeconomic development.*

The situation in Uganda provides poignant evidence both of the strength of health and development linkages, and the importance that a national development strategy must ultimately invest in health improvements. Uganda is a unique case in this regard because the developments in its health services system and its people's health status during the past three decades show evidence of cumulative and synergistic interaction of health and development, first, in

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* For a detailed discussion of the interactions of health, population, and nutrition in the development process see Family Health Care, Inc., Planning for Health and Development: A Strategic Perspective for Technical Cooperation, Volume II, "Technical Background Papers," Washington, D.C., Office of Health, USAID, September 13, 1979.

progressive advancement, and then, since 1971, in steady deterioration of social and economic wellbeing, culminating in the war of 1978-79.

Before the turning point of Amin's takeover in 1971, Uganda's health status and health system had reached an impressive level, given its means, having been developed in parallel with national economic development strategy. During Amin's regime, Ugandan society was subjected to repeated political disruptions and economic policies which led to serious deterioration of health and social services. By the beginning of the war in 1978, staffs and budgets of health centers and hospitals were seriously depleted, drugs and supplies were in short supply, and a nearly total breakdown of the health services administration had occurred. Public health problems which had previously been all but eliminated from most of the country began to reappear as a result of the social and economic decline. An improvement in the pattern and distribution of diseases was reversed. Moreover, the effect of the war was to accelerate the re-emergence of certain epidemic diseases in certain parts of the country, particularly cholera, malaria, measles, and trypanosomiasis (sleeping sickness).

The discussion which follows will provide a theoretical and factual background to the state of health emergency which currently exists in Uganda. An examination of the dynamics of health improvements and development processes, both before and since 1971, will provide the necessary foundation for suggesting a strategy for rehabilitating the Ugandan health system and for assisting the

government in that process. An understanding of the development context of health and health services is a necessary perspective from which to judge the resources which should be and can be developed to meet the health needs of the country.

1. Health and Development Prior to 1971

a. The Economy

Like most sub-Saharan African countries, Uganda's economy is based on agriculture, which in 1970 accounted for about half of the gross domestic product (GDP) and for 90 percent of all employment and income. The production of coffee, cotton, and tea have been the main cash crops and have contributed a substantial share of the country's foreign exchange earnings, which generally relied heavily on agricultural exports. Smallholder farmers are an important segment of the economically active population (about 20 percent of the total) and are engaged both in subsistence farming and in cash crop production (agriculture production was about evenly divided between subsistence and monetary sectors in 1970).

Until 1971, the monetary economy had been steadily growing so that about 70 percent of GDP originated in the monetary sector (about half of which was industrial and service output). The rate of growth of GDP, which fluctuated over the years according to world prices for coffee and cotton, averaged 4.2 percent per year during 1954-1965, and 4.8 percent per year during 1966-1970.

Overall development of Uganda was keyed to increasing

agricultural output because the modern industrial sector was dominated by agricultural processing industries such as coffee curing, cotton ginning, textile production, and the processing of cooking oils, sugar, and tea.

Attempts were made during the 1960s to diversify agricultural production away from the primary crops of coffee and cotton, toward tea, tobacco, and sugar production. During the Second Plan period, tea production expanded rapidly, primarily due to the successful introduction of smallholder tea programs in the Western highland areas. During the Third Plan period, the tea program, as well as new projects in tobacco and sugar, were expected to result in rapid output increases. In addition, substantial efforts were to be made to increase food and livestock production. A strong commitment to rural development was made in the third Five-Year Plan, not only in terms of increasing total output, but also in terms of improving the distribution of social amenities and the standard living in rural areas.

b. Ugandan Development Policy Related to Health

The role of health in Uganda's development was given high priority in the 1960s. This was reflected in the country's planning strategies, Work for Progress (1966-71) and Plan III (1971-76). During the second development period (1966-71), the development strategy "aimed to change the structure of the economy so as to lessen its dependence on the existing export crops." The campaign to develop

the economy had "three spearheads: (1) agricultural development; (2) industrialization; and (3) expansion and improvement of education and health services."

The government's concern for the third "spearhead"--the improvement of education and health services--was manifested during the 1966-71 plan by a combined expenditure of USh 380.6 million, which comprised approximately 18 percent of all development expenditures during the period, with health receiving slightly more than half of the total (USh 191.3 million).

During the third five-year planning period (1971/72-1975/76), government's concern for health continued; although its priority, in terms of the proportion of the total development expenditures, declined from about 9.1 percent to 5.7 percent. The absolute expenditure was estimated to have remained constant (USh 183.5 million); however, with inflation taken into consideration, this figure represented only 80 percent of the second plan's expenditure on health services. This decline in total expenditures can be explained by shift in the nature of expenditures: the construction of 23 100-bed hospitals was targeted during the second development plan, while improvement of rural health facilities such as health centers and training more health workers was the target of the third plan. In addition, a substantial increase was projected for two preventive health programs: water supplies (to a level of USh 159.8 million) and population control (a nominal USh 1.0 million allocated from government funds).

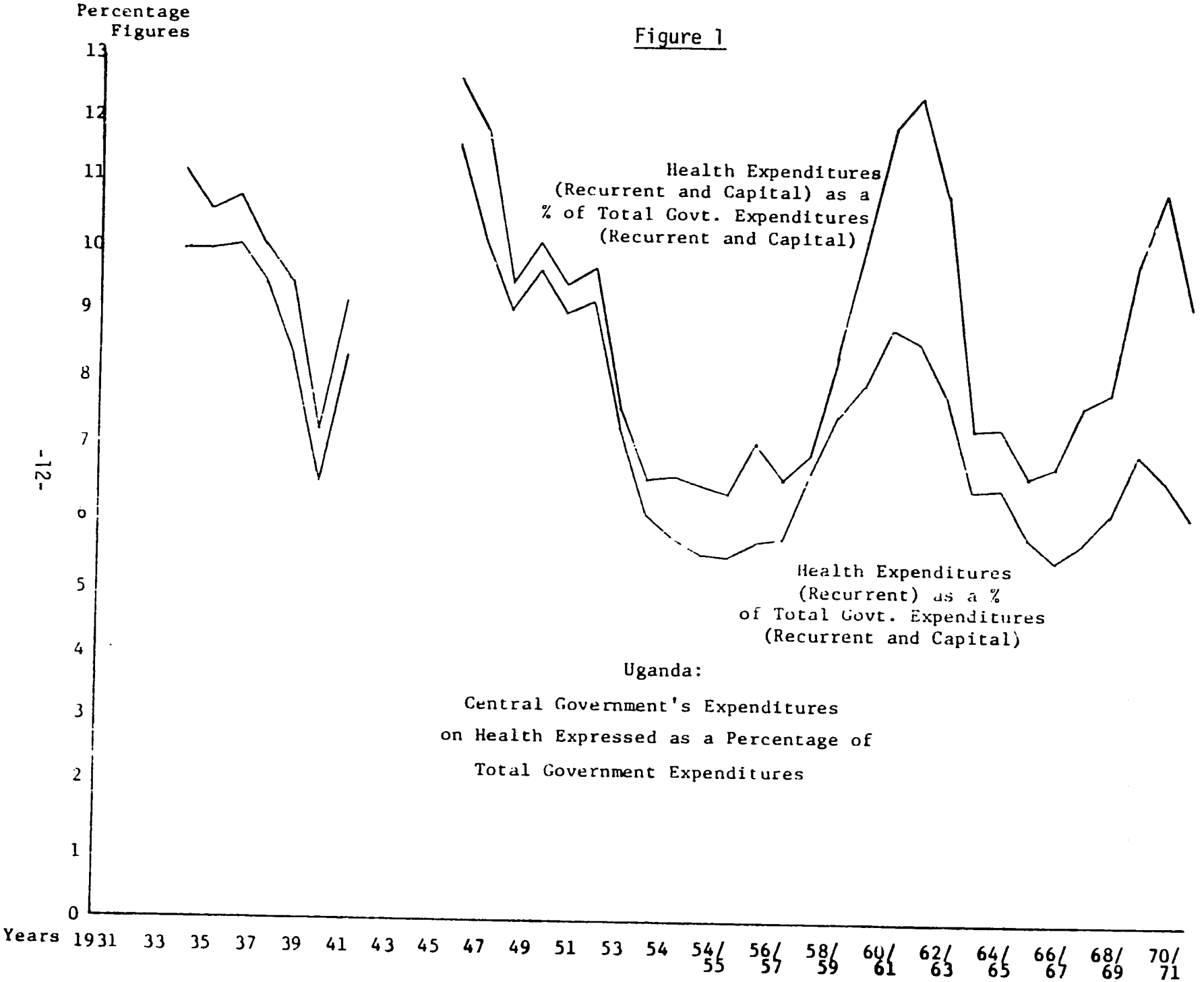
The development of rural areas clearly had high priority during Plan III. By its statements in the Plan, the government recognized that (a) its resource endowment required the development of rural areas, and (b) rural living conditions, including health services, had to be improved in order to increase agricultural production and to minimize the rate of rural-urban migration.

c. Uganda's Financial Commitment to Health Services

Uganda maintained a fairly large development commitment to health services for some time (Figure 1). From the mid-1930s to 1970, the central government consistently allocated a minimum of 6.5 percent of the total recurrent and capital budget to health services during years of minor capital improvements. In addition to this central government commitment, local government expenditures on health increased substantially in later years. Since 1947, the percentage of total District Administration expenditures allocated to health has risen from approximately 3.5 percent to nearly 20 percent (Figure 2).

The first upward shift (1956/57) was related directly to the implementation of the so-called Frazer Report, one of whose main recommendations was the improvement of rural health services. The second major shift occurred near the time of Independence, October 9, 1962; the major cost increase at that time was due to shifts in power and political relationships between the central and various local governments. Finally, the launching of the second Five-Year Plan in 1966/67 gave emphasis to the expansion of health services. This

Figure 1



Uganda:

Central Government's Expenditures on Health Expressed as a Percentage of Total Government Expenditures

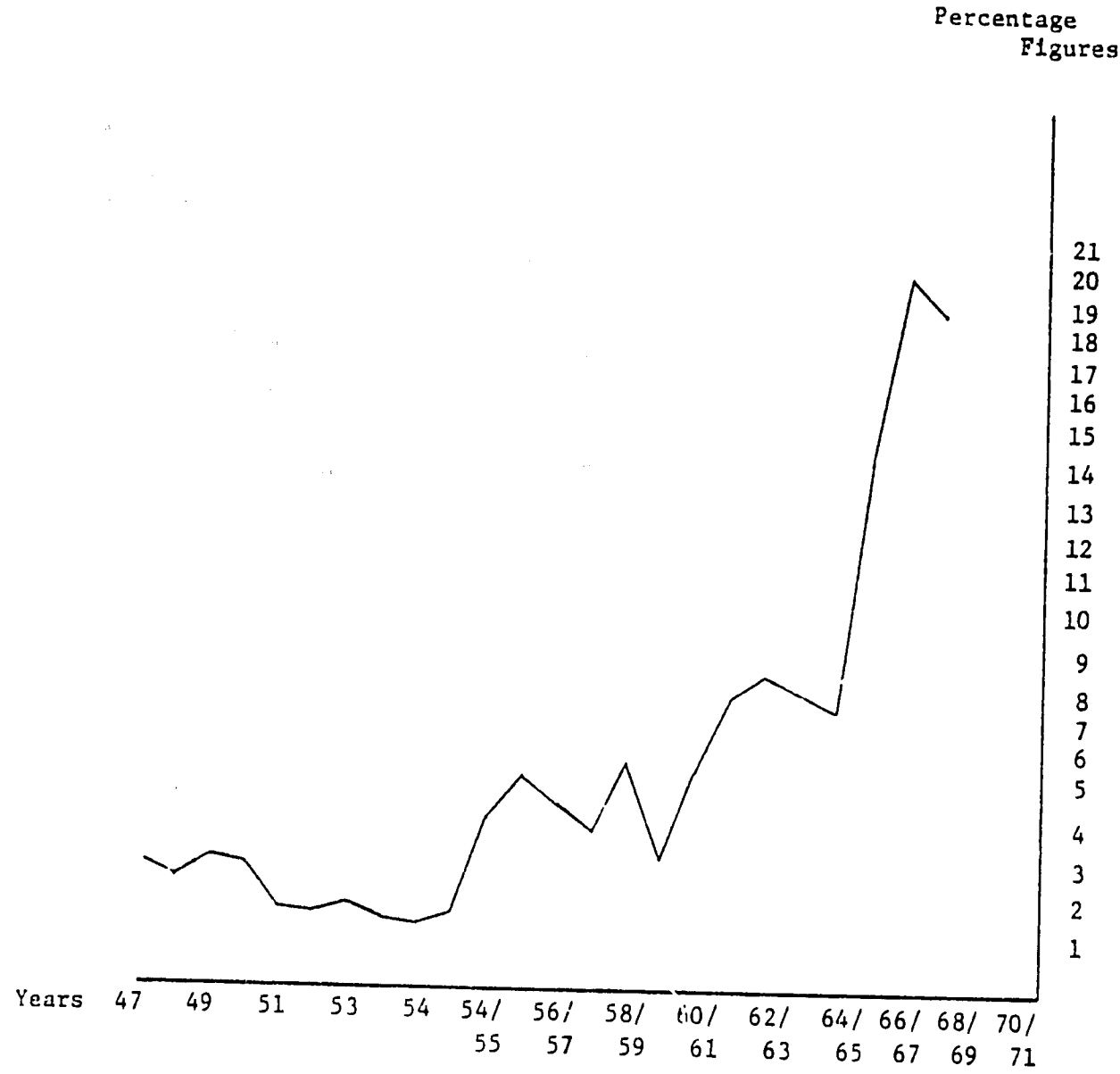
Figure 2

Uganda:

District Administration Government's

Expenditures on Health (R & C)

Expressed as a Percentage of Total District Government Expenditures (R & C)



Note: R & C = Recurrent and Capital Budget Expenditures

expansion occurred not only in hospital facilities, but also in rural health facilities, such as health centers and dispensaries. The combined expenditures of local governments on health services increased from USh 22 million in 1965 to USh 35 million in 1970, in spite of a large decline in expenditures recorded in Buganda district. As a share of total local government expenditures, health services increased during this period from 8 percent in 1966 to approximately 20 percent in 1970.

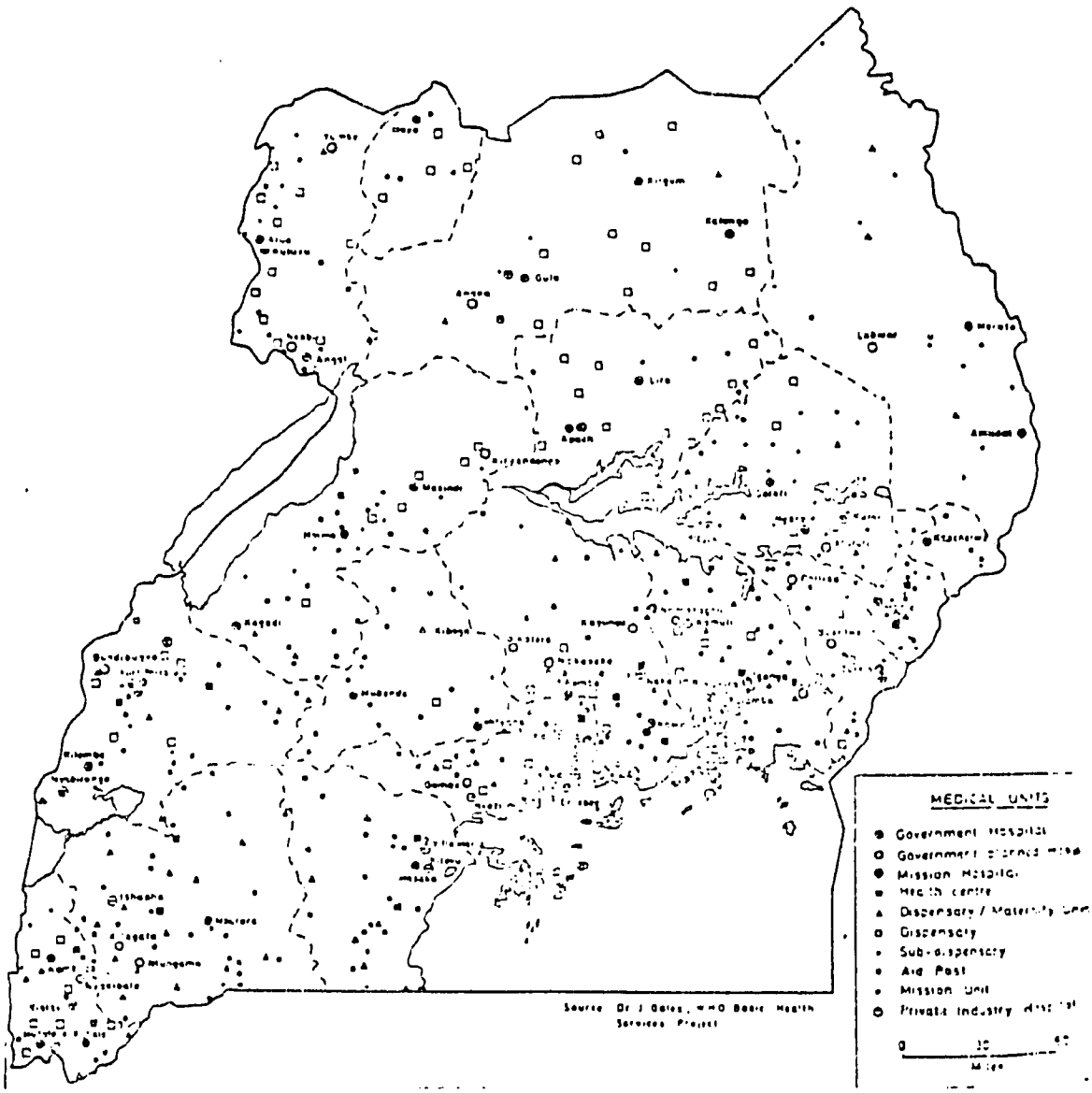
Finally, it is important to point out that approximately 75 percent to 80 percent of expenditures on health services in Uganda have been directed toward curative as opposed to preventive services.

d. The Health Service System in Uganda

The curative health service system that had developed in Uganda by 1971 was characterized by a number of different types of health facilities, as well as several administrative structures through which services are delivered (Figure 3). The government provided curative services, without charge, in hospitals, health centers, dispensaries, subdispensaries, maternity centers, and aid posts. The Catholic and Protestant Church Medical Bureaus also provided curative health services, for a small fee, through hospitals, subdispensaries, and maternity centers. Curative health facilities were also operated by large commercial firms for employees and their families. The type of facility maintained by the firm was determined primarily by legal requirement: firms employing more than 1,000 persons had to have a

Figure 3

Distribution of Health Facilities in Uganda



Source: S. A. Hall and B. W. Langlands, eds., Uganda Atlas of Disease Distribution, Occasional Paper No. 12 (Kampala: Department of Preventive Medicine and Department of Geography, Makerere University College, 1968)

hospital, whereas smaller firms could either operate a dispensary or contract with a private physician for service as required. The Army and Prisons also offered curative health services to their specialized populations through dispensaries and, in the case of the Army, a hospital. Finally, there were a number of private practitioners in the larger cities and towns who provided a range of curative services to those willing to pay.

Government health facilities were integrated in such a way that an individual could be referred to a facility providing more intensive care or treatment than that offered by the facility originally attended. It was theoretically possible for an individual who initially attended a weekly outpatient clinic in a rural aid post to eventually receive treatment at Mulago Hospital in Kampala, the country's national referral, teaching, and research hospital. In addition, private physicians, mission facilities, and other population-specific facilities could refer individuals to government facilities for certain specialized services. The most common referral relationship, however, existed between rural government health facilities and government district hospitals.

Preventive health services in Uganda were usually provided by local governments--district administrations, municipalities, and townships. Environmental health services such as sanitation, waste disposal, vector control, and clean water supplies were administered by special health manpower, headed by the health inspector. Other preventive services, such as ante-natal clinics, young child clinics,

and immunizations, were usually delivered through weekly clinics held at local health facilities. The central government also supported an immunization team, which traveled throughout the country and conducted daily immunization clinics. In one district, the preventive services of static facilities were supplemented by a mobile health team, which brought immunization, young child, ante-natal, and health education services to 30 different locations in the area one day each month.

e. Health Status

At the outset of Plan III in 1971, Uganda enjoyed a level of health services far superior to many other developing countries. With a total of well over 400 health units (ranging from rural subdispensaries to large reference hospitals) dispersed all over the country, there was some form of medical center within a reasonable distance of every household, and the records showed that a rapidly increasing number of people did actually make use of these facilities. The basic health services were provided free to all. A number of once major health scourges such as smallpox, sleeping sickness, meningitis, and certain venereal diseases had been reduced to only occasional incidence; while others such as tuberculosis, poliomyelitis, river blindness, and leprosy were under control. The preliminary analysis of the 1969 Census revealed that the infant mortality rate may have fallen by as much as 25 to 30 percent between 1959 and 1969. Although the overall infant mortality stood in the neighborhood of 120 per thousand live births, in certain areas this rate was reduced below 100. The Census also revealed that overall

life expectancy at birth was appreciably higher than 40 years, and as high as 46 years in some regions of the country. Although precise quantitative comparisons were hard to make, these indicators pointed to considerably improved health conditions compared to those of a decade or so earlier.

2. Health and Development Since 1971

a. The Economy

While the Ugandan economy was still expanding in early 1970, virtually all economic indicators showed a downward trend from that point onwards, with some acceleration downward after 1973 when all Asians, who comprised the majority of traders and merchants in urban centers, were expelled from the country. Government figures showed that total GDP per capita in 1966 prices declined from USh 745 in 1970 to USh 672 in 1974, an average annual decline of 2.7 percent.* From the mid-1970s, GDP data became increasingly unreliable and were not even calculated after 1976/77.

Indicators of industrial, export, and financial activity, however, all show evidence of a steady contraction of activity in the organized, legal, and monetary sector of the overall economy. Real investment fell sharply, inflation surged, and production declines

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* Ministry of Planning and Economic Development, Republic of Uganda, The Action Programme, A Three-Year Economic Rehabilitation Plan, 1977/78-1979/80, (Entebbe, Government Printer, no date), Table 1.2, p. 25.

accelerated, in the modern sector particularly, as imports decreased. As farmers turned increasingly to subsistence agriculture for essential food crops, production of cash crops dropped and exports declined correspondingly. From 1974 to 1978, according to World Bank estimates, both exports and imports declined in real terms by over 40 percent. Whereas Uganda in 1970 enjoyed one of the highest per capita incomes in East Africa, by 1978 it had experienced a real decline estimated by the World Bank at about 25 percent.*

The Government's attempt to exercise greater and greater control over the economy during this period of contraction exacerbated inflation, discouraged investment and participation in the modern sector, and caused a rapid surge of economic transactions occurring in the non-formal sector. Magendo (black market activities) became an increasingly important source of income for people whose regular wages could buy only a fraction of their basic consumption needs. Production of domestic manufactured goods declined substantially from 1970 to 1978, with some essential consumer goods experiencing near total elimination of output:* as a percentage of 1970 production, 1978 production of soap was 9 percent; 1978 production of cooking oil was 11 percent; and 1978 production of blankets was 14 percent. Imported consumer goods, when available in 1978, were prohibitively expensive to all but the very rich. Production of some cash crops experienced similar output reductions: as a percentage of 1970 output, 1978 production of sugar was 8 percent; and 1978 production of cotton was

* World Bank, "The Rehabilitation of Uganda - A Preliminary Progress Report," IBRD East Africa Region Working Document, memographed, November 2, 1979.

15 percent. Subsistence agriculture increased as a proportion of total output as people returned to their land to produce only what they themselves could consume or needed.

b. Health Services Development During the 1970s

At the beginning of the decade, the government was in the midst of expanding its already extensive network of hospitals and health centers. At the time Plan III was published, the targets of the second plan had only been partly achieved; of the planned addition of 23 100-bed rural hospitals, only 11 had been completed (the rest were scheduled for completion by the end of 1971); of the original target of 327 rural health centers, few were completed even though the target had been revised downward to only 36. Including the 1,200 beds to be added from the completion of rural hospitals, Plan III established a target of 3,400 additional beds during the plan period, mostly in district and urban hospitals. Important additional objectives of Plan III were the assumption of direct responsibilities for district medical administration (of rural health centers and local dispensaries) by the Ministry of Health (to be taken from the Ministry of Local Administrations), and significant expansion of training capacity of various types of health manpower.

The political and economic policies introduced by the Amin regime, however, caused serious disruption of plans in all ministries, not the least of them in health. By mid-1974, only 1,183 hospital beds had been added in government hospitals in the four years since

1970. Shortages of foreign exchange led to reductions in the availability of supplies and equipment, and a steady deterioration in physical facilities as lack of spare parts inhibited proper maintenance. These effects, as well as budgetary cutbacks, led to staff attrition, as trained medical personnel of all types left the country for employment elsewhere. This development was accelerated by the expulsion of Asians in 1973, which was followed by the departure of many expatriate physicians and technicians. By 1975, the importation of drugs and medical supplies had slowed to a trickle, and the administration and general management of government health facilities was becoming increasingly hampered by a host of fiscal, personnel, and logistical difficulties.

In sum instead of expanding its health services or even maintaining the existing network of services, the government services deteriorated. In many areas of the country, the partially staffed and faltering facilities were abandoned completely during the final days of the war, and the frenzy of looting which followed eliminated whatever was left of the drugs, supplies, and equipment. The government health services were thus totally unable to respond to the increasingly critical health problems of the people which had been brought on by the dissolution of the previous structure of the economy and the society.

c. Health Status During the 1970s

The deterioration of the health status of Uganda's people which

occurred during the 1970s (and which is discussed in detail in the next section) was partly related to the decline in available services and drugs, and partly to the abrupt appearance of the particularly adverse social and economic conditions that are the underlying causes of ill health. In regard to decreasing availability of health services, the almost total breakdown of immunization and MCH services had far more serious impact on the population than the decline in general diagnostic and treatment services. In terms of the effects of the breakdown of the economy and of social services and amenities, some of the dynamic processes which led to greater public health problems were as follows:

- In urban areas, social services and amenities were gradually eliminated or drastically reduced; waste and sewage disposal services functioned poorly or not at all; the water system deteriorated from lack of maintenance; the resulting unsanitary conditions and unsafe drinking water led to an increase in water-borne and fecal-borne gastrointestinal diseases.

- In rural areas, immigration from the towns and cities put pressure on the capacity of small farmers to feed extended families, which were growing rapidly; malnutrition and related diseases increased, particularly among low-income families.

