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HPN SECTOR ASSESSMENT -

ZAMBIA

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JOHN SNOW, INC.

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The Team wishes to acknowledge the support and assistance of USAID/Zambia staff notable Mr. Bruno Kosheleff. His organizational help and insights made our task much easier. We would also like to thank the MOH/GRZ who extended us warm invitations to discuss HPN issues and provided invaluable information. Finally, our numerous meetings with the donor and NGO community helped us greatly in formulating our ideas. Often with short notice, donors and NGOs alike were willing to share their information and experience with us.

EXECUTIVE SUMMARY

The purpose of the HPN sector assessment is to provide USAID/Zambia with a cogent statement of HPN investment priorities. (For the purpose of this report, the HPN sector includes child survival and AIDS activities.) The Assessment notes that gaps exist in donor HPN assistance, and, with targeted investments, the mission could impact significantly upon the well being of the Zambian population over the medium term. The Assessment recognizes that the Zambian economy is in a state of decline and thus an atmosphere of inactivity and unconcern for HPN sector problems may be fostered. However, real needs exist which will not disappear, and which, if left unaddressed, will contribute to economic stagnation, a further decline of the per capita GDP, and perhaps heightened social and civil stress. The Assessment states that A.I.D. investments in the HPN sector are justified based on Zambian demographics (annual growth = 3.7% per year), its epidemiologic profile (undernutrition, malaria, respiratory disease, diarrheal disease and HIV/AIDS are endemic), and, Congressional and DFA mandates regarding health and population activities in Africa.

The Assessment presents an objective tree analysis which illustrates the diversity of the problems and complexity of the solutions associated with the HPN sector. Clearly USAID/Zambia cannot address all of the problems facing Zambia's HPN sector. The Assessment identifies **three strategic objectives** within the HPN sector for mission investment. They are: 1) **Reduced Population Growth**; 2) **HIV/AIDS Prevention**; and, 3) **HPN Sector Policy Reform**. Components of these three investment areas are presented below.

- o **Reduced Population Growth** - A demonstrable donor gap exists in the population subsector and recent data indicate an increasing demand for family planning services. A national family planning policy has been developed with implied political will at the highest levels. However, progress has been slow, hampered by poor a service delivery infrastructure, laws limiting the distribution of contraceptives, and social mores which impede progressive attitudes towards family planning. The mission's investment would be manifested in a broad bilateral activity aimed at strengthening service delivery and logistics and pursuing stronger linkages to the private sector delivery of family planning commodities and services. **Impact targets include:** reduction in total fertility; increased contraceptive use; and, increased couple years of protection.

- o **Reduced HIV/AIDS Transmission** - HIV infection is spreading at an alarming rate in Zambia and much is being invested to slow transmission. Innovative HIV/AIDS prevention activities are proposed in the areas of: STD

clinic-based prevention; HIV/AIDS prevention for out-of-school youth; targeted condom distribution; workplace-based prevention; anonymous testing; and, enhanced outreach via traditional healers. **Impact targets include:** changes in STD prevalence; changes in social practices related to HIV/AIDS prevention; and, decreased incidence in specific population groups over the long term.

o **Improved HPN Sector Service Delivery** - Improved service delivery is a broad issue which implies investments in management, logistics, fiscal planning, administration and policy reform. Zambia, like many countries, suffers from a dearth of skilled person power, an unavailability of hard and local currency support, centralized decision making, and often restrictive policies. The assessment recommends USAID/Zambia consider the larger picture, but focus on policy reforms relating to: decentralization of authority; health care financing; and, health systems management. **Impact targets include:** policy development and implementation; kwacha generated from cost-recovery schemes; enhancement of district-level authority; and, increased access to and use of preventive services.

The Assessment cautions USAID/Zambia to proceed slowly if they choose to pursue HPN sector development activities. The document notes that a "piecemeal" approach to the sector has been pursued by the mission to date, with activities generated from AID/W projects and little mission input into the design, implementation and/or monitoring of activities. Clearly, the mission does not have the staff to appropriately manage existing or expanded HPN sector efforts. Therefore, the Assessment preconditions future mission involvement in the sector on the recruitment of a FSO ES-50, in addition to other long-term technical advisors/managers, to manage the portfolio.

A "rolling design" concept is presented which suggests the mission spread the design of HPN sector activities over a period of time. For example, it is suggested that the AIDS activities get underway in the near term. However, the design of the FP activities should be performance-driven, based on the success of some "bridging activities" undertaken by Pathfinder, SEATS and FPLM. If operational success and GRZ commitment is demonstrated, the mission could then confidently commit to a long-term HPN sector investment. This prudent approach is recommended on the basis of poor past performance by the GRZ and the uncertain political situation in Zambia over the next 12 months. The rolling design allows A.I.D. to maintain relative momentum in the HPN sector, but is implicit that a long-term commitment is performance-based. Throughout the Assessment, the institutionalization of program/project monitoring is highlighted as a major component of the long-term HPN sector investment.

Targets of opportunity are identified which represent important public health issues, but which cannot be comprehensively addressed by the mission in the medium term. Targets of opportunity include: nutrition; malaria policy; cholera surveillance; water supply & sanitation; and, diarrheal disease control.

The Assessment provides comment on mission staffing and how the mission might pursue additional positions for project management and monitoring (TAACS, CS/POP Fellows, PSCs). Donor coordination is highlighted as a means to avoid duplication of effort and identify discrete interventions whose outcomes can be attributed specifically to USAID investments. Options for private and public sector cooperation are suggested in relation to sustained service delivery and cost recovery.

In summary, the Assessment suggests that the HPN sector is a worthwhile investment in Zambia, but cautions the mission to explore performance-based progress in the near term prior to making any longer-term commitments.

LIST OF ACRONYMS

AIC	AIDS INFORMATION CENTER
AIDS	ACQUIRED IMMUNE DEFICIENCY SYNDROME
AVSC	ASSOCIATION FOR VOLUNTARY SURGICAL CONTRACEPTION
BS-50	BACKSTOP HEALTH POPULATION OFFICER
CA	COOPERATING AGENCY
CBD	COMMUNITY-BASED DELIVERY
CMAZ	CHURCHES MEDICAL ASSOCIATION OF ZAMBIA
CPR	CONTRACEPTIVE PREVALENCE RATE
CS	CHILD SURVIVAL
CSM	CONTRACEPTIVE SOCIAL MARKETING
DH	DIRECT HIRE
DHS	DEMOGRAPHIC AND HEALTH SURVEY
DTU	DIARRHEA TRAINING UNIT
EEC	EUROPEAN ECONOMIC COMMUNITY
FP	FAMILY PLANNING
FPFA	FAMILY PLANNING INTERNATIONAL ASSISTANCE
FSN	FOREIGN SERVICE NATIONAL
FSO	FOREIGN SERVICE OFFICER
GRZ	GOVERNMENT OF THE REPUBLIC OF ZAMBIA
HCF	HEALTH CARE FINANCING
HIV	HUMAN IMMUNODEFICIENCY VIRUS
HRD	HUMAN RESOURCE DEVELOPMENT
HS	HEALTH SECTOR
HSD	HEALTH SERVICE DELIVERY
IEC	INFORMATION, EDUCATION, COMMUNICATION
ILO	INTERNATIONAL LABOR ORGANIZATION
K	ZAMBIAN KWACHA (CY 1991 \$1.00 = K50.07)
NCDP	NATIONAL COMMISSION FOR DEVELOPMENT PLANNING
NPC	NATIONAL POPULATION COUNCIL
ODA	OVERSEAS DEVELOPMENT ASSISTANCE (UNITED KINGDOM)
ORS	ORAL REHYDRATION SALTS
ORT	ORAL REHYDRATION THERAPY
PPAZ	PLANNED PARENTHOOD ASSOCIATION OF ZAMBIA
PDPU	POPULATION AND DEVELOPMENT PLANNING UNIT
PNDP	PROGRAM FOR NATIONAL DEVELOPMENT PLANNING
PSC	PERSONAL SERVICES CONTRACTOR
PSZ	PHARMACEUTICAL SOCIETY OF ZAMBIA
SD	STANDARD DEVIATION
SEATS	SERVICES, EXPANSION AND TECHNICAL SUPPORT PROJECT
SIDA	SWEDISH INTERNATIONAL DEVELOPMENT AGENCY
SOMARC	SOCIAL MARKETING FOR CHANGE
STD	SEXUALLY TRANSMITTED DISEASE
TA	TECHNICAL ASSISTANCE
TFR	TOTAL FERTILITY RATE
U5MR	UNDER FIVE MORTALITY RATE
UCI	UNIVERSAL CHILDHOOD IMMUNIZATION
UNFPA	UNITED NATION POPULATION FUND
UNICEF	UNITED NATIONS CHILDREN'S FUND

LIST OF ACRONYMS (CONTINUED)

USAID	UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
USUHS	UNIFORMED SERVICES UNIVERSITY OF HEALTH SCIENCES
UTH	UNIVERSITY TEACHING HOSPITAL (LUSAKA)
VSC	VOLUNTARY SURGICAL CONTRACEPTIVES
WHO	WORLD HEALTH ORGANIZATION
WHO/GPA	WHO GLOBAL PROGRAM ON AIDS

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HPN SECTOR ASSESSMENT
- ZAMBIA -

I. OVERVIEW

A. Zambian Economic and Political Climate

Until 1975 Zambia was one of the most prosperous countries of Sub-Saharan Africa. However, this wealth was founded solely on copper. When the world price for copper slumped in 1974, the economy of Zambia became stagnant and then began a precipitous decline throughout the 1980s. The per capita GDP declined from US\$700 in 1981 to US\$290 in 1990 (constant prices). The rate of inflation averaged 152.8% in 1989 and the real GDP growth rate fell from 0.1%, in 1989, to -2%, in 1990 (Figure 1) (EIU, 1991).

The Government of Zambia has made several attempts at restructuring the economy in the past decade. An IMF and World Bank supported Structural Adjustment Program was initiated between 1983-1987, but was suspended in May of 1987 when internal civil and political pressure developed. The Government instituted its own self-help economic recovery program, but the situation did not improve and the standard of living continued to deteriorate. In 1989, the Fourth National Development Plan (FNDP) (1989-1993) was introduced which eventually led to rapprochement with the IMF and the World Bank. The FNDP's medium-term strategy aims at: 1) diversifying the economy away from copper primarily to agriculture (only 10-15% of arable land is under cultivation); 2) reducing the high capital and import intensity of production and consumption; 3) improving economic efficiency; 4) increasing savings and investment rates to restore economic growth; and, 5) improving social services. In the short-term, the emphasis is on establishing a more stable macro-economic environment.

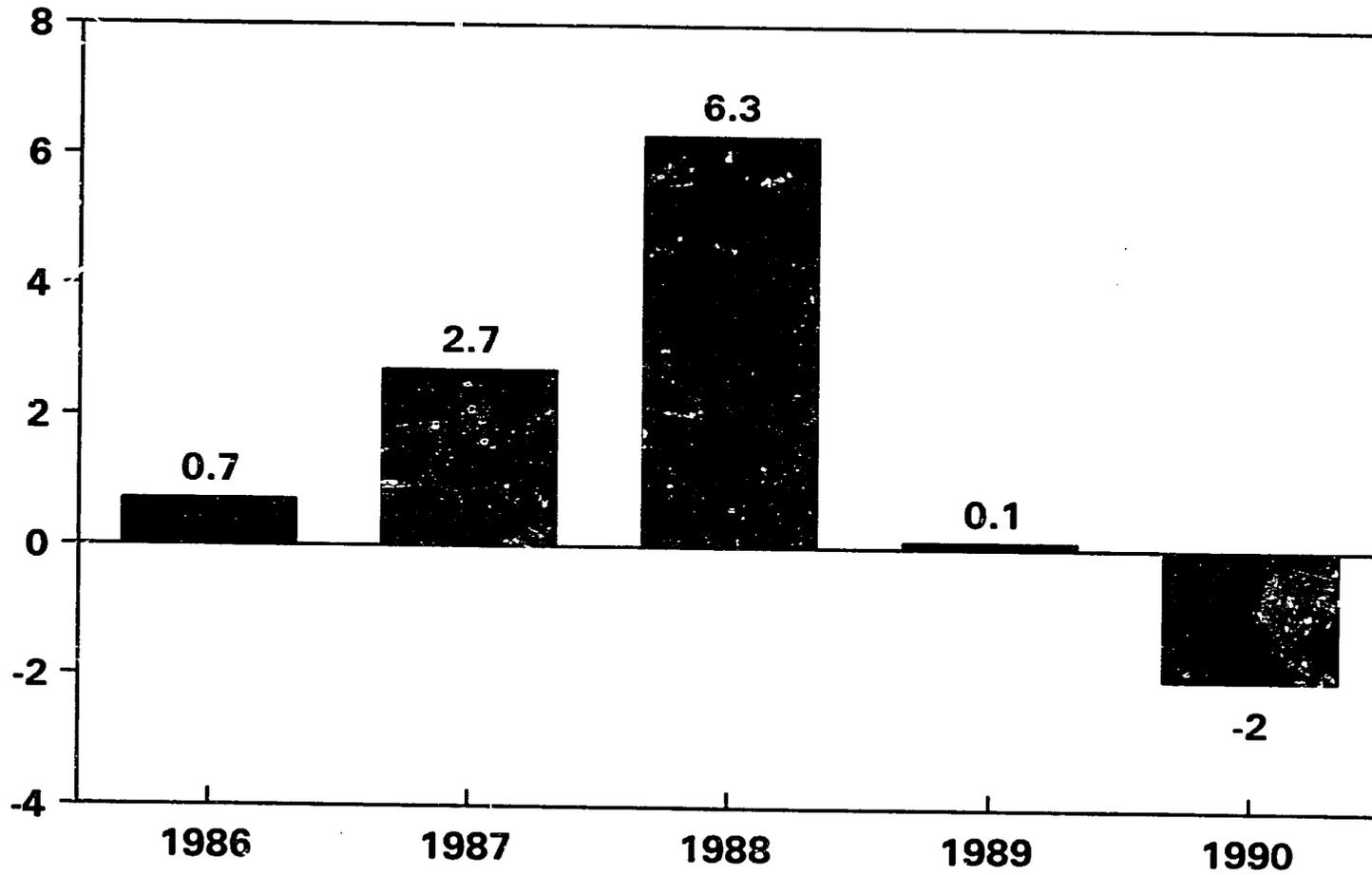
The economic future for Zambia remains uncertain. Zambia faces political uncertainty with the first presidential elections under a multiparty system since 1972 to be held in October 1991. How the outcome of the elections will impact on the economy and in turn impact on the HPN sector is unknown.

B. Present Mission HPN Portfolio

Family Planning - A.I.D. with funding from the Africa Bureau Family Health Initiatives II project and central funds from S&T Population has supported a variety of family planning activities in Zambia, present support includes provision of contraceptives,

REAL GDP GROWTH

1986 - 1990



Zambia Country Report, No.2 1991
The Economic Intelligence Unit

Figure 1

9

development and implementation of a national population policy, initiation of voluntary surgical contraception (VSC) services, integration of family planning into work-based health services, and development and testing of several models of community-based distribution. A number of cooperating agencies have worked with a variety of private sector groups and NGOs as well as with the Ministry of Health. A.I.D., in terms of percentage of funds provided to family planning and importance of its contributions (more than 60% of the contraceptives have been donated under A.I.D. auspices), is a major player in family planning together with the United Nations Population Fund (UNFPA) and the International Planned Parenthood Federation (IPPF).

Control of Diarrheal Disease (CDD) - In April 1986, the Ministry of Health approved a plan for technical and limited financial assistance from the A.I.D. centrally-funded PRITECH project to assist the Zambia CDD Program. Assistance got underway in August 1986 with the hiring of a full-time resident advisor. Assistance has also included financing for an office, transportation, administrative assistance for the advisor, ORS production and distribution, training development and production of training materials, surveys, small operations research studies, and up to 10 weeks of short-term technical assistance. Evaluations of PRITECH activities in Zambia have been favorable, highlighting the progress which has been made in training of clinical staff, production of ORS, development and distribution of health education materials, incorporation of CDD treatment guidelines into MOH policies, and the integration of the CDD program into the National Development Plan.

HIV/AIDS Prevention and Control - Mission HIV/AIDS prevention and control activities have been primarily supported by the Africa Bureau's HAPA project. The activity focuses on applied research in STD transmission and discerning the relative risk of HIV infection in STD patients via a joint project between UTH and USUHS. Scientific progress has been impressive with important, regionally applicable data accrued concerning perinatal transmission, STD prevalence, relative HIV risk, appropriate treatment for STDs, and diagnostic algorithms for STDs. Future directions of UTH STD efforts will concern the operationalization of HIV and other STD prevention and control via the MOH's STD clinics. The mission has also supported activities in IEC focusing on drama production and radio messages for HIV/AIDS prevention.

Present Mission Management Capability - USAID/Zambia's capability to manage its FP, CDD and AIDS activities is weak and has relied heavily upon REDSO/ESA and consultant assistance. Zambia HPN activities are significant in dollar terms, yet driven by external sources of funding. To a large extent, mission ownership is lacking. From a management viewpoint, reliance on external funds and consultant advice for design and

implementation is appealing, but it is not without its price. This situation gives rise to a "band-aid" approach to the sector with an unclear mission vision. At present, the Deputy Director is monitoring HPN activities and he cannot (nor should not) devote a large amount of his time to HPN issues. Thus, little time is available for planning, monitoring and/or impact assessment. If the mission chooses to invest in the HPN sector, it must also choose to strengthen its in-house management capacity.