- Almost 80 percent of all hand-pump-operated boreholes were out of operation by 1979 due to lack of maintenance; thus, rural families suffered increased incidence of water-borne diseases

when forced to use polluted sources of drinking water.

- Steady and substantial declines in per capita income associated with increased unemployment led to increased crime and psycho-social disorders.

- Lower standards of living made it increasingly difficult for families to buy the food and shelter fundamental to maintaining physical wellbeing.

In terms of health status, the years of Amin's regime have caused the kinds and incidences of diseases that were characteristic of the Uganda of 30 years ago. Reversing such a rapid (and still continuing) decline in health status will be a considerable task--one that will involve far more than the rehabilitation of the relatively intact (and extensive) physical infrastructure of medical care facilities throughout the country. A return to health status of 1970 will require the alleviation of that complex of social and economic ills that underlie the current causes of poor health. Curing these ills requires an overall strategy and plan for the long-term socioeconomic development of the country.

B. THE HEALTH SITUATION: CHANGING TRENDS

1. Immunizations

With respect to communicable diseases such as polio, measles, smallpox, TB, whooping cough, diphtheria, and typhoid, the data in Table 1 present a sobering picture. Whereas in the late 1960s and early 1970s there had been an active program to immunize a large

TABLE 1

Number of Immunizations

1966/67 1970 and 1974

Immunization Type	1966/67	1970	1974	1977/78*	1979
DPT Dose 1	187,100	100,600	114,300		Virtually nil
" " 2	85,200	62,900	55,500		"
" " 3	47,000	49,800	46,800		"
Smallpox	316,800	3,049,500	144,500		"
BCG	110,800	602,800	131,100		"
Polio Dose 1	527,900	243,800	118,900		"
" " 2	241,900	97,800	55,200		"
" " 3	153,600	65,100	46,200		"
Measles	NA	NA	13,200		"

Sources: 1. D.W. Dunlop, 1973

2. M.O.H., Medical Services Statistical Records, 1969/70

3. " " " " " 1973/74

4. Personal interviews with MOH/UNICEF officials

*An expanded immunization program was initiated in 1977, but was interrupted in 1978 due to the war.

percentage of the young, in the last several years the immunization program had fallen to virtually zero. Since 1976, the government has been unable to purchase drugs from its former supplier, the British Crown Agents. In addition, until late in 1979, the government had not received any external assistance from such organizations as UNICEF or WHO. Thus, the immunization program is only now being reactivated. With outbreaks of cholera, polio, whooping cough, and a rapidly rising incidence of measles (presently the number one killer of children in conjunction with malnutrition), it is clear that the health status of children in particular has been adversely affected. The data on the number of TB cases seen at government hospitals also indicate a rapidly increasing problem as well which may be amenable to an expanded BCG campaign.

2. Ante-Natal and MCH Services

Trends in ante-natal services from the late 1940s to 1978/79 are documented in Table 2. Total attendances increased at an annual rate of 4.0 percent from 1940 to 1966/67 and new attendances increased even more rapidly--5.7 percent per year during the same period--which is nearly double the estimated annual rate of increase of the population over the period. In 1950, only 45 percent of all pregnant women attended ante-natal clinics. By 1967, approximately 65-70 percent of pregnant women attended an ante-natal clinic at least once prior to delivery.

The peak coverage occurred in 1969/70 with approximately 92

TABLE 2

ANTE-NATAL (PRE-NATAL) SERVICES

Year	Estimated Total Birth (in thous.)	New Cases (in thous.)	(2) New Cases as a % of Total Births	Old Cases (in thous.)	Total (in thous.
1949	213.3	98.5	46.1	211.3	309.8
1952	229.1	113.5	49.6	163.7	277.2
1956	252.9	150.7	59.6	236.2	386.9
1960/61	320.6	156.6	48.8	235.6	392.1
1963/64 (1)	358.6	198.6	55.4	290.3	488.9
1965/66	386.4	276.1	71.5	465.5	741.6
1966/67	401.1	259.9	65.0	351.5	611.4
1969/70	448.6	412.4	91.9	657.1	1,069.5
1973/74	520.8	306.3	58.8	568.8	875.1
1978/79	627.5	NA	NA	NA	NA

Source: Annual Reports or Statistical Reports from the Uganda Ministry of Health.

Notes:
1. Figures for Buganda Region, although included, are incomplete.
2. A new case refers to the first visit a woman makes to a particular clinic for a new pregnancy. For each new pregnancy, the woman is counted as a new case.

percent of all pregnancies being attended at least once prior to delivery. By 1973/74, the number of new attendances had fallen by 25 percent and coverage had slipped to less than 60 percent. As the health service system was increasingly harassed in the late 1970s, ante-natal coverage undoubtedly slipped below the levels attained in the post World War II period.

The same trend is noted in attended births. In 1969/70 the percentage of births occurring within government, mission, or other licensed health facilities was 33 percent, whereas by 1973/74 the figure had declined to 22 percent, with the number today, we suspect, being even less.

3. Disease Mix

The Ministry of Health analyzes attendances at government and mission hospitals by 14 major disease categories adapted from World Health Organization classification standards. Analysis of this summarized information over time yields a good idea of (a) the distribution of diseases treated, on inpatient and outpatient bases, at mission and government hospitals, and (b) changes in the distribution over time. Thus, changes in the major health problems of the country can be ascertained. The following analysis of diseases treated in government and mission hospitals is based on the data presented in Tables 3 through 6 and are for the period 1952 (1958 for mission hospitals) through 1973/74.

a. Inpatient Treatment

The distribution of diseases treated as inpatient cases in government hospitals is presented in Table 3. Admissions for infectious and parasitic diseases (malaria, measles, helminthiases, tuberculosis, venereal disease, etc.) have dominated the entire period (1952-1973/74), but the percentage of the total comprised by infections and parasitic diseases had declined by 50 percent from 34 percent of the total in 1952 to 17 percent in 1968/69, but then has increased to nearly 29 percent by 1973/74, or to levels approximating the mid-1950s. The categories of normal delivery and complications of pregnancy and puerperium both grew more rapidly than any other over the period. In combination, these two categories grew from 12.4 percent of total admissions in 1952 to nearly 30 percent of admissions in 1968/69, but then declined to less than 25 percent by 1973/74. The early period increase is primarily due to changes in traditional practices related to birth, increases in ante-natal services, an increased supply of maternity beds, and an increase in the birth rate.

Allergic, metabolic, and blood diseases (e.g., malnutrition, anemia, etc.) rose from approximately 2.1 percent in 1952 to approximately 5 percent by the 1960s. Alimentary causes (e.g., gastritis, hernias, etc.) had increased continuously, from 6.6 percent in 1952 to 10.0 percent in 1968/69, but then declined a little by 1973/74. Both skin and musculo-skeletal diseases and ill-defined diseases declined markedly over the period. The drop in ill-defined

TABLE 3

Distribution of Diseases Treated in Uganda on an Inpatient Basis in Government Hospitals; Percentage of Total Cases by Disease Category in Selected Years.

Disease Category	1952	1955	1958	1961/62	1964/65	1968/69	1973/74
Infective & Parasitic	33.8	28.2	21.3	19.6	15.8	16.8	28.8
New Growths	1.3	1.7	2.0	2.2	2.9	1.8	
Allergic, Metabolic & Blood	2.1	2.5	3.7	5.3	4.5	4.7	4.1
Diseases of the Nervous System & Sense Organs	3.2	3.7	3.7	3.1	4.0	2.7	2.1
Circulatory	0.7	1.0	1.1	1.4	1.9	1.7	1.7
Respiratory	9.9	10.3	9.5	9.7	10.4	10.6	10.6
Alimentary	6.6	6.2	7.4	9.0	9.8	10.0	8.5
Genito-Urinary	2.9	4.8	5.5	5.6	5.2	3.9	3.3
Pregnancy and Puerprium	4.8	6.8	8.5	9.9	10.4	11.0	8.4
Delivery Without Complication	7.6	10.6	13.4	14.1	13.6	18.7	16.3
Skin & Musculoskeletal	8.6	6.2	5.2	5.1	5.5	4.6	4.2
Diseases of the New Born	1.2	1.0	0.9	0.8	1.2	0.9	1.2
Ill-defined Diseases	7.3	7.4	8.2	4.7	3.8	1.7	1.9
Injuries	10.0	9.7	9.7	9.5	11.0	10.8	7.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Calculated from Republic of Uganda, Ministry of Health, Annual Report or Statistical Records, (Entebbe: Government Printer, selected year).

conditions may reflect (a) improvements in diagnostic procedures and/or (b) increased availability of laboratory services, such that a smaller percentage of all diseases remain ill-defined; it may also reflect the presure of demand, with a certain self-selection process operating such that only more readily diagnosible conditions are treated today on an inpatient basis than in the past, given the limited supply of inpatient treatment facilities. Injuries remained a fairly constant 10.0 percent of all cases admitted to inpatient treatment in government hospitals through 1968/69 with an increasing proportion related to increased automobile traffic. The proportion had declined a bit by 1973/74 to less than 8 percent of the cases.

The distribution of mission hospital inpatient cases is shown in Table 4. As in government hospitals, infectious and parasitic diseases are most prevalent, comprising 33 percent in 1958 and 27 percent in 1968/69 and increasing again by 1973/74 to 33 percent. Pregnancy-related cases comprise a large percentage (between 20-24 percent of total cases treated over the entire period).

Allergic, metabolic, and blood diseases as well as alimentary diseases, have increased as a percentage of all inpatient cases over the period. There appears to have been a fairly significant drop in the percentage of genito-urinary cases treated in mission hospitals, from 5.0 percent in 1958 to around 3 percent. Injury cases, as a percentage of the total cases treated, were faily stable over the period (2.1 percent to 2.9 percent), but comprise a much smaller percentage of total cases treated than in government hospitals.

TABLE 4

Distribution of Diseases Treated in Uganda on an Inpatient Basis in Mission Hospitals; Percentage of Total Cases by Disease Category in Selected Years.

Disease Category	1958	1961/62	1964/65	1968/69	1973/74
Infective & Parasitic	33.2	33.9	26.8	26.9	32.6
New Growths	1.6	1.9	2.4	1.7	1.2
Allergic, Metabolic & Blood	5.2	5.1	6.8	8.2	7.9
Diseases of the Nervous System & Sense Organs	2.2	2.4	2.2	2.8	2.4
Circulatory	1.2	1.4	1.5	1.5	1.4
Respiratory	10.3	10.4	9.5	10.6	11.4
Alimentary	7.2	8.1	10.2	10.2	10.3
Genito-Urinary	5.0	4.3	4.6	2.7	3.3
Pregnancy & Puerprium	8.9	8.4	8.3	8.2	5.7
Delivery Without Complication	13.2	14.2	17.3	15.1	14.7
Skin & Musculo-skeletal	4.1	3.2	3.3	3.7	3.5
Diseases of the New Born	1.1	1.7	2.2	2.4	1.4
Ill-Defined Diseases	3.9	2.6	2.5	3.2	2.1
Injuries	2.9	2.4	2.5	2.8	2.1
Total	100.0	100.0	100.0	100.0	100.0

Calculated from Republic of Uganda, Ministry of Health, Annual Report or Statistical Records, (Entebbe: Government Printer, selected years).

b. **Outpatient Treatment**

As was true in the case of the distribution of inpatient cases, infective and parasitic diseases account for the largest percentage of cases treated on an outpatient basis in government hospitals (Table 5). Again, however, this group of diseases had declined as a percentage of total cases treated from 38 percent in 1952 to approximately 30 percent throughout most of the 1960s, but then began rising again in the early 1970s to 35 percent by 1973/74. Other important shifts in the structure of government hospital outpatient cases include (a) an increase in allergic, metabolic, and blood cases (0.6 percent of the total in 1952 to 1.3 percent in 1968/69 and over 3 percent in 1973/74); (b) a large increase in the number of nervous system and sense organ diseases (from 1.8 percent to 6.4 percent); (c) an increase in respiratory and alimentary diseases; and (d) significant decreases in both skin and musculo-skeletal diseases and injuries as a percentage of total cases treated.

In mission hospitals, the structure of diseases treated on an outpatient basis remained basically stable over the period 1958 to 1973/74 (Table 6). The decline in ill-defined conditions as a percentage of total cases, from 13.2 percent in 1958 to approximately 2.0 percent for the remainder of the period, is indicative of a change in disease reporting by mission units after 1958, the first year in which the government required reports from mission health facilities.

Infective and parasitic diseases are most prevalent among the

TABLE 5

Distribution of Diseases Treated in Uganda on an Outpatient Basis in Government Hospitals; Percentage of Total Cases by Disease Category in Selected Years.

Disease Category	1952	1955	1958	1961/62	1964/65	1968/69	1973/74
Infective & Parasitic	38.4	37.7	33.4	28.7	28.7	31.8	35.3
New Growths	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Allergic, Metabolic & Blood	0.6	0.7	0.7	1.2	1.0	1.3	3.1
Diseases of the Nervous System & Sense Organs	1.8	2.0	2.5	5.9	5.4	6.1	6.4
Circulatory	0.1	0.2	0.2	0.2	0.2	0.2	0.6
Respiratory	12.0	12.9	13.9	15.8	12.6	17.2	16.0
Alimentary	12.7	16.8	14.4	14.8	15.8	15.5	13.8
Genito-Urinary	0.6	1.0	1.5	1.8	3.4	3.1	3.3
Pregnancy & Puerprium	0.2	0.2	0.7	0.6	1.6	0.8	1.7
Delivery Without Complication	---	---	---	---	---	---	---
Skin & Musculo-Skeletal	14.4	11.3	12.2	14.2	13.0	10.5	9.1
Diseases of New Born	0.6	0.2	0.2	0.4	0.7	0.3	0.7
Ill-Defined Diseases	4.5	3.8	7.3	5.6	7.7	3.5	8.1
Injuries	13.0	13.0	12.9	10.8	10.5	9.5	1.8
Total & (excl. Exams Innoculations)	100.0	100.0	100.0	100.0	100.0	100.0	
Examinations & Innoculations	17.3	16.1	12.1	17.5	12.4	10.5	
Total (incl. Exams & Innoculations[1]	769.2	811.2	1200.0	1522.9	1781.5	3288.5	

Calculated from Republic of Uganda, Ministry of Health, Annual Report or Statistical Records, (Entebbe: Government Printer, selected years).

1. Total in thousands of recorded diagnoses.

TABLE 6

Distribution of Diseases Treated in Uganda on an Outpatient Basis in Mission Hospitals; Percentage of Total Cases by Disease Category in Selected Years.

Disease Category	1958	1961/62	1965/65	1968/69	1973/74
Infective & Parasitic	41.8	40.7	41.7	41.5	41.4
New Growths	0.6	0.4	0.6	0.3	0.4
Allergic Metabolic & Blood	3.5	4.5	6.1	5.3	4.4
Diseases of the Nervous System & Sense Organs	1.6	5.3	5.4	6.2	4.3
Circulatory	0.5	0.6	0.6	0.8	0.8
Respiratory	9.5	13.1	11.1	13.4	12.5
Alimentary	9.8	13.8	12.8	13.1	10.4
Genito-Urinary	2.3	4.0	3.6	3.9	7.0
Pregnancy & Puerprium	6.1	1.8	2.1	1.9	1.6
Delivery Without Complication	---	---	---	---	---
Skin & Musculo-skeletal	6.8	9.2	8.9	9.6	8.0
Diseases of New Born	0.6	1.1	1.0	0.8	3.7
Ill-Defined Diseases	13.3	2.0	2.4	2.3	2.2
Injuries	3.6	3.5	3.7	0.9	3.3
Total (Excl. Exams & Innoculations)	100.0	100.0	100.0	100.0	100.0
Examinations & Innoculations	23.3	25.2	32.6	35.7	
Total (Incl. Exams & Innoculations[1]	166.6	164.5	497.6	640.6	

Calculated from the Republic of Uganda, Ministry of Health, Annual Report or Statistical Records, (Entebbe: Government Printer, selected years).

1. Total in thousands of recorded diagnoses.

outpatient cases treated at mission hospitals, comprising approximately 40 percent of all cases. Other important disease groups treated in the mission hospitals include respiratory diseases, alimentary diseases, skin and musculo-skeletal diseases, and the diseases of the nervous system and sense organs. The percentage of injury cases treated on an ambulatory basis in mission hospitals has remained small throughout the period in contrast to the government units.

In summary, the disease distribution data for both government and mission (inpatient figures) hospitals show the outlines by 1973/74 of a reversal in the trends of major diseases, which had been underway from the early 1950s until about 1970 in Uganda. Since 1970, the increase in infectious and parasitic diseases such as TB, gonorrhea, malaria, measles, helminthic diseases have been marked in relation to all other health problems. Similarly, nutritionally related diseases have increased markedly. Virtually all of these health problems are amenable to preventive measures. Given the appropriate technology and the capacity to manage and implement such programmatic efforts, significant improvements in health status can occur by reducing the incidence of such diseases. (See Table 7 for recent trends in selected notifiable diseases.) It is still possible to achieve the estimated distribution of health problems for 1980/81 as defined by the trends in the distribution of diseases treated in the health system of the country through 1970. (For the estimated distribution of health problems in 1980/81 in government units, see the figures in Tables 3 and 5.) However, significant changes in the present state of

TABLE 7

INCIDENCE OF SELECTED NOTIFIABLE DISEASES IN UGANDA

1969/70 and 1976/77

Diseases	*1969/70 New Cases	**1976/77 New Cases
Diarrhea & Vomiting	590,416	591,127
Malnutrition	78,038	113,140
Measles	54,622	279,762
Malaria	1,515,792	1,412,879
Tuberculosis	7,815	17,551
Skin-infection	22,783	146,496
Sleeping Sickness	998	1,745
Rabies	17	89
Whooping Cough	-	-

* Excludes Voluntary Rural Units

** Incomplete reporting

Source: Ministry of Health Division of Health Statistics

the economy, as well as in the health sector, must be undertaken as prerequisites to such an achievement.

II. THE HEALTH CARE SERVICES SYSTEM

A. HEALTH SERVICES IN THE 1970s

At the beginning of the decade, Uganda's health services delivery system had developed far beyond the level reached by other developing countries at an equivalent stage of economic development. A former Minister of Health described the situation as follows:

> The country had inherited a fine medical system. There was a good foundation of forty-eight government hospitals, twenty-eight mission hospitals, one hundred and fifty health centers (small units with about thirty beds each) and three hundred dispensaries. The government hospitals were administered in British fashion. Treatment was free. Doctors could, however, set aside part of their time and some of their beds for private practice. The mission hospitals levied a small charge; the government defrayed their running costs. At the time of the coup, these institutions were staffed by experienced teams of doctors, nurses and paramedical staff.
>
> By 1974, Uganda's excellent medical infrastructure was in a steep decline.*

As in other sectors of the economy and society, the Amin regime led to a degenerative cycle in the health sector in which available resources contracted while the demands on the system mushroomed. Critically needed health manpower fled the country, revenues and expenditures needed to maintain the system stagnated, and facilities deteriorated from neglect. The sequence of events which most affected the health system were as follows:

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* Kyemba, Henry, State of Blood: The Inside Story of Idi Amin's Reign of Fear, London, Gorgi, 1977, p. 129.

After 18 months in power, Amin announced that all Asians would be expelled from Uganda. When the order became effective in November of 1972, Uganda had lost what had been an important base of the economy and a large segment of the professional and technical class. The social consequences of the economic chaos which ensued led to the departure of virtually all expatriate professionals, including doctors. During 1973, the departure of perhaps half of the some 1,000 physicians in the country created, needless to say, serious problems in the health care delivery system, particularly in mission hospitals which lost the most doctors. In addition, for virtually the entire calendar year 1974, Amin did not appoint a Minister of Health after Dr. Justin Gesa resigned at the end of 1973. Attempts were made by the Ministry of Health to remedy the doctor shortage by appealing to other countries for help; the Russians sent 20 physicians, and the Egyptians sent 36 physicians, 7 dentists, and one pharmacist. Nevertheless, the government health services were tremendously overburdened with demand for services--demand which could not be, and increasingly was not, met.

When Amin placed a ban on private practice of medicine in late 1974, the situation was made still worse, and even more physicians left the country, even though the ban was eased after several weeks by allowing private practice by those who held no government employment. After several years, all but a few of the Egyptian and Russian doctors had left.

Immediately preceding the doctor shortage was a dramatic increase

in outpatient and inpatient numbers at government hospitals. From 1971/72 to 1972/73, the number of admissions at government hospitals increased 2.5 times, and the average number of cases treated per person per year rose from 2.08 to 2.63. The opening of a dozen new hospitals combined with a 15 percent drop in admissions to voluntary hospitals were important factors underlying this increase. However, with the continuous decline in the number of physicians staffing hospitals and clinics, the numbers visiting hospitals plummeted. Admissions at voluntary hospitals declined from the 1971/72 high of 106,000 to a low of 64,000 in 1975/76. For government hospitals, the high patient totals of 1972/73 (almost 28 million cases seen) had dropped to half that two years later (see Table 8).

In summary, the current delivery capacity of the Uganda health care system is roughly half of what it was at the beginning of the decade--equal to what it was in the early 1960s. Just as significant in this reduction of capacity as the shortage in trained manpower, however, is the drastic reduction in the fiscal and physical resources possessed by the system. Following the late 1960s, when the real resources applied for recurrent health expenditure had almost doubled (because staffing and bed capacity also almost doubled), the last decade has seen the real purchasing power of the health budget dwindle to 6 percent of what it was in the 1968/69 (see Table 9).

1. Health Manpower

In 1969 there were approximately 17,700 persons employed in

TABLE 8

UTILIZATION OF GOVERNMENTAL HEALTH FACILITIES

Year	Estimated Total Population (000)	Total Number of Cases (000)	Total No. of New Outpatient Cases (000)	Total No. of Out-patient Re-attendances (000)	Total No. of Inpatient Admissions (000)	Estimated Average No. of Cases Per Person Per Year
1951	5,322.0	4,873.0	2,329.0	2,422.0	122.0	0.92
1955	5,874.0	5,459.7	2,732.3	2,597.1	130.3	0.93
1960	6,573.0	7,784.8	4,335.2	3,245.4	204.2	1.18
1965/66	8,221.0	13,083.9	7,178.6	5,658.6	246.7	1.59
1968/69	9,191.0	17,826.5	9,537.3	7,884.0	405.2	1.94
1971/72	10,292.0	21,497.9	11,569.2	9,543.9	384.8	2.08
1972/73	10,634.0	27,990.9	14,696.3	12,345.0	949.6	2.63
1973/74	10,991.0	13,773.7	7,000.7	5,985.0	788.0	1.25
1974/75	11,354.0	14,538.7	7,180.3	7,007.3	351.1	1.28
1975/76	11,728.0	19,049.0	10,485.8	8,116.0	447.2	1.62
1976/77	12,115.0	18,361.1	10,357.3	7,551.7	452.1	1.52

The figures shown for 1960 are estimated from the data reported for the first six months of the year. In 1960, the Government changed from a calendar to a fiscal reporting year.

Total population estimates were derived from estimated rates of population growth between censuses.

Source: 1969 Republic of Uganda, Ministry of Health, Annual Reports and Statistical Records, (Entebbe: Government Printer, selected years).

TABLE 9

CENTRAL GOVERNMENT RECURRENT EXPENDITURES

on HEALTH SERVICES by the MINISTRY of HEALTH

Year		Amount in Shillings (million) (current prices)	Amount in Shillings (million) Constant Prices[1]
1959	Actual Expenditure	52.5	53.8
1963/64	"	52.6	48.7
1969/70	"	118.4	92.5
1969/70	"	103.6	73.0
1970/71	"	115.9	73.8
1973/74	"	119.9	34.3
1978/79	Approved Estimates	327.1	14.8
1979/80	"	287.2	5.7

1. Constant Prices. Deflated by implicit GOP deflator with 1960 = 100 and adjusted by low income Kampala index. For the recent period prices are rising daily and the figures are only shown to indicate trends.

Uganda providing health and medical care services in all delivery systems.* The Government was employing approximately 15,500 (the Ministry of Health establishment was 3,954 in 68/69) with the remaining employed by mission and private facilities and pharmacies. Further, approximately 3,800 employees in other sectors and industries were employed as a consequence of the derived demand for health care services. A large proportion of that number were employed in the construction industry which was involved in the construction of 23 rural hospitals and many rural facilities at that time. Total employment in the health sector today is unavailable but there are some data on trends in the supply of skilled health manpower which provide an indication of the present situation.

In Table 10 the number of registered health manpower in Uganda is presented for the period 1951 to 1979. As the data shows, there was a continual increase in the number of physicians, dentists, midwives, nurses and pharmacists through 1968. Further, the Third Five-Year Development Plan, 1971-1976, addressed the health manpower issue in light of the expanding number of hospitals and rural facilities and made a number of recommendations to expand the existing training schools and build new ones to increase output (see Table 11 which shows the envisioned expanded training program as of 1969). Virtually every cadre of staff, from physicians, medical assistants, various

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* David Wallace Dunlop, The Economics of Uganda's Health Service System: Implications for Health and Economic Planning, Ph.D. dissertation submitted to Department of Economics, Michigan State University, 1973.

TABLE 10

MEDICAL MANPOWER REGISTERED TO PRACTICE IN UGANDA

Year	Doctors			Dentists	Midwives[1]	Nurses[2]	Pharmacists
	Registered	Licensed	Total				
1951	151	81	232	19	732		
1960/61	476	52	528	18	1060	410	61
1961/62	479	73	552	28	1156	1354(3)	72
1962/63	504	80	584	22	1290	1557	84
1963/64	538	113	651	28	1430	1748	95
1964/65	588	140	728	31	1565	2271	85
1965/66	642	171	813	39	1911	2682	61
1966/67	727	214	941	40	2199	3040	104
1967/68	797	181	978	42	2551	3277	116
1979	508	66	574	24	2404	3532	15

Source: Republic of Uganda, Statistical Abstract, (Entebbe: Government Printer, selected years.)

1. A new ordinance for the registration of midwives was initiated in 1958. As a result, the series is discontinuous from that date.

2. State Registered Nurses Only.

3. Includes State Registered Nurses, Enrolled Nurses, and Male Nurses.

TABLE 11

Category of Staff	Number available (1969-end) (i)	Additional output from existing local training facilities at current rates (1970–1976 inclusive) (ii)	Requirements (1976-end) (iii)	Indicated shortage (1976-end)• (iv)
1. Medical Officers and Specialists ..	588	335	1,225	420
2. Dental Surgeons	31	—	60	30
3. Medical Assistants	407	350	900	285
4. Registered Nurses†	473	540	1,190	180
5. Registered Midwives	183	250	n.a.	n.a.
6. Registered Mental Nurses ..	25	95	140	45
7. Enrolled Nurses†	1,015	1,440	2,970	720
8. Enrolled Midwives	955	1,720	2,060	40
9. Enrolled Mental Nurses ..	36	110	235	95
10. Health Visitors	19	—	45	30
11. Assistant Health Visitors ..	42	280	880	565
12. Health Inspectors	115	130	470	250
13. Health Assistants	474	250	1,595	965
14. Public Health Dental Assistants ..	5	90	175	85
15. Pharmacists	51	—	115	70
16. Entomologists	3	n.a.	3	n.a.
17. Medical Social Workers ..	—	25	25	—
18. Psychiatric Social Workers ..	2	5	5	—
19. Health Education Specialists ..	—	—	20	20
20. Dispensers	120	125	225	—
21. Laboratory Technicians ..	18	35	140	90
22. Radiographers	46	75	200	90
23. Physiotherapists	21	—	30	15
24. Anaesthetic Assistants	49	55	235	140
25. Orthopaedic Assistants	44	80	120	—
26. Dental Technicians	12	20	15	—
27. Occupational Therapists ..	4	—	25	25
28. Entomological Field Assistants/ Officers	11	15	35	15
29. Medical Records Officers ..	2	n.a.	60	60
30. Health Staff Tutors	33	35	115	60

• With allowance for attrition. † Including nurse/midwives.
All figures in columns (ii) to (iv) are rounded to the nearest five.

Source: Republic of Uganda, Uganda Plan Three: Third Five-Year Development Plan 1971-1976, Entebbe, Uganda, Government Printer, February 1972.

levels of nurses and midwives, assistant health visitors, public health dental assistants, to medical records officers were to be expanded during the planning period through expansion of existing or creation of new training schools in order to staff the rapidly expanding hospital and rural health facilities. However, as can be seen in Table 10, by 1978 the number of doctors registered or licensed in the country had declined to a level approximating 60 percent of the earlier levels. The decline in the number of dentists and pharmacists also registered a significant decline. Only the nurse and midwife cadres did not register a significant decline. Given the fact that sizable training programs were operating in all cadres at the outset of the period, the substantial declines in certain cadres and no increase in the female-dominated cadres of midwives and nurses is even more significant. The declines in critical cadres have largely been due to the fact that (a) in 1973 President Amin expelled all Asians and (b) many people suspected of views antithetical to the regime were killed and many others who feared for their lives emigrated to Kenya, Tanzania, U.K., and other places. At the present time there are perhaps 40 Ugandan physicians occupying academic posts in Nairobi and a number reside in Lusaka, Zambia. While there have been a number of appeals to them to return home, many have remained at their present posts for many reasons, including, (a) continued insecurity for physicians (several have been killed by certain extremist groups operating in the country in the last six months); (b) salaries are too low in Uganda, given (i) alternative salaries and (ii) the rate of inflation in Uganda; (c) housing is unavailable; (d) other

complementary staff, materials, drugs, supplies, and equipment are unavailable or in short supply; or (e) personal concern for family living, children's education, or spouse's employment. Similar reasons exist for the non-return of other cadres of Ugandan personnel. The Ministry of Planning and Economic Development has recently established a Manpower Planning Division which is expected to deal with many of the general problems facing the country in recruiting its nationals back to the country.

2. Health Training Institutes

As can be ascertained from Table 12, the number of training programs, institutions, and courses is considerable. The exact status of all of these courses and programs are mixed, with many operating at less than full capacity, without tutors, or with many other problems including lack of housing, food, training materials or transport. The training schools for medical assistants, for assistant health visitors, and for health inspectors have been particularly hard hit. AMREF has proposed to rehabilitate and redesign the curriculum of the health inspectors' school at Mbale. DANIDA has indicated its willingness to assist the Dental School. CARE discussed its concern about the assistant health visitor training schools in light of a primary health care strategy. However, its plans are sketchy at present. Given that the medical assistants still comprise the primary diagnostic and medical care treatment cadre, particularly in rural facilities, a careful analysis of the rehabilitation problems faced by the two training schools is critical. Subsequent analysis of the

TABLE 12

SELECTED HEALTH TRAINING INSTITUTIONS IN UGANDA, 1973

Manpower Cadre	Number	Location	Potential Output/Yr.	Control	
				Govt.	Mission
1. Doctors	1	Mulago/Makerere	100-120	1	0
2. Medical Assistants	2	For Portal Mbale	120-150	2	0
3. Registered Nurses	1	Mulago	45	1	0
4. Enrolled Nurses & Midwifes	15	Jinja, Masaka Gulu, Lira, Mbarara, Arua, Soroti, Kabale, Nsambya, Rubaga, Mengo, Virika, Kamuli, Kalongo, Ngora	320 Nurses 300 M/Wives	8	7
5. Assistant Health Visitors	6	Entebbe, Mbarara, Arua, Mulago, Gulu, Jinja	100	6	0
6. Health Inspectors	1	Mbale	150	1	0

Note: There are number of other health manpower training courses which have been discussed in previous planning documents and which may have operated for various periods. The courses include ones for health manpower trainers (tutors), anaesthetic assistants, lab technicians, radiographers, dispensers, pharmacists, health hospital administrators, social workers, occupational therapists, orthopaedic assistant, and psychiatric workers.

Source: Republic of Uganda, Uganda Plan Three: Three Year Interim Plan, 1977-80, Entebbe, Uganda, Government Printer.

curriculum, practical training, and supervision is also required.

3. Summary of Health Services

As if budget cutbacks and staff shortages were not enough of a burden, Uganda's hospitals have been beset by water shortage (a chronic problem in some urban areas since 1974) and periodic lack of food and critical supplies. Even before the war, Uganda's health care system had been reduced to a state where the "care" delivered may have been worse than no care at all. Again in the words of the former health member, Henry Kyemba:

> By 1974, there was not enough water for cleaning floors, for washing, for sterilizing, for bathing, or for flushing toilets. We had to hire tankers (we later bought our own) to bring water to Mulago Hospital from standpipes near Lake Victoria. On more than one occasion, we seriously thought of closing the hospital for fear of infection.*

Since liberation from Amin, in April 1979, the situation in Uganda's hospitals and clinics has, if anything, become worse.

B. NATIONAL HEALTH POLICY AND FUTURE OPTIONS

The Government of Uganda faces a number of critical decisions as to the future development of its health sector. The government's immediate response in the ten months following liberation from the Amin regime has been to seek immediate relief assistance from a number of external donors in the form of drugs, vaccines and food. In the past few months, the process of assessing the current status of facil-

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* Henry Kyemba, op. cit., p. 130.

ities, manpower, equipment, supplies and needs has begun both within the Ministry of Health and the Ministry of Local Administrations.

Preliminary health budgets for both national and district administration have been drawn up. The crisis nature of getting the ministries back functioning, of developing new leadership, and of coping with the enormous constraints under which they are operating has left little time for officials to rethink the future direction of health policy and the strategic allocation of scarce resources. Perhaps more importantly, the Ugandan Government to date has not been able to formulate a strategic coordinated plan for external donor assistance in the health sector.

The statement of economic and social policy released by the United National Liberation Front (UNLF) does not mention health.* The Government's "White Paper"* responding to the report of the Commonwealth Team of Experts merely notes that the serious health needs of the devastated areas of Masaka and Mbarara had not been addressed by the report. In all documents itemizing the health sector needs of the country, be they ministry-specific or institution-specific, the orientation is toward "lists of requirements" to replace what was broken, lost, or stolen during the past ten years.**

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* See United National Liberation Front, The Economic and Social Policy of the UNLF, October 1979, and Republic of Uganda, "White Paper on the Report by Commonwealth Team of Experts," October 1979.

** See Appendices.

The exclusive focus on material needs of the health care delivery system (which is evident in all discussions with officials, managers, and providers) is based on an assumption (a memory of the 1960s) that the physical infrastructure and capacity of the health care delivery system remains as it was in 1971. However, the evidence is clear that there has been a significant shift--by several orders of magnitude--in both the needs faced by the health system and the resources that are now available to it. The reversal of the upward trend in health status has altered the pattern of diseases, and requires a different kind of response than the health system was designed (in the 1960s) to deliver. Moreover, the real and substantial decline in the standard of living within Uganda has impoverished the health sector.

During the decade the country experienced a (roughly) 25 percent drop in per capita income and a (roughly) 1200 percent increase in consumer prices. Even if one assumes that health will continue to be allocated the same share of the government budget as in the 1960s and that the government budget remains an equivalent share of national income (both dubious assumptions), it seems clear that the real purchasing power of the government health budget is only a fraction (probably 10-20 percent) of what it was in 1971. Thus, even if the government could obtain donor assistance to completely rehabilitate its physical health infrastructure to what it was in 1971, government fiscal capacity would be unable to sustain the operating costs of more than a part of it. In short, the government can no longer afford to give the public the kind, quality, or amount of free health care that it could offer in the 1960s and, if it attempts to do so, it may do so

at the expense of measures that would be highly cost-effective in improving previously prevented (but now resurgent) public health problems. It is this predicament of the government's health care delivery system that points to the priority need for an early and concerted effort to examine national health policies in the context of needs, available resources, and the overall development strategy of the government.

During the 1960s, prior to the Amin regime, the Ugandan Government developed, and effectively utilized, policy planning mechanisms for health which were successful in designing national health programs which met the particular health problems facing the country and also were affordable within the development context. Significant achievements were the use of curative care facilities in rural areas in establishing a broad campaign for community-oriented, public health measures emphasizing immunizations, MCH and child care, and sanitation.

At the time Amin took power, the Ugandan Government was in the last stages of completing construction of 23 district hospitals (100 beds each) (implemented by the Ministry of Health) and was in the early stages of an upgrading and expansion of the rural health care delivery system. During the Amin years, the operation of the 23 new hospitals was hampered by inadequate operating budgets, which led to neglect and decline of the technical capacity the hospitals had had; the planned development of the rural health delivery system was never implemented. Planning ceased to be a function either in the Ministry

of Health or in the Ministry of Local Administrations, and all efforts had to be focused on solving immediate shortages and difficulties.

The need to reestablish rational health policy planning mechanisms has been quite evident during the months since liberation when coordination of donor assistance with government policies has been lacking, and when policies of the government themselves have been less than clear--at least in health. An evident need is to better coordinate the activities of the Ministry of Health, which administers hospitals, and the Ministry of Local Administrations, which administers the rural health care delivery system; each has launched independent efforts to gather roughly the same kinds of information about facilities and personnel as they stand following the war. Moreover, the Ministry of Health recently experienced an internal policy debate over a major expenditure of foreign exchange on new capital equipment. The argument made against the purchase (which was executed) was that existing capital infrastructure will remain--in its current deteriorated condition--a liability to the recurrent budget (reduced effectiveness at constant operating--mostly personnel--costs) while the new equipment would add a liability to the recurrent budget (questionable effectiveness of added or diverted personnel). Donors who are interested in the effective utilization of assistance cannot afford to be indifferent to the policy, management, and budgetary issues raised--apparently in ad hoc fashion--by these kinds of decisions made in the absence of any planning.

As has been well documented in the previous section, the number

of government health facility visits per capita dropped since the early 1970s from 2.50 to around 1.50 in 1976/77, just before the last of Amin's atrocities and the subsequent war of liberation. After the war, the number of visits per capita has declined even more due to a lack of (a) drugs, (b) transport, (c) water, and (d), to a lesser extent, staff.

At present the government has not taken any firm policy position with respect to the extent of rehabilitation of the system developed in the past, but normalizing conditions and future political considerations suggest additional resources will be allocated to rebuild the system. Recently the government has demonstrated its interest in rebuilding the system; newspaper stories have appeared about the purchase of vehicles, other equipment, and supplies, and about the opening of previously closed hospitals and other rural facilities.* An important aspect of the present issues facing the government are the budgetary implications of a fully established health care system.

While it is difficult to estimate the capital recurrent costs precisely, it is feasible to define the order of magnitude. The Ministry of Health has estimated that it would require an initial capital rehabilitation expenditure of USh 773.7 million (USh 615.3 million in foreign exchange) (see Appendix C for a copy of their

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* Uganda Times, January and February 1980.

estimate). The Ministry of Local Administrations, in their memo to DANIDA (Appendix D), has detailed an additional USh 47 million, not counting a backlog of unfinished rural health facility construction and a totally depleted set of medical stores. Mulago Hospital and Makerere Medical School have produced similar lists and are included as Appendices E and F.

Once the entire government health system has been rehabilitated, not counting the envisioned additional rural facilities not constructed earlier, the recurrent costs to both the central and district governments will rise considerably. The question of how much recurrent cost would rise was addressed in the following way. First, the question was posed as follows, "What would have been the collective Government of Uganda expenditures in 1979 if the health care system, as functioning in 1968/69, was still in existence?" This question can be answered in at least three ways, depending upon which alternative program objective one may wish to attain.

There were three alternative objectives considered (summarized in Table 13). The first was to equalize the constant shilling expenditure per visit in 1979 to the level in 1968/69. (Appendix G shows the price index used to deflate current expenditures to constant (1960) prices.) There was no adjustment in this estimate for differential utilization rates in existence in 1968/69 compared to the assumed rate for 1979. In 1968/69 the combined (central and local) governments in Uganda spent about USh 6.78 per visit in 1960, whereas the estimated expenditure per visit in 1979 was about Ush 1.15

TABLE 13

Estimates of Government Recurrent and Capital Expenditures to Regain Previous Government Health Care System as of 1968/69

Year	Government Recurrent Expenditure MOH & Local Admin. Current Shs in Millions	Estimated Government Recurrent Expenditure MOH & Local Admin. Est. Constant 1960 Shs in Millions	Recurrent Per Capita Expenditure in Current Shillings	Estimated Recurrent Per Capita Exp. in Constant 1960 Shs	Estimated Expenditure Per Visit in Constant Shillings[1]
1968/69	149.9	117.1	15.8	12.3	6.78
1979	417.6 E	13.9	31.6	1.1	1.15 E[2]

1979 Estimates - Recurrent

A.	Equal per visit	2440.0	(5.84 fold increase over actual)
B.	Equal per capita	4670.0	(11.20 fold increase over actual)
C.	Equal per visit adjust for utilization	5200.0	(12.45 fold increase over actual)

Capital Rehabilitation

1979 773.7[3]

NOTES:

1. Visit = Total number of new and reattendance outpatients plus inpatient admissions in Government health facilities.

2. Estimated number of visits is assumed to = 12 million which is based on previous low attendances in 1973/4 due to civil strife, the war of liberation, and shortages of drugs and other essentials.

3. Per memorandum from MOH. See Appendix __. This figure requires 615.3 million shs of foreign exchange.

(1960). (Assuming a 1979 system utilization rate of 12 million visits which was similar to 1973/74--a period of civil and political disturbance.) In order to retain the previous level of expenditure existing in 1968/69-1979 expenditures, it would have been necessary to increase expenditures in 1979 by 5.84 times what they actually were (6.78 divided by 1.15 equals 5.84) or to USh 2,440 million.

The second possible alternative was to calculate the size of budget needed to equalize the per capita recurrent health expenditure level for 1979 to that level prevailing in 1968/69. This objective takes into consideration the dynamics of population growth on social and human service programs. In 1968/69 the per capita expenditure was USh 12.3 (1960 = 100) whereas in 1979 the estimated expenditure per capita was about USh 1.1 (1960 = 100). Thus, to equalize 1979 per capita expenditures to 1968/69 levels would require an expenditure in 1979 (current prices) 11.2 times larger than it actually was, or approximately equal to USh 4,670 million.

The third plausible objective considered was that of equalizing the expenditure per visit and the utilization rate per capita that was in existence in 1968/69. (Thus also taking into consideration population growth.) In this case, the system in 1979 was assumed to have a total number of cases around 12 million which approximated 0.91 visits per capita. In 1968/69 the number of visits per capita was 2.13 times as large (1.94 visits per capita). Thus it would be necessary to increase total expenditure in 1969 by 12.45 times (5.84 x 2.13 = 12.45) or to 5,200 million shillings.

This latter estimate may be considered as an extreme given the fact that there are many economies of scale involved in the expanded utilization of each facility in the system. However, since the rate of utilization taken as the target is not as large as in 1972/73 (2.63 visits per capita), this estimate may not be as large as potentially possible.

Basically the range of estimates range from nearly 6 to 12.5 times as large as was the approved estimates for the 1979 period. The magnitude of these figures raise serious question about the extent to which the original expenditure pattern and thus the configuration of that earlier delivery system can be retained. While the pattern of diseases has been altered to one of more infectious parasitic diseases such that the cost of treatment per case may now be lower, perhaps by as much as 10-15 percent,* the fact remains that the previous expenditure levels for health care by the government is not economically feasible in the near-to-medium period even if the government, via other policies, stimulates a rapid economic recovery.

This view is supported in at least three following ways. First, combined expenditures on health in the period prior to 1971 was never more than 10 percent of the central government recurrent budget or approximately 25 percent of the combined district administration budgets. If health expenditures were to rise in the order of magnitude discussed above, a considerable reallocation of government budgets would be implied. Other ministries would find this most difficult to accept.

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* Dunlop, op. cit.

Second, even if government tax revenues from Uganda exports were to rise to approximately 1970 levels, which is optimistic in the next two years, the population of the country has expanded by 40 percent in the interim. Therefore, expenditure would have to be distributed in ways that would reduce overall health expenditures per capita.

Third, in order to expand crop- and commodity-specific production levels which can begin to increase government revenue at all levels, in the short- to medium-term available foreign exchange must be allocated primarily to agriculture and possibly education, which will significantly compromise current Ministry of Health hopes and ability to improve, rehabilitate, or expand operations requiring new technology.

III. SHORT TERM DONOR RELIEF ASSISTANCE

A. DONOR RELIEF ASSISTANCE: ANALYSIS

The first nine months since the end of the war and the fall of the Amin government has seen a moderate amount of relief assistance flow into Uganda. However, there has been very little coordination of this assistance either by the Ugandan government or among the donors themselves. The large number of interested donors and the divergent requirements and methods of their operations has led to each external donor designing projects and delivering relief supplies through channels of their own choosing.

In recent months, the Ministry of Finance and Economic Planning has mounted an attempt to coordinate all external assistance by requiring all projects be monitored by a newly created office staffed by several professionals. This office has asked all Ministries to report on sources and amounts of external aid received so far and the current status of pending requests to interested donor organizations (see Appendix H). Moreover, early experiences of some donors has reinforced their caution about giving relief supplies and equipment directly to the government agencies when its distribution network and administrative capacity has been weakened by years of neglect and mismanagement under the Amin regime.

As a result, a large amount of external aid has been channeled to

private parties in Uganda for distribution to appropriate end-use/delivery points in the health care system.

The Verona Fathers, a Catholic missionary order with schools and health units throughout Uganda, particularly in the north, has been favored by some donors because of its reputation for being able to deliver goods in remote areas of the country. USAID's distribution of $320,000 of emergency drug supplies was given to the Verona Fathers to distribute to government health units according to a distribution list drawn up by the Ministry of Health. Similarly, the EEC aid of dried skimmed milk (8,000 bags) and other food items has been delivered to Catholic Relief Services for distribution. UNICEF has arranged with the Joint Store of the Medical Boards of the Protestant and Catholic missions to distribute its vaccines and MCH supplies through its distribution capacity. In fact, UNICEF has taken the extraordinary step of creating its own operational unit with motor pool, maintenance and repair workshop for vehicles and refrigeration equipment, and distribution capacity (with perhaps a computerized tracking system) in order to ensure that the drugs and vaccines which it brings into the country are delivered to the intended beneficiaries. While UNICEF asserts that this unit will ultimately be absorbed within the government capacity, its current purpose is to circumvent normal governmental channels that have the authority to execute the government's own responsibilities in the same areas.

It is unlikely that the donors can begin to coordinate their activities among themselves without greater focus by the government on

the need to bring some order and rationality to the kinds of assistance that are given and accepted, and the ways in which that aid is distributed within the country. The Ministry of Health has followed the understandable practice of other ministries and agencies seeking help of distributing a master list of requirements for rehabilitation to all interested donors without indicating priorities or how they might proceed in the event only a fraction of the request is fulfilled. Given the scarcity of resources and the enormous capital rehabilitation needs, as well as the magnitude of current operating needs, it is to be expected that the government would hedge its bets. On the other hand, the government has also proceeded to sign contracts to purchase certain items (with its scarce foreign exchange) that raise questions about the real priorities and policy directions of the government.

Recent items that the government has signed purchase contracts for have been as follows:

- 20 mobile clinics, 10 medical clinics, 10 cold stores, 10 mobile dental clinics, 6 warehouses, 10 training centers, 12 prefab housing units, and 123 prefab blocks of flats--valued at about L6 million-- were purchased from a British company by the Ministry of Health; these items allegedly cost over USh 100 million--equivalent to over 35 percent of this year's health budget.

- 40 landrovers, 150 trucks, 150 ambulances, and 140 buses--valued at L10 million--were purchased from a British company by the Ministry of Finance and Economic Planning; landrovers and ambulances were principal among the items requested by the Ministry of Health and Ministry of Local Administrations for hospitals and rural health units.

Needless to say, the effective utilization of whatever aid external donors may wish to give to the government depends on donors

knowing the government's policies and intentions with respect to these purchases, and how the government might wish donors to complement what it is willing to obtain through expenditure of its own resources. Obviously, therefore, it is necessary for external dolors to be fairly explicit about its interests quite soon in order that the appropriate coordination and collaboration with the government can take place in a positive and mutually supportive manner. Opportunities for leveraging with significant amounts of assistance will rapidly evaporate if the government makes purchasing decisions that lock it into policies that it might not wish to choose had it known of a donor's interests--both in terms of magnitude of assistance and time horizon of its flow. Moreover, if donors can initiate a process or a dialogue with the government on critical health and human resource development issues, the proposed program results may serve to attract significant amounts of additional assistance. There are donors other than USAID (e.g., EEC, DANIDA) who are apparently interested but who are not equipped to prepare project designs and comprehensive programs which might be underwritten by several donors.

The documents included in Appendices H and I list the kinds of assistance that have been given by external donors so far. The explicit requests for assistance received by USAID are also included in the Appendix.

B. DONOR RELIEF ASSISTANCE: FINDINGS AND RECOMMENDATIONS

In the past ten months a large volume of drugs, vaccines, food, medical supplies, and equipment have been brought into Uganda. Immediately following the liberation war, a number of donors provided emergency relief. Appendix I details the assistance given the Ministry of Health as of January 1, 1980. In addition, a large volume of drugs, supplies and equipment were distributed in Uganda directly through a number of private voluntary organizations operating in Uganda.

In our analysis we have attempted to determine:

a. The quantity, type, and distribution of assistance that has been provided to date;

b. Who has provided it;

c. How, to whom, and where it was distributed;

d. Which items are considered critical to the Ugandans and which require a constant input;

e. How existing supplies match existing critical shortages; and

f. The extent of the Government of Uganda's ability to finance and distribute minimum medical resources on a continuous basis.

Our findings are based on interviews with and information supplied by most of the external donors and voluntary organizations that have provided commodity assistance, officials in the Ministry of Health and the Ministry of Local Administrations, Mulago Hospital officials, District hospitals, Health Centers, and dispensaries. Our findings are as follows:

1. Although both the volume and content of the donor health commodities have been extremely helpful to the Ugandans, the items supplied, their quantities and their distribution have not been quantified and the efforts have been uncoordinated by both the donors and the GOU.

2. Items considered of critical importance by hospital physicians, administrators, District Medical Officers, and health centers have been omitted or supplied in inadequate quantities, e.g., chloroquine, crystaline penicillin, disinfectants, etc.

3. In some instances items of lesser importance and/or marginal value have been provided in significant quantities.

4. Considerable confusion exists on the criteria and methods of determining allocations and on the actual distribution of the supplies received.

5. The supplies provided to Uganda through private voluntary organizations and the churches were distributed primarily to mission health facilities and not to government hospitals, health centers and dispensaries.

6. The Ministry of Health, due to lack of transport, has for the most part suspended distribution of supplies to the district stores. The districts have had to rely on their own means to pick up supplies from the Central Store. This has created extreme hardship and avoidable shortages when no transport was available at the district level. It was our observation that those districts which did manage to get to Entebbe received some supplies. Frequently items considered essential were out of stock or in "short supply" so they do not get all they wanted.

The four tables (14-17) which follow attempt to illustrate the problem facing the Ugandan Government at the present time. On the vertical axis we have identified a partial list of the ministries and government organizations which are currently providing or have in the past ten months provided commodity assistance in the health area. On the horizontal axis we have listed those items the hospital, health center and dispensary staffs, the district medical officers, the Ministry of Health officials, and others have identified as being high priority resource requirements to continue or reopen health care services at the present time.

Table 14: Drugs Identified as Being in Constant Demand and in Critical Short Supply

SOURCE	DRUGS						VACCINES - EXP. IMMUN.												REMARKS/AID RECEIVED
	Chrystalline Penicillin	Tetracycline	Streptomycin	Sulfonamides	Chroroquin	2° Tuberculosis Drugs	Measles	DPT	Polio	Cholera	Typhoid	Others	Trypanosomiasis	IV Fluids	Infusion Sets	Iron	Vitamins	Detergents	Disinfectants	
Ugandan Govt. Foreign Exc.	X	X	X	X	X		?	?	?	?	?		X	?		X	?	?	?	Provided drugs, food through AMREF, Missions
• Ministry of Health	X	X	X	X	X		?	?	?	?	?		X	?		X	?	?	?	
• Church Missions	X	X	X	X	X	X	X	X	X				X	X		X	X	X	X	
• Parastatal Pvt. Pharmacies																				
UNICEF							X	X	X											
UNHCR																				
UNDP/World Food		X								X										One planeload contents (?) drug through joint
E.E.C.																				medical stores, Missions - one ton soap,
Intl. Red Cross: Intl. League																				blankets, drugs.
USAID			X	X										X						
DANIDA	X	X																		
W. Germany																				
NORAD																				
French																				
Holland																				
Care																				
AMREF																				23 tons food and drugs. Three planeloads (?)
Intl. Planned Parenthood (IPPF)																				content.
USSR																				
Italian																				3 tons medical supplies
British																				
																				4 tons supplies, distributed by Verona Fathers,
																				$300,000, dressings.