II. PROBLEMS AND ISSUES IN THE HPN SECTOR

A. Synopsis of Zambian HPN Sector

A.1. General Issues in HPN Sector

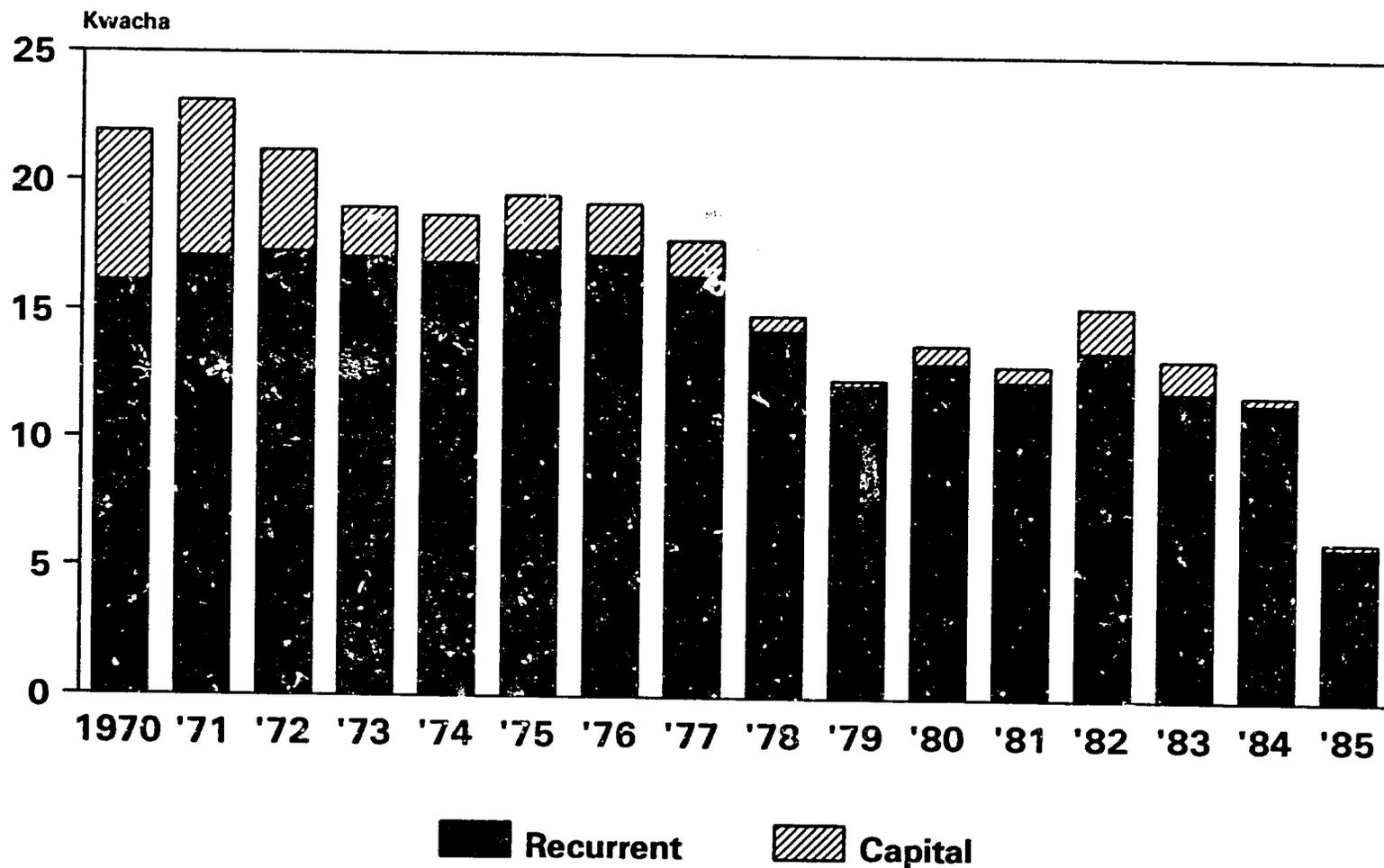
If Zambia's HPN sector is to reverse its current course of deterioration, the GRZ will need to grapple with a number of underlying issues which impede the effective implementation of HPN policies and programs.

A.1a Sustainability of HPN Sector Support

Overview of GRZ HPN Expenditures - A decade ago Zambia's annual health expenditures were comparable to those of other African countries - both on a per capita basis and as a percentage of total government spending (Freund, 1986). While total government expenditures for health have continued to increase in the last several years, there has been a sharp decline in the real value of these expenditures (due to high inflation, currency devaluation, and continuing population growth). From 1970 to 1984, total GRZ health expenditures increased from K27.2 million to K73.2 million (Freund, 1986). In 1989 government expenditures for health reached K875 million, or about 7% of the government's overall budget (GRZ, 1990). But during this same period, real per capita expenditures for health declined dramatically. In the decade from 1976 to 1985, government per capita expenditures for health declined by 57% in real terms - with per capita expenditures for capital projects declining by over 90% (Figure 2) (Freund, 1986). In 1989, total government expenditures for health were about K116 (US\$4) per capita (GRZ, 1990).

Cost Recovery and Privatization - In 1990 the MOH began to introduce user fees, targeting expatriates and selected non-essential services. So far collections are minimal, due in part to cumbersome administration procedures and weak incentives to collect fees (Bennett and Musambo, 1990). A user fee schedule was also introduced into CMAZ facilities in 1989; however, the GRZ objected that the charging of fees was illegal. CMAZ finally reached an accommodation with the GRZ by calling the fees "voluntary contributions". In the 1991-1992 Policy Framework Paper, Zambia has committed to legalizing foreign investments in

TRENDS IN REAL GOVERNMENT HEALTH EXPENDITURE PER CAPITA



Freund 1986

Figure 2

-12

health facilities and has targeted that 20% of ward accommodations in public institutions are to be operated on a fee-paying basis. To date, no results have yet been realized. If self-sustained HPN sector support is an objective of the GRZ, it will need to effectively implement cost recovery measures and encourage privatization to improve and sustain health service delivery.

A.1b Shortage of Resources

Human Resources - The continuing erosion of financial support for health services has been reflected in a decline in expenditures for drugs, transport, and maintenance with an increased proportion of spending being directed toward personnel costs, increasing from 39% in 1981 to as high as 61% in 1987 (ODA, 1989). From 1981 to 1985 the number of doctors in government employ declined by 37% (Freund, 1986), with current vacancies estimated at 40% (340/850) of the authorized positions (ODA, 1989). The ratio of physicians to population dropped from 13:100,000 to 7:100,000 by 1986. The most critical shortages are in various medical specialties. Many doctors have left government service for more lucrative private overseas postings. Currently, there are 245 private clinics in Zambia, 114 of which are located within industry, excluding the Mines (Medical Council of Zambia, 1991). To complicate matters, Zambia has become increasingly dependent on expatriate physicians, with only 32% of MOH doctors being Zambian in 1987 (ODA, 1989). Other personnel shortages include nurses, pharmacists, trained health educators, laboratory technicians, and occupational therapists. The exact numbers and kinds of shortages, and where they occur in the system, are not well defined.

Drugs and Supplies - Shortages in essential drugs and other supplies are common. In a 1984 survey, 75% of the rural health facilities visited were found to be short of antimalarials for some portion of the year (Freund, 1986). More than 80% of the nation's drug needs are purchased from abroad, requiring foreign exchange. It is likely that chronic drug shortages in the public sector stimulate some patients to seek supplies from more expensive private sources.

A.1c Maldistribution of Resources

Zambia's shortage of health resources is exacerbated by problems of increased urbanization and inequitable distribution. Health expenditures favor urban over rural areas and curative over primary and preventive services. For example, 50% of all drugs purchased by the government are consumed in the three central

hospitals, leaving district hospitals and rural health centers chronically short of supplies (Freund, 1986). In 1982, on a per capita basis, K0.60 was spent in rural health center areas compared to K2.35 in areas served by district and provincial facilities, and K12.27 in urban Lusaka (Freund, 1986).

A.1d Deteriorating Infrastructure

Fund shortages are reflected in reduced expenditures for capital projects and poor maintenance of facilities and equipment (both in the health sector and society as a whole). Capital investments in Zambia's health care infrastructure have been at a virtual standstill since the mid-1980s. There are currently 82 hospitals and 942 health centers nation-wide (MOH, 1990). The maintenance of these facilities, and the equipment within them, has suffered as well. In a survey conducted in the mid-1980s, 40% of the MOH's vehicles were inoperative - a particular handicap for rural areas. Even the majority of bicycles owned by rural health facilities were out of service (Freund, 1986).

A.1e HPN Structural Reform

Economic Decline - Zambia's good intentions to support the HPN sector (as reflected in statements of policy and periodic programs of economic reform) have been compromised by the continuing decline of the nation's economy. Additionally, the health system has often failed to use existing resources effectively and has faltered on implementing new program initiatives because of the GRZ's lack of political commitment and the MOH's limited managerial and administrative capability.

Political Will - Political leaders in Zambia appear to be ambivalent in supporting change within the HPN sector. While it is clearly evident the GRZ is unable to financially support a system of free health care to all Zambian citizens, the GRZ has not been able to commit to the policy and financial reforms that are needed to support non-governmental alternatives. The recent lack-luster efforts to implement cost recovery measures are illustrative.

Policy Reform - The recent adoption of a "National Population Policy", and the GRZ's commitment to support various health-related initiatives under the 1991-1993 Policy Framework Paper, are progressive efforts to define policies supportive of HPN sector reform. However, thus far these policy statements are more permissive than proactive. There are no clearly defined implementation plans and those efforts that have been pursued have been stymied by lack of follow-through. Again, the poor results of the recent cost recovery efforts are illustrative.

Organization and Management - The organization of the MOH is highly centralized, but proposals for increased decentralization have been stymied. Moreover, even the top leadership of the MOH has limited decision-making authority in some areas such as budgeting and policy implementation. District health officers lack the authority and the financial resources to fulfill their current obligations, let alone pursue new initiatives. Frequent changes and absences of the top leadership of the MOH has created an environment of uncertainty with few incentives encouraging initiatives or change. Management support systems, such as drug and even general supplies, are chronically weak, especially in the rural areas.

A.2. HPN Technical Profile

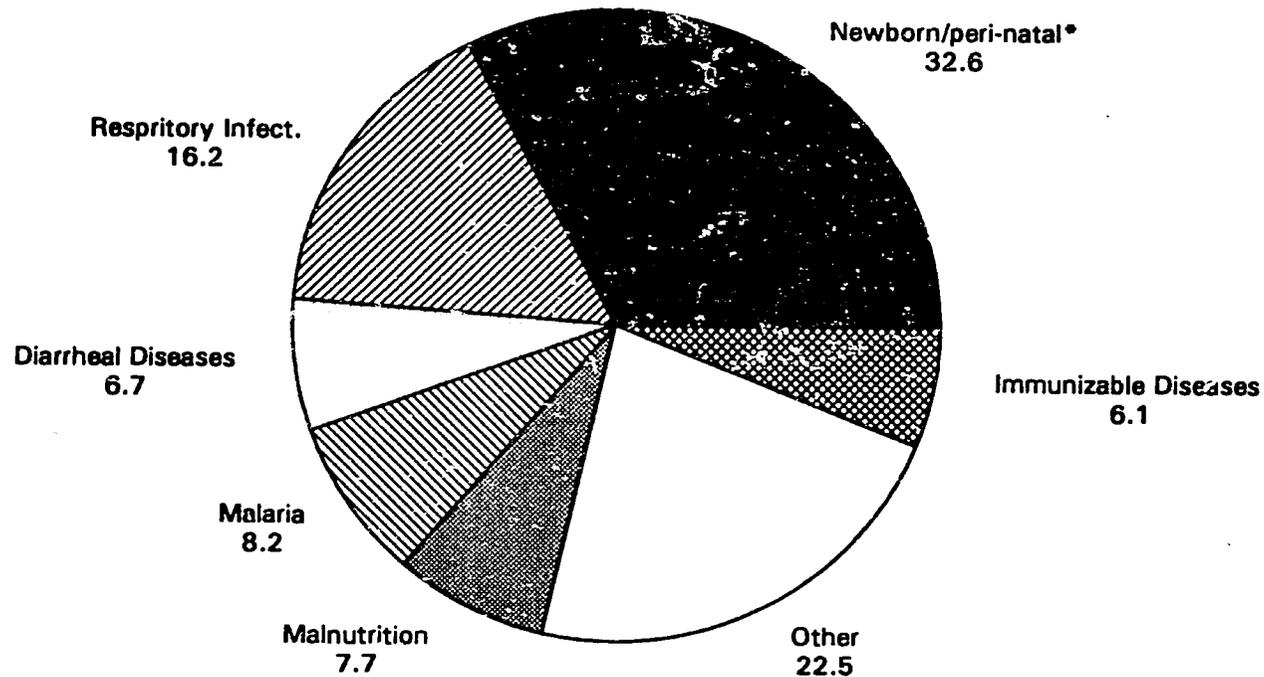
Zambia's capability to provide access to health services, family planning services, safe water and sanitation, and an adequate food supply has been severely effected by the general economic situation and its specific impact on the HPN sector. The health indicators and problems described below highlight some of the major health issues facing Zambia today.

Under-Five Mortality - The infant mortality rate is estimated at 90 per 1000 and the under-five mortality (U5MR) is estimated to be between 130-197 per 1000. UNICEF ranks Zambia as a high U5MR country in the 1991 State of the World's Children report. Hospital data indicate that the major causes of death in the infant population are related to newborn and perinatal causes (32.6%), respiratory infections (16.2%), and malaria (8.2%) (Figure 3). For the under 5 year cohort, 40.6% of the deaths seen are attributed to malnutrition, 13.6% to malaria, and 10% to respiratory infections (Figure 4).

Under-Five Morbidity - The morbidity patterns for children have changed slightly over the past decade with a decline in cases of measles and a rise in both the absolute and proportional cases of malnutrition, malaria and anaemia (UNICEF, 1990). The leading causes of out-patient morbidity in hospitals and health centers are ARI, diarrhoea, malaria and ear and eye disorders. The decline in measles reflects the 80% full coverage of children against the six UCI target diseases (UNICEF 1990). This effort has been largely funded by UNICEF and given the present health system, there are doubts about its sustainability. Diarrheal disease morbidity is also high in Zambia. In a 1986 EPI/CDD survey the diarrhea incidence rate for under-five children was 27% for urban and 22% for rural areas. ORS was used in 27% of the cases. UNICEF reports 59% ORT use rate for 1987-1988.

MAIN CAUSES OF INFANT MORTALITY

1990 Unicef Report



Data from 1987.

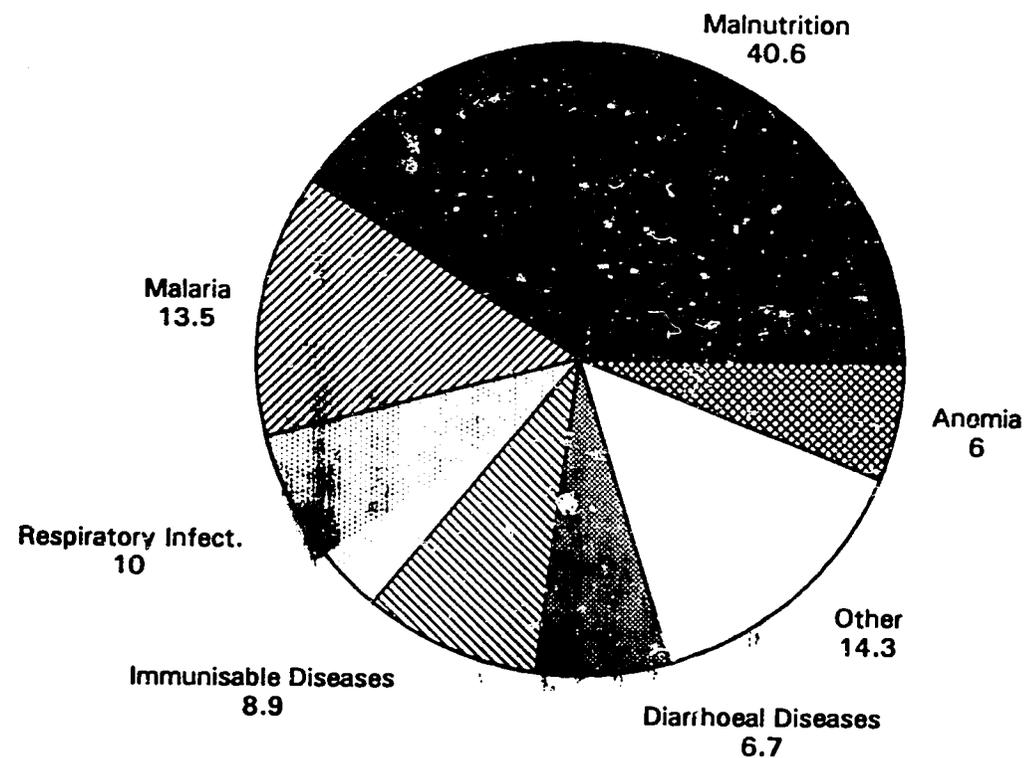
*Disorders of newborns and perinatals

Figure 3

No.

MAIN CAUSES OF 1-14* MORTALITY

UNICEF 1990 Report



Data from 1987.

*Data only available for 1-14 year old,
but 99.3% of deaths occur to under fives

Figure 4

Maternal Mortality - The Maternal Mortality is estimated at 200/100,000 total deliveries. The mean age of first pregnancy is less than 18 years. While coverage figures for antenatal care are fairly high (60-70%) and demonstrate the acceptability to the population of this intervention, the quality of care provided is still low for any significant impact on maternal or perinatal mortality. Many women attend clinic only once or twice (UNICEF, 1990). UNICEF reports that 45% of the women receive Tetanus immunization.

Malaria - Malaria is endemic in all of Zambia and is a leading cause of morbidity and mortality. Both the incidence and case fatality rate are increasing (Figure 5 and 6). The reasons for the increase are thought to be increased chloroquine resistance, changes in epidemiological patterns, and changes in community prophylaxis (most likely resulting from an inadequate supply of drugs). Malaria is the most common cause of hospital admission for all age groups.