Table 15: Priority Needs of Mulago as Identified by Hospital Staff

SOURCE	1			2				3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	WATER			FOOD (See Attached List)																			
	Alternate Supply to City Source	Bore Hole	Back Up Tank	Maize Flour	Milk Powder	Rice	Cooking Oil	Drugs (See Table 14)	Laundry - Repair Steam Equipment	Kitchen - Repair Steam Equipment	Refrigeration - Kitchen	Maintenance Shop - Refurbish Tools	Rubber Mattress Covers	Maternity Beds	Pediatric Beds	Lab - Distilled Water Repairs/Parts	Oxygen Supply	Anesthesia Equipment Repair/Parts	X-Ray - Replace	Library Journal	Bed Sheets	Disinfectants	Detergents/Soap
Ugandan Govt. Foreign Exc.																							
• Ministry of Health																							
• Church Missions																							
• Parastatal Pvt. Pharmacies																							
UNICEF														X									
UNHCR																							
UNDP/World Food																							
E.E.C.																							
Intl. Red Cross: Intl. League																							
USAID																							
DANIDA																							
W. Germany																							
NORAD																			X				
French																							
Holland																			X				
Care																			X				
AMREF																							
Intl. Planned Parenthood (IPPF)																							
USSR																							

Table 16: Needs Identified by District Medical Officer for Health Centers, Dispensaries, and Preventive Health Measures

SOURCE	1. Vaccines						2. Drugs								3
	Measles	DPT	Polio	Cholera (Endemic Areas)	Typhoid	Rabies	Crystalline Penicillin	Tetracycline	Anti-Worm	Chloroquine	Other Broad Spectrum Antibiotic	Anti-TB (1°)	Anti-TB (2°)	Trypanosomiasis (Endemic)	Water - Bore Holes
Ugandan Govt. Foreign Exc.															
• Ministry of Health															
• Church Missions															
• Parastatal Pvt. Pharmacies															
UNICEF															
UNHCR															
UNDP/World Food															
E.E.C.															
Intl. Red Cross: Intl. League															
USAID															
DANIDA															
W. Germany															
French															
Holland															
Care															
AMREF															
Intl. Planned Parenthood (IPPF)															
USSR															

Table 17: Items Identified as Critical to Minimum Regional and District Hospital Function

	1 WATER			2 FOOD					3	4	5	6	7	8	9	10	11	12
	Town Source	Borehole	Electric Pump	Matooke	Maize Flour	Milk Powder	Rice	Cooking Oil	Kitchen - Steam/Parts Replacement	Laundry - Parts Equipment	Oxygen	Distilled Water	X-Ray	Dental	Equipment Shop - Maintenance	Transportation	Disinfectant	Detergents
Ugandan Govt. Foreign Exc.																		
• Ministry of Health				X	X			X			X				X	X		
• Church Missions																		
• Parastatal Pvt. Pharmacies																		
UNICEF		X														X		
UNHCR																		
UNDP/World Food																		
E.E.C.*					X	X		X										
Intl. Red Cross: Intl. League					X	X		X										
USAID		X																
DANIDA																		
W. Germany														X				
NORAD***													X			X		
French									X	X	X	X	X					
Holland*					X	X							X					
Care													X					
AMREF**																		
Intl. Planned Parenthood (IPPF)																		
British	X																	
USSR																		

* Provides mainly to Protestant and Catholic facilities.
** Funds from E.E.C.
*** Masaka and Mbarara total re-equip.

An X represents only that the source identified either supplied or is now supplying that item. There has been no means to quantify the amounts against total need or distribution. The matrix is in no way complete as it represents only the sources we were able to identify from our interviews and documents provided us by the Ministry of Health and the sample of other government facilities that we visited.

It does, however, indicate the need for the Government of Uganda to establish an interim mechanism to coordinate and optimize the multiple commodity inputs it has and will continue to receive until such time as it can provide, via its own resources, the minimum requirements for its health programs. We recommend that the Government of Uganda take the following steps:

1. Establish a limited generic list of essential drugs, supplies, and equipment;
2. Limit allocations of foreign exchange for drugs to the importation of the generic list of essential items. (This limitation should apply to private pharmacies and parastatal corporations);
3. Quantify minimum requirements for each essential item;
4. Purchase drugs in the generic, bulk form to minimize cost;
5. Determine quantity and phasing of total vaccine needs; and
6. Immediately establish a health commodity coordinating council which will:
    a. Include all donors, organizations and Ugandan Ministries involved in the provision of health services, supplies, logistics, and finance;

b. Identify specific essential commodities that the Government cannot finance in the near term; and

c. Coordinate donor input to meet the gaps without duplication and fragmentation.

IV. TOWARD A LONG-TERM HEALTH SECTOR STRATEGY

A. INTRODUCTION

In the section that follows we have made a series of recommendations based on our findings which, if implemented, will, in our judgment, optimize the chance to improve the health status of Ugandans within the budgetary constraints that now exist. The long-range rehabilitation of the health sector is dependent ultimately on the success in rehabilitating the income-producing sectors of the economy as a whole. Our findings and recommendations are as follows.

B. FINDINGS AND RECOMMENDATIONS

1. Policy Formulation and Strategic Planning in the Health Sector

a. Findings

From the preceding analysis, it is evident that the current course of actions being initiated by the Ugandan Government in the health sector will in all probability result in commitments and expectations that they can have little hope of achieving. Although there is no explicit policy or development strategy articulated to date for the health sector, the implicit policy is to rehabilitate the existing health infrastructure to the operating level of the pre-Amin period.

The analysis in Section II.B. shows that accomplishing this will require an increase in recurrent expenditures in the range of six- to twelve-fold over the present estimated expenditures. While the

economy of Uganda is expected to recover, an allocation to the Ministry of Health and to the Ministry of Local Administrations of that magnitude does not appear realistic in the near- or medium-term. The Government must begin to look at alternative courses which will optimize improvements in the health status of the Ugandan people within the budgetary constraints that are likely to prevail for some time. This can take the form of examining ways that lower cost technologies can be introduced into the existing curative health infrastructure, and examining the value (relative to cost) of promoting the revamping of the rural MCH, family planning, immunization and disease control efforts. In addition, they should begin to examine ways to introduce self-help schemes at the village or sub-parish levels.

b. **Recommendations**

We recommend that the Government of Uganda consider the following measures:

1. Establishment of a National Health Council. This Council would begin to examine a number of health policy issues facing the Ugandan Government and coordinate actions of government ministries to implement those policies.

   The Council might be best made up of the Ministries of Economic Planning and Development, Health, Local Administrations, Culture and Community Development, the Protestant Medical Board, the Catholic Medical Council, the Dean of the Medical School, the

Chairman of the Council of Women's Organization, WHO, UNICEF, and other groups that are involved with improving the health of the Ugandan people. The Council would be charged with development of a national health development strategy within the context of existing economic and resource constraints.

2. The establishment of a Secretariat to staff the National Health Council. This staff would organize, manage, and monitor all analysis, studies, and research initiated by the National Health Council.

3. The utilization of the research and analytic capabilities of Makarere University and other indigenous Ugandan institutions to carry out the analyses (see below for specific research recommendations).

2. Rehabilitating the Existing Health Infrastructure

Although the existing 45 hospitals in Uganda provide some preventive health services, by far the bulk of these activities are curative. At the present time the same can be said for the rural health centers and the dispensaries. Without the requisite organization, supplies, and logistics, the preventive and outreach functions of the rural health centers and dispensaries have been severely curtailed. Immunization levels have dropped, disease control measures have been interrupted, and MCH and family planning educational efforts for the most part have been suspended.

The activities of the health centers and dispensaries have reverted to dispensing drugs as best they can, when they are available, given a variable supply and distribution system. The centers that we were able to visit are doing a remarkable job, given the severe constraints under which they are working. For purpose of this analysis, we have formulated our conclusions and recommendations concerning the rehabilitation of the existing health infrastructure by applying the following priorities as criteria:

1. Optional steps toward improved health status through the long-term rehabilitation and redevelopment of the health infrastructure, i.e., steps that are likely to bring about the greatest health status improvement with minimal demands on the recurrent budget.

2. Activities which in our judgment will rapidly improve the combined functioning and effectiveness of both the curative and preventive health structure, given the severe economic constraints under which the Government of Uganda is operating.

3. Activities which will strengthen the capability of the existing infrastructure to mobilize support to village or sub-parish based self-help schemes.

We have further broken our conclusions and recommendations down into four categories:

a. Capital investments/facilities and major equipment/maintenance;

b. Manpower;

c. Management, logistics, and supplies; and

d. Planning, research, and evaluation.

a. Capital Investments

(1) Findings

The Government of Uganda had developed by 1973 one of the finest and most extensive healh facilities systems in Africa. This includes a network of 45 district hospitals, 78 health centers and maternities, and approximately 307 dispensaries and subdispensaries. The 1,200-bed Mulago Hospital in Kampala was considered one of the most advanced facilities in all of Africa. The design of Mulago Hospital and that of the 23 district hospitals built between 1967 and 1973 included a number of high technology systems of British origin that are highly dependent on skilled engineers, technicians, and a ready supply of spare parts to keep them functioning. Over the past ten years both the foreign exchange and the necessary parts available to maintain the systems have steadily declined. Although a number of gaps may exist, we were impressed by the ingenuity and resourcefulness which Ugandans have displayed in keeping these systems going at a minimum level.

(2) Recommendations

We recommend that:

1. The highest priority be placed on the repair of existing equipment. This will require an inventory of critical spare parts needed for all the existing facilities and an assessment of requirements for the distribution of the parts to the facilities

and for their installation/repair.

2. District hospital superintendents and administrators be given greater discretionary authority and responsibility to repair and maintain their own facilities and equipment.

3. A small maintenance unit be established in each district to repair and maintain all rural facilities, as well as the government hospitals in the area.

4. The district administrations be granted greater budgetary latitudes in procuring local support services.

5. Specific attention be placed on repairs to:

   a. Water supply systems
   b. Cooking facilities/refrigeration
   c. Autoclaves
   d. Anesthesia equipment
   e. Laundry equipment
   f. Distilled water equipment (I.V. solutions)
   g. Laboratory equipment
   h. X-ray

It is important to emphasize that the highest priority must be on the repair of existing equipment rather than on replacement through new purchases. Once what exists is functioning, the priority can shift to assessing replacement needs.

6. A study be undertaken to examine ways in which the high

technology, high energy-dependent equipment which now exists can be converted to less costly energy sources and more self-sufficient maintenance, repair, and logistical systems.

One final note. It is our clear impression that a supply of paint sufficient to clean up the existing facilities would have a remarkable impact on the system. We believe it should be a priority. For a relatively low cost, there would be a dramatic esthetic, as well as psychological, boost to the staffs of the struggling facilities.

b. Health Manpower Training

(1) Findings

Uganda has made a considerable investment in personnel and training programs to develop and upgrade the staff required to operate the health care system in the country. The number of key staff in the country has declined or remained stagnant during the 1970s, while, at the same time, health facilities have expanded and the population has increased substantially. The existing health care system has been substantially constrained in its ability to provide services as both manpower and complementary inputs, e.g., drugs, have become increasingly scarce. Moreover, many training programs have operated at a reduced level of efficiency, either because tutors were not in the country or students were not in attendance for many personal reasons.

Wage levels paid by the Government in the country have remained constant during the 1970s. For example, today enrolled nurses and midwives are normally paid USh 505 per month, which is the middle of

the N scale used in 1970/71. Given that the low income price index in Kampala has gone up twenty-fold in the last decade, it is not surprising to find:

a. Less time is spent on-the-job by employees in government service;

b. Complementary goods such as drugs are often used for personal gain; and

c. A reduction in utilization rates at government facilities.

Among the key priority items for reconstruction listed by both the Ministry of Health and Mulago Hospital (see attached Appendices), is highly skilled manpower, mostly physician specialties. Virtually all of these shortages could be filled by trained Ugandans presently living abroad. The Manpower Planning Board of the Ministry of Planning must assess the set of generic policies required to establish repatriation incentives that are appropriate in light of reconstruction needs and the government's present and future ability to pay.

Apart from the question of the absolute level of available resources, there are important issues of distributional equity and employment needs which deserve consideration in the allocation of health resources. In this regard, the Government should make a careful analysis of the present employment structure and its correspondence with the employment needs implied by facility infrastructure. For example, the opportunity cost of restaffing a 100-bed hospital is between 8 and 11 health centers, 12 dispensaries, or about 22 subdispensaries (Dunlop 1972). At the same time, the

health manpower constraints are not nearly as binding in the latter as in the former, given the larger mix of paraprofessional staff which do not tend to be in as short supply. Recurrent cost implications also favor such a reallocation toward lower level (peripheral) facilities since the annual recurrent cost of a 100-bed hospital is approximately equal to the recurrent cost of 13 health centers (Dunlop 1973). Distributional equity considerations of more even allocation of resources across districts are also enhanced.

Several proposals have been tentatively advanced to train formally, as well as on-the-job, village-based primary health care workers in order to improve coverage and accessibility as well as to reduce the cost of health care delivery. The training, supervision and financing of such a cadre require careful consideration but warrant some support if the above issues are addressed in a satisfactory manner, particularly if developed with the explicit intention to alter the present medical technology embodied in present cadres of staff.

(2) Recommendations

1. When village-based health worker training proposals have been developed more fully than at present, the GOU and donors should assist the germination of the idea, its implementation, and its evaluation. The more general case of analyzing the alternative costs of potentially substitutible manpower cadres should also be firmly established, particularly in the Ministry of Planning and Economic Development.

2. The major reconstruction gap in rehabilitating the present Ministry of Health health training schools is for medical assistants. If health training assistance is considered a programmatic option, the medical assistant schools in Mbale and Fort Portal could be developed as important pressure points for altering the present delivery of health and medical care services.

3. Strong analytical support is required if the Ministry of Planning and Economic Development's Manpower Planning Board is to attain a level of sophistication and necessary for respect and cooperation. This will be particularly true in the health sector. Technical assistance in this endeavor should be provided if requested by the Planning Ministry.

c. Program Management, Logistics and Supplies

(1) Findings

In our analysis we were impressed by the interest, dedication, ideas, and capabilities of the district health staffs that we were able to interview. It is our strong conclusion that the highest priority in the allocation of government resources should be to revitalize district level programs to:

a. Immunize children for measles, DPT, polio, and tuberculosis. Specifically, reinitiate the expanded immunization program begun in 1977 and which was interrupted by the war;

b. Reestablish the MCH/Family Planning educational and preventive services at the health center, dispensary, and subdispensary levels;

c. Reinitiate through the district administrations, competitive sub-parish-based self-help schemes for village water and sanitation projects; and

d. Issue villages the essential commodities to carry out self-help schemes using technological approaches already introduced in Uganda. Modify these techniques where cost considerations indicate.

For example, we strongly endorse UNICEF's plan to assist the Ugandan Government in repairing the existing estimated 5,000 deep wells in Uganda. The most important thing is to get what exists functional. It is true that the existing pump, "The Uganda Pump," does not represent the most appropriate pump technology now available for deep well, rural water supplies. Once what exists is repaired and safe water is more readily accessible to the rural population, consideration can be given to a more maintenance-free pump. We would encourage UNICEF to carry out the pump and well rehabilitation program through the District Administration and to train persons in the proximity of each well and nominated by the village and confirmed by the sub-parish chief in maintenance and simple repair procedures.

(a) Expanded Immunization

We endorse the recommendations in the January 1980 report of Dr. F. J. Bennett, UNICEF Regional Advisor on Community Health, in which he outlines a four-stage plan to reinitiate the immunization program.

First stage of more detailed planning would be the central acquisition of more up-to-date information--this will be undertaken by UNICEF either on the basis of response to a detailed request for data, or by visiting districts or zone headquarters to meet District Medical

Officers. The district data, which would be useful for planning a national strategy, includes:

- A map of the health units (type and agency), schools, churches, markets and population concentration and usable roads;
- A table of type of unit and presence of refrigerator, deep freeze, cold boxes, cold thermos flasks and their state of functioning;
- A list of places with functioning transport--vehicles, bicycles, and current problems;
- Staff with immunization and MCH training and experience;
- Existence of primary health care programs;
- Existing records system;
- Health education that has been given;
- Disease pattern--especially epidemics of immunizable diseases; and
- Any cultural blocks related to immunization programs.

Second Stage - National Planning: This would be a series of national-level planning meetings with representatives of the Ministries of Health and Local Administrations, the Catholic and Protestant Health Secretaries, UNICEF, WHO, and other donor representatives.

Based on information acquired in Stage 1, policy, strategies and guidelines for action programs would be formulated. Vaccines and equipment procurement would be finalized and a national health education program would be outlined.

At this stage more detailed plans for the next stage would be drawn up.

Third Stage - Zonal Workshops: Each zone would organize a planning/training workshop for EPI. The participants would be the district medical officers, district health visitors or district health inspectors, community development (whoever will be taking part in district-level organization and training), and representatives from the Catholic and Protestant health sectors. In all, the number would be limited to about 28 and this would include two resource people--one from the Ministry of Health or Local Administrations and one perhaps from UNICEF or other technical resources. The participants would be divided into four working parties and would go through the following program (using WHO training modules):

Monday: Review of the information plus any new district data.

Tuesday: Management and training at District level.

Wednesday: Cold chain and vaccines, technical details.

Thursday: Health education/P.S.C.

Friday: Community participation, evaluation, and recordkeeping.

Some case studies (e.g., from Ghana and Tanzania) would be made available and be discussed and perhaps a film, if available, could be shown.

The first workshop should be held in the northern zone. Subsequent workshops would be organized for the eastern, western and central zones. Transport would be provided by the districts, when available.

Fourth Stage - District Training/Planning Workshops: Each district would subsequently (on its own funds except for Karamoja

District which would need UNICEF assistance) mount its own training/planning workshop to get details worked out at the local level, and to provide training for those actually doing the immunization.

Strategy: Although this will be worked out by the national meeting and further refined by the zonal and district workshops, the following suggestions were made by the UNICEF staff:

a. That an experimental setup in the beginning could evaluate different approaches or mixes, e.g., static health unit versus mobile versus community centers;

b. That schools and school children especially could be utilized for mobilizing the population;

c. That all dispensaries be allocated a member of the staff to help with immunization (these could be trained for the purpose in four-six weeks);

d. That a system of evaluation and monitoring be developed now--this might involve laboratory work, e.g., virus research to monitor the cold chain and development of antibody response in a sample;

e. That a monthly bulletin of EPI could record problems and successes in different areas so as to guide districts in solving their own problems of management, training, and supervision; and

f. That initially existing units could make a very great start if all were prepared to provide immunizations on a daily basis--this would mean improving cold facilities and delivery and trained staff.

4. Health and Medical Research

(1) Findings

There has been a long history of medical and health services research in Uganda which has been instrumental in understanding the epidemiology of many tropical diseases, their spatial distribution,

alternative control, treatment procedures or therapeutic methods, and the social, anthropological, demographic, nutritional, and economic factors which cause or may ameliorate health problems and diseases. Some of this research was initiated as early as the 1920s with the establishment of the East African Bureau of Research in Medicine and Hygiene and the establishment of specific institutes such as the Virus Research Institute in Entebbe and the Trypanosomiasis (Sleeping Sickness) Research Coordinating Committee which worked with those involved with tsetse fly control programs. These research programs have continued to the present time, even after the breakdown of the common services of the East African Community. Virtually all of these research endeavors have been established to deal with the major health problems of the area and have fed their findings into the control and treatment programs related to these findings.

More recently, with the establishment of the Medical School at Makerere and the interest displayed by many social sciences in health and medical problems, the University became world-renowned for many research activities and findings which again influenced the organization and delivery of health and medical care in developing countries and the treatment of specific diseases and the education of health manpower. Perhaps the most notable work includes:

a. The original work by Dr. Derek Jelliffe in the 1950s and early 1960s in nutrition and maternal and child health which has been continued by Dr. John Bennett (now with UNICEF in Nairobi) and others, including those at the present Mwana-Mugimu Nutrition Rehabilitation Unit in Kampala.

b. The mapping of disease distribution by members of the Geography and Preventive Medicine Departments of Makerere in

concert with the Institute for Social Research (the original publication in 1966 has had major impacts on the teaching and research work of tropical diseases).

c. The cancer research work under the original guidance of Dr. Burkitt and now institutionalized in the Cancer Research Institute made major breakthroughs on the epidemiology of various forms of cancer and helped to bring social science research skills into the understanding of disease.

d. The prostoglandin research conducted in the 1960s by Dr. Karim and others at the medical school was instrumental in family planning and contraceptive technology development and in the development of more therapeutic abortion techniques.

e. The establishment of the Kasengati Rural Teaching Health Center with the assistance of the Rockefeller Foundation for use by the Department of Preventive Medicine (principal investigators included Drs. George Saxton and John Bennett) was a breakthrough in medical education in the early 1960s and has been the locus of many operational research activities and studies which have improved the understanding of the health and social problems of specific groups in the population such as the aged, the divorced, migrants, ethnic minorities, and the young.

f. The development, with the assistance of OXFAM, of a district-wide mobile health team to provide immunizations, AACH services, and simple curative services to young children (the Ankole Preschool Protection Program) was used as a teaching laboratory for physicians, assistant health visitors, and midwives, as well as an operational research base to ascertain the cost-effectiveness of such a delivery system, as well as the technical feasibility of a delivery system which reached to the subparish level in the country.

g. The development of a systematic research program on the therapeutic efficacy of traditional medicines throughout Uganda and East Africa.

h. The establishment of the Institute of Public Health in the medical school, under the present leadership of Professor U.L. Ongom, through which postgraduate medical education leading to the diploma of public health was conducted, as well as the development of a strong MCH research program (sponsored by USAID) in which both faculty and staff participated, and through which at least 64 student dissertation research projects were completed (mostly by Ugandans) during the 1966-1977 period.

Besides these major research programs, there were many other

studies and research efforts conducted by anthropologists, physicians, economists, social workers, demographers and sociologists on specific health problems on health care delivery and related issues. These endeavors were coordinated through the Institute for Social Research or the medical school, and there are many working paper series, journal articles, monographs and governmental memos that document this activity. The Department of Rural Economy at the university, in conjunction with the Statistics Division of the Ministry of Planning and Economic Development, were also engaged in highly complementary studies on food consumption in Kampala and throughout the country.

This multiplicity of research and evaluation activities fed into the economic planning process as well as via several mechanisms:

a. Individual researchers sitting with MOH and Planning personnel on working parties whose task was to develop the national Five-Year Plans.

b. Formal and informal discussions, conferences, and seminars which regularly occurred between governmental and university personnel.

(2) Recommendations

1. Those research institutions which have continued throughout the difficult 1970s should be given support to continue the relevant research activities of the past. In particular, the rehabilitation requirements of the Institute for Social Research (transport, household furnishings, publications support, and other miscellaneous supplies) and the Institute of Public Health (transport, research supplies and personnel support) should receive high priority support.

2. The establishment of a health research coordinating body comprised of the relevant ministries, the research institutes at Makerere and under Government supervision, e.g., the Uganda Virus Research Institute at Entebbe, should be undertaken and given support to define priorities and engage in the cost-effective evaluation studies of various strategies proposed to expand health care to the subparish and village level.

3. Where particular studies are defined and agreed to by such a coordinating body, as suggested in No. 2 above, external donors should be willing to consider financial or other assistance as may be required. Information about other potential U.S. sources of support should also be available through USAID (MIH, MCHSRD, Ford, Rockefeller, etc.).

C. OTHER PUBLIC HEALTH FINDINGS AND RECOMMENDATIONS

1. Family Planning

a. Findings

During the decade of the 1970s, the population increased by 39 percent from 9.55 million persons as of the 1969 Census to approximately 13.22 million as of 1979, not counting the several hundred thousand persons killed by the previous regime and the nearly 90,000 Asians and Europeans who also left during the decade. The estimated rate of population growth in Uganda is presently among the highest in the world, perhaps as high as 3.5 percent per year. The

PVO Uganda Family Planning Association was created in the early 1960s to educate and provide family planning services to those who sought to limit family size or increase the spacing of children. It remains the primary mechanism through which:

a. Contraceptive methods are imparted; and

b. Services are made available to the public.

The Government, in the Third Five-Year Development Plan 1971/2-1975/6, began to seriously address the demographic reality of the country and made a number of policy proposals, some of which have been implemented.* For example, the Ministry of Health provides family planning advice and services at all governmental health facilities. It has spearheaded an expanded Maternal and Child Health program throughout the health facilities of the country through which family size and spacing issues have been addressed. It has introduced into the curricula of all health manpower cadres, e.g., doctors, nurses, medical assistants, midwives, assistant health visitors, strong family planning components and the necessary skills to provide such services. The latter two endeavors were partially supported in the early 1970s by funds supplied by AID to Makerere University Medical School. The national FPA has also been assisting in family planning education of a number of other rural manpower cadres, including:

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* See Chapter 5, pg. 69-78 of the Third Five-Year Plan.

a. Cooperative union workers

b. Young farmers

c. Local women's club workers (paid or voluntary)

d. Agricultural extension workers

The Government has undertaken, on its own and in conjunction with external assistance, analyses of the impacts of rapid population growth.* Finally, it has conducted the 1980 Census under difficult rehabilitation circumstances, in order to obtain vital, up-to-date demographic data for political and developmental consideration.

Little information exists at present about the demand for family planning services in the country. Selected interview information from various parts of the country suggest considerable variance in demand from one region or district to another, with the area around Kampala from Masaka to Jinja being considerably more responsive and open to expansion than in the east and north. While the Family Planning Association has expanded its program in the more receptive areas, alternative distribution approaches may also be feasible (e.g., cooperative unions, private shops--condoms). In light of present demographic trends, all approaches warrant consideration.

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*See, for example, the work of Stephen Tabor (Population Council support in the late 1960s) and the analyses in Chapter 5 of the Third Five-Year Plan.

b. **Recommendations**

1. If the 1980 Census tabulation and analysis faces any short-run commodity bottleneck or other minor problems, donors should offer assistance. A minor foreign exchange problem to initiate computer processing should not lead to delays.

2. A local evaluative analytical capacity should be initiated and supported to:

   a. Analyze present demographic information;

   b. Determine the range of feasible alternative family planning delivery approaches, including the Family Planning Association, government and mission hospitals, rural facilities, MCH programs, and other mechanisms, both public and private in nature;

   c. Analyze the set of social and economic factors affecting the demand for children in light of policy options available to create an environment for increasing family planning services; and

   d. Analyze the complementarities between health, education, and agricultural (including nutrition) programs on the process of demographic changes in Uganda.

   The mechanism for supporting this capacity could be to build on the strengths of Makerere University, including the Institute for Public Health, Institute for Social Research, the Institute for Statistics and Applied Economics, and the Sociology Department. It should also be developed in light of the analytical capacity and policy considerations of the Ministries of Planning and Economic Development, Health, Local Administrations and Education. The precise formulation of this effort is beyond the

scope of this report, but could be initiated by short-term advisors in the family planning, economics, and demography fields.

3. Support for commodities or training related to the provision of family planning services through any mechanism available warrants special consideration.

2. Disease Control Measures

a. Findings

1. There are a number of preventive health and disease control programs underway in the country. For example, there have been a number of national immunization campaigns with the 1977 EPI program being the most recent. In the past, the Preschool Protection Program operated in the Ankole District was another innovative immunization program. A second example has been the history of health visitors who in 1961 began their activities in the Basota District. The program taught families how to improve nutrition, engage in their own vector control around the household compound, and protect their own water supplies. This program of health visiting has been expanded throughout the country and there are now six assistant health visitor training schools. These were set up in the early 1970s to increase this activity throughout the country. Such workers operate at the parish and subparish level. A third example has been the large program in MCH primarily operated out of the rural health centers and dispensaries where

midwives have been posted. The number of ante-natal visits grew rapidly over the decade of the 1960s and continued through the early 1970s. Most women, prior to delivery even at home, received some maternal services. These services have now been severely curtailed.

2. In the area of sleeping sickness, special controls have been established by local administrations to control migration patterns of populations into the endemic areas. In the past there were substantial resources allocated by the districts to brush-clearing and grass-cutting in order to reduce the natural habitat of the tsetse flies.

3. The high prevalence of pit latrines and other similar methods for human waste disposal is an indication of the long-term training activities and health education activities at the local level. The Ministry of Health, together with the Ministry of Local Administrations, carried out highly successful parish and subparish self-help schemes by establishing competition between villages.

4. The end of the 1970s saw a rapid decline in many of the above preventive programs due to:

   a. A lack of transport on the part of the public health staff at the district level; and

   b. A lack of critical inputs, such as vaccines, cement for spring (water) protection, pangus for brush- and grass-clearing, and lime for pit latrine sanitation.

The district medical officers and other trained public health

workers we contacted are eager and prepared to resume these preventive programs if critical inputs are made available to them.

5. UNICEF and other donor groups such as AMREF have initiated efforts to reinstitute some of the above programs. UNICEF, for example, is providing vaccines and vehicles for expanded immunization and other public health work at the district level. AMREF is also proposing to reestablish the Institute for Public Hygiene at Mbale and is ready to improve the training of the public health workers at the district level.

6. The Ugandan Government has also indicated its interest in reestablishing such programs by its announced program to purchase vehicles for the Ministry of Health to carry out mobile clinic activities.

7. The EEC and DANIDA are committed to the refurbishing of 25 District primary care centers.

b. Recommendations

1. A careful analysis must be made of the present gaps in commodity gifts from donors. Donors could be helpful in reinstituting the disease control programs that have been operated throughout the country in the past. As a preliminary area for possible commodity assistance, such items as cement, lime, weed-cutting implements and insecticides may be the most useful. See Appendix J on the proposed trypanosomiasis control program.

2. The GOU should prioritize assistance and study alternative ways to intervene in vector transmission, particularly in the area of sleeping sickness or trypanosomiasis. The emphasis in animal husbandry to the expanded use of dip tanks may provide one mechanism for reducing the reservoir of disease in the animal hosts, and thereby reducing the prevalence of human trypanosomiasis. The Institute of Public Health at Makerere University Medical School has the potential epidemiological resources in concert with the Ugandan Virus Research Institute to engage in this analytical work.

3. Water, Sanitation and Nutrition

a. Findings

(1) Water

1. Eighty percent of the estimated 5,000 boreholes in the country are not working. This problem leads to an obvious reduced consumption of water at the household level due to the greater distances which individuals must travel to carry water. This problem is particularly acute in the northern part of the country and contributes to the increased problem of enteric diseases including cholera in that area.

2. The number of protected springs has declined primarily due to the lack of maintenance and shortages of the cement and pipe needed.

3. The country has suffered a drought in the recent years, especially in the poorest areas of the north. The combination of bad water,

malnutrition, increased infectious diseases, especially measles in children, is resulting in high mortality in the Karamoja region.

4. The country as a whole is well endowed with water. The Nile, Lake Victoria, Lake Kyoga, and other large lakes have ample supplies of water if a long-run plan for the distribution of that resource can be developed and implemented. In the late 1960s there was some national water planning with one possible project being the building of a large pipe system into central Karamoja from Lake Kyoga.

5. Water is a major problem in many health facilities throughout the country. In Mulago Hospital, it represents the primary problem facing the rehabilitation of that hospital. In Kitgum Hospital, the lack of water has forced its closure. Many rural facilities also lack water. Systematic planning for the continuous supply of water to health facilities can improve their operations significantly.

6. The major cities of Kampala, Masaka, Jinja, and Mbarara are being assisted by external donors to restore their water systems. In particular, the EEC and the World Bank are making major investments in this area.

7. The maintenance and repair of many of the nonfunctioning boreholes have been taken over by UNICEF.

(2) Recommendations

1. UNICEF has initiated a program to maintain and repair existing boreholes and pumps. The GOU should explore parish or subparish self-financing of future maintenance and repair activities. This could be done by a small, locally-administered tax scheme specifically to cover the cost of wages of a local repairman and the necessary spare parts to continue the operation of these boreholes.

2. The highest priority should be to improve the availability of water in the dry areas of the north, particularly in Karamoja. The GOU might want to examine projects in other countries such as the Mangara Mountain region of Cameroon. It is a similar arid region that is engaging in a large small-dam construction project. In Karamoja, there would appear to be a reasonable number of local dam sites available for the creation of small bodies of water. The potential negative impact of schistosomiasis must be carefully evaluated if such a project was undertaker.

b. Sanitation

(1) Findings

1. In contrast to most areas of Africa, a large proportion of the rural population have and use pit latrines or some other advanced method of human waste disposal.

2. There is a lack of soap, disinfectants, and cleaning fluids for personal and institutional use. During the 1970s refuse disposal was lacking. There is a considerable amount of burning today but

alternative methods of disposal in expanding urban areas and trading centers should be analyzed. The Health Inspectorate Division of the Ministry of Health may want to consider the technology of compost piles as one method of recycling such refuse.

3. In hospitals, rural health units, and other public facilities, toilets are not working due to lack of water. This problem will not be resolved until water supplies are restored (see above).

(2) Recommendations

1. The chances for successful implementation and proper use of village sanitation systems are increased by the extent to which there is community participation in planning, installation, and maintenance of the systems. Perhaps more so than any other African country, Uganda has demonstrated active participation at the community level in sanitation systems. While these systems may now be in disrepair, the mind-set is present through which the system can be placed back in operating order through indigenous labor and material resources, with funding assistance from donors.

2. Donors should provide as quickly as is practical material and financial assistance to restore the water supply to hospitals and health facilities.

c. Nutrition

(1) Findings

1. Food production has declined significantly in the last year due to the war of liberation, the failure to plant crops, and drought in the north. The northeastern part of the country is particularly hard hit with widespread evidence of malnutrition and marasmus.

2. Many innovative nutrition education projects have originated in Uganda. A world-renowned program, Mwana Mugimu, in nutrition rehabilitation was developed in this country in the 1950s and early 1960s. Mothers lived with their malnourished children to learn how to feed their children on locally available foods. Nutrition education has also been an integral part of the maternal and child health program in rural facilities for the last ten to fifteen years.

3. It is possible to have a nutritionally balanced diet in all parts of the country on the various combinations of vegetables and other locally available foods produced in each region. The only possible exception to this may be in Karamoja during droughts or seasonal shortages.

4. With the possible exception of Karamoja, all areas of the country are potentially self-sufficient in food. However, with the rapid population growth rate which has continued over the last decade, it is possible that some areas may not be self-sufficient in the future. In particular, this may be the case in Kigezi and possibly Bugisu.

5. Improved nutrition is one of the best ways to improve health status. By improving nutrition, the risks of measles and many other infectious diseases are reduced.

(2) Recommendations

1. The GOU priority in rehabilitating the agricultural sector for both cash crops and consumption is strongly endorsed. The availability of an adequate diet will have a greater impact on health status than most of the specific health interventions outlined above.

2. Heavy emphasis should be placed on reinstituting nonformal education of mothers in proper infant feeding--using indigenous foods.

3. Emergency food should be provided to hospitals, health centers and dispensaries for patients only until local self-sufficiency is reestablished.

APPENDIX A

CURATIVE SERVICES BY FACILITY TYPE

Source: David Wallace Dunlop, The Economics of Uganda's Health Service System: Implications for Health and Economic Planning, Ph.D. dissertation submitted to Department of Economics, Michigan State University, 1973.

Table A.1

Curative Services by Facility Type

Service Delivery Mechanism	Outpatient: Diagnostic Auxiliary	Outpatient: Diagnostic Professional	Outpatient: Treatment-Drugs	Outpatient: Treatment-Therapy	Outpatient: Treatment-Minor Surgery	Inpatient: Diagnostic Auxiliary	Inpatient: Diagnostic Professional	Inpatient: Nutrition (food)	Inpatient: Beds	Inpatient: Treatment-Drugs	Inpatient: Treatment-Therapy	Inpatient: Treatment-Minor Surgery	Inpatient: Treatment-Major Surgery	Inpatient: Other Specialized Treatment Services Maternity	Supportive Service for In and Out Patient: Laboratory	Supportive Service for In and Out Patient: Radiography- X-ray
Government																
Central Referral Hospital	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x
Regional Referral Hospital	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x
District Hospital	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x
Health Centers	x		x	x	x	x		ϕ	x	x	x	x		x	ϕ	
Dispensary/Maternity Units	x		x	x	x	x			x	x	x	x		x	ϕ	
Dispensary	x		x	x	x	x			x	x	x	x				
Sub-Dispensary	x		x	x	x											
Maternity Center	x		x	x		x			x	x				x		ϕ
Aid Posts	x		x	x												
Natl. Immunization Team																
Dist. Health Inspector Team																
City Health Team																
Ankole P.P.P.	x		x	x												
Military Health Services	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x
Private																
Mission Hospitals	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x
Industry Hospitals	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x
Mission Dispensary/ Maternity Units	x		x	x	x	x			x	x	x	x		x		
Mission Dispensary	x		x	x	x	x			x	x	x	x				
Mission Sub-Dispensary	x		x	x	x											
Mission Maternity Center	x		x	x		x			x	x				x		
Mission Aid Post (Safari Centers)	x		x	x												
Urban Private Physicians Offices		x	x	x	x										x	x

ϕ = Maybe

Table A.2
Preventive and Other Health Services by Facility Type

Service Delivery Mechanism	Preventive Health Services																		Other Health Services				
	Individual									Societal													
	Immunizations	Ante-Natal	Family Planning	Health Edu. Nutrition	Sanitation	Vector Transmission	Child Welfare	Spec. Disease Screening	Follow-up	Water Purification	Sewage Treatment	Vector Removal (Malaria) clearing	Health Education	Food and Meat Stds.	Building Standards	Occupational Safety	Transportation Safety	Medical Manpower Training Doctor	Medical Asst.	Nurses & Midwives prof.	Nurses & Midwives aux.	Public Health	
Government																							
Central Referral Hospital	x	x	x	x	x	x	x	x	x									x		x			
Regional Referral Hospital	x	x	x	x	x	x	x	x	x										x		x	x	
District Hospital	x	x	x	x	x	x	x	x	x														
Health Centers	x	x	ϕ	x	x	x	x	x	x				ϕ										
Dispensary/Maternity Units	x	x					x																
Dispensary	x						ϕ																
Sub-Dispensary	x						ϕ																
Maternity Center	x	x	ϕ	x	x	x	x																
Aid Posts	x						ϕ																
Natl. Immunization Team	x							x															
District Health Inspector Team	x							x		x	x	x	x	x	x								
City Health Team	x	x					x	x		x	x	x	x	x	x								
Ankole P.P.P.	x	x	x	x	x	x	x	x															
Military Health Services	x																						
Private																							
Mission Hospitals	x	x	*	x			x	x															
Industry Hospitals	x																						
Mission Dispensary/ Maternity Units	x	x		x	x	x	x	x															
Mission Dispensary	x						x																
Mission Sub-Dispensary	x						ϕ																
Mission Maternity Center	x	x		x	x	x	x																
Mission Aid Post (Safari Center)	x																						
Urban Private Physicians Offices	x		x				x																

ϕ = maybe
* = the service is offered by Protestant units only
ϕ = health education is conducted within the defined area

APPENDIX B

ADMINISTRATIVE RELATIONSHIPS IN UGANDA'S HEALTH SERVICE SYSTEM

Source: David Wallace Dunlop, The Economics of Uganda's Health Service System: Implications for Health and Economic Planning, Ph.D. dissertation submitted to Department of Economics, Michigan State University, 1973.

APPENDIX B

Administrative Relationships in Uganda's Health Service System [1]

Until very recently, at least three types of administrative relationships were important to understanding the operations of the health service delivery system and its prospects for future development:[2] (1) the relationship between the several government ministries which have jurisdiction over various aspects of the health care system; (2) the relationship between the central government and various local units of government; and (3) the relationships between government at all levels and the private sector of the health service system, which includes mission medical bureaus, large firms, and private physicians and pharmacies.

The administrative relationships of importance are found in three areas of policy: (a) medical standards, as related to personnel, care, and operating methods; (b) financial support policy; and (c) developmental policies related to future expansion of the service delivery system. Administrative relationships relative to these policy matters have their genesis in historical, political events, in the development of the role of governmental organizations, particularly since Independence, and in the recurring financial problems faced by private health organizations.

Central Government, Inter-Ministerial Relationships

Until the recently announced Plan III, two ministries in the central government had to correlate their activities relative to health services. The Ministry of Health had (and continues to have) major responsibility for establishing broad medical policy in such areas as minimum qualifications for several types of medical personnel, the development of pharmacological policy, etc. The Ministry develops the medical, administrative, and financial policies related to the operation of all government hospitals. It is responsible for all medical education in the country, with the exception of the education of medical doctors, which is administered by the University; in conjunction with this responsibility, there are Ministry-run schools attached to the larger hospitals in the country to train

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[1] The information presented in this Appendix was gathered in an informal way and there is no one source which can be cited for authenticity of the information presented. The author is responsible for any mistakes which may exist in facts or interpretation.

[2] At the end of this Appendix the implications of the recently announced administrative policy changes described in Uganda's Plan III op. cit., pp. 306 and 307, paragraphs 17.20 - 17.24, which strengthen the powers of the central government's Ministry of Health vis a vis those of local governments, are examined.

professional nurses and midwives, auxiliary level nurses and midwives, medical assistants, professional and auxiliary radiography and laboratory personnel, and public health personnel. The Ministry establishes medical policy for all government rural health facilities, through its appointed district medical officers. It also develops the broad national public health strategy and, where appropriate, develops national legislation related to health matters for consideration by Parliament. Finally, the Ministry of Health is involved in planning for the improvement of the health of the people of Uganda. In this capacity, it has assisted in planning for the expansion of health facilities, as well as expansion of the supply of other necessary inputs such as personnel, drugs, and equipment. This latter responsibility is undertaken in cooperation with the Ministry of Planning and Economic Development.

The other Ministry, the Ministry of Regional Administrations, has had control over the activities of each local government's department of health. This Ministry approves proposed recurrent and capital budgets for each district and city and determines the taxing capacity of each. This Ministry also determines the criteria for dispersing central government funds to cover recurrent and capital budgetary requirements of the local governments.

It has been essential that the Ministry of Health work in close cooperation with the Ministry of Regional Administrations in order to attain the medical objectives which the Ministry of Health may have developed for the country; this has been especially important given the rapid expansion of hospitals and rural health centers during the second five year development planning period, 1966-1971. Decisions about timing of new construction, facility type, financing, and location of facilities have been made initially at the local level, but are reviewed by the Ministry of Regional Administrations. The policies of this Ministry, therefore, have been vital to the way in which the health service system operates, particularly in rural areas where approximately 90-95% of the population live.

The individual directly responsible for the daily operation and expenditures of health facilities in all districts, however, remains the district medical officer (DMO), who is a direct appointee of the Ministry of Health. Many trained medical staff (medical assistants and other more highly trained auxilliary staff) in the districts are seconded to the districts from the Ministry of Health. A large percentage of all drugs and equipment (approximately 95%) used in the districts have been purchased from the Ministry of Health. Patients who cannot be adequately cared for in local rural health facilities are transferred to the district government hospital, which is run by the Ministry of Health. The operation of the health service system, thus, has been subject to the coordination between the two Ministries.

Central and Urban Government Relationships

The relationship between the largest municipalities (Kampala, Jinja, Mbale and Masaka) and the Ministry of Health is not as strong as the

Ministry's relations with the districts, as the municipalities hire their own personnel and coordinate their activities with the Ministry of Health primarily on such items as national immunization campaigns. In addition, a large percentage of the municipalities' purchases of drugs and equipment are made from local suppliers, rather than from the Ministry of Health's central stores. The municipalities' finances are reviewed by the Ministry of Regional Administrations, but because they are largely able to finance their recurrent and capital expenditures on their own, their activities are not subject to the same degree of scrutiny as are the districts.

Urban authorities and smaller towns remain tied more directly to the central government because of their inability to finance their own services completely. The Ministry of Regional Administrations is involved in their budgetary matters and in arranging the financing of their capital projects. The Ministry of Health is also involved with the urban authorities and towns, because the disctrict medical officer is often the town's medical officer of health as well. The towns' most direct link to the Ministry of Health lies in the administration of public health policy, inasmuch as nearly all health services provided by the smaller towns are related to public health.

Central Government and Private Health Services

The private health sector interacts with the government in several ways. Private physicians are related through licensing which is administered by the Ministry of Health. At present, there are about 250 doctors in private practice in the country, nearly all of whom are located in the 10 largest cities and towns. Chemists are also licensed by the Ministry of Health, and must receive a special license in order to dispense chemical formulas appearing on the government's list of poisons. This licensing is the only direct link between the government and chemists. However, the Ministry of Health purchases a large percentage of its drugs, equipment and stores from local chemists and other vendors; this relationship is strictly contractual and is usually negotiated on an annual basis.

The labor laws of Uganda state that firms which employ a certain number of workers must provide a minimum set of health services by qualified medical personnel. If a firm employs more than 1,000 persons, it must maintain a full range of hospital facilities. Such private hospitals are operated by three industrial firms at the present time: Kilembe mines, Mahdvani and Co. Ltd., and the Uganda Sugar Factory Ltd. These hospitals and the less complete curative services maintained by smaller firms are monitored by the district medical officer and must conform to the medical standards of the Ministry of Health. Also, industrial health and hygiene is monitored by the central government's Ministry of Labor and its personnel investigate plant safety standards and monitor general standards of hygiene.

The government and mission health services have had a long relationship. Mission hospitals received central government financial assistance at least as early as 1932, and this support continues to the present time. Today the government provides grants to approve nurse and midwifery training schools operated by mission hospitals. In addition, the Ministry

of Health provides recurrent grants to the mission hospitals on the basis of the number of doctors and registered nurses on the staff. Mission health facilities, however, have been experiencing increased financial difficulties. The mission medical bureaus contend that government grants are much too small, but the amount of the grants likely reflects the government's general set of objectives, which does not lend much support to mission health facilities. The district administration governments have also provided some financial support to mission health facilities in the past.

Besides the financial relationship between the government and mission health facilities, the government controls mission activities by a form of accreditation. Each mission hospital must abide by medical standards established by the Ministry of Health in order to obtain the financial support provided by the central government. Every doctor working in a mission facility must also be licensed by the Ministry of Health.

Central Government and Makerere Medical School

Makerere Medical School has primary jurisdiction over medical education of doctors in Uganda. The School is related to the central government in several important ways, however. Since 1968, medical students have been required to agree formally to serve in government hospitals for two years after completing school. In addition, the Medical School must cooperate with the Ministry of Health in using Mulago Hospital, the largest hospital in Uganda, in the training of its students. Because it is a part of the national university, the Medical School receives a large proportion of its recurrent operating funds from the central government's Ministry of Education. The Medical School also receives funds from the World Health Organization and other international foundations, but the central government, through the Ministry of Health reviews the appropriateness of the particular research or teaching project to be funded by international organizations.

New methods of delivering medical care services have been developed or adapted by various departments of the Medical School, but the rate of innovation diffusion to date has been slow. Recently however, there appears to be more receptivity to change and cooperation between the Medical School and the Ministry of Health. The cause for optimism is related to the government's willingness to help fund the following programs: (a) the Kasangati Teaching Health Center (previously funded by the W. Mengo District Administration); (b) the Ankole Preschool Protection Program (previously funded by the Oxfam Foundation and the Ankole District Administration); (c) the Mobile Maternal and Child Health Clinic program in the rural areas near Kampala (previously supported by the W. Mengo District Administration); and (d) the rural health service system improvement project operated by medical students and professors in the W. Mengo District (previously supported by the District).

Plan III's Announced Administrative Policy Change for Health Services

In Uganda's Plan III, 1971/72 - 1975/76, the government announced a

major health administration policy change. The major facet of this change strengthens the powers of the central government Ministry of Health vis a vis and local authorities, primarily the district administrations. The essence of the policy change is as follows:

> "The most difficult problems of coordination have arisen in connection with the health activities of local authorities. In the past, each local authority developed its health service without any regard to the activities of other local authorities. Also there has been very inadequate coordination between the activities of the local authorities, on the one hand, and those of the Government, on the other. This has created problems especially in relating to the provision (by Government) of staff for local authorities' health establishments. With a view of alleviation these problems, it has been decided to transfer the responsibility for setting up and administering health centres and all other rural medical units completely away from district administrations to the Ministry of Health. The district administrations will thus cease to have any direct responsibilities in the field of health. It is anticipated that the net effect on government recurrent expenditure of the take-over of rural medical units will be neutral, as block grants to local authorities will no longer cover the operation of these units". (Paragraph 16.22, pp. 306 & 307)

It is clear, thus, that a major shift in the organization of Uganda's health service system has been announced. Such a change has precedent in Uganda, for in 1966, the central government established its control in the field of education services. The announced shift in health administration policy was not as inclusive as was the case in education, however, since mission health facilities can still maintain a considerable degree of financial, administrative and medical control over their operations. The primary change is in the administration and financial control of rural health services; such a change may be viewed as a step by the central government to further support the interest of people living in rural areas and is an important institutional and administrative development.

APPENDIX C

MINISTRY OF HEALTH PRIORITY RATING FOR URGENT RECONSTRUCTION

MINISTRY OF HEALTH PRIORITY RATING FOR URGENT RECONSTRUCTION.

The Programme of expenditure for top priority items will involve a sum of Shs. 773,65 million out of which Shs.615.29 m. will be in foreign exchange.

A. IMMEDIATE AND URGENT REQUIREMENTS

1. Office stationery and equipment for Headquarters, hospitals, training schools and other medical Units — shs. 30 m.

2. Beddings and Linen

18,000 mattresses	)	
18,000 beds	)	for hospitals
18,000 knives	)	training schools — shs. 18 m.
34,000 forks	)	and other units
18,000 spoons	)	
34,000 blankets	)	
51,000 pairs of bed sheets	)	
- cutlery	)	

3. Vehicles (transport) — shs. 30 m.

4. Equipment & supplies grouped as follows:

(a)	Laboratory equipment & reagents	shs. 26.65m.
(b)	Surgical equipment	shs. 26.0m.
(c)	X-ray equipment & spares	shs. 11.2m.
(d)	Dental equipment	shs. 2.8m.
(e)	Laundry machines	shs. 3.5m.

5. Teaching materials for training schools — shs. 3 m.

6. Drugs & medical sundries — shs.145 m.

7. Blood Transfusion — shs. 3 m.

8. Generators and water pumps. — shs. 8 m.

9. Compound maintenance — shs. 2 m.

10. Repair and renovation of hospital buildings including plumbing and sewage systems — shs. 90.4m.

11. Prefabricated houses (252 Units)

Mityana hospital	15
Lira	4
Mbale	20
Moroto	10
Kapchorwa	10
Tororo	10
Soroti	10
Nurses Training College	5
Gulu	10
Masaka	20
Kitgum	5
Fort Portal	10
Namasagali	10
Mubende	10
Hoima	10
Mulago	20
Bundibugyo	3
Mbarara	20
Butabika	20
Masindi	10

12. i. Construction of the Central Medical Store shs. 128 m

ii. Construction of 4 regional medical stores 40 m. shs. each i.e. shs. 160 m.

13. Rehabilitation of communication, 16 Radiocalls, telephone exchanges and central system for headquarters, Mulago and Butabika including the paging system. shs. 6.m.

14. Rehabilitation of Vector control Programmes including Tuberculosis and sexually transmitted diseases shs. 13 m.

15. Printing Press for Ministry of Health shs. 2 m.

16 Personnel

With regard to health manpower requirements, we need more trained and experienced medical personnel in addition to those mentioned in the report. In order to get to the established level before 1971 we need:

(a)

Physicians	29
Surgeons	22
Pharmacists	10
Obstetricians/Gynaecologists	22
Orthopaedic Surgeons	16
Paediatricians	15
E.N.T. Surgeons	7

Anaesthestists	10
Ophthalmologists	5
Radiologists	10
Pathologists	17
Psychiatrists	10
Dentists	23
Bio-Chemists	15
Micro-Biologists	15
Anatomists	9
(Specialists)in Public Health	5
Medical Officers	10
Dieticians	2
Health Visitor Tutors	7
Psychiatric Nurse Tutors	3
Paediatric Nurse Tutors	4
Midwifery Nurse Tutors	10
Specialized Ophthalmic Nurses	6
" " Theatre Nurses	10
" " E.N.T. Nurses	4
" " Orthopeadic Nurses	4
" " Tuberculosis Nurses	4
" " Nuro-Surgery "	4
" " Genital Urinary"	4
" " Intensive care "	6
" " Skin & STD "	4
" " Post basic college nurses/Midwifery tutors	4

(b) An Adviser in hospital administration to assist Mulago hospital as well as in the training of hospital secretaries loccally.

(c) The number of Engineers for maintenance and repair of medical equipment is very small and should be increased to four in order to cater for the Electro-medical, meohanical and civil engineering.

B INTERMEDIATE REQUIREMENTS

Although the Commonwealth team of experts gave high priority to the establishment of a Radiotherapy Unit at Mulago, the Ministry of Health wishes to place this important item under intermediate requirements, for the year 1980/81

1. Radiotherapy Unit
2. Reconstruction of all old hospitals
3. Construction of 24 nutrition rehabilitation Units
4. Construction of Paramedical Institute
5. Construction of Health Centres/Primary Health Care/ EPI.