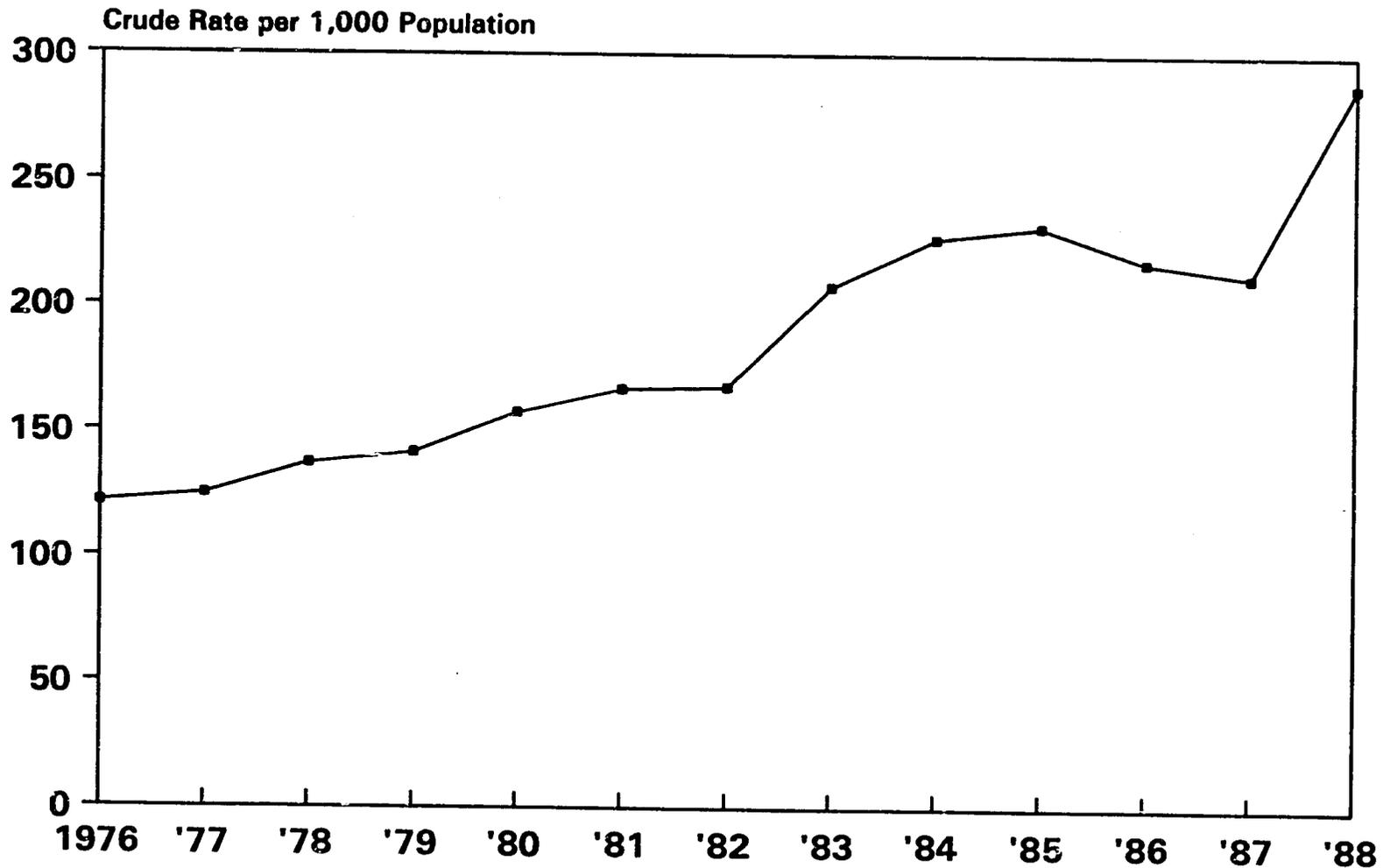
Cholera - For the last few years, Zambia has been dealing with an annual cholera epidemic and many experts fear that it is now endemic. In April of 1991 the MOH announced that 760 people had died of cholera out of 10,000 reported cases. The high case fatality rate epitomizes the health systems incapability to respond to a health crisis. Furthermore, the reoccurring epidemic is an indicator of the deteriorating infrastructure and the lack of safe water supply and sanitation in the peri-urban settings.

Water Supply and Sanitation - Information on the availability of safe water and sanitation is not very recent, nor reliable given the shifting population. The MOH in 1980 estimated that 70% of the urban population, 45% of the peri-urban population and 32% of the rural population had access to acceptable water.

HIV/AIDS and STDs - The National AIDS Prevention and Control Programme has information on 3,155 reported cases of AIDS and 12,815 reported cases of AIDS Related Complex (ARC) up to June 1990. Seroprevalence studies from 1987 gave figures of 10-15% among blood donors, with lower figures (0-7%) in rural areas. In 1990, seroprevalence among antenatal clinic attenders at a sentinel site was 20-25%, while groups at risk or high prevalence groups showed higher rates - 67% for TB patients and 50% for STD clinic attenders in Lusaka. Preliminary information from UTH reveals that the proportion of AIDS-related diseases among all surgical and medical inpatients has increased from 10% in 1986/87 to at least 30% at present (UNICEF, 1990). The greatest number

MALARIA: ANNUAL INCIDENCE RATE

1976 - 1988

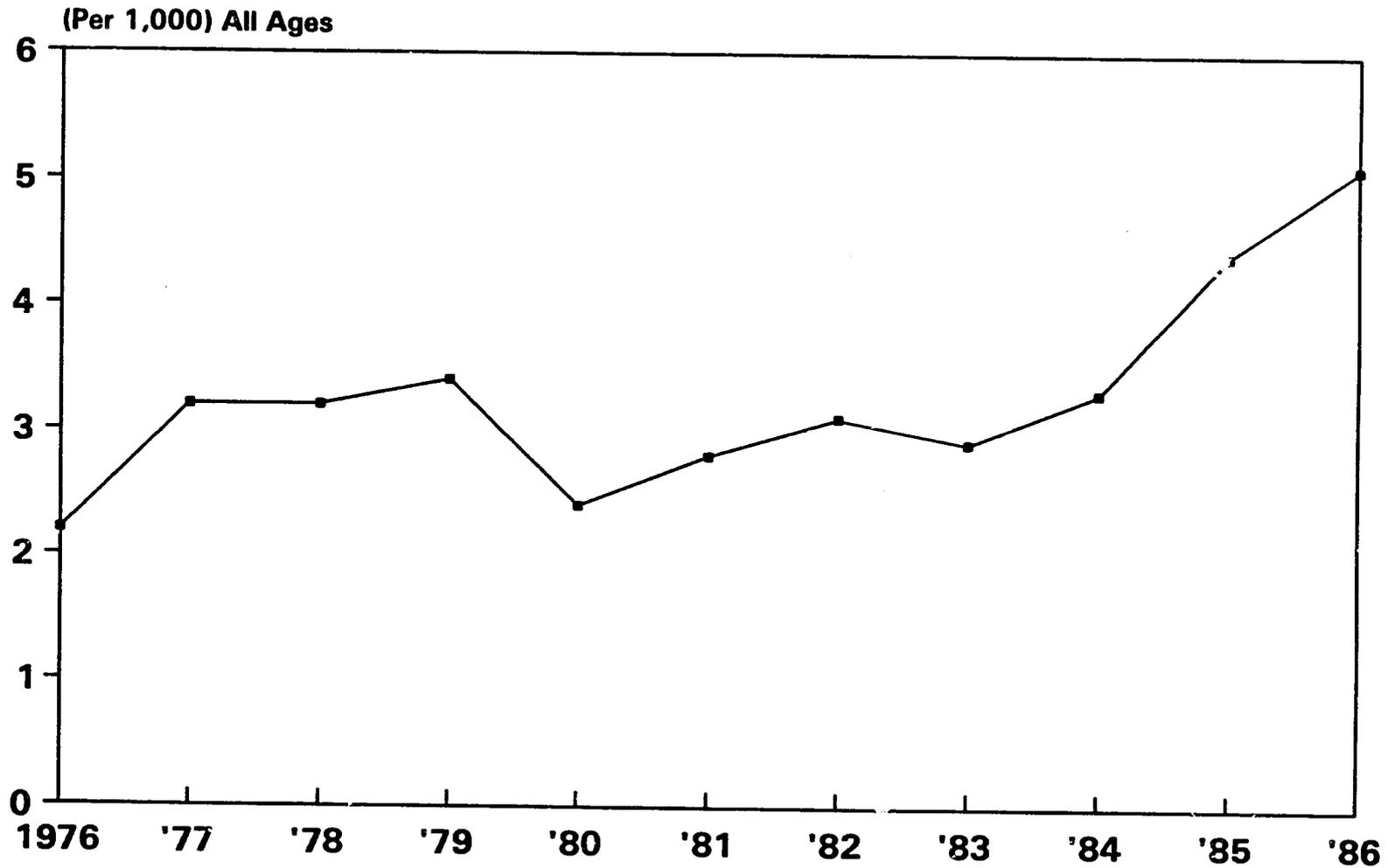


Bulletin of Health Statistics, MOH.

Figure 5

MALARIA: CASE FATALITY RATE

1976 - 1986 (HOSPITAL BASED)



Bulletin of Health Statistics, MOH

Figure 6

20

of STDs are in the more urbanized areas (Figure 7). The system of data collection for hospital admissions and deaths is limited to include only gonorrhoea and syphilis categories. A very active National STD Program is run out of UTH, operating 47 clinics throughout the country.

Family Planning - Zambia's population is estimated to be almost 8 million, with an annual national growth rate of approximately 3.7%. The population is expected to double in 18 years. Although a National Population Policy was promulgated in 1989, family planning service delivery efforts have been slow in gaining momentum. The total fertility rate is 7.2, one of the highest in Africa, and the contraceptive prevalence for all methods (including modern methods) is estimated at 4% for rural populations, and 15-16% for urban areas. The national average is approximately 9%, one of the lowest for Africa (Pathfinder, 1991).

Nutrition - Throughout Zambia, there has been a general decline in nutrition with significant increases in morbidity and mortality. Roughly one third of children under five are malnourished or undernourished with up to 62% of deaths in 1984 of children 1-14 (compared to 18.5% in 1974) attributable to poor nutrition (Freund, 1986). The main cause of malnutrition is thought to be inadequate energy intake, rather than malnutrition as a secondary effect of infection (ODA, 1989).

Others - Zambians face a myriad of other health problems, including a growing incidence of T.B. (closely associated with the rising cases of HIV/AIDS), injuries, skin infections (scabies), and mental illness.

B. Review of Donor Investments to Date

B.1. Overview

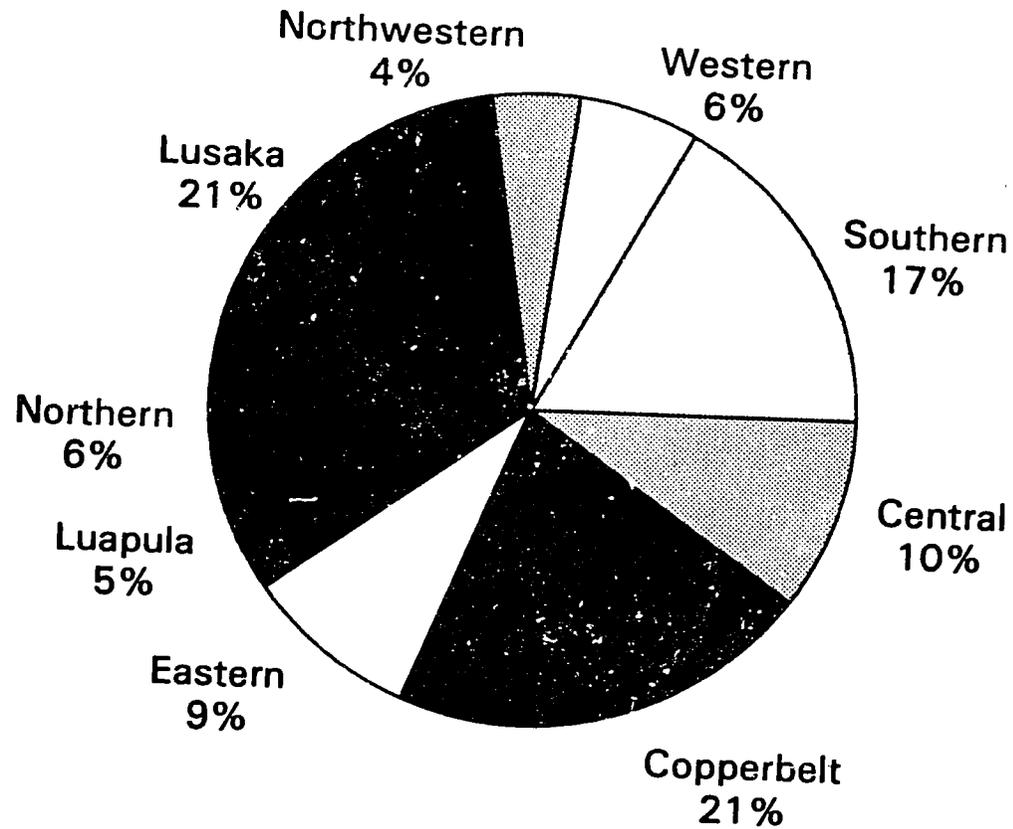
Donor governments and agencies have played a significant role in supporting health-related programs in Zambia, accounting for as much as 33% of all health expenditures (UNICEF, 1986). The actual level of donor support has fluctuated, from US\$8 million in 1984, dropping to US\$6 million in 1986, and rising again in recent years (Bennett and Musambo, 1990). Because of donor concern about Zambia's economic reform performance, donor support in the future may diminish.

B.2. Donor Investments

Table 1 (Donor Matrix) summarizes the support provided by Zambia's major donors in six areas: Health; Population; Nutrition; Facilities, Equipment, and Supplies; Organization and Management; and, Water and Sanitation. The level and focus of donor support varies widely. ODA supports about 34 positions in

SEXUALLY TRANSMITTED DISEASES 1988

Proportional Incidence - Adult Cases



22

TABLE 1: DONOR SUPPORT FOR HPN ACTIVITIES IN ZAMBIA

DONOR ORGANIZATION	HEALTH	POPULATION	NUTRITION	FACILITY, SUPPLY & EQUIPMENT	ORGANIZATION & MANAGEMENT	WORKFORCE & TRAINING	WATER & SANITATION
U.S.A.I.D.	*Control of Diarrheal Diseases (PRITECH) *AIDS Activities (HAPA)	*Various C.A. Activities including CBD, IEC, and employer-based delivery *Provided 60% of contraceptives in Zambia *C.A.s involved - Enterprise, FPIA,		*Contraceptives Distribution			
ODA (UK)	*funds HIV/AIDS activities through WHO	*Focus on rural younger women *.5 mill to PPAZ for strategic plan			*TA Management Improvements, Systems, and Training	*Direct Staff & Salary Support for 45 Posts - 11 are now vacant and may not be filled *20 posts at UTH 9-10 are filled	
SIDA (Sweden)	*Development of HIS within MOH		*Nutrition Surveillance	*Renovation and Maintenance of Rural Health Facilities *MOH Transport Programs *MOH Essential Drugs Program		*In-service training of Community Health Workers	

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TABLE 1: DONOR SUPPORT FOR KPN ACTIVITIES IN ZAMBIA (CONTINUED)

DONOR ORGANIZATION	HEALTH	POPULATION	NUTRITION	FACILITY, SUPPLY & EQUIPMENT	ORGANIZATION & MANAGEMENT	WORKFORCE & TRAINING	WATER & SANITATION
CIDA (Canada)	*Rural Clinics						
European Economic Community (EEC)	*Rural Clinics *Funding to CMAZ						
Ireland	Urban Health Centers			*Buildings for Urban Health Centers		*In-Service Training	

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TABLE 1: DONOR SUPPORT FOR HPN ACTIVITIES IN ZAMBIA (CONTINUED)

DONOR ORGANIZATION	HEALTH	POPULATION	NUTRITION	FACILITY, SUPPLY & EQUIPMENT	ORGANIZATION & MANAGEMENT	WORKFORCE & TRAINING	WATER & SANITATION
Netherlands	*PHC in Western and Northern Provinces			*MOH Essential Drug Program			
Japan				*Hospital Facilities *Proposed Virology Lab at UTH *Vehicles		*Personnel	*In Southern District
Norway (NORAD)	*AIDS (?)				*Research	*Training Support for Women	*In Rural Areas

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TABLE 1: DONOR SUPPORT FOR HPN ACTIVITIES IN ZAMBIA (CONTINUED)

DONOR ORGANIZATION	HEALTH	POPULATION	NUTRITION	FACILITY, SUPPLY & EQUIPMENT	ORGANIZATION & MANAGEMENT	WORKFORCE & TRAINING	WATER & SANITATION
WHO	<ul style="list-style-type: none"> *ARI Activities *AIDS Medium Term Plan (\$12.7mil) *Communicable Disease Control *Environmental Health *AIDS Control Activities with CHAZ 	<ul style="list-style-type: none"> *Mostly under AIDS activities - provides condoms 				<ul style="list-style-type: none"> *Health Manpower Development 	
UNICEF	<ul style="list-style-type: none"> *EPI *Control of Diarrhoeal Disease *STDs - funds for syphilis tests *PHC at CHAZ *Women's Health *AIDS orphans 		<ul style="list-style-type: none"> *Growth Monitoring *Women's Nutrition 	<ul style="list-style-type: none"> *MOH Revolving Fund for Drugs Initiative 			

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TABLE 1: DONOR SUPPORT FOR HPN ACTIVITIES IN ZAMBIA (CONTINUED)

DONOR ORGANIZATION	HEALTH	POPULATION	NUTRITION	FACILITY, SUPPLY & EQUIPMENT	ORGANIZATION & MANAGEMENT	WORKFORCE & TRAINING	WATER & SANITATION
UNFPA		*Comprehensive Population Strategies (\$10 mill over 5 years) *Family Life Training (see ILO)		*Provides 30% of Contraceptives for the country			
UNDP	*AIDS			*Equipment for UTH			
ILO	*Health Insurance Scheme???	*Family Life Training in the workplace in conjunction with UNFPA					

TABLE 1: DONOR SUPPORT FOR HPN ACTIVITIES IN ZAMBIA (CONTINUED)

DONOR ORGANIZATION	HEALTH	POPULATION	NUTRITION	FACILITY, SUPPLY & EQUIPMENT	ORGANIZATION & MANAGEMENT	WORKFORCE & TRAINING	WATER & SANITATION
World Bank	*Health Sector Credit in 1993						
GTZ (Germans)			*An integrated rural nutrition program in Luapula Prov.				*Water supply in urban areas
NGO		*Population Council- Develop MIS, Model Clinic and Logistics System *FPIA-CBD and Employer-based Services *IPPF - PPAZ *LEPRA - Leprosy *OXFAM-PHC &					

the health sector, mostly clinical positions in the University Teaching Hospital (UTH). SIDA provides technical assistance within the Ministry of Health and tends to emphasize policy development, planning, and management systems. Ireland, the EEC, the Netherlands, and Canada all support efforts in Primary Health Care. USAID, while not a major donor in the sector, has played an important role in supporting efforts in family planning through various centrally funded projects.

B.3. Issues

Donors have not been wholly enamored with Zambia's performance in implementing economic restructuring efforts or specific health-related programs. Several donors are taking a firm stand, threatening to reduce or even withdraw support unless the government's performance begins to match its rhetoric. ODA, for example, has stated it will not fill the 12 vacant resident advisor positions unless a more active GRZ commitment is demonstrated. SIDA has expressed concern with the country's inability to utilize past support. Donor disillusionment is a serious issue in the Zambian HPN sector and reflects general economic stress and the inability of the public sector to effectively respond to critical needs. Donors have identified three areas for improvement:

Zambia-Driven Development - Lack of GRZ planning and programmatic capabilities has given rise to donor-driven projects and programs which may not totally reflect GRZ priorities. The result is that Zambia's commitment to donor efforts is shallow in some areas and donor projects often experience significant implementation problems. The long term needs of the GRZ must be articulated by Zambians, not by the donor community, if sustainable investments are to be realized.

Donor Coordination - To help assure that donor support is used to the greatest advantage, donor efforts need to be better coordinated. Some improvements in donor coordination are expected through the efforts of the recently formed health sector working group called for in the "Social Action Program" in the Policy Framework Paper.

Emphasis on Management - Several donors are refocusing their support towards strengthening the MOH's managerial capabilities and the efficiency of its management support systems. Their aim is to help create a more self-sufficient and sustainable health system. Although difficult, management is viewed by many donors as a seminal deficiency in the present system.

C. Perceptions of Gaps in Donor Investment

Even though donor support accounts for 33% of Zambia's health expenditures there are major gaps in the programming of the funds within the HPN sector. Some of the gaps occur from lack of donor coordination (although there are concrete moves to remedy this situation), while other gaps exist because the demands of the sector are greater than the donors' funds available. Major gaps include:

Family Planning - Although donors have funded many discrete activities in family planning, no donor has undertaken a comprehensive program to address all key areas, ie. the provision of contraceptives, service delivery and IEC (information, education and communication).

HIV/AIDS - The donor community has been active in trying to reduce the spread of HIV/AIDS and in trying to provide for those who are already infected, but there are still gaps regarding outreach and the types of interventions implemented. The epidemic is spreading rapidly and has major implications for all sectors of Zambia's society.

Malaria - Malaria is on the rise and few donors are addressing it. The disease causes the greatest number of hospital admissions and also plays a major role in under-five morbidity and mortality. WHO is the only donor who is even attempting to tackle this health problem.

Nutrition - As evidenced by the fact that approximately 40% of Zambia's children are malnourished, nutrition is a major problem for the HPN sector. Although SIDA and UNICEF have supported growth monitoring and nutrition surveillance efforts, no donor has addressed the causes of the high rates of malnutrition and the numerous factors that affect food security and an adequate diet. It is an immense problem and unless a concerted effort is made, many other health interventions may be futile.

Water Supply and Sanitation - The attempts made in the provision of adequate water supply and sanitation have been focused on certain geographic areas, usually rural. The rapidly growing problem of safe water for the peri-urban population has not received appropriate attention. Until safe water and sanitation is addressed, yearly outbreaks of cholera, as well as other water-borne diseases, will likely occur.

Policy Reform - All other concerns in the HPN sector rely on sound policies and the strategic implementation of those policies. Issues such as financing, management and decentralization lay the groundwork for a health system to be effective. Every donor needs to be concerned with these issues,

but to date few donors have attempted to tackle them. There is now some action in this direction, but it is going to take a great deal of coordinated and collaborative work to make real changes.

III. RATIONALE AND JUSTIFICATION FOR HPN SECTOR INVESTMENT

A. Overview

The on-going deterioration of health status in the Zambian population since the 1980's has serious implications for the general economic development of Zambia. The growing disease burden posed by increasing malaria, water-borne diseases such as cholera, malnutrition, and HIV/AIDS, as described in the previous section, impact negatively on productivity and economic growth potential. High population growth rates combined with rapid urbanization and deteriorating economic conditions will continue to have negative effects on health status. Major investments in the health sector can achieve improvements in health status and thereby have important positive impacts on productivity and on the general economy. HPN investments can work synergistically with USAID/Zambia's investments in other sectors to have a positive impact on overall economic and social well-being.

B. Potential Positive Impacts of HPN Investments

Economic - Rapid population growth and high morbidity have negative consequences for economic growth. High dependency ratios resulting from high fertility (i.e., a large population in the 0-14 year age group) mean that relatively few workers are supporting many non-productive dependents. These dependency ratios are exacerbated by decreasing productivity and further dependency as a result of HIV/AIDS (which primarily affects the most productive age groups) and increasing morbidity due to malaria, cholera, etc.. Improving health care service delivery can help to decrease fertility, reduce disease burdens and, in turn, raise the productivity of the workforce.

Education - Progress in education made in previous decades reversed during the 1980s. Class sizes have grown, infrastructure has deteriorated, and materials are in critically short supply. With today's high population growth, Zambia must construct at minimum 550 new primary classrooms per year to maintain present enrollment levels, but has only reached about 25 percent of this target during the last 5 years. Malnutrition and infectious diseases have a negative impact on the learning potential of primary (and secondary) students. Improved health services would help reduce fertility and morbidity, benefiting individual students as well as the system as a whole.

Agriculture - By most accounts, as the future of copper looks ever bleaker, Zambia's future economic growth potential rests with the agricultural sector. Perhaps more than any other, this sector relies heavily on women workers who provide much or most of the labor. Improved maternal health, including birth spacing, care during pregnancy, and improved maternal nutrition are critical to their productivity and that of the sector as a whole.

Environment and related infrastructure - Zambia's rapidly growing urban population coupled with high population growth rates, particularly along the "line of rail", places great pressure on near-by natural resources, e.g., woodlands used for fuelwood. Urban infrastructure, such as water and sanitation systems, are also strained to the point of breakdown. Extending family planning services and thereby reducing fertility would help to mitigate these conditions.

Humanitarian - The steady decline in health status and services in Zambia calls as well for a humanitarian response to decrease suffering and debilitation resulting from malnutrition and disease. An effective, development-oriented response in the near-term to this impending crisis can also help avoid far worse crises, already signalled by the recent epidemics of cholera and other infectious diseases.

C. USAID/Zambia's Comparative Advantage in the Health Sector

Although USAID/Zambia to date has not directly managed major interventions in the health sector, it is indeed well-positioned to launch significant efforts given A.I.D.'s important role during the last 3-5 years in family planning services and population policy development, HIV/AIDS prevention and control, and the diarrheal disease control program, including primary health care. Furthermore, A.I.D. as a development institution, brings to the sector its own considerable expertise and experience (and that of its cooperating agencies) to bear in critical aspects of HPN policy reform and program implementation.

D. USAID/Zambia HPN Experience to Date: Lessons Learned

D.1 Specific Interventions Can Have Significant Influence

Impact on National Programs - Although not as successful as planned, A.I.D.-financed innovations in family planning service delivery in employer-based services and community-based distribution have paved the way for their adoption and incorporation into national level programming for family planning.

CDD Policy Development/Implementation - The PRITECH resident advisor has been particularly effective in getting CDD policies adopted, communications materials disseminated, the diarrhea training unit functioning, etc.

STD Diagnosis and Treatment - Research studies through the STD services program have improved diagnosis and treatment of STDs, understanding of peri-natal transmission of HIV, and understanding of HIV risk factors, such as prior infection with STDs.

D.2 Problems Have Been Identified

Ineffective Service Delivery - Although many service providers have been trained in family planning by the MOH, only a small proportion of its approximately 1000 service delivery outlets effectively provide family planning services. Some probable explanations for this service delivery "gap" are: staff shortages; high workloads; poor motivation (lack of incentives); problems with contraceptive supplies; inadequate supervision; and, poor understanding as to how to integrate family planning into other services being provided.

NGOs in Family Planning Service Delivery - Zambian NGOs can (and must) be important networks for family planning services delivery, but are not reaching their potential due to limited managerial and technical capacity.

Role of DMTs - Working with the District Management Teams has been a relatively effective approach in promoting integrated PHC services and appropriate diarrheal disease treatment.

D.3 Piecemeal Approach

Lack of on-going USAID/Zambia management has yielded a piecemeal approach which has been largely AID/W-driven, without coherent, mission-driven goals and objectives (or strategy). Activities and projects initiated and funded by cooperating agencies have suffered at times from poor follow-up by the CAs, a gap which the mission has not been able to fill. There have been delays in identifying and addressing problems, while successes have not been capitalized on.

E. A.I.D.'s Experience and Expertise

PRITECH and OPTIONS are two of the many projects managed by cooperating agencies already working in the Zambian health and population sub-sectors. Most of these CAs have had years of experience in many other developing countries as well. Expertise in a wide variety of areas can be accessed through centrally-funded projects or direct A.I.D. contracting. A.I.D. also has a skilled cadre of HPN officers, available for possible long-term assignment (pending mission decision on staffing for the sector), and access to a pool of highly skilled HPN professionals as personal service contractors. A.I.D. is generally well-recognized within the donor community as having a great deal to offer in the technical and managerial aspects of health care delivery. Those donors familiar with A.I.D.'s contributions in Zambia and other countries are strongly encouraging a greater level of A.I.D. participation than is presently the case.

F. Congressional Mandates and the Development Fund for Africa

Emphasis on the HPN sector has the strong support of Congress and the Africa Bureau. Congress has consistently identified targets for funding under the Development Fund for Africa (DFA) for health and family planning at 10 percent each. Consistent with these directions, the Africa Bureau has included the HPN sector as a Target in the DFA Action Plan under its Strategic Objective One: "Improving the management of African economies by redefining and reducing the role of the public sector and increasing its efficiency". The Target is to "improve equity and efficiency in providing key public goods particularly in the areas of family planning, health, education and transportation." The plan goes on to present similar arguments for giving emphasis to the HPN sector, and includes strategies for achieving sector objectives similar to those presented in this assessment.

G. Advantages of a Significant, Coherent HPN Program

While A.I.D.-supported HPN efforts in Zambia have made a contribution, it is difficult to measure significant impacts because the interventions have been largely piecemeal. This situation has impeded USAID/Zambia's ability to influence policy development and implementation in the sector. A significant, coherent program would have the following advantages:

- o **Potential for Policy Leverage** - Important changes in sector policy and structure are already being discussed and are likely to be made given the impending political changes and economic crises facing Zambia. Given steadily declining health status indicators and quality of health care services, the health sector is likely to become the critical social sector in the implementation of economic and

structural adjustment reforms. With a substantial HPN sector investment, USAID/Zambia could be in a position to play a leading role in critical sector reforms.

o **Potential For Measurable Results in Health Status** - A coherent program is presented in Section IV with objectives which allow for measurement of accomplishments and impacts. These impacts are not only measurable but also affect the health status of Zambians, i.e. impact at the "people-level". Tools and procedures can be put in place for on-going monitoring of progress in reaching the established objectives as key elements in project/non-project implementation. It is anticipated that USAID/Zambia will be able to clearly demonstrate its impact in the HPN sector.

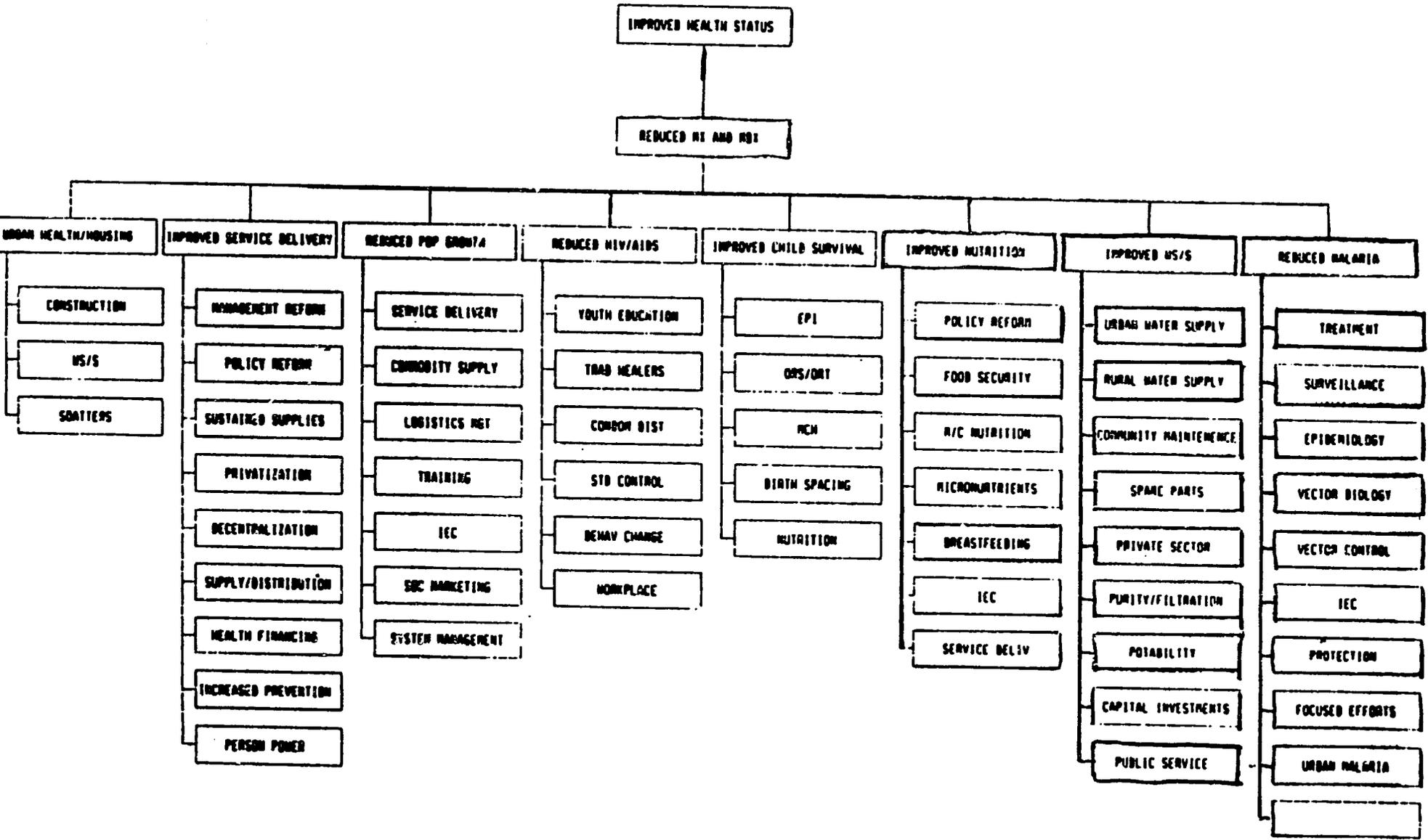
H. **Summary**

A significant investment in the HPN sector has potential pay-offs in a wide range of sectors critical to Zambia's development future: economic, social services, agriculture, and environment. As an agency, USAID/Zambia is well-positioned to make an important contribution to the sector and achieve measurable results even within the short timeframe of its CPSP. Priorities of the Congress, Africa Bureau and the DFA encourage HPN investments (a sector which is particularly important in Zambia in light of the potential health consequences of structural adjustment and economic reforms now underway). However, to make a difference in the health sector, a strong commitment on the part of the mission and the installation of mission HPN management capability will be required. The rapidly changing environment in the health sector in Zambia demands clarity of goals, definition of objectives, and coherence of strategy, as well as flexibility to adapt and respond to emerging opportunities.

IV. **OBJECTIVE TREE ANALYSIS**

A. **Goal and Strategic Objectives**

HPN Sector goals ultimately concern the well-being of the host country population evidenced by reduced mortality and morbidity in the general public. These are long-term outcomes and in a country like Zambia sustained improvements in general health status may take generations. As the objective tree indicates (Figure 8), a myriad of factors affect the well-being, mortality and morbidity of a population. Clearly, USAID/Zambia cannot address all problems in the HPN sector. Furthermore, it is virtually impossible to discretely measure the impact of mission investments at this level(s) due to other donor activities, replacement mortality/morbidity due to other diseases (for example malaria, undernutrition, AIDS) and the long-term nature



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Figure 8

of sustained reductions in mortality and morbidity. Thus, USAID/Zambia's strategic objectives will concern lower level indicators with specific, measurable impact targets. The mission's strategic objectives might be: 1) **reduced population growth**; 2) **reduced HIV/AIDS transmission**; 3) **improved curative and preventive services**.

B. Strategic Objective No. 1 - Reduced Population Growth
(Figure 9)

Rationale and Impact Targets - Zambia's population growth is estimated at 3.7% per year, one of the highest in Africa. Economic growth and production will likely be unable to exceed this rate, thus GDP per capita will continue to decline. There exists a demonstrable donor gap in the population subsector and information from recent A.I.D. consultants indicate demand for family planning is on the rise. Furthermore, a national family planning policy has been drafted and political will at the highest levels is implied. Given the above-mentioned facts, and a USG comparative advantage in family planning program implementation, a clear rationale exists for identifying reduced population growth as a strategic objective in HPN development. **Major impact targets are:** reduction of the Total Fertility Rate (TFR) (a 5-7 year indicator), increase the Contraceptive Prevalence Rate (CPR); and, increase the couple years of protection (CYP) (an annual benchmark/indicator of impact).

Inputs - Major bilateral family planning project assistance is envisioned in: service delivery (public and private sector); commodity supply; logistics management; training (HRD); IEC; contraceptive social marketing; operations research; and, institutionalization of a CPR/TFR monitoring system. Analysis of relevant policy reforms will also be considered.