APPENDIX D

MINISTRY OF LOCAL ADMINISTRATIONS:
SUBMISSION ON PROPOSED DANISH AID
FOR REHABILITATION OF RURAL HEALTH CENTRES

MINISTRY OF LOCAL ADMINISTRATIONS

SUBMISSION ON PROPOSED DANISH AID FOR REHABILITATION OF RURAL HEALTH CENTRES

The provision of medical and public health services in the rural areas in this country is the responsibility of District Administrations. This service is provided through the operation of various categories of medical units namely:- health centres, dispensaries, sub-dispensaries, maternity centres and aid posts.

During the past 8 years of military administration, this service like many other services, suffered quite considerably as many of the rural medical units were poorly maintained while others were completely neglected and never repaired. Besides these medical units lack the basic equipment, beds, mattresses and other materials without which effective treatment of patients cannot take place. Rural medical units across the country have persistently been hit by serious shortage of medical drugs which has rendered the rural medical services substandard.

All the ambulances that the country had for rural medical services before 1971 have all broken down on account of lack of spareparts and old age. Consequently some patients have had to walk long distances from their homes to dispensaries etc, others die on the way due to unnecessary delays in receiving medical attention. There is, therefore; a clear and obvious need to revive this service which is now far beyond the financial resources of our local authorities.

Before 1971, we had embarked on a programme of up-grading dispensaries and sub-dispensaries to the status of health centres and new dispensaries and sub-dispensaries had to be put up in certain areas. In fact there were a number of medical units where construction had already started but they were later on abandoned due to a couple of reasons but largely because of lack of building materials. The main idea behind these efforts was to improve the quality of medical services in the rural areas and to bring this service closer to the rural population. Unfortunately these efforts never made any head-way because of the economic turbulence that was triggered off by the departure of non-Ugandan Asians.

The Ministry of Local Administrations in conjuction with the Local Authorities has carried out a general survey of all the medical units with the view of finding out the full magnitude of what is necessary to rehabilitate this important service in the country-side. The exercise has finally revealed that in order to restore rural medical services to reasonable standards, we shall require the following:-

...../2

(a) To re-equip 110 rural health centres and about 250 dispensaries. This will require about Shs.10,000,000 and a large proportion of this will have to be spent in foreign exchange.

(b) As it has already been pointed out, the rural medical units, all over the country, were very poorly maintained and they are now in a very appalling state of disrepair. In some cases the water and electrical systems have physically broken down. The roofs are leaking; doors and windows are broken, locks are missing etc. There is therefore a considerable amount of repairs which have to be done in order to revive these units to full and effective operation. About Shs.15,000,000 will be required for this purpose. The details regarding the materials have also been worked out.

(c) In order to restore the ambulance service in the rural areas, we shall need a minimum of 110 land-rover ambulance to enable us to allocate at least one ambulance to each health centre. And it is estimated that these ambulances will cost about Shs.22,000,000.

(d) As it has already been mentioned earlier on, we have a number of medical units in the rural areas which had been started but later on were abandoned and were never finished. Besides some dispensaries and sub-dispensaries are due for up-grading to health centres. We have not worked out the full cost of up-grading these dispensaries yet. However, the figure will be produced in due course.

(e) Health centres, dispensaries as well as big hospitals in the country have persistantly been hit by serious shortage of medical drugs. This was caused largely by the fact that our traditionnal suppliers abroad changed their policy after 1972 whereby they wanted the country to pay for the drugs before it is delivered. The foreign exchange constraints which the country has been facing over the years has tremendously contributed to the shortage of these drugs. The level of drugs that is now required to reactivate rural medical units is far beyond the available and even the anticipated financial resources of the local authorities from their traditional sources. Having said that, there is a clear case for an external assistance in terms of medical drugs to be supplied to these medical units.

The following details are relevant to par 5(d) above and to a lesser extent para 5(b). We have not been able to present the details for all Districts. This is because of the difficulty in communication between the District centres and the Headquarters but its hoped that

in the near future all necessary information shall be obtained.

PROPOSED MEDICAL UNITS FOR REHABILITATION (DANISH AID)

IGANGA DISTRICT ADMINISTRATION

	PROPOSED PROJECT	TOTAL COST	YEARLY MAINTAINANCE COST	POPULATION ESTIMATED TO BENEFIT	LOCAL CONTRIBUTION
1.	Upgrading of Ikumbya dispensary to Health centre. County: Luuka Sub-County: Ikumbya	200,000	5,000	9,000	The District Administration shall provide labour and local materials and will maintain the unit.
	Total	200,000			

KAPCHORWA DISTRICT ADMIN.

1.	Upgrading of Bukwo dispensary to Health Centre. County: Lon asia Sub-County: Bukwo	1,000,000	20,000	-	Though the District Administration cannot give cash contribution it can and is prepared to provide labour and local materials and to maintain the unit.
2.	Upgrading of Kaproron dispensary to Health Centre County: Kaakwen Sub-County: Kaproron	1,000,000	10,000	-	-do-
3.	Upgrading of Sipi Dispensary Centre. County: Tingey Sub-County: Sipi	500,000	10,000	-	-do-
	Total	2,500,000			

...../2

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	PROPOSED PROJECT	TOTAL COST	YEARLY MAINTAINANCE COST	POPULATION ESTIMATED TO BENEFIT	LOCAL CONTRIBUTION
	SOROTI DISTRICT				
1.	Upgrading of Katakwi dispensary to Health Centre. County: Usuk Sub-County: Katakwi	500,000	-	5,000	The District Administration contribute 125,000/= in addition to providing labour and local materials.
2.	Upgrading of Amuria dispensary to Health Centre. County: Amuria	500,000	-	15,000	-do-
3.	Upgrading of Kaberamaido dispensary to Health Centre County: Kaberamaido	500,000	-	15,000	-do-
4.	Upgrading of Kapelebyong dispensary to Health Centre County:	500,000	-	6,000	-do-
	TOTAL	2,000,000			
	MUKONO DISTRICT				
1.	Upgrading of Galiraya Sub-Dispensary to Health Centre County: Buala Sub-County: Buala	900,000	-	4,000	The District Administration shall provide local materials and labour but no cash.
2.	Upgrading of Kateeqe Sub-Dispensary to Health Centre County: Mukono Sub-County: Kawuga	600,000	-	30,000	The D.A. would provide local materials and labour and do the maintanance.

...../3

PROPOSED PROJECT	TOTAL COST	YEARLY MAINTAINANCE COST	POPULATION ESTIMATED TO BENEFIT	LOCAL CONTRIBUTION
3. Construction of a Health Centre at Bulumagi. County: Bukwo Sub-County: Majjembe	1,400,000	-	20,500	Bukono D.A. will do the maintainance and provide local materials and labour but no cash.
Total	2,000,000			
KITGUM DISTRICT				
1. Construction of a Health Centre at Pajule. County: Aru Sub-County: Pajule	1,050,000	20,000	20,000	The D.A. will contribute 120,000 and local materials and labour.
2. Construction of Health Centre at Atanga. County: Agago Sub-County: Atanga	1,050,000	20,000	30,000	The D.A. will contribute 120,000/=, local materials and labour.
Total	2,100,000			
KABAI DISTRICT				
Upgrading of Kibanda Sub-dispensary to Health Centre County: Kooki Sub-County: Kibanda	500,000	-	12,000	Maintanance and provision of local materials and labour by the D.A.
Total	500,000			

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PROPOSED PROJECT	TOTAL COST	YEARLY MAINTAINANCE COST	POPULATION ESTIMATED TO BENEFIT	LOCAL CONTRIBUTION
	SHS.	SHS.	SHS.	
BUNDIBUGYO DISTRICT				
1. Upgrading and renovating of Kitoroko dispensary to Health Centre	1,000,000	-	10,000	The Administration is unable to contribute any money but it is prepared to contribute Local materials and labour.
2. Upgrading and renovating of Kwebisengo dispensary to Health Centre.	1,000,000	-	-	-do-
3. Renovating and reconstruction of Nyahuka Health Centre	600,000	-	-	-do-
Total	2,600,000			
GRAND TOTAL	13,800,000			

NB. In normal circumstances materials like cement required for the construction, extension or renovation of these units would be obtained locally and would thus require no direct element of Foreign Exchange. However in the event that most of the Local Industries are operating below capacity at the moment, it is innevitable that the materials so required have to be imported and thus large amount of foreign exchange shall be required.

For justification of the above proposed projects and any details thereof, please refer to the appended notes.

ROPOSED PROJECT: Upgrading of Ikumbya dispensary to Health Centre.

District: Iganga

County: Luuka

Sub-County: Ikumbya

Agency responsible for implementation

- Ministry of Local Administrations
- Iganga District Administration.

Ikumbya dispensary is situated in an area which is quite populated and is distant from the nearest Health Centre. Because of the vigorous economic activities in the area, population density has increased quite considerably and thus there is a need to upgrade this unit to a Health Centre.

The total cost of this project is estimated to be 200,000/= with a yearly maintainance cost of 5,000/=. About 9,000 people are estimated to benefit if this project is completed. The District Administration as an implementing agency may not contribute cash but shall contribute by providing local materials i.e. sand, stones, and labour.

PROPOSED PROJECT: (1) Upgrading of Bukwo dispensary to Health Centre.

District: Kapchorwa

County: Kongasis

Sub-County: Bukwo.

(2) Upgrading of Kaproron Dispensary to Health Centre.

District: Kapchorwa

County: Knakwen

Sub-County: Kaproron.

(3) Upgrading of Sipi Dispensary to Health Centre.

District: Kapchorwa

County: Tingey

Sub-County: Sipi.

Kapchorwa District is ill provided with medical facilities. Indeed there is no medical unit of the grade of a Health Centre. Moreover the few existing dispensaries are built in semi-permanent materials and are dilipidated due to lack of maintenance a factor which arises from lack of materials and funds. On the other hand, Kapchorwa is a mountanous area and movement is severely handicaped especially during rainy season. Thus people find great difficulties in travelling to Kapchorwa where there is a Government hospital. The upgrading of Bukwo, Kaproron and Sipi dispensaries to Health Centres is therefore a matter of necessity.

PROPOSED PROJECT: (1) Upgrading of Katakwi dispensary to Health Centre.

District: Soroti

County: Usuk

Sub-County: Katakwi

(2) Upgrading of Amuria dispensary to Health Centre.

District: Soroti

County: Amuria

Sub-County: Amuria.

(3) Upgrading of Kaberamaido dispensary to Health Centre.

District: Soroti

County: Kaberamaido.

(4) Upgrading of Kapelebyong dispensary to Health Centre.

Agency responsible for implementation

- Ministry of Local Administrations
- Soroti District Administration

Amuria and Kaberamaido dispensaries are located in relatively devisely populated areas with active agricultural and commercial activity. The population in these areas has been rising fast and the dispensaries have become inadequate to meet the demand for medical services. Hence the need to upgrade these units to Health Centres.

Katakwi and Kapelebyong dispensaries are rather located in isolated places with quite low popul... They are infact distant from any hospital. Katakwi for instance is about 72 miles from Moroto Hospital and 53 miles from Soroti hospital. However, Katakwi and Kapelebyong serve as stopover centres for travellers moving from Soroti to Moroto through these routes. It is thus necessary to upgrade these units to Health Centres.

The upgrading of all the 4 units shall require for each unit, construction of 4 staff houses, Laboratory, a mortuary and extending adult and children's wards.

The cost of the project in each unit is shown above. It should be noted that if Uganda is to have among other things a health rural population to advance its development, then these projects are very much overdue.

PROPOSED PROJECT: (1) Upgrading of Galiraya Sub-dispensary to Health Centre.

District: Mukono

County: Baale

Sub-County: Baale

(2) Upgrading of Katoogo Sub-dispensary to Health Centre.

District: Mukono

County: Mukono

Sub-County: Kawuga.

(3) Construction of a Health Centre at Mulumbi.

District: Mukono

County: Buikwe

Sub-County: Najjembe

Agency responsible for implementation

- Ministry of Local Administrations
- Mukono District Administration.

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Galiraya is a remote place with perpetual difficulties in transport especially during rainy season. It is also near lake Kyoga and the population there is engaged in fishing and agriculture.

The estimated cost of the project is 900,000/=. The District Administration is unable to provide cash contribution but will provide labour and local materials.

Katoogo Sub-dispensary is located in a density populated area with intense commercial and agricultural activity because of which population density has been rising rapidly. Gegede and Kanganda Estates have attracted employment seekers. Thus there is need to upgrade this unit to the level of a Health Centre to meet the rapidly increasing demand for updated medical facilities. The Health would cater for the growing population of Mukono Town.

The project is estimated to cost Shs.600,000 and would benefit about 30,000 people. The District Administration shall maintain the Unit and provide local materials and labour during construction.

Bulumagi is a commercial place surrounded by an agricultural zone and is adjacent to the Industrial Town of Jinja. Many factory workers reside here from where they go to work in various industries in Jinja while the farms within and surrounding the area supply food to the town. Since Jinja has only one Government hospital and the population of the town and suburbs has increased tremendously, construction of a Health Centre at Bulumagi would divert some of the patients with minor ailments from going to the only hospital.

The project is estimated to cost 1,400,000/= and would benefit about 20,000 people. The Administration is unable to contribute cash but will provide local materials and labour and do the maintenance of this unit.

PROPOSED PROJECT: (1) Construction of a Health Centre at Pajule.

District: Kitgum

County: Aru

Sub-County: Pajulo

Agency responsible for implementation
- Ministry of Local Administration
- Kitgum District Administration.

(2) Construction of Health Centre at Atanga.

District: Kitgum

County: Agago

Sub-County: Atanga.

Pajulo and Atanga dispensaries are old fashioned and ill equiped to meet the increasing demands of the local population which now is within the range of 20,000 and 30,000 people respectively. Public transport in these areas is difficult besides distances to the nearest hospital which is in Kitgum are great. Atanga if upgraded to Health Centre would contribute greatly to providing medical services to the refugee population at Agago Centre.

The local population is engaged in growing cotton, tobacco, millet etc. and improved medical services would go a long way in improving their contribution to the national economy.

The two projects are estimated to cost Shs 1,050,000/= each

each unit and to assist in provision of local materials and labour.

PROPOSED PROJECT: Upgrading of Kibanda sub-dispensary to Health Centre.

District: Rakai

County: Kooki

Sub-County: Kibanda

Kibanda sub-dispensary presently serves a population estimated to be 12,000 people who are mostly farmers. It is an old project for which the District Administration has applied assistance to enable its completion. The estimated cost is 150,000/=.

Rakai District has no Government hospital and has been depending on Masaka hospital which unfortunately was destroyed during the liberation war. Furthermore, the distance to Masaka is quite great and thus necessitates this sub-dispensary to be upgraded to a Health Centre.

The District Administration is unable to contribute cash but is able to provide local materials and labour and to do the maintanance.

PROPOSED PROJECT: (1) Upgrading and renovating of Ntoroko dispensary to Health Centre.

District: Bundibugyo

County:

Sub-County:

(2) Upgrading and renovating of Rwebisengo dispensary.

District: Bundibugyo

County:

Sub-County:

(3) Renovating and reconstruction of Nyahuka Health Centre.

District: Bundibugyo

County:

Sub-County:

Agency responsible for implementation

- Ministry of Local Administrations
- Bundibugyo District Administration.

There have been attempts by the Administration to renovate Ntoroko dispensary but there have been limited by lack of funds. Otherwise the dispensary is located in quite a densely populated area with active agricultural and fishing activities. It is about 60 miles from Bundibugyo where there is a Government hospital. It is important to note that this is a mountenous district where transport problems naturally are a severe handicap especially during wet season during which land slides are common. Thus it is necessary that this dispensary should be expanded to a health centre and the existing buildings renovated.

The total cost of the project is estimated to be 1,000,000 and would benefit about 10,000 people. The DA the Administration is financially handicaped, it can contribute local materials and labour.

Rwebisengo dispensary has suffered similar setbacks like Ntoroko and it is of great advantage if it is upgraded to a health centre.

Nyahuka Health Centre is the largest unit of all medical units run by the Administration. There have been attempts to renovate it but these have not gone far due to lack of funds and required materials like cement, timber, paint etc.

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APPENDIX E

IMMEDIATE MANPOWER NEEDS OF MULAGO HOSPITAL

Mulago Hospital,
P.O. BOX 7051,
KAMPALA

12th February, 1980.

IMMEDIATE MANPOWER NEEDS OF MULAGO HOSPITAL

1. 5 Internists(CARDIOLOGISTS (2), CHEST PHYSICIAN (1))
   (GASTROENTEROLOGIST (1) NEPHROLOGIST (1)).
   (NEUROLOGIST (1)
2. 3 Radiologists
3. 4 Anaesthesiologists
4. 2 Dermatovenereologists
5. 2 Medical Librarians
6. 4 Paediatricians
7. 4 Dentists
8. 3 Pharmacologists
9. 1 Nutritionist
10. 2 Pathologists(forensic & Chemical)
11. 2 Bacteriologists
12. 2 Haematologists
13. 3 Oncologists
14. 2 General Surgeons
15. 1 Plastic Surgeons
16. 1 Thoracic Surgeon
17. 1 I/C Medical Records
18. 1 Hospital Engineer
19. 1 E.N.T. Surgeon
20. 1 Paediatric Surgeon
21. 2 Pharmacists
22. 1 Urologist

Items and equipments requiring rehabilitation in Units of the Hospital.

1. (i) ~~C.S.S.D~~ Laundry.
   a) Four spinner driers are not functioning, they are lacking spare parts and motors.
   b) Four garment pressures are not functioning. The compressor broke down and it requires replacement.
   c) 14 Trolleys; seven large size and seven small size require replacement. For security reasons, we need trolleys with lockable covers.
   d) Laundry requires a second multi rolls ironer in case one breaks down.
   e) We need proper material of rop sheets and cotton wools for multi rolls ironer and spares for it.

2. MAIN THEATRE:

There is lack of the following items:

1. Diathermy machines - requires replacement
2. Patients trolleys and mattresses
3. Stretchers
4. Suture materials
5. Surgical blades (all sizes)
6. Air conditioners (six) for all the theatres
7. E.C.C. Machines
8. Autoclava(thepresent 4 are all faulty) sterilizers(six are faulty)
9. Celestive tubes are finished.(We need about 100)
10. Surgeons' operative gowns
11. Canvas shoes
12. Disposable shoes
13. Disposable shoe covers
14. Disposable caps
15. Paper masks
16. Linen for towels
17. Cataract knives (100 needed)
18. Hot air ovens(2)
19. Orthoban bandages
20. Crepe bandages

3. PAEDIATRIC WARD 2C

a) Plaster bandages
b) I-V giving sets
c) Suction machines for
d) Weighing scales for big babies
e) Laryngoscopes
f) Mattresses, babycots, linen blankets
g) Potties (20)
h) Kidney dishes, Receivers
i) Boilers and Sterilizers
j) Resuscitation trays.

KITCHEN NEEDS

1.	Steam Pans	6 Medium Size
2.	Steam Pans	6 Large size
3.	Matooke Steam Pressure Cookers	5
4.	Electric Toast	2
5.	Steam Pressure Pan	2
6.	Cold Rooms	3 and Extension
7.	Freezer Large	1
8.	Cooking Sp.	
9.	(Sufirias) Saucepans	2 Kg. each - 40
10.	- do -	1 Kg. each - 40

STAFFING

2 Dietitians

ITEMS NEEDED IN NEW MULAGO KITCHEN

50 Food Trolleys (Electric)
20 Food Carriers covers for Old Mulago
10 Cookers Electric
6 Cookers Gas (For emergency) 3 large 3A/sizes
2 ovns large
2 Deep fat fryers large
6 Steam Jacketed Kettles (4 Table Model)(6 Floor Model)
3 Steam Boilers Large
6 Compartment Steamer(mixer floor model)
2 Liquidser Institutional Size
2 Grills Electrical Large
12 Meat Cleaver
40 Slicer Knives
40 Carving Knives
12 Trimmer Knives
12 Paling Knives
24 Baking Sheets(Large)
24 Baking Sheets(Med.)
24 Baking Sheets(Small)
24 Roasting Pans (Med.)
36 Cake Tins(Round) M/size
36 Cake Tins (Square) M/Size
60 Muffin Tins
60 Loaf Tins
24 Colanders Large Only
24 Lieves(Large, Med. Covers)
12 Stainless Steel Mixing Paddles
12 Rolling Pins(Large)
12 Rolling Pins(Small)
12 Pie Places 9"
12 Vegetable Steaming Pans
9 Stainless Steel Bowls (Large)
9 Stainless Steel Bowls(Med.)
6 Graters
6 Soupas(Large) Set
6 Sourtas(Med.) Set
40 Stainless Steel Trolleys
12 Wore Cooling Racks
12 Steel (For Shappening)
24 Large Frying Pan 9-12" Electric
Med. " " " "
12 Liquid Measuring Cups Small
12 Liquid Measuring Cups Large (Litres Cap & Jars)
12 " " " Med
12 Dry " " Large
6 Measuring Spoons Large
60 Soup Ladle Large Stainless Steel

REFRIGERATORS:

1 Walkin Refrigerator 1 ICE Making Machine Large
1 Walk In Freezer 1
2 Rotary Beaters 1 Freezer Room
1 Cold Room
Hand Mincers Large
Large & Small Knife Scale
Scales (Domestic Size)

FOR GUESTS:

12 China Tea Pots Large
12 China Milk Jugs
60 China Cups
60 Saucers
60 Bread and Butter Plates
60 Tea Spoons
12 Sugar Bowls
Plastic Rubbish Bins with covers Large

4 Trolleys, 4 Wheels Rubber Large for food and [illegible].

I suggest all to be well marked to avoid confusion.

MR. E.Z. KANGAVVE - CATERING OFFICER

URGENT NEEDS OF THE X-RAY DEPARTMENT-MULAGO HOSPITAL

1) X-ray film processing and drying equipment has outlived its usefulness.

Manual processing units are rusty, side boards broken off, and drainage system blocked by wooden pieces of wood chipped off the wooden lining. Large drying cabinets for film are worn out beyond repair as spares for these are no longer being manufactured.

Two rapid processors, one much older gevamatic 250 previously replaced by the new one, a germatic 401 are both out of order. The later is reparable if spares can be obtained.

I recommend to replace theprocessing units with

a) Manual X-ray film processing units (two) of pass through type of 10 gallon capacity, tanks, not requiring heating or refrigeration. Such units may be supplied by either G.E.C. Medical or Kodak.

b) 2) Williamson Mk II film driers.

c) Rapid processor: The ilford R 200 which uses cold water, supplied by Fort Ltd., with Water re-circulation facility. Basildon, Essex.
Plastic Moulded.

d) Timers for darkroom use, fixable on the wall, Suppliers, Everything X-ray.

High Street Bushey Village
Herts.

No. Required (5)

e) Thermometers for darkroom 10

f) Name printing boxes 5

g) Darkroom safelights
Direct Light universal 10" X 8" type kodak, and Beehive type with their filters. No. required, Twenty

h) Tension Hangers for processing films

	Quantity
17" x 14"	100
14" x 14"	100
15" x 12"	100
12" x 10"	150
10" x 8"	150
8½" x 6½"	50
17" x 7"	50
15" x 6"	50
12" x 6"	50

i) Grid Cassette for pelvimetry size 17" x 14" two

j) The Department has completely run out of X-ray film envelopes X-ray film envelopes size 17½" x 14½" number required 100,000 manilla grade I(above items supplied by GEC Medical or by Everthing X-ray

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k) Lead Apron - double sided lead equivalent 0.52 mm.
No. required 15
Supplier - Everthing X-ray

DR. M. KASOZI
HEAD OF DEPARTMENT OF RADIOLOGY

MULAGO HOSPITAL - MOTOR VEHICLES

The following is the list of motor vehicles which are most urgently required in this Hospital.

2) Trucks - 7 to 15 tonnage - 2
1 for stores and pharmacy departments
1 for food.

b) Buses - 3
1 for Nurses Training School
1 for Paramedical Training Schools
1 for Hospital Staff(other than those mentioned above).

c)i)Land Rover
Station Wagons - 5
2 for official duties in the city and Entebbe.
2 for up-country services - e.g. returning discharged patients
1 for use of Blood Transfusion Unit

ii)Pick-ups
1 for maintenance workshops for day to day movements.
1 for Orthopaedic workshops for stores and movement of staff.

d) Specialised Vehicles
1 garbage collector

e) 1 staff car - for Medical Superintendent

f) 2 Ambulances for movement of patients particularly between Old and New Mulago.

REQUIREMENTS FOR THE GROUNDS & CLEANING SECTION

A. CLEANING SECTION		B. GROUNDS SECTION	
1. Washing machines	6	1. Mowing Machines	6
2. Polishing machines	4	2. Flower Pump Sprayers	4
3. Switch Ladders	2		
4. Supporting belts	4		
5. Wheel Barrows	10		
6. Trolleys for collecting garbage	6		
7. Chair lifts for stair cleaners	2		
8. Hoovers (Cleaning mats)	4		

M.O. OKIRIA FOR MEDICAL SUPERINTENDENT

NURSING DIVISION

Mulago Hospital Bed compliment -	New Mulago	= 1253
	Old	= 337
	Total	= 1590

Wards and Units in which Nurses are deployed - 52

PROBLEM:

1. NURSING EDUCATION: - As per attached list.

2. NURSING SERVICE:

Ward Equipment:

1. Shortage of beddings in general. Beds without wheels difficult to manoeuvre. Adjustable delivery beds not available.

2. Custody of drugs unsatisfactory - cupboards easily tampered with.

Suggestion:- Lockable drug trolleys (about 30)

3. Dressing trolleys and instruments in short supply: and patients trolleys.

4. Food Trolleys - very few available; a good number out of order. Crockery and cutlery for paying patients in short supply.

5. Sundries always in short supply and at times out of stock e.g. cotton wool, elasto plasters towelling material etc.

6. 30 Electric suckers; B.P. machine; Diagnostic sets - Refrigerators in short supply - a good number of wards are without these items.

2/ Transport:

1. a) Patients need to be transferred from New Mulago to Old Mulago especially maternity cases.

   b) Food for Old Mulago Patients have to be transported from New Mulago Kitchen.

   There is no transport to carry out these jobs.

2. Nursing coverage for 24 hours in a hospital organisation is a must. Most of the trained nurses who render these services are non-resident but with no reliable means of transport - especially those on evening and night shifts. Consequently, many report late on duty or fail to turn up.

Suggestion:- Mini-bus be provided for the purpose

3. Head of Nursing Division has no transport of her own. She relies on hospital transport which is non-existent at present. The hospital borrows the vehicle from Domiciliary services.