C. Strategic Objective No.2 - Reduced HIV/AIDS Transmission
(Figure 10)

Rationale and Impact Targets - AIDS in Zambia is becoming a serious public health problem and cannot be ignored given its potential adverse impact on the future economic development of the country. Most segments of the Zambian population will likely be affected directly or indirectly by the consequences of this disease. Donor interest has been keen, but somewhat unfocused. The mission has invested in HIV/AIDS prevention and control via a HAPA-funded UTH/USUHS joint applied research effort in STD/HIV control. Innovative HIV/AIDS prevention activities have been proposed in the areas of STD clinic-based activities, out-of-school youth, targeted condom distribution, anonymous testing, workplace-based prevention, and enhanced preventive outreach via traditional healers. These activities are aimed at reaching populations presently beyond the focus of GRZ/GPA activities and those of other donors. They have been endorsed by the MOH. Thus

HPN SECTOR ZAMBIA (POPULATION ELEMENT)

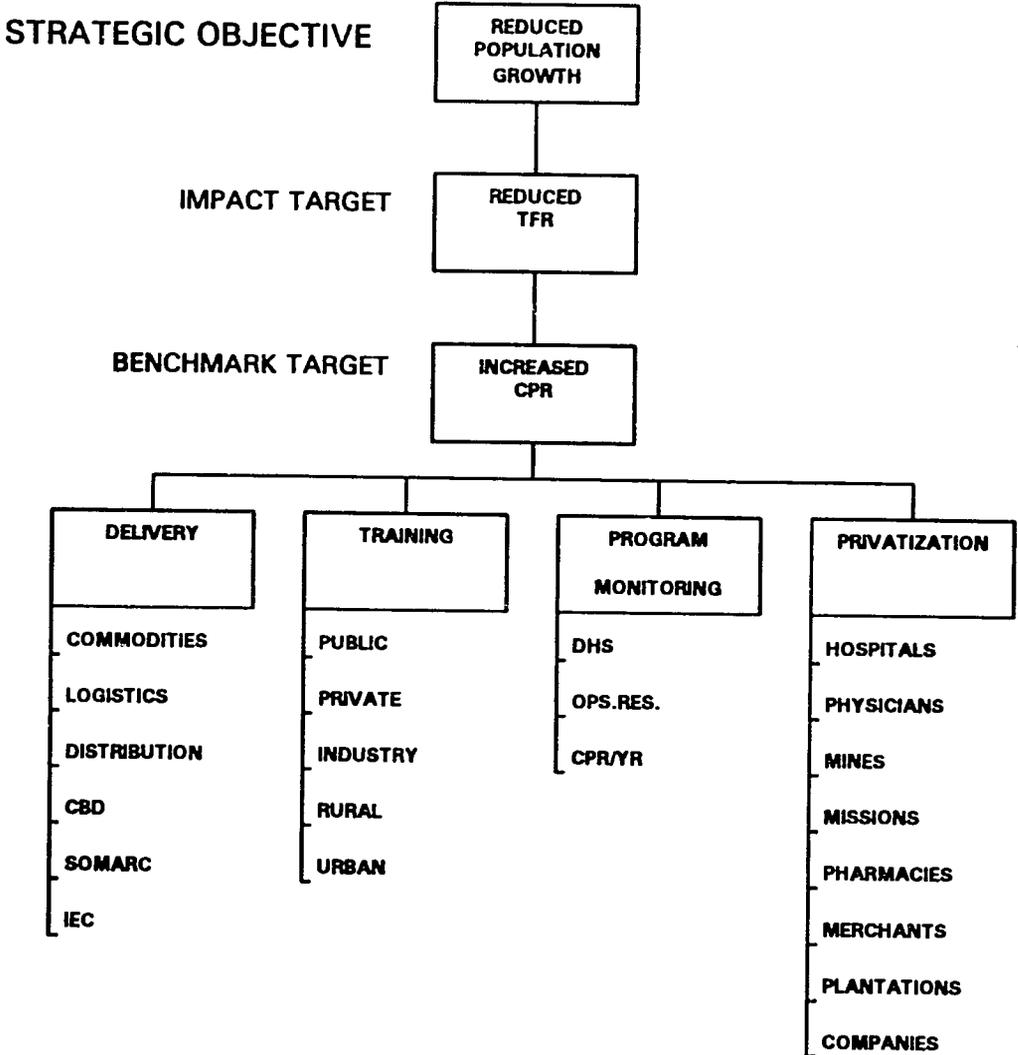


Figure 9

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HPN SECTOR ZAMBIA
AIDS ELEMENT

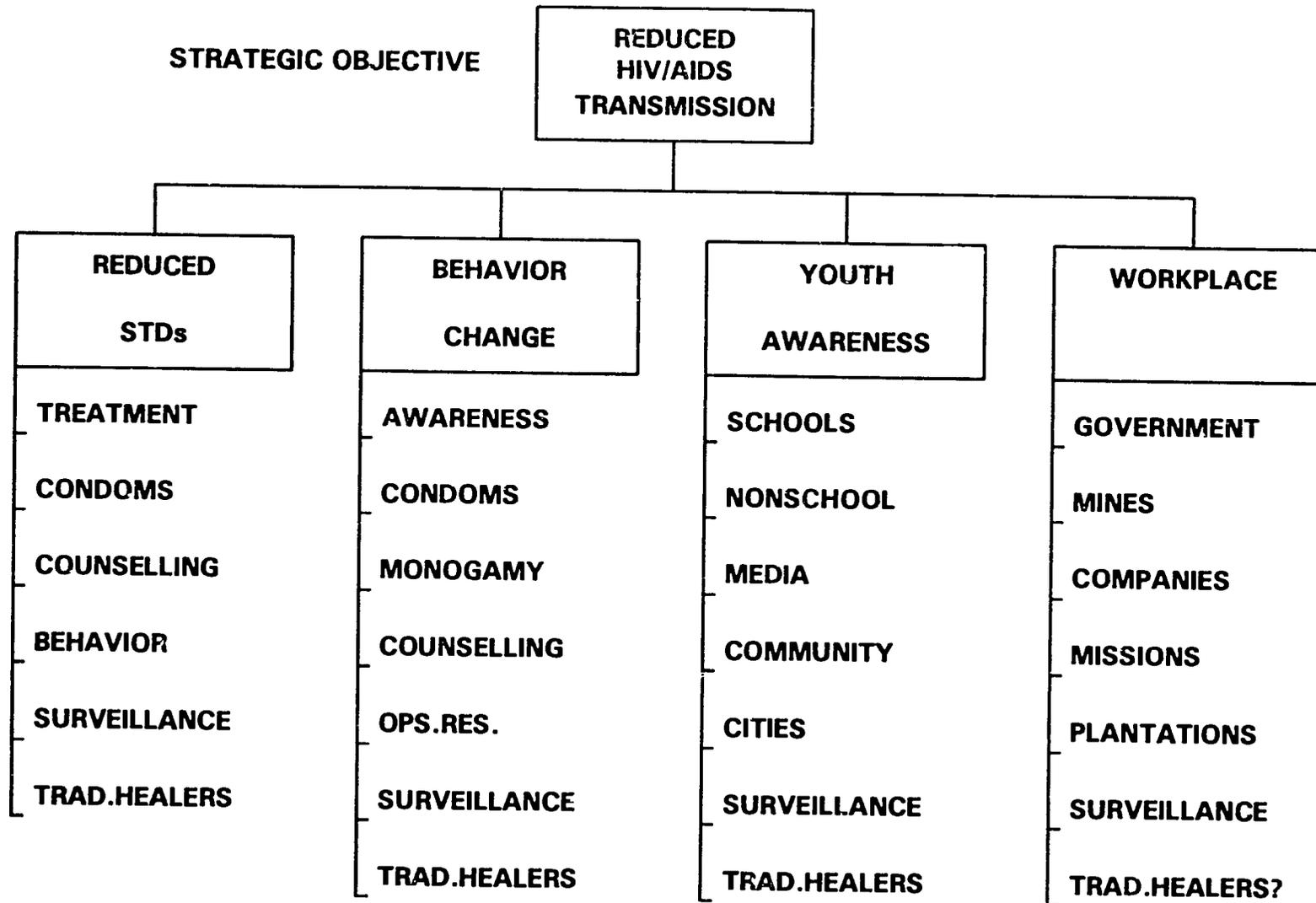


Figure 10

a strong rationale exists for expanding present mission activities in HIV/AIDS prevention and control. **Major impact targets are:** changes in STD prevalence in areas/populations served by mission activities; changes in social practices related to HIV/AIDS prevention; and, decrease HIV incidence in specific population groups over the long term.

Inputs - Under the HPN sector strengthening effort, the mission will support an HIV/AIDS prevention and control package which will include: service delivery; TA; commodities; and, training and applied research. A monitoring system to track HIV transmission (linked to existing systems) will also be established to monitor project impact.

D. Strategic Objective No. 3 - Improved Service Delivery
(Figure 11)

Rationale and Impact Targets - Improved service delivery is an area of investment that implies general system strengthening and sustainability. As a strategic objective, measurable impacts and input targets are less quantifiable and involve process indicators to a greater extent. However, without attention to sustainable system strengthening, accomplishments in the HPN sector (by all donors) will be ephemeral. The proposed strategy seeks to improve service delivery by pursuing policy reform in four areas: decentralization; cost recovery; privatization; and, management. **Major impact targets are:** policy reform (decentralization, health care financing, privatization of medical care); kwacha generated from HCF schemes; increased use of health centers; appropriate clinic-based drug supply; and, increased access to and use of preventive services.

Inputs - Non-project assistance to support GRZ health care delivery and management will be made available, yet trenches will be conditioned on GRZ/MOH performance in policy development and implementation. Short- and long-term TA will be linked to the program assistance package to support program implementation.

V. PROPOSED MISSION HPN SECTOR STRATEGY

A. Major Strategy Elements

As described above, major strategic elements in the USAID/Z Health Sector Strengthening Program are: 1) **Reduced Population Growth**; 2) **Reduced HIV/AIDS Transmission**; and, 3) **Policy Reform for Improving General HPN Service Delivery**. The proposed HPN Sector Strengthening program is complex in technical and management requirements. A 5-8 year initial investment is anticipated.

HPN SECTOR ZAMBIA (SERVICE DELIVERY ELEMENT)

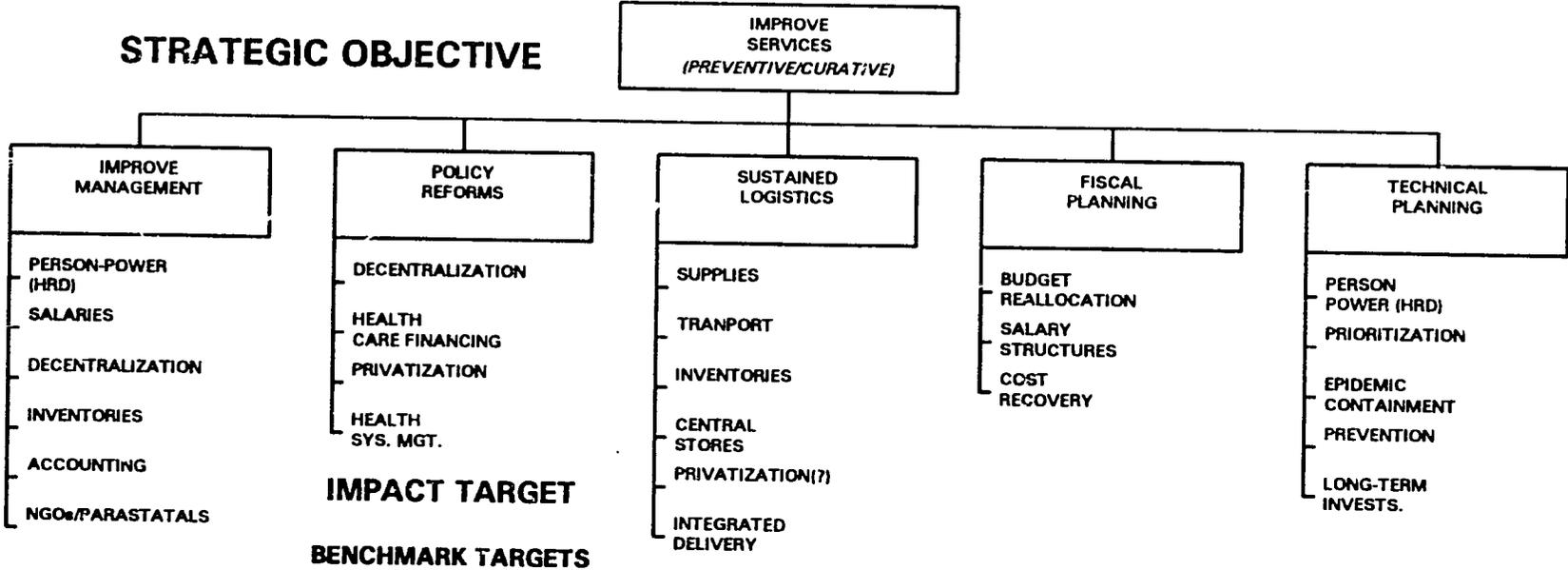


FIGURE 11

B. Concept of a Rolling Design

Although USAID/Zambia investment in the HPN sector makes sound development sense, there are no illusions that implementing sustainable activities and leveraging fundamental changes will be easy. The public sector health care delivery system appears to be particularly resistant to making decisions and taking action. To work as effectively as possible within such a system, and to facilitate mission management during the early stages of the proposed HPN sector program, a "rolling design" is essential.

Rather than creating one project or one non-project/project assistance package, this concept represents a progressive series of project (and non-project assistance) efforts spread out over two-three years. Satisfactory agreement and start-up of each activity would condition the decision as to whether to move onto the next design phase. An additional "condition" would be effective implementation of bridging activities (particularly in the family planning area). Analyses to identify sector-specific policy reform issues should also be pursued. The "rolling design" concept can be considered performance-based programming similar to the conditionality components built into non-project assistance reform programs. Thus, the GRZ must demonstrate performance during the implementation of the bridging activities (FP, AIDS, Management) in order to secure a long-term A.I.D. commitment to the HPN sector.

C. Proposed HPN Sector Investments

C.1. Family Planning

C.1a Overview

Zambia's family planning program is incipient. Service delivery and knowledge about family planning are relatively limited. In addition, the constraints in the family planning/health sector mirror those in other sectors, i.e., overcentralization of ministerial functions, shortage of trained personnel, poor management and planning capabilities at all levels, and inadequate budget allocations. Although the MOH has an infrastructure of hospitals and rural and urban health centers, only approximately 60% (541/904) of them currently offer family planning services. This may be misleading because the centers provide a limited contraceptives mix, usually only pills and condoms, and have limited numbers of acceptors. Because the centers operate under constraints of inadequate staff, space and equipment; family planning services are usually offered on assigned days (usually one afternoon a week). These service sites need significant strengthening in order to insure a higher rate of acceptors. In the private sector, emphasis has been on IEC and not on service delivery. If Zambia is to deliver

effective family planning services, a viable public and private sector delivery system is required. The challenge is to strengthen and expand the existing institutions in the public and private sectors in order to deliver quality family planning services that are acceptable, accessible and affordable. The ultimate objectives of the family planning program are to increase knowledge of family planning, to increase use of modern contraceptive methods and to lower the high levels of fertility. Priority activities include 1) expanding and improving family planning service delivery, 2) improving program monitoring/data for decision making, and 3) strengthening both public and private sector institutions.

The proposed HPN investment should be designed in manageable components phased over time. For example, activities could be started in urban areas where the populations are easier to reach or along the line rail where large populations are geographically concentrated. Special emphasis could be given to private sector projects that can become financially self-sufficient, for example, workplace programs that include family planning as an employee benefit and contraceptive social marketing.

C.1b Expand and Improve Family Planning Service Delivery

To increase the use and acceptance of family planning by both attracting and retaining family planning users, the program must have a reliable source of commodities, accessible services (quality and method mix), IEC about family planning and contraceptives, and well-trained service providers.

Commodities Supply - The supply of contraceptives must be improved. The shortages, maldistribution, erratic supply lines, and the large number of donors involved in the supply of contraceptives have created problems in the system's ability to provide adequate supplies at service provider points. The GRZ, USAID and the other donors must work together to determine their respective support for specific contraceptives. In addition the Medical Stores Limited needs to be strengthened if they are to become the primary distributor of contraceptives to clinic-based and community-based programs (as currently planned by the MOH). Private consumers and workplace programs in the private sector can purchase their contraceptives as needed.

Expansion of Contraceptive Method Mix - The availability of a variety of methods along with counseling and information are important factors in increasing contraceptive prevalence. The contraceptives available in the program should be expanded to include long-term methods such as IUDs and Norplant. Voluntary surgical contraception (VSC) is legal and there appears to be growing demand for services. However, VSC is currently available only at the University Teaching Hospital in Lusaka. VSC service could be expanded to the provincial level (with possible

expansion to the district level if demand is sufficient). Because Norplant trials were conducted in Zambia, the acceptability of Norplant by Zambian women is well documented and Norplant could be readily incorporated into existing family planning programs. The GRZ should be encouraged to adopt positive policies towards the use of injectibles, the insertion of IUDs, and the prescription of pills by nurses.

Service Delivery - The provision of accessible, safe, and appropriate services are critical factors in acceptance of demand for family planning. In the public sector family planning services should be expanded in phases to all existing health delivery facilities. USAID assistance could be manifested in equipment, contraceptive supply, and facility upgrades. In the private sector assistance could support private companies and NGOs, and in revitalizing or starting a new contraceptive social marketing program. Efforts should be made to explore community-based distribution programs over the long term.

Promote Demand - A national FP IEC strategy is required. Furthermore, the public and private sectors' ability to produce and develop IEC materials is weak. Although a wide variety of print, radio, TV, posters, etc. is produced quality varies because of lack of training. Better coordination of activities needs to be instituted to prevent overlap and to insure that uniform messages are being promulgated. Materials for semi-literate and literate urban and rural populations is a special need.

Training/Human Resource Development - The skills of family planning service providers need to be strengthened. Strategies for training both public and private sector service providers need to be instituted with special emphasis on counseling, in-service, pre-service training, training of supervisors and managers, medical training in VSC, and IUD insertion. How to truly integrate family planning effectively into other services remains an important issue.

C.1c Program Monitoring / Data for Decision Making

Although baseline data on CPR, TFR and FP awareness exists, better data are needed by decision makers. The Demographic Health Survey planned for late 1991 will help fill some gaps. Priorities for operations research include impact monitoring, fee for service, and inventory/supply system planning. Existing data might be further analyzed to better understand demand and logistical requirements. At the service provider level, an inventory system needs to be introduced (a service statistics system is an essential component of sound impact monitoring). Furthermore, an integrated (family planning, AIDS, MCH) logistics supply management system would promote internal economies of scale and simplify/streamline logistics supply.

C.1d Strengthening Public and Private Institutions

Zambia has a National Population Policy and a draft Family Planning Program Plan. The Population and Development Planning Unit (PDPU), under the National Commission for Development Planning (NCDP), will be the secretariat to the soon to be approved National Population Council (NPC). Institutions like the NPC and the PDPU could provide selected technical assistance to strengthen their capability to design and implement strategic reforms. In the public sector, the MOH should require assistance in planning and program management. Discussions with both the MOH and the NPC regarding restrictive policies such as allowing nurses to insert IUDs and approving the use of Norplant will be crucial to the effective design and implementation of FP policy reforms. In the private sector, NGOs should be given technical assistance to help in planning, management and operations research.

Note: The necessity for a HPN officer cannot be over emphasized if the Mission is serious about a family planning program in Zambia (this is especially important during the development stages of a complex population assistance program).

C.2 HIV/AIDS Prevention and Control

C.2a Overview

HIV/AIDS transmission in Zambia is increasing at an alarming rate. According to WHO/GPA 1990 estimates, HIV sero-positivity in Lusaka ante-natal clinics was 24.5%. Peri-urban and rural prevalence estimates are 30% and 13% respectively. Blood donor data on Lusaka university students indicates prevalence at 22%. Clearly, HIV/AIDS is an emerging public health problem in Zambia and cannot be ignored. Although most donors are supporting HIV/AIDS prevention and control to some degree, specific gaps have been identified which will help in controlling the spread of the virus. In FY 91, USAID/Z identified a set of interrelated activities which could be feasibly implemented by the mission. These are: 1) expansion of the national STD control program; 2) promotion of HIV/AIDS prevention in the workplace; 3) establishment of at least two HIV anonymous testing sites; 4) implementation of an out-of-school prevention program for youth; 5) development of a social marketing condom supply/distribution program; and, 6) integration of the traditional healers' system with HIV/AIDS prevention efforts.

It is agreed that these interventions represent a gap in donor assistance, provide specific benchmarks of achievement, and, if monitored properly, can yield measurable impacts. Thus, the control of HIV/AIDS in Zambia is viewed as a justifiable, pragmatic and an important strategic objective within the mission's HPN sector development strategy.

C.2b Elements of the HIV/AIDS Prevention and Control Activities

Specific activities and outcomes of proposed mission efforts in the control and prevention of HIV/AIDS in Zambia are discussed below.

- o **Expansion of the National STD Control Program** - This activity will focus on strengthening the GRZ's national STD control program. Emphasis will be placed on education and counselling for HIV/AIDS and STD prevention. An enhanced condom promotion and distribution system will be institutionalized in existing GRZ STD clinics. Community-based prevention activities will be encouraged. Operational research on behavioral change and HIV transmission will be conducted. **Measurable Impacts include:** 1) reduced prevalence of STDs at GRZ clinics; 2) increased condom use by populations served; and, 3) moderately reduced prevalence of HIV infection over the medium term (5-7 years).
- o **HIV/AIDS Prevention in the Workplace** - This activity will capitalize on the significant workplace-based population which exists in Zambia. It will help develop the capacity of private, parastatal and government organizations to provide HIV/AIDS prevention services to their employees. Preventive education and counselling will be emphasized for executive management and members of the general workforce. Organization-specific strategic plans will be derived to sustain employer-based services. An evaluation and monitoring system will be instituted to assess progress. **Measurable Impacts include:** 1) reduced STD prevalence in urban employees; 2) lower rates of employee absenteeism; 3) implementation of HIV/AIDS employment policies; and, 4) initiation of employer-supported HIV/AIDS prevention programs.
- o **HIV Testing Centers** - Anonymous HIV testing has met with success in Uganda and behavioral change in the general public has been implied. This activity will help establish an "AIDS Information Center" (AIC) in both Lusaka and Copperbelt. The centers will provide anonymous testing, pre- and post-test counselling, educational materials, and condoms. The activity will also promote the expansion of business- and GRZ-supported AICs throughout Zambia. **Measurable Impacts include:** 1) improved information of HIV prevalence in urban areas; 2) decreased incidence of STDs; 3) lowered HIV sero-prevalence over the medium term; and, 4) increased use of condoms in urban areas.
- o **HIV/AIDS Prevention in Youth** - Although some school-based HIV prevention efforts exist in Zambia, there is a growing gap in preventive efforts between in- and out-of-school HIV prevention activities. This activity will identify outreach

points, develop effective risk reduction messages and employ appropriate methods to deliver those messages to out-of-school youths. Community-based training will be pursued to increase outreach. Access to condoms will be enhanced. Operations research will be conducted to assess STD incidence as an indicator of HIV risk. **Measurable Impacts include:** 1) reduced STD prevalence among urban youth; 2) reduced HIV incidence; and, 3) increased use of condoms.

- o **Condom Distribution** - As a primary barrier to HIV transmission, condoms are an essential component of any HIV/AIDS prevention program. This activity will focus on increasing condom demand among various segments of the Zambian population, and the institutionalization of a condom social marketing program. (This effort will be part of a broader contractive social marketing program.) **Measurable Impacts include:** 1) self-sustaining; 2) private sector-based condom social marketing program; and, 3) reduced STD prevalence in urban populations.
- o **Traditional Healers** - Traditional healers have great access to, respect in and influence on major segments of the Zambian community. This activity will provide training for traditional healers in HIV prevention, counselling and referral. Reducing risk of HIV transmission by healers' activities will also be emphasized. A more effective "working relationship" between traditional healers and the "formal" health sector will be pursued. **Measurable Impacts include:** 1) reduced STD transmission in rural areas; and, 2) increased condom demand in rural and urban areas.

C.2c Summary

HIV/AIDS transmission in Zambia cannot be ignored by any donor. The proposed mission investments in HIV/AIDS control represent gaps in donor assistance and innovative efforts to reduce HIV transmission over the medium term. However, the six-pronged approach proposed by the mission will entail a significant management burden. In order to monitor impacts appropriately, implementation will require close supervision and conscientious action. Thus, if the proposed mission efforts are to achieve the desired impacts, the services of a full-time project manager will be required with direct supervision by an experienced HPN FS officer. As with other elements of the HPN Strategy, mission staffing is a critical issue and cannot be ignored as an essential element of successful mission (and DFA) programming.

C.3 HPN Sector Policy Reform

C.3a Rationale

The sustainability, long-term effectiveness, and impact of technical interventions are dependent on the delivery system's ability to provide quality health care services. At present, poor management, lack of financial resource commitment, and other problems cripple Zambia's HSD system. This situation casts serious doubt on the present and future viability of the system. Therefore, any serious HPN investment requires action to strengthen (and possibly overhaul) the entire system. Given that overall system strengthening will encompass a series of policy reforms, a non-project assistance package with a "projectized" component might be considered. Reforms could help to: expand access to health services; improve quality of preventive and curative services; and, enhance the financial sustainability of the system (i.e., self-financing). Ideally, dollar transfers in return for meeting policy reform conditions would defray costs and provide the GRZ with an incentive to make the reforms as expeditiously as possible. Funds could be used by the GRZ to address key funding deficiencies in health service delivery identified at the beginning of the NPA program. **Measurable Impacts include:** 1) utilization of health services (percent and absolute numbers); 2) percent of population within 15 kms of HSD sites; 3) percent of HSD sites with appropriate drug stocks; 4) percent of HSD sites with appropriately-trained staff; 5) increased client/patient contact time; 6) number of Kwacha added to budget through cost-recovery schemes; and, 7) percent of recurrent costs supported through cost-recovery mechanisms.

C.3b Constraints on Implementing NPA Policy Reforms

Although an NPA approach to leverage critical policy HS reforms is appealing, several, formidable constraints to effective policy dialogue exist. First, it is possible that a new government will take over the GRZ administration in October 1991. Although the main opposition party verbally supports economic reforms, it is not certain how they, or even the present party, will actually behave once in power. They may or may not be more aggressive in seeking major social sector re-structuring. Second, the economy is still in decline and the outlook is not positive in the near and medium terms. How this will affect interest in HS reform is not clear. It may strengthen interest, but it could also fortify support of the status quo. Third, the existing management structure in the sector is very weak, making it difficult to envision how the present actors will be able to make and follow through on decisions. This last situation implies the need for a "projectized" component, to provide the technical assistance and training needed to formulate and implement specific reforms.

C.3c Proposed NPA Program Components

Four discrete policy reform areas have been identified. However, it must be noted that the environment is changing rapidly and the mission must be flexible in making a final selection of reform areas and specific reform steps (conditions precedent). With this in mind, the following reform areas are proposed.

Decentralization - This will require the devolution of authority and decision-making responsibility to district management teams and district health committees (in turn, linked with district-level development committees). A key element would be the allocation of funds from the national budget directly to the district level. However, to assure accountability and adequate financial management, accounting systems as well as mechanisms for community oversight, such as the district health committees, must be put in place. Conditions for disbursement might include:

- o **Devolution of Authority** - policy developed and approved on de-centralization and executive order on decision-making authority at district level;
- o **Fiscal Planning and Monitoring** - institutional capacity in financial management and accounting established at district level;
- o **Resource Redistribution** - Ministry of Finance funds directly allocated to districts, and accounted for.

Health Care Financing - HCF involves policy development which permits districts to determine the mechanisms they will use to increase self-support of their health care services. Such a determination could be an open choice or limited to a pre-selected number of choices proposed from the central level. Conditions for disbursement might include:

- o **HCF Legislation** - legal basis established for fee-for-service care and retention of fees/taxes at the district and health center level for use in health service delivery;
- o **Cost Recovery Planning** - identification of and planning for implementation of cost-recovery schemes by districts and selected local communities;
- o **District-Level Cost Recovery** - implementation of cost-recovery schemes by districts and selected local communities; monitoring and accounting mechanisms implemented to identify problems (revision and refinement as needed).

Diversification of Health Services Delivery / Privatization - Given the heavy financial and technical burdens on the public sector health system, greater responsibility for service delivery could be shifted to the private sector (particularly for institutions able to assume some financial responsibility for care). Alternatives should be sought to MOH-managed services particularly for specialized curative care, such as that offered at the University Teaching Hospital (UTH). For example, a portion of NPA funds might be used to establish a revolving fund for loans to private practitioners interested in integrating preventive services into their practices; the loans would be used for purchase of equipment, commodities, training, and other start-up costs. Conditions for disbursement might include:

- o **Private Medicine** - legal and policy basis for private medical practice and hospitals established;
- o **Privatization of UTH** - private wing at UTH established and, other selected services at UTH privatized;
- o **Social Marketing** - legal and administrative barriers to social marketing of contraceptives and ORS eliminated;

Health System Management - This is a broad area which will require considerable further analysis and definition during the design phase for the NPA program. It could conceivably go as far as to include total re-conceptualization and re-structuring of the health care system with the naming of a "presidential commission" or similar body to lend weight to the deliberations and proposals. In any case, specific management reforms agreed to should consider not only the public sector component of the system, but also the NGO and private sectors. Conditions for disbursement might include:

- o **Internal Management Analysis** - areas of management inefficiency identified; executive orders approved for priority changes;
- o **Management Change Implemented** - executive orders implemented and monitored; additional recommendations made and approved, second round of executive orders implemented and monitored.

Project Component - Given the complexity of implementing such system reforms, training and technical assistance will be required to assist the Ministry of Health and their health services delivery partners. The specific requirements for these inputs will be analyzed during the design phase for the NPA program, but are likely to include long and short-term technical assistance and training in health care financing, health systems management, and the like.

D. Targets of Opportunity

D.1 Overview

For the purposes of this HPN Sector Assessment, Targets of Opportunity are defined as: **specific HPN problem areas which impact significantly on general health status and merit selective attention, but which cannot be comprehensively addressed by USAID/Zambia given the mission's overall management capacity, staffing pattern and operating year budget.** It is envisioned that Targets of Opportunity will be pursued via short-term technical assistance, and under some circumstances (perhaps nutrition) via long-term technical assistance. However, in the near term, opportunities will be assessed on a case-by-case basis reflecting GRZ commitment, availability of mission management support, recognized gap in donor support, and medium-term impact of the mission's overall investment. It is envisioned that a certain amount of HPN sector funds would be reserved in the project assistance package to access short-term TA from centrally-funded projects. A rough estimate of annual reservations is \$250,000.

D.1 Nutrition

Malnutrition is pervasive in Zambia. In rural Zambia, 24.7 percent of children under 5 years were found to be undernourished (weight/age), 10 percent were "wasted" (more than 2 standard deviations below normal weight for height), and 59.4 percent were stunted (low height for age). The levels of undernutrition and wasting are within the ranges found in Southern Africa; however, the level of stunting is among the highest found anywhere. Maternal malnutrition is a contributing factor to low birth weight and high neo- and peri-natal mortality. Malnutrition among children is associated with high case fatality rates for diarrhea and more recently cholera.

Nutrition is closely linked with the agricultural sector. In concert with USAID/Zambia's agricultural policy reforms to improve the availability of maize, the health sector can assure that appropriate nutrition practices for mothers and children are adopted and work with other sectors (e.g., education and social services) to improve family food security and allocation.

Major donors in nutrition have included SIDA and UNICEF. Their interventions have been heavily focused on nutrition surveillance and growth monitoring. Their successes are reflected in good national-level data on nutrition status and, according to recent surveys, a high level of at least one attendance at growth monitoring sessions (94% of children had a "road to health" card). The limitation of a narrow focus is seen in the increasing and high levels of malnutrition and the donors' anticipated pursuit of alternative, more "action-oriented"

nutrition interventions. These alternatives are still being defined and considerable assistance will be required to assure effective implementation.

A two-pronged approach could be used to address this complex problem. One prong would be the development, in concert with other donor efforts, of a small-scale, pilot intervention project to test innovative teaching, counselling and other community action and mobilization approaches to encourage behavior change in child and maternal feeding practices. The second prong would be continuing analysis of causes of malnutrition and policies which inhibit application of appropriate feeding practices to identify possible areas of intervention at the policy level.

D.2 Malaria Policy - Second to nutrition, malaria is the largest single cause of morbidity in Zambia. The drug of choice (chloroquine phosphate) is declining in efficacy due to increasing parasite (*Plasmodium falciparum*) resistance. The malaria control program is ineffective due to logistical and fiscal constraints. Furthermore, the vector biology of African anophelines (*Anopheles gambiae*) makes sustainable control almost impossible. New methods of protection (screens, bednets) and focused environmental management need to be explored. As Secretary Sullivan and Administrator Roskens note; malaria in Africa "the hidden killer" cannot be ignored. USAID/Z might provide short-term TA to help develop more pragmatic approaches to malaria control in Zambia. Present policy may be too far reaching and unsustainable given present economic circumstances. The ST/H Vector Biology and Control Project and the CDC have unique capabilities to rationalize malaria control activities. If the opportunity presents itself, the mission should consider accessing TA from AID/W to assist in the development of sound national plan of action for malaria control.

D.3 Cholera Outbreak Surveillance - Recent outbreaks of *Cholera vibrio* in Lusaka and other urban (and rural) areas reflect the deteriorating HPN infrastructure, particularly in water supply and sanitation. Cholera is becoming an endemic disease in Lusaka and efforts to control its spread are failing. Given USG comparative advantage in disease outbreak control and surveillance (CDC, centrally-funded CAs), the mission might wish to consider short-term TA for the development of a cholera outbreak surveillance system in order to avoid cholera epidemics and contain outbreaks when they occur.

D.4 Water Supply and Sanitation - Access to safe water and sanitation is a crucial need for a large sector of Zambia's population. As evidenced by the recent outbreaks of cholera, the situation, especially in the peri-urban areas, is getting worse. The most recent figures, from 1981, estimate that 70% of the urban, 45% of the peri-urban, and 32% of the rural population have access to an acceptable water supply. Donor involvement in

this sector has focused on one geographic area, usually rural. Furthermore, the assistance provided has mostly been in the provision of handpumps and wells. USAID/Z could provide short-term TA to assist the GRZ in assessing the water supply and sanitation situation in the urban and peri-urban areas. The mission could also assist in designing an effective policy and strategy on how to meet the urban/peri-urban population's growing needs. The ST/H WASH project has a long history of providing such assistance to developing countries. In addition, the connection between safe hygiene and diarrheal disease could be addressed in a series of training and workshops. PRITECH and WASH are already collaborating on such projects in other African countries.

D.5 Control of Diarrheal Disease (CDD) - Among children under 5 years in Zambia, diarrheal disease is very common (45 percent of households with under-fives), frequent (approximately 5 episodes per child per year), and averages 5-6 days per episode, with more cases in urban than rural areas. Cholera outbreaks have resulted in many deaths particularly among malnourished children. Survey results indicate high levels of knowledge about ORS but considerably lower levels of correct mixing and use. Many health care workers still do not have adequate knowledge and skills in proper diarrheal disease case management.

The Control of Diarrheal Disease (CDD) program in the Ministry of Health has been receiving assistance from UNICEF and PRITECH since 1986. While progress has been made in such areas as the training of health staff and establishment of the diarrhea training unit (DTU) at UTH, there is a need to maintain momentum in extending and improving CDD through public, NGO, and private sector service delivery systems. Interventions promoting private sector production and distribution of ORS, and strategies for diarrheal disease prevention are in order.

It is likely that PRITECH technical assistance would be continued with central funds supplemented with some bilateral funds. The interventions would be overseen by the HPN officer with the possible management assistance from a child survival fellow and/or a senior FSN responsible for management of other targets of opportunity.

VI. PROGRAM MONITORING

DFA and general Bureau guidance imply that monitoring program/project impact is considered a high priority. Fiscal and technical tracking of investments should therefore be incorporated into USAID/Zambia's HPN sector activities. Specific impact targets for FP, HIV/AIDS and Policy Reform components of the HPN sector activity have been briefly outlined. Within this context, future mission design efforts in the HPN sector should

contain detailed sections on impact monitoring which specify mechanisms by which process and outcome will be measured, timeframes for specific accomplishments, and evaluation schedules to assess overall program/project performance. Monitoring should be viewed as a fundamental component of HPN sector development activities and thus be allocated appropriate funding levels within each HPN sector activity. Imparting the capability to fiscally and technically monitor impact to the GRZ could also be a major focus of the programming monitoring process.

VII. MISSION STAFFING REQUIREMENTS TO MANAGE PROPOSED HPN SECTOR ACTIVITIES

In order to implement the proposed HPN Sector Strategy, mission management will need to recruit a DH FSO BS-50 (preferably at the FS-01 level) to head a small HPN office. Given the complexity of the sector and the proposed interventions, long-term PSCs to monitor the family planning and AIDS activities should be hired. A full-time senior FSN will be important in developing relationships and continuity with the MOH and managing the portfolio. If GRZ performance is positive over the near term, an additional staff position for nutrition might be considered (perhaps through the ST/H Child Survival Fellows program). The attached organogram represents the structure of mission management to effectively implement the HPN Sector Strategy proposed in this assessment (Figure 12).

All the positions suggested above do not have to be established and filled at once. An immediate need is a PSC position to manage the AIDS and family planning bridging activities. At the time that USAID/Zambia chooses to significantly invest in the HPN sector (and AID/W approves), the mission should establish a DH BS-50 slot and pursue recruitment with AID/W/Management. After the arrival of the HPN officer the mission can then consider the recruitment of a senior FSN to serve as a senior associate to the HPN officer. Within the design of the population bilateral project, the mission can reserve funds for another PSC position dedicated to population activities, thus enabling the original PSC position to focus on the implementation of the HIV/AIDS prevention and control activity. Finally, if all components of the strategy are accepted (including NPA activities), a significant investment of senior mission management time will be required to promote policy dialogue and follow-up.