Suggestion:- Provision of staff cars while awaiting allocation of vehicles to individuals.

3/ Accommodation:-

Present Nursing Establishment (all cadres)	=	620
Ideal situation	=	840
Available Accommodation: Hostel for trained staff	=	111 rooms
Flats for Nursing Officers Grade I	=	22
Cottages for lower cardres	=	13
Flats for Senior Nursing Officers	=	4

Suggestion:- New Blocks of flats to suit different cadres would be ideal.

4/ Maintenance in Wards and Hostel:

Very slow response from the workshop due to
a) Lack of manpower (b) Lack of spareparts.

5/ Messengering Services done by Nurses:-

a) Frequent visits to pharmacy to collect drugs
b) " " to stores for sundries
c) " " to workshop to follow up requisitions for repair
d) Students on evening shift to collect food from the Main Kitchen

Suggestion:- Introduction of topping up system by increasing man-power in the above areas to do the services. - Hence relieving nurses of Non-nursing duties. They would then be on the wards where their services are constantly needed.

6/ Low Morale

No sponsorship for short and long courses abroad, and attending seminars and conferneces.

7/ Uniforms

a) Materials not readily available
b) Duty shoes difficult to get and when available very costly.

Suggestion: A shop well equipped with nurses requirements managed by Ministry of Health be considered.

8/ C.S.S.D.

Only one autoclave in use, the second one has been out of order for a long time.

Still using drum system.

Suggestion: Introduction of packs if facilities are improved.

9/ Recreational facilities for students:- Non existent.

E. BYAHUKA(MISS)
PRINCIPAL NURSING OFFICER

MULAGO - SCHOOL OF NURSING AND MIDWIFERY

Started in 1942 as a School, for Enrolled Level Nursing.

In 1954, the Queen Elizabeth Nurses Hostel was opened, with accommodation for 80 pupils.

1956 a course was started for Enrolled Midwifery.

Both the School and the Hostel were meant to accommodate 80 pupils at enrolled level.

In May 1961, a Registered Level Nursing Course was started, and in November 1967, Registered Level Midwifery.

The School became so congested that it could no longer accommodate both levels. So in November 1971, the Enrolled level Nursing Course was discontinued while the Enrolled level Midwifery was discontinued in May 1972.

Since 1972, the number of students in the School has been ranging between 350 and 400. At the moment we have 230 student Nurses and 153 student Midwives, making up a total of 383 students in a School and Hostel which were meant for 80 pupils.

As a result all systems are failing to meet this high demand, i.e.

1. Classroom accommodation
2. Hostel accommodation
3. Sewage System
4. Cooking facilities
5. Library (this is Nil)
6. Demonstration rooms
7. Clinical teaching and individual attention to students.

For the last 9 years, the School has not been able to obtain:

1. Text books for students
2. Periodicals and Magazines
3. Exercise books
4. Up to date Reference books for Tutors
5. Very little stationery - never enough

The School has altogether - 12 qualified Tutors

1. Nursing Officer - Grade I
2. Nursing Officers Grade II all of whom are meant to be accommodated in five small offices, with no facilities for study or making preparation for lectures.

In short there is an urgent need for a new well planned and equipped school. Seminar and study tours for Tutors would also be very helpful.

APPENDIX F

MAKERERE UNIVERSITY MEDICAL SCHOOL

OCTOBER 1979

URGENT REQUIREMENTS FOR EXTERNAL ASSISTANCE

MAKERERE UNIVERSITY MEDICAL SCHOOL

October, 1979

URGENT REQUIREMENTS FOR EXTERNAL ASSISTANCE

(1) BACKGROUND INFORMATION

Makarere University Medical School is the only medical school in Uganda. It is the largest Faculty in Makerere University and carries the great responsibility of training high-level medical manpower for Uganda.

The population of Uganda was approximately 9.5 million in 1969 when the last census was carried out. It has been increasing at a rate of 2.5% to 3% per annum. It is estimated that it is approximately 13 million now and may very well reach 26 million by the 2,000 ! The output of medical graduates must be increased to at least 150 per annum if a doctor population ratio of 1/10,000 is to be achieved by the year 2,000. The School must also launch programmes for the training of badly needed dentists and pharmacists. There is at present one dentist for every million people in Uganda!

Additional academic staff, the replacement of obsolete equipment and expansion of physical facilities are crucial if the school is to participate fully and effectively in the reconstruction and rehabilitation of Uganda after the last devastating 8 years.

The student intake for the M.B.Ch.B.degree course has had to be fixed at 100 per academic year since 1965 because of limited physical facilities for the teaching of basic medical sciences. The undergraduate student numbers for the 1979/80 academic year are shown in Annex 2.

The School had attained very high standards and international reputation in teaching, patient care and research as far back as 1967, when postgraduate teaching programmes were launched to produce badly needed specialists and medical teachers. A three-year residency programme leading to the degree of Master of Medicine (M.Med) in Internal Medicine, Surgery, Obstetrics and Gynaecology, Paediatrics, Psychiatry, Pathology, Ophthalmology, Otorhinolaryngology and Public Health was launched. The M.Med.degree was designed to be equivalent to specialists qualification awarded by the Royal Colleges in the United Kingdom of Great Britain and other Commonwealth countries, or the Specialty Board Certification in the United States of America. Similar programmes have now been launched in Kenya, Tanzania and West Africa. The postgraduate Diploma in Diploma in Public Health (D.P.H.) course which was launched in July, 1967 and which lasts one academic year, has continued to attract students from East, Central and West Africa. Many students have been sponsored by W.H.O. for this course. The postgraduate student numbers for the 1979/80 academic year are shown in Annex 3.

1 of 5

2) SPECIFIC REQUESTS

In the light of the background information given above the following top priority projects are submitted for serious consideration for external assistance:

2.1. Basic Medical Science Building (plus equipment)

The badly needed increase in the output of medical graduates cannot take place without the construction of a new building to house the Departments of Pharmacology, Biochemistry, Pharmacy, Medical Illustration and teaching museum (audio-visual teaching resources).

Building costs in Uganda at the present time are such that the proposed building, with a total floor space of 50,000 sq.ft., will cost approximately Shs.100 million.

2.2 Establishment of a Department of Dentistry

The training of dental surgeons must be launched without further delay. A W.H.O. consultant has examined the facilities at the Public Health Dental Assistants School on Mulago Hill and reached the conclusion that by effecting moderate physical alterations to the school ample space would become available for the training of dental surgeons. An intake of 25 students per academic year for a four-year degree course is envisaged. The estimated cost of the proposed alterations is Shs.5.0 million.

Experience has shown that the proposed programme cannot be launched without assistance from a well established dental school overseas. Secondment of senior academic staff is crucial.

2.3. Replacement of the Electron Microscope

The School has an old Carl Zeiss Electron Microscope EM9 which was acquired in April, 1964, thanks to the Wellcome Trust which provided a grant of £13,800 which was enough at that time to cover the cost of the microscope and its accessories, freight, insurance and installation charges.

A new machine is needed now to be used for teaching and research purposes by the Faculties of Medicine, Veterinary Medicine, Agriculture, the East African Virus Research Institute, the Uganda Cancer Institute, etc, etc. The estimated cost is Shs.2.0 million.

2.4. Recruitment of Academic Staff

The School is experiencing a very acute shortage of staff. The return of Ugandans from exile has not been as quick as was expected. Emergency assistance is required now if vital undergraduate and postgraduate teaching programmes are to continue. The staffing situation as of October, 1979 is clearly shown in Annex 1. Links with medical schools in the United Kingdom of Great Britain, other Commonwealth countries, the United States of America and continental Europe will be most wellcome and are desperately needed.

Such links will facilitate recruitment and secondment of staff and exchange of short-term visiting Professors/Specialists. Such links will also make it possible to launch the proposed degree courses in pharmacy and dentistry.

Short-term visiting Professors/Specialists (80 man-months per year for two to three years) are urgently needed to assist with undergraduate and postgraduate teaching. The estimated cost (per diem and airfares) this emergency aid is Shs.1.2 million per year.

2.5. Extention of the Albert Cook (Medical) Library

The present library building can accommodate 255 readers only, whereas the present student population (undergraduate and post-graduate) is 564. The number of registered readers is 1,110. The student population will increase by about 30% when the proposed degree courses in dentistry and pharmacy are launched. Shelving space has also already been utilized to full capacity. It is, therefore, absolutely necessary to extend the existing building by at least 10,000 square feet at an estimated cost of Shs.5,500,000.

It is importance to note that the original library building had to be extended in 1968, thanks to the Nuffield Foundation which provided a most generous grant to the Medical School.

2.6. Purhcase of Back Issues of Medical Journals and Reference Books

The Medical Library has suffered from a serious shortage of books and journals during the past 8 years. There is an urgent need of replacing all out-of-date editions and the purchasing of 350 sets of journals as well as acquiring back issues. The estimated cost is Shs.0.5 million.

2.7 Extension of Galloway Hall (plus staff houses)

Medical students must have thorough practical training, including the management of medical, surgical and obstetrical emergencies. This is most crucial in Uganda where new medical graduates are required to assume great responsibilities in upcountry hospitals barely one year after graduation.

Galloway Hall can now accommodate a maximum of 84 students out of 273 clinical students. The stay of each clinical student must therefore, be greatly curtailed.

The extension of the Hall by the addition of 250 double rooms, extension of the dining room (present sitting capacity only 160), extension of the students common room and canteen, has been accorded high priority by the most recent University Grants Committee. The estimated cost of the project is Shs.42 million.

2.8. Transport

Lack of foreign exchange during the last 8 years has meant that few new vehicles have been purchased. Old vehicles have fallen into disrepair and disuse due to lack of spare parts. This has had very serious effects on field training programmes of the Departments of Paediatrics and Child Health, the Institute of Public Health and Psychiatry. The Faculty Office has also been severely handicapped because the faculty office car which was stolen in 1973 has not been replaced. The transportation of short-term visiting professors/specialists has become very difficult.

It is, therefore, necessary to purchase two Buses, two mini-buses and a pick-up van (for Galloway Hall) to solve this problem. The estimated cost is Shs.0.595 million.

2.9 Extension of New Mulago Hospital

The urgent need for additional space for the Departments of Ophthalmology, Paediatrics and Child Health, Radiology and Anaesthetics was recognised before 1972 when the so-called "economic war" was declared in Uganda. NORAD had offered generous assistance with the development of the new departments of Ophthalmology and Radiology since 1966 but the programme had to be suspended. Preliminary study by Keith-Smith, the architector of New Mulago Hospital by the addition of one wing would solve this problem. The estimated cost is Shs.54 million.

3) CONCLUSION

HEALTH must be a major consideration in the social, cultural and economic rehabilitation of Uganda after the devastating last 8 years. Makerere University Medical School must be given the crucial tools for the training of soldiers for the war against disease and the promotion of HEALTH.

The external aid which is being sought amounts to approximately Shs.210 million.

GIVEN THE TOOLS WE SHALL DO THE JOB.

(Professor Joseph S.W.Lutwama)
DEAN & DIRECTOR OF POSTGRADUATE STUDIES
FACULTY OF MEDICINE
(MEDICAL SCHOOL)
MAKERERE UNIVERSITY

24 October, 1979.

MAKERERE UNIVERSITY MEDICAL SCHOOL

REVIEW OF STAFFING POSITION OCTOBER 1979 —1979/80 ACADEMIC YEAR

DEAN & DIRECTOR OF POSTGRADUATE STUDIES ——Filled

VICE-DEAN (Part-time) ——Filled

ASSISTANT REGISTRAR ——Filled

DEPARTMENT	ESTABLISHMENT					POSTS FILLED					VACANCIES				
	P	AP	SL	L	TOTAL	P	AP	SL	L	TOTAL	P	AP	SL	L	TOTAL
ANATOMY	1	1	2	5	9	1	1	-	1	3	-	-	2	4	6
ANAESTHETICS	1	-	1	2	4	-	-	-	-	0	1	-	1	2	4
INSTITUTE OF PUB.HEALTH	2	2	4	7	15	2	2	1	2	7	-	-	3	5	8
MEDICINE	2	2	5	6	15	2	1	1	-	4	-	1	4	6	11
MICROBIOLOGY	1	1	2	4	8	1	-	1	-	2	-	1	1	4	6
OBST./GYNAECOLOGY	3	1	2	7	13	3	-	-	-	3	-	1	2	7	10
OPHTHALMOLOGY	1	1	1	2	5	-	1	-	-	1	1	-	1	2	4
OTORHINOLARYNGOLOGY(ENT)	1	1	1	2	5	-	-	-	-	0	1	1	1	2	5
PAEDIATRICS	2	1	4	6	13	-	-	2	1	3	2	1	2	5	10
PATHOLOGY	2	1	4	5	12	2	-	2	-	4	-	1	2	5	8
PHARMACOLOGY	1	1	1	4	7	-	1	-	-	1	1	-	1	4	6
PHYSIOLOGY	1	1	2	6	10	1	-	2	1	4	-	1	-	5	6
RADIOLOGY	1	1	1	2	5	-	-	1	-	1	1	1	-	2	4
PSYCHIATRY	1	1	2	4	8	1	-	-	2	3	-	1	2	2	5
SURGERY	3	1	7	6	17	2	1	1	1	5	1	-	6	5	12
ORTHOPAEDICS	2	1	2	4	9	1	-	-	-	1	1	1	2	4	8
REG.TEACHER TR.CENTRE	1	1	-	1	3	-	-	-	1	1	1	1	-	-	2
BIOCHEMISTRY	2	2	4	6	14	1	1	2	4	8	1	1	2	2	6
DENTISTRY*	1	-	2	3	6	-	-	-	-	0	1	-	2	3	6
PHARMACY*	1	-	1	2	4	-	-	-	-	0	1	-	1	2	4
	30	20	48	84	182	17	8	13	13	51	13	12	35	71	131

*These proposed departments have not got off the ground yet.

P=Professor AP=Associate Professor SL=Senior Lecturer L=Lecturer

— ANNEX 2 —

MAKERERE UNIVERSITY MEDICAL SCHOOL

UNDERGRADUATE STUDENT NUMBERS

M.B., CH.B. DEGREE COURSE, 1979/80 ACADEMIC YEAR

YEAR	NO.
YEAR I	114
YEAR II	114
YEAR III	88
YEAR IV	95
YEAR V	90
	501

— ANNEX 3 —

MELBOURNE UNIVERSITY MEDICAL SCHOOL

POSTGRADUATE STUDENT NUMBERS

M.MED., AND D.P.H. COURSES, 1979/80 ACADEMIC YEAR

DEGREE/DIPLOMA COURSE	NUMBER OF STUDENTS
M.MED (MEDICINE)	9
M.MED (PAEDIATRICS)	10
M.MED.(SURGERY)	8
M.MED.(OBST./GYNAECOLOGY)	12
M.MED.(SURGERY—E.N.T.)	2
M.MED.(PSYCHIATRY)	4
M.MED.(OPHTHALMOLOGY)	3
M.MED.(PATHOLOGY)	2
D.P.H.	13
	63

APPENDIX G

SELECTED PRICE INDICES FOR UGANDA

Selected Price Indices for Uganda

Year	Implicit GDP Deflator 1960=100	Kampala Low Income Price Index 1961=100	1966=100	1970/71=100
1959	97.5			
60	100.0			
61	102.0			
62	104.0	95		
63	106.5	94		
64	109.4	105		
65	109.8	115		
66	121.5	118	100	
67	124.4	125	103	
68	121.1	117	100	
69	135.6	129	112	
1970	148.9	147	123	
71	167.1		138	100
72				
73				
74	454.7	341	375	
75	546.7	410	451	
76		610		346
77		1133		
78	1240.5	1546	1024	785
79	= 3000.0			
1980	= 6000.0			

Data Sources:

1. Republic of Uganda 1970 Statistical Abstract, Statistics Division, Ministry of Planning and Economic Development, Government Printer Entebbe, 1971.

2. Republic of Uganda, The Action Programme: A Three Year Economic Rehabilitation Plan, 1977/78-1979/80, Ministry of Planning and Economic Development, Government Printer, Entebbe, 1978.

3. Commonwealth Secretariat, The Rehabilitation of the Economy of Uganda, London, June 1979.

APPENDIX H

PARTIAL LIST OF EMERGENCY RELIEF AND MEDICAL ASSISTANCE PROMISED OR PROVIDED TO UGANDA AS OF EARLY JULY 1979

Annex C

Partial List of Emergency Relief and Medical Assistance Promised or Provided to Uganda as of early July 1979 *

The following is a summary of relief and medical assistance promised or provided to Uganda as of early July 1979, based on information received from other international organizations and from the Ministry of Health. It is almost certainly incomplete and inaccurate with regard to details, and needs to be regularly revised and updated.

1. EEC

   35 tons of corned beef, 880 tons of skimmed milk powder, 300 tons of butter oil, 4000 tons of maize/posho (by road from Mombasa), and one planeload (size unclear) of medical supplies.

2. Danish Church Aid

   23 tons of food and medical supplies

3. Caritas

   30 tons of food, maybe including some drugs

4. Norwegian Church Aid

   3 tons of medical supplies

5. Norwegian Government

   US $1.0 million for input in the health sector as relief aid. This aid may concentrate on the Mbarara and Masaka hospitals.

* Nearly all the church aid was directed to religious missions in Uganda, with very little supporting Government programs. Much of the initial ICRC aid was also channelled through the missions.
SOURCE: Africare Report.

6. International Committee of the Red Cross (ICRC)

1 ton of soap, blankets and drugs were brought to Uganda in the beginning of May for use at Government facilities. Two truck and four landrovers have been given to the Uganda Red Cross. 24 tons of dispensary equipment and supply units. $120,000 for purchasing hospital beds, bedsheets, furniture. Swiss Red Cross is providing 50,000 Swiss Francs for clothing, etc.

7. Verora Fathers

6 Volkswagen Combis and 1 landrover with food and medical supplies for the north of Uganda. 4 tons of additional supplies funded by the Italian Government.

8. Danish Red Cross

36 dispensary equipment/supply units

9. Swedish Red Cross

US $ 600,000 provided by SIDA for emergency relief

10. World Vision International

About $250,000 channelled through African Evangelical Enterprises including 2 Volkswagen Combi vehicles and a 7-ton truck.

11. Catholic Relief Services

EEC supplied food of approximately 100 tons

12. German Government

1 large aircraft carrying baby food and medical supplies to be distributed through Caritas.

13. British Aid

Approximately $300,000 in dressings to the Ministry of Health, and possibly $200,000 to repair the steam plant at Mulago Hospital.

14. EEC

Approximately $250,000 through the African Medical Research for a vaccination program.

APPENDIX I

MEDICAL DONATION RECEIVED BY MINISTRY OF HEALTH ENTEBBE FROM DONOR COUNTRIES AND ORGANISATIONS AS OF 31ST JANUARY 1980

Ministry of Health,
Medical Stores,
P.O. Box 16,
ENTEBBE.

22nd January, 1980.

CP.2/43

The Permanent Secretary,
Ministry of Health,
P.O. Box 8,
ENTEBBE.

DRUGS RECEIVED FROM ANTREF ON EEC GRANT 22/1/80

QUANTITY	DESCRIPTION	PRICE
100,000tab	Phenylbutazone 200 mg	1287.00
100,000 tabs	Propanthaline Bromide 15mg coated	696.00
50,000 "	Nuridazole 500mg	5278.00
20,000 "	Nystatin 500,000 iu	1230.00
100 "	" 100,000 iu Vaginal	
50 vials	Stibophen 6 4% 100ml	199.20
75 "	" " "	295.80
29,000 Tabs	Chlorpromazine 25mg	141.23
323,000 "	" "	1573.01
100	Tetanus Antitoxin 1.500 iu	
1	Tetanus Antitoxin 20,000 iu	
20,000 Tabs	Penecillin V 300mg (500,000 IU	4930.00
105,000 vial	Atreptomycin 1G Dry Powder	16082.50
972,000 tabs	Sulphadimidine 500 mg	22103.28
452,000 "	Furosemide 40mg	6816.16
6,600 amps	Oxytocin 5IU/1L 1ml	371.58

Total DFL = Ug Shs.234,904.45

J.V. Oidu
for: Chief Pharmacist

TRUE COPY

"MEDSTORE"

20542, 20566, 20507

CP.2/43

Ministry of Health,
Stores Division,
P.O. Box 16,
ENTEBBE.

24th October, 1979.

MEDICAL DONATION RECEIVED BY MINISTRY OF HEALTH ENTEBBE FROM DONOR COUNTRIES AND ORGANISATION AS AT 31st JANUARY 1980.

Drugs Received From Ciba-Geigy of Switzerland on 8/6/79

	QUANTITY	NAME OF DRUGS
1.	34,600 tabs	Butazolidine 200 mg
2.	2,500 Supp.	Butazolidine Suppositories
3.	1,000 tubes	Butazolidine cream
4.	50,000 tabs	Hsidrex 25 mg
5.	69,600 "	Hygroton 50 mg
6.	248,500 tabs	Ihgapyrin
7.	216,000 "	Narol
8.	5,00 tubes	·ocacorten - Vioform cream
9.	50,000 tabs	Nexaform
10.	5,000 caps	Renalin
11.	200 bottles	Rimmactane Syrup
12.	2,000 caps	Spasma plus
13.	10,000 caps	" Gibalin
14.	15,000 tabs	Tanderil
15.	3,000 tubes	Tanderil cream

A CONSIGNMENT OF MEDICAL SUPPLIES OF 36 TONS RECEIVED FROM DANCHURCHAID OF DENMARK ON 30/6/79

1.	3,500 kg	Dried Milk Powder packed in 25 kg
2.	1	A small generator of 40 kg
3.	2	Refrigerators of 3 cu. ft.
4.	4,995 kg	Powder soap
5.	3,360	Hospital soap
6.	11,232	Hand soap

.....2/

SURGICAL ITEMS

	QUANTITY	NAME OF DRUGS
1.	1,000	Disposable Infusion sets
2.	5,000	Surgical Blades Sterile size 15
3.	10,000	" " " " 23
4.	21 doz.	Ethicon Catgut Plain 2/0
5.	21 doz.	" " Chromic 0
6.	21 doz	" " " 1
7.	100 pieces	Foleys Catheters 30-45 Ins Baller 130-16
8.	100 pieces	" " " " 130-18
9.	100 "	" " " " 130-20
10.	100 "	" " " " 130-22
11.	25	Ryle Tubes 120 cm x 10 CH
12.	25	" " " "
13.	15	" " " X-ray 14 CH
14.	24	" " " 18 CH
15.	87 doz	Ethicon Catgut Plain size 2/0
16.	87 doz	" " Chromic size 0
17.	87 doz	" " " " 1
18.	18 doz	" " " " 2
19.	1,500 pieces	Latex gloves non-sterile size small

INSULINS

1.	4000 x 10 ml	Insulin Soluble 40 i.u./ml
2.	5000 x 10 ml	Insulin NPH 40 i.u./ml
3.	2000 x 10 ml	Insulin Protamine Zinc 40 i.u./ml

ANTIBIOTICS

1.	20,000 vials	Ampicillin 250 mg/vial
2.	7,700 vials	Benzathine Penicillin 1.2 mega
3.	10,000 "	Long Acting Benzathine Penicillin
4.	1,000,000 caps	Tetracycline HCL 250 mg
5.	219,000 caps	Ampicillin 250 mg
6.	10,800 vials	Benzyl Crystalline Penicillin
7.	10,000 vials	Procaine Penicillin Fortfied 4 mega

8. 13,120 bottles Ampicillin Syrup Powder

9. 36,000 caps Erythromycin

INJECTIONS

1. 250,000 amps Inj. Diazepan 10 mg/2ml
2. 100,000 " " Ergometrine Maleate 0.5 mg/ml
3. 10,000 " " Oxytocin 5 i.u/ml
4. 111,200 " " Chloroquine Phosphate 5ml
5. 100,000 " Chloroquine Phosphate 2ml
6. 2,400 vials Inj. Hydrocortisone Sodium Succinate 100 mg
7. 30,000 amps " Ergometrine Maleate 1 cc
8. 10,000 " " Ergotocin (Ergometrine Oxytocin)
9. 15,000 " " I.M. Iron (Scanferon) 5 ml
10. 1,000 Bott. x 500 m Infusion Laevulose 5.25%

TABLETS

1. 1,000,000 tabs Temisol 40 mg
2. 373,000 tabs Tolbutamide 500 mg
3. 491,000 " Chlorpheniramine Maleate 4 mg
4. 600,000 " Thiabendazole 500 mg
5. 200,000 " Aspirin 500 mg
6. 2,000,000 tab Chloroquine Phosphate 250 mg
7. 800,000 " Ferrous Sulphate 200 mg
8. 150,000 " Prednisolone 5 mg
9. 100,000 " D.L.Alpha Methyldopa 250 mg

The total cost C.I.F. Dkr. 1,900,000 including freight charges Equid. to Ug. Shs.3,800,000/-

Drugs Received From Pfizer Laboratories Ltd. on 10/1/79

1. 500 vials Inj. Streptomycin Sullphate 1 gm
2. 500 " " " " 5 gm
3. 500 " " P.P.F. 400,000 i.u/vial

4.	500 vials	Inj. P.P.F. 800,000 i.u/vial
5.	600 tabs	Combatrim
6.	3,000 "	Diabenese 250 mg
7.	500 Amps	Inj. Terramycin I.M. 100 mg
8.	50 bottles	Syrup Combatrim 15 ml
9.	100 tubes	Terra Cortril eye/ear Suspension
10.	1,500 tabs	Obron (Multivitamin)
11.	100 tubes	Terra Cortril skin ointment 5 mg
12.	80 tubes	Terramycin Eye Ointment

<u>These were received from Baptist Mission Kinia on 10/9/79</u>

1.	640 cases 12 per case	Dextrose 5% Injection 150 ml
2.	200 " " " "	" " " 250 ml
3.	48 " " " "	" " " 500 ml
4.	80 " " " "	" " " 1,000 ml
5.	150 Case 12 per case	" " & NaCL 0.2% Inj. 250 ml
6.	25 " " " "	" " " " 500 ml
7.	90 " " " "	" " " " 1000 ml
8.	231 cases 12 per case	Lactated Ringers 5% Dextrose 10000 m"
9.	28 " " " "	Dextrose 10% Injection 250 ml
10.	190 " " " "	Nacl 0.9% Injection 250 ml
11.	1,000 cases 6 tins P/C	Nutrition Suppliment Powder "Ayds" 16 oz.
12.	1,000 " 12 tins P/case	Aspibin Powders "B-C" 10 gr.
13.	6,680 doses	Measles Vaccine
14.	17,954 doses	Rubella Vaccine
15.	3,550 doses	Mumps, Measles and Rubella and Vaccine
16.	700 doses	Measles and Rubella Vaccine

<u>These were Received from Rousel Laboratories Ltd U.K. on 9/8/79</u>

1.	2,000 packets	Sofra Tulle
2.	2,000 bottle	Sopradex Eye/ear Drops
3.	1,000 tubes	Soframycin eye drops
4.	400 amps	Cidomycin 80 mg/2cc
5.	200 amps	Cidomycin 20 mg/2cc
6.	1,293	Suppositories Proctosedyl

TRUE COPY

"MEDSTORES"

20542, 20566,

CP.2/43

Medical Stores,
P.O.Box 16,
ENTEBBE.

19th November, 1979.

Permanent Secretary/D.M.S.
Ministry of Health,
P.O.Box 8,
ENTEBBE.

REF: DONATIONS RECEIVED FROM BAPTIST MISSION JINJA 3/11/79

The Baptist Mission at Jinja has again generously delivered the following items on 3/11/79:-

1. Ayds Nutritional Suppliment - 580 cases x 6 tins
= 3480 tins.

2. "B.C." Aspirin Powders = 750 x 12 pkts x 100 doses
= 900,000 single dose Powders.

3. Infusion Dextrose 5% - 150 ml bottles.
- 250 cases x 12 bottles
= 3,000 bottles

4. Lactate Ringers 1000 ml bottles - 123 cases x 12 bottles
= 1476 bottles.

This supply is in addition to:

(a) Vaccines received in Entebbe and already issued out

(b) Infusion Fluids, which the Baptist Mission kindly delivered to our various Hospitals Up-country particularly in the East.

The Ministry is indeed very grateful to this generous donation being given to us through the Baptist Mission in Uganda.

John Ruberantwari
CHIEF PHARMACIST

c.c. Mr. James Rice,
P.O.Box 1310,
JINJA.

31. 10 B.B. paints for Training Schools
32. 25 B.B. Dusters for Training Schools.
33. 10 B.B. Brushes for Training Schools.
34. 10 Black board paint brushes for Training schools
35. 5 tubes Duplicating ink for M.O.H. Headquarters
36. 10 paper punches for M.O.H. "
37. 500 Manila File Holders for " "
38. 10 packets paper pins for "
39. 90 Packets paper clips No. 1 - 3 for M.O.H. Headquarters
40. 4 Boxes Biro pens for M.O.H. Headquarters
41. 10 dozens/for M.O.H. Headquarters Pencils
42. 4 Dozen Rubbers for M.O.H. Headquarters
43. 20 Rulers Plastic for M.O.H. "
44. 20 packets Acco Fastners for M.O.H. "
45. 100 Field note Books for M.O.H. "
46. 100 Shorthand notebooks for " "
47. 2 Typewriter Erasers/brushes for M.O.H. Headquarters
48. 22000 Envelopes sizes 9 x 4 15 x 10 for M.O.H. "
49. 150 Reams Typing/Dulicating papers for "
50. 50 Typewriter Ribbons for M.O.H. Headquarters
51. 10 bottles Dupplicating ink for "
52. 5 Boxes Stencils for M.O.H. "
53. 10 Boxes Carbon pepers F/S for M.O.H.
54. 10 Bottles correcting fluid for "
55. 5 stapling machines "PTEX" for "
56. 20 packets stapling pins "OFREX" for M.O.H.
57. 2622 Textbooks for Training schools

For Menco Hospital

4 Packages of miscellaneous second hand Medical and Surgical items - Gift from Canada.

TRUE COPY

Ministry of Health,
Stores Division,
P.O. Box 16,
ENTEBBE.

20th December, 1979.

The Hon. Minister of Health,

Dear Sir,

Re: DONATION RECEIVED FROM U.S.S.R. RED CROSS ON 16TH DECEMBER 1979

The Red Cross of the U.S.S.R. sent us the following donation on 16th December 1979:-

1.	3,600 amps	Inj. Amidopyrine 4%
2.	10,000 vials	Inj. Soluble penicillin 1 mega
3.	2,800 rolls	Small Rolls cotton wool
4.	3,600 bottles	Tincture Convallaria Vallaria Belladonna Mentol
5.	1,600 amps	Inj. Nikethamide 25% 1 gm
6.	18,900 vials	Inj. Procaine 0.5% 5 gm
7.	175,000 tabs	Sulphathizole 0.5 gm
8.	11,200 caps	Oxacillin 250 mg
9.	2,700 rolls	Gauze W.O.W. 3"
10.	256 x 0.5 kg	Multivitamin Grannules
11.	9,000 vials	Inj. Streptomycin Sulphate 1 gm
12.	100,000 tabs	Sulphaguanidine 0.5 gm
13.	11,200 caps	Tetracycline 250 mg
14.	7,500 caps	Chloramphenicol 250 mg
15.	3,000 vials	Ecomonovocillin 600,000 i.u.
16.	1 Soniazid Powder 1.5	
16.	18 x 1.5 kg	1 Soniazid Powder 1.5 kg
17.	3,200 caps	Ampicillin 250 mg
18.	3,400 amps	Inj. Vitamin B_{12} 1000 Microgram
19.	3000 x 20 dose	Cholera Vaccine (Expiry 1st Jan. 1981)

I suggest a letter of approciation be written to them through the Russian Ambassador in Uganda, as it is the Embassy that handed over the drugs to us.

Yours faithfully,

J. Ruberantwari
Chief Pharmacist

c.c. The Deputy Minister of Health,
Ministry of Health,
P.O. Box 8,
ENTEBBE

" The Ag. Permanent Secretary/DMS.,
Ministry of Health,
P.O. Box 8,
ENTEBBE.

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TRUE COPY

Ministry of Health,
Stores Division,
P.O. Box 16,
ENTEBBE.

20th December, 1980.

The Hon. Minister of Health,

Dear Sir,

Re: ORAL POLIO VACCINE FROM UNICEF AND RABIES VACCINE FROM AMREF

On 17th December, 1979 we received the following:

1. 5.000 Doses oral Polio Vaccine from UNICEF Nairobi (Expiry 24 months from August 1979)

2. 50 doses Rabies Vaccine from AMREF as part of EEC grant to Uganda total cost Shs.7,500 i.e. at 150/- per dose

Yours faithfully,

John Ruberantwari
Chief Pharmacist

TRUE COPY

"MEDSTORE"

20542, 20566, 20507

CP.2/43

Ministry of Health,
Stores Section,
P.O..Box 16,
ENTEBBE.

23rd November, 1979.

Permanent Secretary,
Ministry of Health,
P.O. Box 8,
ENTEBBE.

Ref: DRUGS RECIEVED FROM EEC GRANT THROUGH AMREF OF NAIROBI

The following items were received by this Ministry from the EEF grant through AMREF Nairobi:-

1. On 31st October, 1979 - Anti-rabies Vaccine 100 amps.
2. On 14th November, 1979 " " " 100 amps
3. On 31st October, 1979 - ATS 1,500 i.u./amps 830 amps
4. On 14th November, 1979 - Injection MELARSEPROL 783 vials.

Unfortunately, these came without invoices and therefore, the amount of money spent on them is not yet known.

John Ruberantwari
Chief Pharmacist

TRUE COPY

THE LIST OF THINGS RECEIVED FROM AMREF
ON 30th NOVEMBER 1979.

CMS ENTEBBE

1. 1 Refrigeration Equipment for cold room
2. 2 ½H. Condensing Units.
3. 2 Heating Elements for Electrolux Refrigerator.
4. 2 Tyres 158 x 12 ". CHx for Mr. Baguma
5. 5 Olympia Typewriters
6. 4 Metal 4 Drawer Filing Cabinets

SPARE FOR FLAT

7. 14 Tyres 825 x 20
8. 14 Tubes 825 x 20
9. 4 Batteries
10. 2 Alternators
11. 2 Starter Motor.
12. 3 light
13. 2 Mirrors
14. 1 Switch
15. 2 W/Glasses
16. 1 Rubber
17. 2 Caps
18. 4 S.A. (Invoice 234176)
19. 2 Winders
20. 2 covers
21. 1 Cross Bearing
22. 4370 Amps Nivaquine Inj. 2mg. Expired August 1979.
23. 1000 x 1000 tabs Chloroquine
24. 275 kg Sodium Chloroquine = 11 bags.
25. 72 dozens Elastic Adhesive Plasters 3"
26. 4000 Note books for Training Schools.
27. 2000 Biros for Training Schools
28. 2000 Pencils for Training Schools
29. 500 Erasers for Training Schools
30. 50 Boxes of chalk for Training schools

...../2

These were received from Oxfam U.K. on 30/8/79

1.	588 doz	Bandages W.O.W. 5cm x 5m 49 x 12 doz
2.	290 rolls	Gauze Absorbent Medium 50m 29 x 10
3.	360 No	Crepe Bandages 5x6x12
4.	56 doz	Zinc Oxide Plaster 7.5cm x 5m x 7 x 8 doz.
5.	2,112 rolls	Cotton Wool White 44 x 4 doz. 176 doz x 12
6.	60 rolls	" " " 5 x 12
7.	600 pks of 5 blades	Knife Blades No. 154 x 20
8.	60 pks of 5 blades	" " " 154 x 20
9.	pkts of 5 blades	" " " 24 3 x 12
10.	192 No	Needles No. 1 16 x 12
11.	288 No	" " 14 24 x 12
		Scalp vein sets:-
12.	130 sets	1.6mm x 1.9 cm
13.	130 sets	0.8mm x 1.9 cm

These were received from W.H.O. through W.H.O. Programme coordinator in Uganda on 9/8/79

1.	20,100 amps	Inj. Suramin
2.	50,000 mls	Cholera Vaccine

Received on 21/8/79

1.	22,440 bottle	Hartman Solution
2.	436,000	Tetracycline Caps
3.	2,016 tins	Powdered Milk for premature babies
4.	1	Filing Cabinet
5.	1	Duplicating Machine

These were received from UNICEF on 18/6/79

1.	100	Maternity Kits for Health Centres

LIST OF UNICEF GOODS RECEIVED AFTER THE WAR

1.	100	Medical Kits for Health Centres. All these were distributed according to allocation.		
2.	22	Chest Freezers	received	25//10/79
3.	54	Kerosine Small Refrigerators	"	26/10/79
4.	2	Kerosine Big Refrigerators	"	26/10/79
5.	20	Ladies Bicycles	"	26/10/79
6.	51	Heater Elements	"	26/10/79
7.	75	Refrigerators glass chimney	"	"
8.	300	Syringes Tuberculin 1ml	"	"
9.	300	" " Barred glass	"	"
10.	300 doz	" " Needles 0.45x10mm x 26g		"
11.	21,700 Amps	Inj.sodium chloride	received	"
12.	10	Hospital beds (Labour Beds)	"	21/11/79
13.	160	Bales Cotton Wool x 100 rolls x 500gm	"	8/11/79
14.				

VACCINES FROM UNICEF

DL	20	2,000 mls Tetanus Toxoid	received	2/10/79
DL	22	1,000 Amps x 10 dose B.C.G. Vaccines	"	"
DL	24	2,000 x 10 dose triple antigen	"	"
DL	29	5,000 doses oral polio Vaccine	"	"
DL	28	27,000 doses measles Vaccine	"	19/2/80) from Virus Research Institute.
DL	29	45,000 doses oral polio Vaccine	"	")

ITEMS FOR EMERGENCY MEDICAL ASSISTANCE FOR UGANDA RECIEVED

BY MULAGO HOSPITAL

RECIEVED FROM	NAME OF ITEM	QUANTITY
U.S.A.	Blackboard Brushes	2
U.S.A.	Books for Nurses & Midwives	2755
"	Ball point pens	1280
"	Pencils	1280
"	Erassers	1280
"	Boxes of chalk	10
"	Black board Dusters	5
"	Black board Brushes	2
WEST GERMANY	Khaki Trouser	250
"	Med/Asst. Jackets	300
CROWN AGENTS	Autoclove	1
"	Flaring and cutting tools	2 sets
"	Electric Gas leak	1
"	Time stop clocks	10
"	Diagnostic set	2
"	Drilling machine	1
"	Micro-Homotocrit centriguge	4
"	Small portable electric motor	20
"	Machine screw friver electric	6
"	Hack saw frame	6
"	Cuting files for workshop	36
"	Washing machines	4
"	Welding cable	1
"	CO_2 for five extingushers	21 cylinders
"	Post-mortum set complete	6
WEST GERMANY	Uniforms for Nuses	208
CHURCH OF UGANDA	Toilet soap	3120

However, other supplies which are out of stock and are urgently needed are: ZO Plaster all sizes, Cotton Wool, Crepe Bandages, Laryngoscope cells, Cellotape, Cup and Operation Boots for surgions etc.

Yours sincerely,

BEN. OCHOKAN.

for: SUPPLIES OFFICER.

APPENDIX J

TRYPANOSOMIASIS CONTROL PROGRAMME

TRYPANOSOMIASIS CONTROL PROGRAMME

Section I BACKGROUND AND SUPPORTING INFORMATION

Justification of the Project

Trypanosomiasis has been an important disease in Uganda. Since 1895, there have been four major epidemics. The first was Gambian sleeping sickness epidemic 1896 - 1922, which claimed as many as 250,000 deaths in Uganda. The second was the Rhodesian outbreak of 1940-1944. A third Rhodesian type epidemic occured in 1956 - 1958, when it occurred particularly among fishermen. The fourth was the Rhodesian epidemic of 1971 around Luuka county of Busoga District. The present increased incidence started around 1976 and has since affected at least 20,000 people.

Today (January 1980) at least 20 new cases are detected and confirmed by microscopy at the 3 health centres that have been chosen to treat these cases. This is equivalent to 1,800 cases/month or nearly 20,000 cases/year. This may represent as little as only 10% the actual number of new cases existing.

The course of the disease in recent epidemics has appeared to be more rapidly fatal, as people were reported to have died even before the sleeping phase was reached.

Before the onset of the present epidemic less than 100 cases were reported annually, which is the number reported daily today! Trypanosomiasis, a disease affecting man and his domestic animals still occupies over 40,000 Km^2 of Uganda and is endemic in the Southern areas of Busoga, Bukedi and to some extent West Nile district near Koyo, in the north of the country. The present epidemic covers 2,000 sq.km in a new area plus 5,000 km^2 in the traditionally endemic area.

The disease is transmitted by two species of Glossina namely G. fuscipes and G. pallidipes. The third species G. brevipalpis which occurs in this region appears to play no significant role in the transmission. The trypanosomiasis of economic importance in this region, are Trypanosome brucei group, T. Gambiense, T. congolense and T. vivax . The trypanosomiasis are kept alive by a huge reservoir of wild game. The control of the disease can theoretically be achieved either by total elimination of the tsetse fly or by removal of the game acting as a reservoir or by removal of the game acting as a reservoir or by chemotherapy treatment. However, because of a complex medical and veterinary ecological systems of the species of tsetse and the pathogenic parasites, only a limited success has been achieved. This coupled with the current constraints, andlack of active support from the last regime has been responsible for the break up of the control measures and the generation of the present epidemic.

The current control measures is being carried out by the Veterinary Public Health, and Vector Control Divisions of the Ministry of Health, in the collaboration with the Tsetse Control Division of the Ministry of Animal Resources and Husbandry. Most of the activities in these areas have virtually come to a halt due to the war situation and the breakdown of transport, equipment and other logistic facilities.

The need to rehabilitate and resuscitate these activities is thus important, particulary in view of the ever increasing prevalence of the disease in the affected areas. The growing socio-economic importance of the disease can only be abated by improving and strengthening of the anti-epidemic efforts.

Institutional Framework

The Veterinary Public Health division together with the Vector Control divisions are already well established within the Ministry of Health. A Veterinary Public Health officer, and an Entomologist, and an Assistant Director of Medical Services in charge of Public Health will be responsible for the overall supervision and coordination of the control activities and initiating the present inter-ministerial coordinating mechanisms. Each of the executing divisions have their own specific physical and budgeting provisions that will ensure continuity, but lack transport, logistic supplies, and drugs.

Provision of Government Follow up

Central Follow up:

As stated above the Veterinary Public Health Division/ Vector Control Divisions are well established within the Government civil services and it is intended to further train field staff through organization of refresher courses and seminary by experienced officers.

The Veterinary Public Health Officer at the Ministry of Health headquarters, in conjunction with the Epidemiological and Statistical Unit will ensure constant follow up and monitoring of the Control activities.

At Busoga Districts

There is a sleeping sickness inspectorate based at Jinja. It is headed by a sleeping sickness inspector, a deputy; 8 supervisors at the county/sub-county levels; and 50 sleeping sickness Orderlies and sleeping sickness catchers at the parish levels. The duty of the sleeping sickness orderlies at the parish level is to do screening of their villages and parishes and transit the detected patients to the subcounty/county and eventuals to the health centres for treatment.

Other Related Activities

When the programme is reactivated following injection of logistic support, it is hoped that the activities will be enlarged and extended so as to be a component within the integrated national primary health care system which is envisaged. Health Education efforts will also be intensified. It is also hoped that eventually Uganda will establish a zoonosis centre for the African region and this experience will be useful.

The programme will also cooperate and collaborate with the Uganda Trypanosomiasis Research Organization at Tororo, in various research and control activities

responsibility duty it is to destroy tse tse flies through a permanent regular programme.

Section II OBJECTIVES OF THE PROJECT

Long Range Objectives:

This programme is intended to develop and re-consolidate on a comprehensive and integrated basis our surveillance mechanisms for the eventual eradication of human sleeping sickness in Uganda.

Immediate objectives:

(i) Immediate and urgent rehabilitation of the Trypanosomiasis control activities in Busoga, Bukedi and West Nile districts, with a view to intensifying surveillance and controlling the disease.

(ii) Rehabilitate the VPH division, Vector Control division, Sleeping sickness Inspectorate at / by way of transport and equipment. /Jinja.

(iii) Provision of drugs and facilities for early diagnosis and treatment of cases, and drugs for prophylaxis.

(iv) Improve the notification system.

Section III WORK PLAN:

A. Project Activities	Location	Starting date/ duration
(i) Urgent Rehabilitation of the Tryp. control activities.	a) Ministry of Health Hqs. - Vector Control Division. - Veterinary Public Health division.	June 1979 - continuous
	b) Busoga, Bukedi, W.Nile Dists.	
	c) Min. of Vet. & Agriculture.	
(ii) Organizing Surveillance activities	a) Central Epid. & Stat. Unit	continuous
	b) Uganda Trypanosomiasis Research Organisation, Tororo.	
	c) Sleeping sickness Inspectorate, Jinja & Bukedi districts.	
(iii) Provision of drugs	a) Busoga, Bukedi, W.Nile	continuous
(iv) Provision of transport/equipment	a) Min. of Health for supervision.	
	b) To each of the 3 affected districts for surveillance and spraying activities.	"
B.	c) To Uganda Trypanosomiasis Research Organisation at Tororo.	

B. Description of Inputs (assistance) requested

(i) Assignment of Expatriate (international) personnel.

An expert who should be of a medical/veterinary background with ppstgraduate training in epidemiology, will be required to work as an Epidemiologist attached to the Uganda Trypanosomiasis Research Organization at Tororo. He should have a wide experience in the control of ~~tr~~onoses. He will work in close cooperation with the director of research organization and will assist in epidemiological studies and surveys intended to improve and strengthen the control activities. He will where possible render services to the 3 ministries responsible for sleeping sickness control

viz: Health, Veterinary Services and Agriculture. A Senior Entomologist to direct the Vector Control is also requested.

(ii) Provision of subcontractual services

None.

Provision for training

(iii) Provision for training of a national counterpart of the epidemiologist is further requested so as to maintain continuity. A medical/veterinary doctor shall be assigned to under study the expert before he goes for his training fellowship $ 12,000; and expert for 2 years.
$ 48,000 x 2

(iv) Provision for Transport, Equipment and Supplies

a) (i) To facilitate control activities the following is requested in form of transport:
- 6 landrovers and 4 pickups to be used as follows:-
2 landrovers and 2 pickups for field work in Busoga;
1 landrover and 1 pickpu for the same in Bukedi;
1 landrover and 1 pickup for the same in W. Nile;
districts 1 landrover at Tororo for epidemiological services; 1 landrover for supervision at the headquarters of the Ministry of Health.

..... $ 100,000.

(ii) Motocycles (15) for supervisors of sleeping sickness Inspectorate, in Busoga (8), Bukedi (4) and Madi (3) districts.

(iii) Bicycles (100) for the parish sleeping sickness Orderlies in Busoga (50), Bukedi (30) and Madi (20) districts.

b) Laboratory supplies and equipment is also requested as follows:-

- 11 Microscopes for field work, 2 to each team, and 1 at Kiyunga Health centre, Nankandolwe, and Namungalwe health centres. $ 5,000
- other laboratory supplies
- Insecticide spraying equipment 10 sets $ 10,000

c) Drugs - for human chemotherapy
- Suramin 120,000 doses
- Mel B 130,000 "

For Prophylaxis i) Lomotion 100,000 doses
ii) Germanin 100,000 doses
US $ 200,000

d) Description of Government inputs:

(i) Pre-requisite activities

As mentioned earlier, there exist already organised administrative units with staff and budgetary provisions e.g.

a) The Central Epidemiological and Statistical Unit of the Ministry of Health.
b) The Veterinary Public Health division, Ministry of Health.
c) The Project Manager, who will be the overall in charge of supervision of the activities of the programme. The Veterinary Public Health Officer will act in that capacity.

(ii) Financial obligations

The government will continue financing salaries of local personnel as well as other local facilities and utilities as has been the case in the past. The Epidemiological vote, (which is equivalent to about $ 50,000 of local currency) will continue to supplement the project as the need arises.

(iii) Assignment of National Staff:

The Assistant Director of Medical Services/Public Health is responsible for the overall supervision and coordination of the project. The veterinary Public Health Officer will act directly as the project manager and will be responsible for drawing up of programmes, interministerial coordination and monitoring of the project.

A medical/veterinary doctor will be assigned as a national counterpart to the expatriate epidemiologist at Tororo.

(iv) Government provided supplies and equipment

Apart from the physical structures (buildings, office accommodation) most of the supplies and equipment including transport was destroyed or looted during the war. Government, however, hopes to provide adequate secretarial and office facilities for the programmes.

APPENDIX K

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APPENDIX L

PERSONS INTERVIEWED BY THE FHC TEAM IN UGANDA

APPENDIX L

PERSONS INTERVIEWED BY THE FHC TEAM IN UGANDA

Eric Norberg, African Medical and Research Fouincation (AMREF), Nairobi

Mr. Munk, DANIDA Representative, Nairobi

Mr. Salvo, International Committee of the Red Cross, Nairobi

Mr. Urs Ziswiller, Head of Delegation in Uganda, International Committee of the Red Cross

Mr. Peter J. Reitz, Director, CARE-Uganda

Dr. John Fowles, Orthopedist, CARE-Medico Project

Mr. F. Strippoli, UN/FAO/World Food Programme Representative, Uganda

Mr. J. G. Quinn, First Secretary, British High Commission, Kampala

Mr. Benjamin Brown, Assistant Resident Representative, UNDP, Kampala

Dr. Joseph M. Luyimbazi, Pharmacist/Director, The City Pharmacy D.C. Ltd.

Mr. Tue Rohrsted, Delegate of the Commission of the European Communities, Kampala

Mr. Paul Symington, Representative, Lifeline Relief and Development Services Intl. Ltd.

Prof. V. L. Ongom, Director, Institute of Public Health, Makerere Medical School

Dr. T. Rugyama, Director, Makerere Institute for Social Research

Mr. Frank Gasasira, Permanent Secretary, Ministry of Local Administrations

Mr. Jim McDowell, UNICEF Representative, Kampala

Dr. J. F. B. Mujabi, Deputy Medical Superintendent, Mulago Hospital

Mr. John Bulinda, Coordinator of External Assistance, Ministry of Planning and Finance

Dr. Rubugesa, Private Physician, Katwe Clinic, Kampala

Prof. Joseph S. W. Lutwama, Dean, Makerere Medical School

Dr. Bakojja, Permanent Secretary, Ministry of Health

Hon. Peter Sebuwufu, Minister of Health

Ms. Molly O'Kalebo, Chairperson, National Council of Women, Family Planning Association of Uganda, Kampala

Mr. Heidemann, Embassy of West Germany

Mr. James Ziwa, Assistant Secretary, Ministry of Local Administrations

Father Lee, Coordinator, Joint Medical Store

Dr. Okwaro, Assistant Director of Medical Services (Public Health), Ministry of Health

Mr. Joseph Bbaale, Assistant District Commissioner, Masaka District

Mr. David Kintu, Medical Assistant, Buwama Health Center, Mpigi

Mr. Wilson Kalbayi, Medical Assistant, Mpigi Health Center

Ms. Marageret Kalule, Registered Nurse, Kalungu Health Center

Dr. L. S. Lumala, Dental Surgeon, Acting Medical Superintendent, Masaka Hospital

Mr. Tom Kisawuzi, Undersecretary, Ministry of Local Administrations

Mr. Vincent Sekkono, Principal Assistant Secretary, Ministry of Local Administrations

Mr. Zak Kalega, Secretary, Mengo Hospital

Mr. Peter Okello, Undersecretary, Ministry of Health

Prof. Eric Kibuka, Department of Sociology, Makerere University

Mr. Tomusange, Secretary, Regional Hospital, Mbale

Dr. Pauline Tsekoo-Wamasebu, District Medical Officer, Mbale

Mr. Timothy Lokut, Namalatuk Health Center

Sister Graiziella Colci, Verona Sisters, Magilatuk and Namala

Mr. Okure, Assistant Administrator, Moroto District Hospital

Dr. Okwana, Medical Superintendent, Moroto District Hospital

Mr. Agutang, Acting District Commissioner, Moroto

Mr. Ndebwa, Medical Assistant, Kotido Health Center

Dr. Luigi Rossanigo, Senior Medical Officer, Abim District Hospital

Ms. Grace Amolo, Senior Nurse, Abim District Hospital

Dr. Ivone Rizzo, District Medical Officer, Kitcum

Mr. Joseph Owor, Dispensary, Attanga

Mr. Norbert Kaouma, Hospital Secretary, Gulu

Dr. Talamoi, Chief Medical Officer, Gulu Hospital

Dr. Tacconi Lucino, Medical Officer, Kolongo Hospital

Dr. Rauhakana Kugundu, Deputy Minister of Health

Father Bilboa, Verona Fathers, Kampala, Uganda