HPN SECTOR ZAMBIA MISSION STAFFING

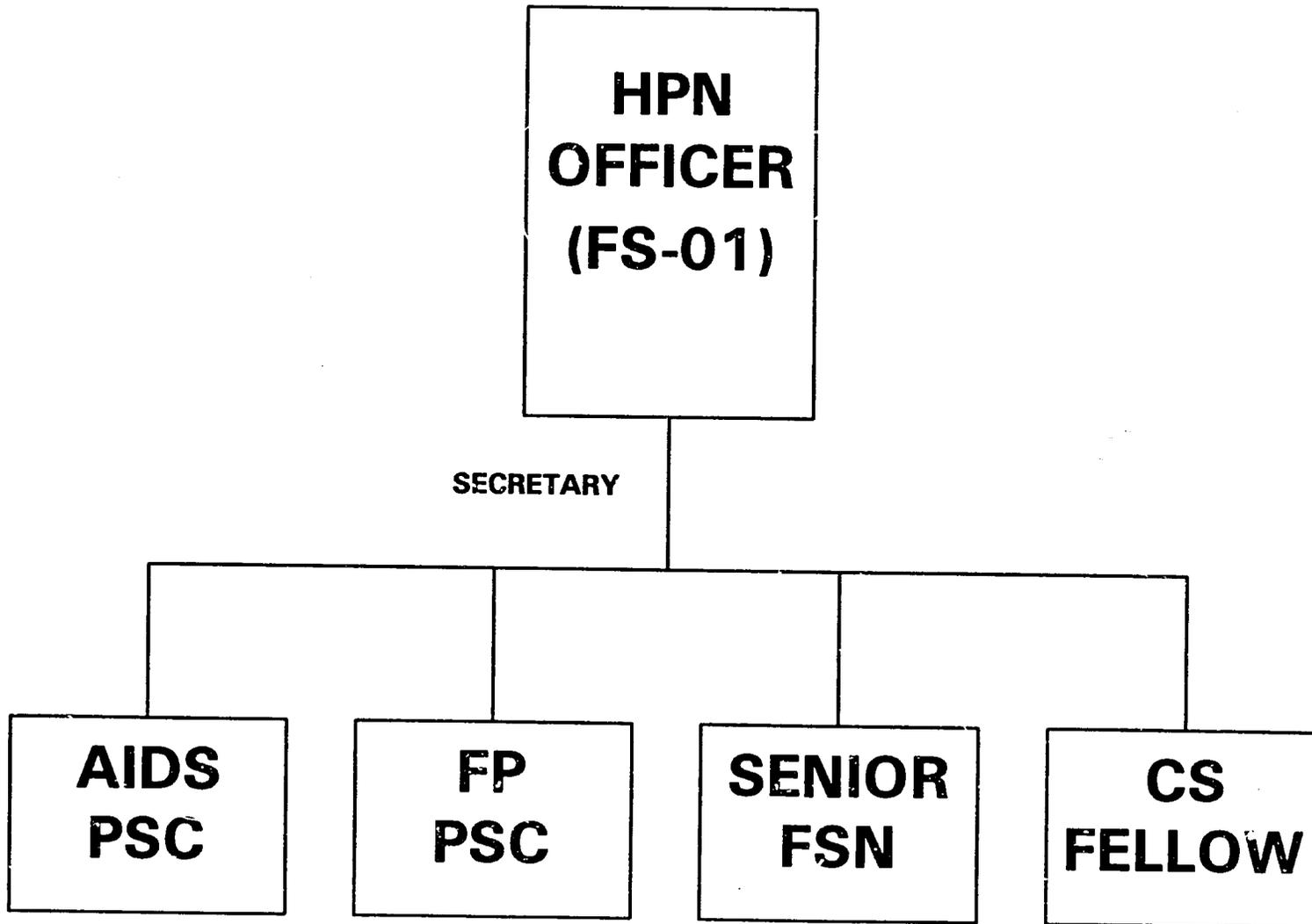


Figure 12

VIII. BRIDGING ACTIVITIES

The assumption is that if the HPN strategy is accepted a Project Paper will be approved by 9/92 and implementation will start about six months later. Until the Mission's bilateral project starts bridging activities will be necessary if current momentum and political will is not to be lost.

A. Donor Coordination

USAID should take a lead role in encouraging the coordination of donors working in the population sector. This is particularly important in solving the commodity supply and distribution problem. The GRZ, USAID and other donors must coordinate on providing a constant supply of commodities. The different types of oral contraceptives should be limited to 3 or 4 at a maximum. The Mission should support the MOH's decision to transfer the primary responsibility for the distribution of contraceptives to the Medical Stores Limited by strengthening them.

B. Public Sector

Efforts to strengthen service delivery in the MOH should be started. This could include training, upgrading training, IEC and assistance in planning for implementation. Also, the expansion of VSC services should be supported.

C. Private Sector

UNFPA and ILO supported information and promotional programs on family planning to 35-40 private sector and parastatal industries. The provision of family planning services through existing clinics is the obvious next step. The Ministry of Labor has apparently agreed to such a project. The provision of family planning services in the work place is important, especially if the programs are designed to encourage financial sustainability.

D. Social Marketing

With assistance from Family Planning International Assistance (FPIA) the Pharmaceutical Society of Zambia (PSZ), a professional organization, developed a Contraceptives Social Marketing (CSM) Project. Now that FPIA no longer supports PSZ a decision should be made whether to revitalize PSZ so it can continue implementing a CSM project or a new project should be developed using a private sector firm. The decision may be a political one. The mission should support a CSM program in Zambia.

E. Staffing

It is recognized that the staffing implications suggested to implement the proposed HPN sector investments are substantial and imply significant changes in the mission's staffing pattern and operating expense budget. However, if the mission cannot commit sufficient, in-house resources and staff positions to the HPN sector, the activities proposed could not be successfully implemented.

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ANNEX 1

BACKGROUND DOCUMENT FOR HPN SECTOR ASSESSMENT IN ZAMBIA

I. SUMMARY

Zambia's prolonged economic decline, combined with its burgeoning population growth, have severely affected the country's health care system. A chronic shortage of doctors, drugs, equipment and other resources has been exacerbated by a mal-distribution of these resources. Facilities and equipment throughout the health system, as well as water and sanitation systems, continue to deteriorate due to inadequate maintenance and the absence of spare parts. Programs of immunization, communicable disease control, and primary health care have faltered. Poor nutrition, especially among the young, has increased. The combined result is decreasing accessibility to basic health services and increasing prevalence of preventable illness. Too often, the Government's good intention to support health-related programs have been frustrated by unfulfilled expectations for economic improvement and a limited organizational and managerial capacity to maximize the benefit of those resources that are available.

Since 1985 Zambia has made several attempts to restructure its economy. The most recent restructuring effort, started in 1989, incorporates a "Social Action Program" which calls for increased allocations to agriculture, health, education, and others programs supporting the poorest segments of society and which encourage private sector growth. In 1990, recognizing that population growth can overwhelm economic reform, the Government adopted a "National Population Policy" which officially endorses efforts to reduce the fertility rate and encourages the availability of family planning services. While these reform efforts should be encouraged, it is still too early to tell whether the continued deterioration of the country's health system can be averted.

II. MAJOR FACTORS AFFECTING HPN

Zambia's health system has been negatively affected by four major factors: The country's continued economic decline, rapid population growth, urbanization, and the resulting decline in real government expenditures for health.

ANNEX 1

II.A. CONTINUING ECONOMIC DECLINE

Until 1975 Zambia was one of the most prosperous countries of Sub-Saharan Africa. However, this wealth was founded on one export - copper. When the world price for copper slumped in 1974, the economy of Zambia became stagnant and then began a precipitous decline throughout the 1980s. This is partially reflected in the per capita GNP, which declined from just above US\$700 in 1981 to US\$290 in 1990, at constant prices.

The Government has tried to restructure the economy several times in the past decade. An IMF and World Bank supported Structural Adjustment Program was initiated between 1983 - 1987, but was suspended in May of 1987 when internal popular and political pressure was exerted on the Zambian Government. The Government instituted its own self-help economic recovery program, attempting to stem the slide in living standards.

The New Economic Recovery Program (NERP) had limited impact. Accordingly, the Government introduced the Fourth National Development Plan (1989-1993), which led to rapprochement with the IMF and The World Bank. The Program is designed to support the major structural adjustment measures suspended earlier in 1987, including the decontrol of prices except for the staple, maize meal; devaluation of the national currency; public service retrenchments and privatization; removal of food subsidies and cost recovery in health service provision.

The economic situation in Zambia continues to be uncertain¹. The Government is now saying most of the right things but whether this will translate to a better economic future remains to be proven. Unfortunately Zambia's window of opportunity is increasingly diminishing as their known copper reserves are predicted to be exhausted by the end of the century. If Zambia has not diversified sufficiently by that time it will be very difficult to reverse a downward trend. Hopes for economic diversification are placed in agriculture, where only 10-15% of the arable land is under cultivation.

¹ In addition to economic uncertainty, the country is facing political uncertainty with the first multi-party parliamentary and presidential elections to be held in October 1991. The only real threat to the ruling United National Independence Party (Unip) remains the Movement for Multi-party Democracy (MMD).

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The Economic Intelligence Country Profile on Zambia for 1990 - 1991 provides a synopsis on how the economic decline has effected the social sectors:

The economic difficulties of the past decade have hit both health and education services, with major cutbacks in capital development as well as shortages of books, drugs and equipment. In the health service, in particular, falling standards have combined with the erosion of real incomes to produce a mass exodus of medical staff; by 1988 almost half the established posts for doctors were vacant. There was also evidence of a rise in child mortality and of malnutrition among mothers and children. (pg. 10)

II.B. RAPID POPULATION GROWTH AND URBANIZATION

The decline in the economy reflected in the per capita GDP has been further exacerbated by the fast growth of the population (i.e. more people sharing less.) The results from the last three censuses indicate that the population of the country which stood at 3.5 million persons in 1963 increased to 4.4 million in 1969 and 5.7 million in 1980. Recent estimates based on the 1980 census put the population at approximately 8 million in 1991 (Figure 1). Preliminary results from the 1990 Census of Population, Housing and Agriculture show Zambia with a population 7.8 million and an annual growth rate of 3.2%.

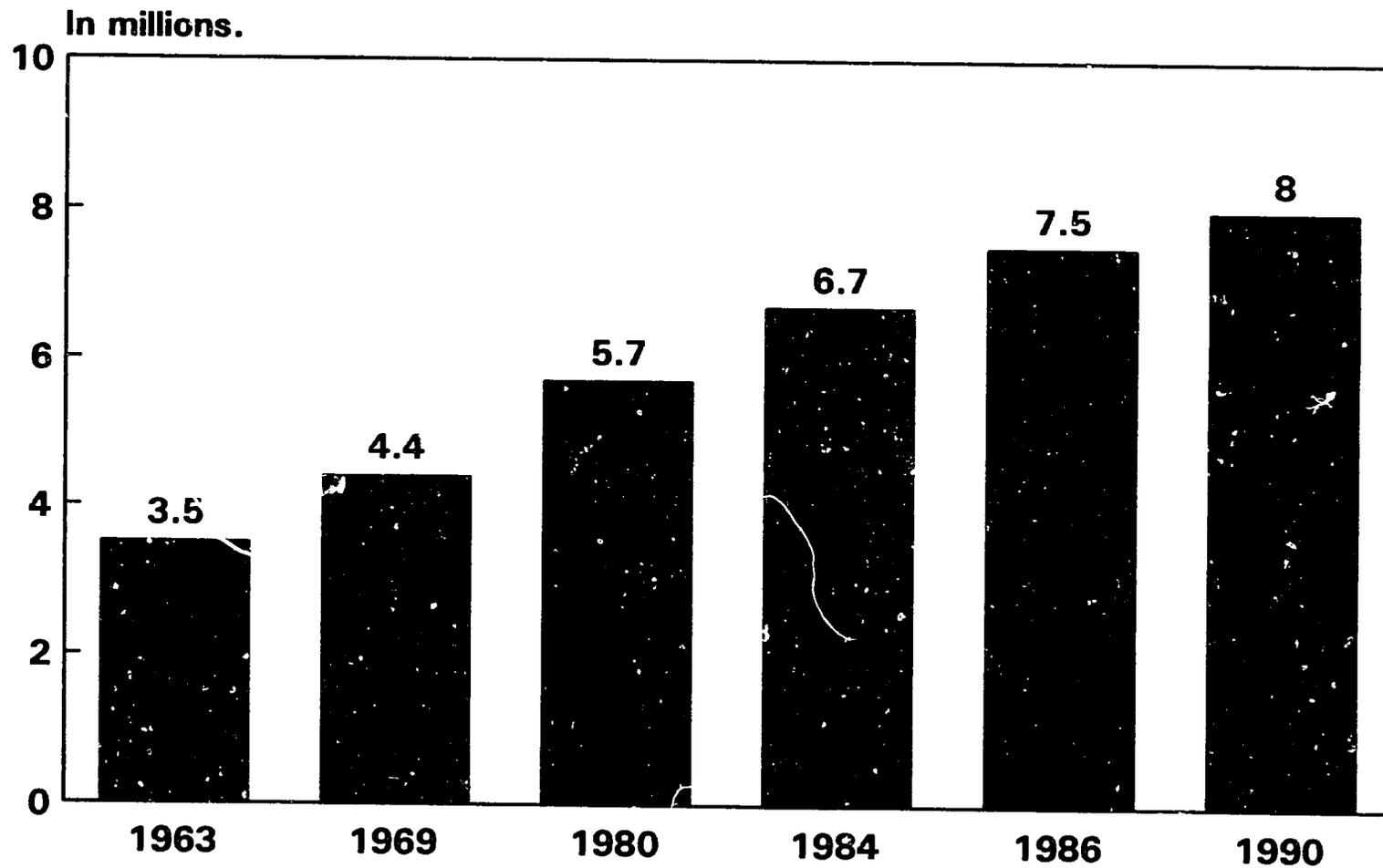
The rate of growth of the population has also been high and increasingly rapid due to a persistently high level of fertility (TFR = 7.2) and a steadily declining level of mortality. The growth rate has increased from 2.6% per annum, between 1963 and 1969, to an estimated 3.7% per annum in the 1985 and 1990 period (Figure 2). This is among the highest rates of population growth in the world and implies an 18 year doubling time of the population.

Zambia also has had one of the fastest growing urban populations in Africa. The employment opportunities and relatively high wages offered in the post-independence era in the copper mines and associated industries led to this rapid urbanization. From 29% of the total population in 1969, the urban population had grown to 43% in 1980 and is estimated to be around 50% in 1991 (Figure 3).

About one fifth of the population lives in the Copperbelt, north of the capital, Lusaka, and bordering the Shaba province of Zaire, concentrated in a conglomeration around the five main Copperbelt towns - Kitwe (427,225), Ndola (442,666), Mufulira (199,368), Chingola (194,347) and Luanshya (165,853). Lusaka, however, still

POPULATION SIZE

1963 - 1990



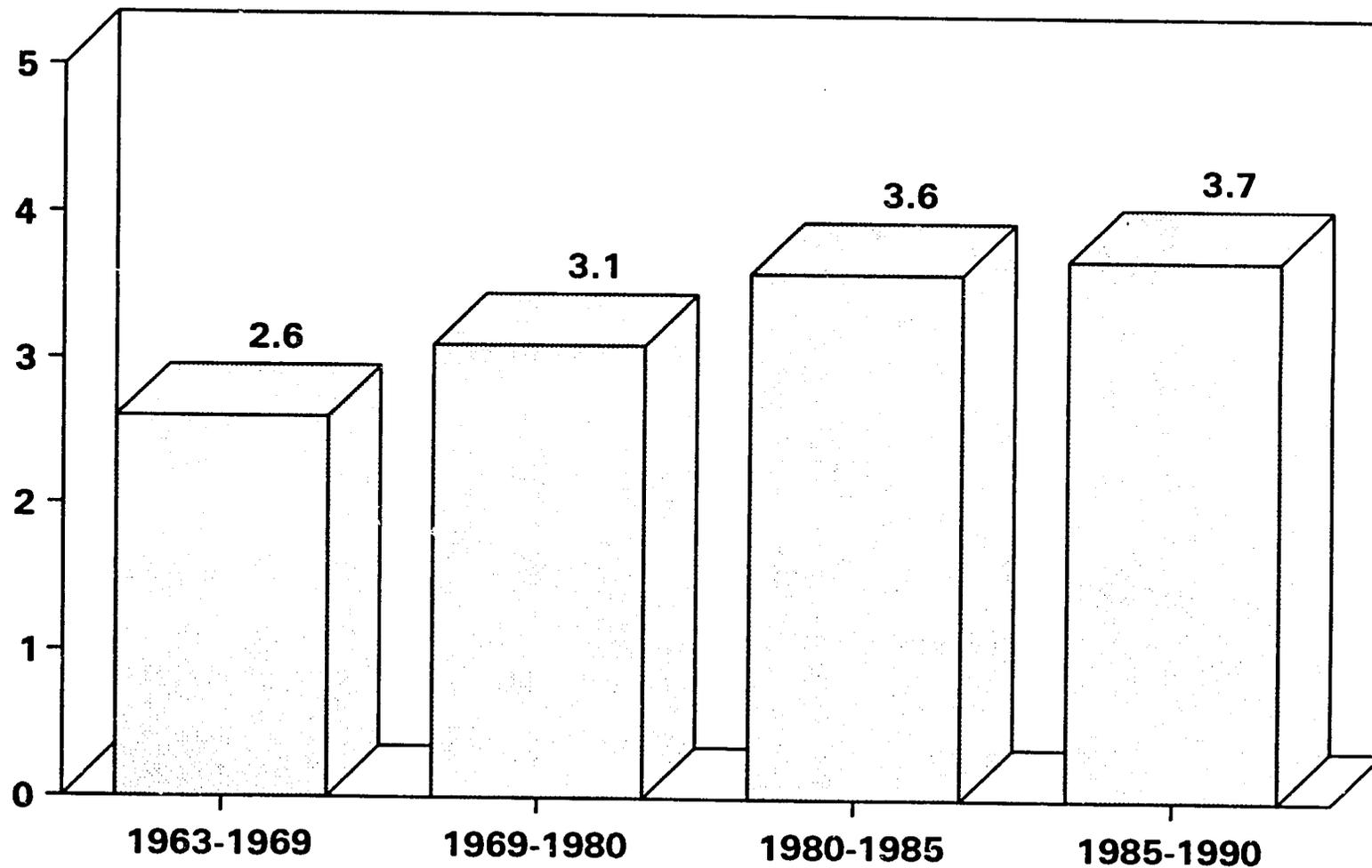
Data from Zambia's Population Policy.
1990 Data Estimate from UNICEF Rep.

Figure 1 (Annex 1)

5

RATE OF POPULATION GROWTH

1963 -1990

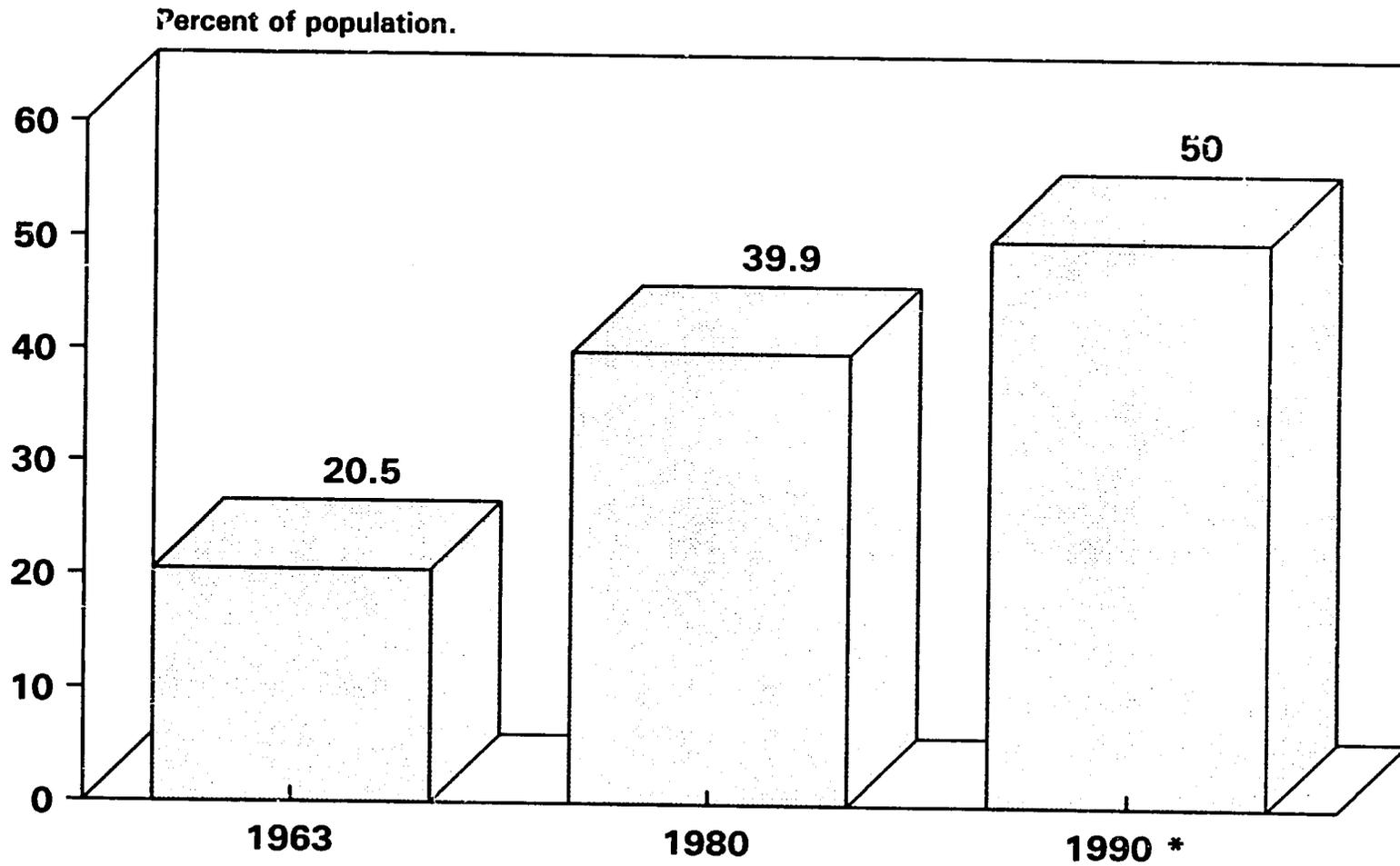


Data from Zambia's Population Policy

Figure 2 (Annex 1)

URBAN POPULATION

1963 - 1990



From Zambia Population Policy
*Varies according to report.

Figure 3 (Annex 1)

ANNEX 1

has the largest population of any city, with a 1988 estimate of 870,030. Outside the Copperbelt, Kabwe (200,287) and Livingstone (98,460) are the largest urban areas.

As the urban population continues to grow, and if the economy continues to decline, it is going to be more and more difficult to maintain the infrastructure needed in Zambia's cities. Increasing poverty, food scarcity, high crime, and inadequate environmental conditions characterize the urban areas. It is estimated that 42% of the urban population lives below the poverty line (UNICEF 1990). Furthermore, the progressive exodus from the rural areas is reducing possibilities for self-sustained development there.

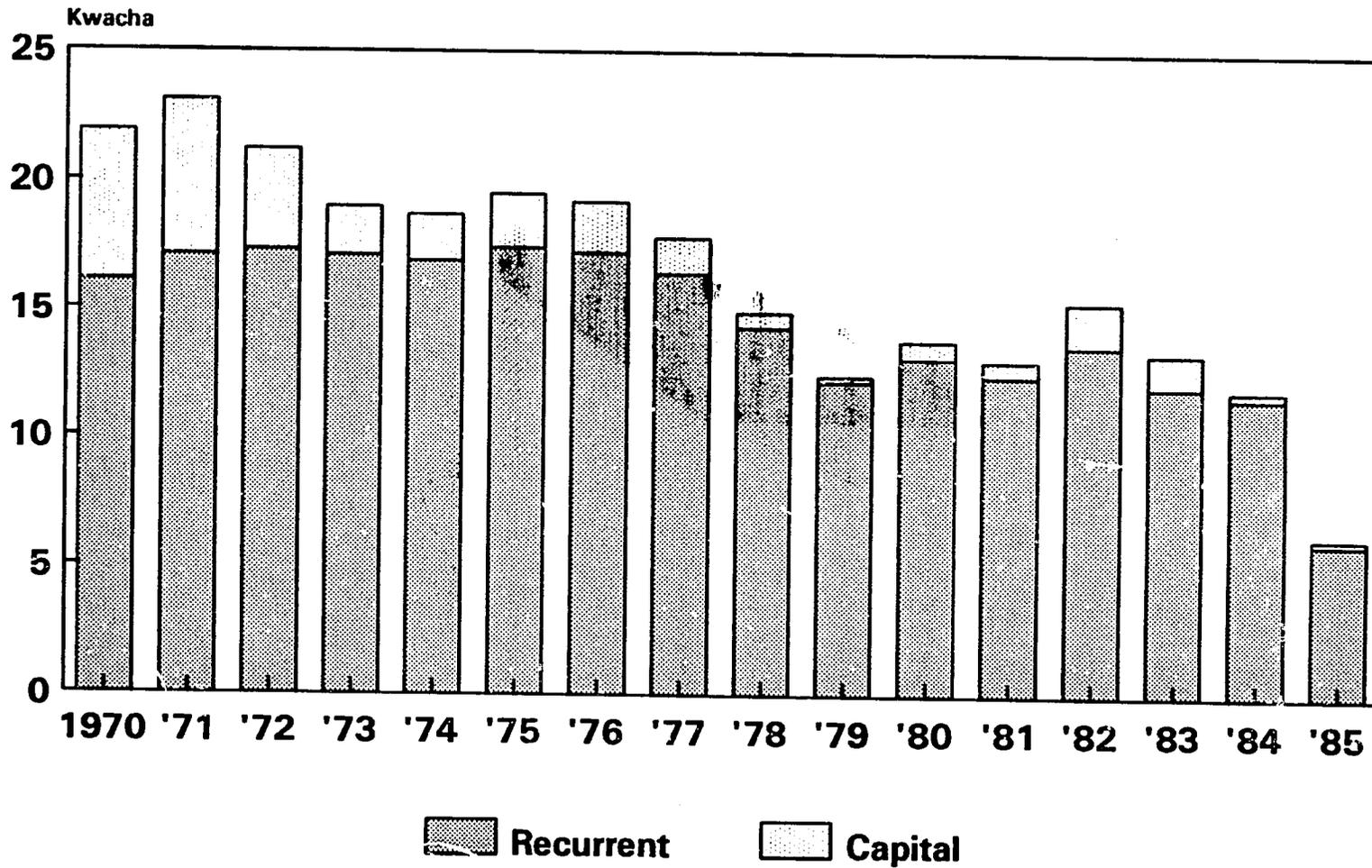
II.C. DECLINE OF REAL EXPENDITURES IN HEALTH

In 1980, Zambia's annual health expenditures were comparable to those of other African countries - both on a per capita basis and as a percentage of total government spending (Freund, 1986). However, while total governmental expenditures for health have continued to increase over the last several years, there has been a sharp decline in the real value of these expenditures due to high inflation, currency devaluation, and continuing population growth. From 1970 to 1984, for example, total governmental health expenditures increased from K27.2 (\$31.2) million to K73.2 (\$48.3) million (Freund 1986). But from 1982 to 1984, real expenditures declined by an estimated 24% (ODA 1989). Furthermore, in the decade from 1976 to 1985, government per capita expenditures for health declined by 57% in real terms - with per capita expenditures for capital projects declining by over 90% (Figure 4) (Freund 1986). More current data should be sought to determine if these trends have continued into current years.

The continuing erosion of financial support for health services has been reflected in a corresponding increased proportion of spending being directed toward personnel costs, increasing from 39% in 1981 to as high as 61% of the MOH budget in 1987 (ODA, 1989). Proportionate declines have been experienced in expenditures for drugs, transport, and maintenance of buildings and equipment.

The decline in traditional sources of funds supporting health has stimulated the government to explore various cost sharing and community financing approaches. In 1986, funding for health originated from four principle sources: government (45%), the mines (19%), missions (3%), and private and foreign donors (33%) (UNICEF, 1986). Donor support for health has fluctuated from \$8 million in 1984, down to \$6 million in 1986, with increases again in recent years (Pennett and Musambo, 1990). The MOH tentatively began to introduce user fees in 1990, targeting expatriates and

TRENDS IN REAL GOVERNMENT HEALTH EXPENDITURE PER CAPITA



Freund 1986

Figure 4 (Annex 1)

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selected non-essential services. So far collections are minimal, due in part to cumbersome administration procedures and weak incentives. User fees were also introduced into CMAZ facilities in 1989, but so far implementation results vary (Bennett & Musambo, 1990). The MOH has expressed the intent to promote community-based initiatives to stimulate local support, but to be successful, such efforts require the ability of local facilities to retain the revenues collected and to use those revenues to address local needs. In the 1991 - 1993 Policy Framework Paper, under sponsorship of The World Bank, Zambia has committed to legalizing foreign investments in health facilities and has targeted that 20% of the ward accommodations in public institutions will be on a fee-paying basis. In addition, the government has pledged to provide additional monies for the rehabilitation and maintenance of health facilities, and for the provision of essential supplies and equipment, especially for primary health care and preventive services (The World Bank 1991).

III. IMPACT ON HPN SECTOR

Declining financial support for health has had significant impact in three broad areas: growing shortages in the resources needed to sustain health programs, a mal-distribution of those resources that are available, and a steady deterioration of health-related facilities and equipment. Coupled with wide spread under-nutrition, especially among the young, the results are decreased accessibility to preventive and curative services and increased incidence of preventable illnesses. In addition, although the Government has announced a very progressive National Population Policy, family planning services are still not used by and/or not available to most Zambians.

III. A. SHORTAGE OF RESOURCES

The resources needed to support Zambia's health system are in chronic short supply. From 1981 to 1985, for example, the number of doctors in government employ declined by 37% (Freund 1986), with current vacancies estimated at 40% of the 850 authorized positions (ODA 1989). The ratio of physicians to population dropped from 13:110,000 in 1980 to 7:100,000 by 1986. The most critical shortages are in various medical specialties. Many doctors have left government service for more lucrative private practice or overseas postings. To complicate matters, Zambia has become increasingly dependent on expatriate physicians, with only 32% of MOH doctors being Zambian in 1987 (ODA, 1989). Other personnel shortages include certain categories of nurses, pharmacists, trained health educators, laboratory technicians, and occupational therapists. The exact numbers and kinds of shortages, and where they occur in the system, are not well defined.

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Shortages in essential drugs and other supplies are also common. In a 1984 survey, 75% of the rural health facilities visited were found to be short of antimalarials for some portion of the year (Freund 1986). More than 80% of the nation's drug needs are purchased from abroad, requiring foreign exchange.

III.B. MAL-DISTRIBUTION OF RESOURCES

Zambia's shortage of health resources is exacerbated by problems of increased urbanization and inequitable distribution. For example, 50% of all drugs purchased by the government are consumed in the three central hospitals, leaving district hospitals and rural health centers chronically short (Freund 1986). There is also an inequitable allocation of health expenditures favoring urban versus rural areas. In 1982, on a per capita basis, K0.60 was spent in rural health center areas compared to K12.27 in urban Lusaka (Freund 1986). One estimate indicates that as much as 40% of recurrent expenditures are consumed by the University Teaching Hospital alone.

III.C. DETERIORATING INFRASTRUCTURE

As could be expected, fund shortages tend to be reflected in reduced expenditures for capital projects and maintenance of facilities and equipment - both in the health sector and society as a whole.

Capital investment in Zambia's health care infrastructure has been at a virtual standstill since the mid-1980s. The number of facilities is unchanged with some increase in the supply of beds (primarily at the UTH facility).

The maintenance of these facilities, and the equipment within them, has deteriorated. Annual capital investments in health have dwindled to as little as K0.2 per capita (Freund, 1986). In a survey conducted in the mid-1980s, 40% of the MOH's vehicles were inoperative - a particular handicap for rural areas. Even the majority of bicycles owned by rural health facilities were out of service (Freund, 1986).

IV.D. NUTRITION

Throughout Zambia, there has been a general decline in nutrition with significant increases in morbidity and mortality. Malnutrition and undernutrition are the major underlying cause of death in pneumonia, acute respiratory infections, diarrhoea, gastro-enteritis, anaemia, and many other diseases and infections making them the most important health problem in the country (Freund, 1986). Roughly one third of children under five are

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malnourished or undernourished with up to 62% of deaths in 1984 of children 1 - 14 (compared to 18.5% in 1974) attributable to poor nutrition (Freund, 1986). UNICEF, in 1990, attributes 40.6% of hospital deaths to malnutrition in the 1-14 year old age group and 7.7% of hospital deaths to malnutrition in infants (Figures 5 and 6). The main cause of malnutrition is thought to be inadequate energy intake, rather than malnutrition as a secondary effect of infection (ODA, 1989). Micronutrient deficiencies, i.e. Vit A, iodine and iron, are fairly widespread in Zambia.

The consequences of malnutrition are felt most severely in rural areas due to problems of distribution, the declining economy, and occasional periods of drought. In a 1985 survey in the rural Luapula Province, 37% of the children studied were below the 80% of the Harvard Standard. Less than half of the children over one year of age were gaining weight (Freund, 1986). Squatter settlements in urban areas have been similarly affected.

The Nutrition Section in the MOH has set up a National Nutrition Surveillance Program to monitor the levels and types of malnutrition reflected in the proportion of underweight for age in the community. A major problem continues to be the lack of adequate intervention by health workers and the response of health services in general to detected cases of malnutrition. The MOH has taken steps in developing and implementing new guidelines for case management and nutrition interventions (UNICEF, 1990). However, attempts to improve nutritional status have to deal with the difficult socio-economic situation in the country and the problems this presents in ensuring household food security.

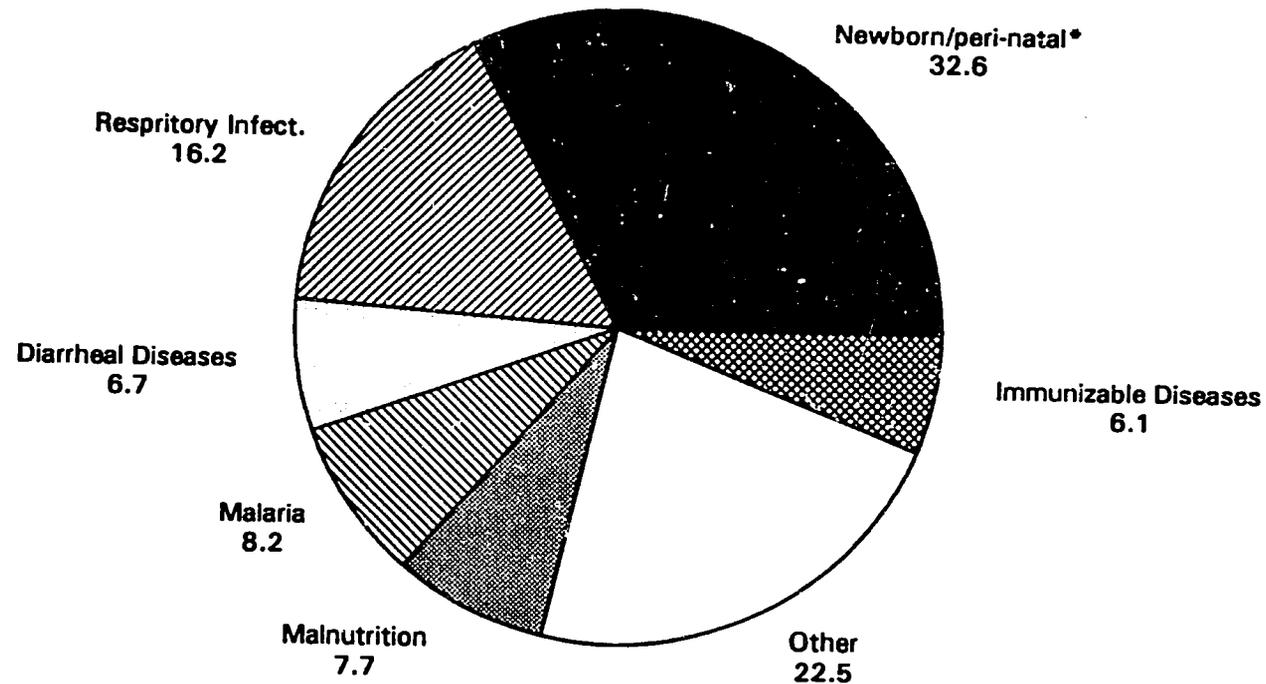
IV.E. HEALTH STATUS

There is not extensive epidemiological data for Zambia, therefore it is difficult to track patterns and trends in diseases and health status. What does exist usually comes from various sample surveys undertaken by UNICEF and WHO in collaboration with MOH. The information below is sketchy at best.

1. UNDER-FIVE MORTALITY - MOH statistics put the infant mortality rate at 90/1000, though some informed health professionals feel that levels of 100-120/1000 are more accurate. The under-five mortality is estimated at 130-197/1000. Figures 5 and 6 reflect the main causes of death at the University Teaching Hospital for infants and children 1 -14 years old. Information on the perinatal group is incomplete, with the majority being classified as "other causes" (UNICEF, 1990).

MAIN CAUSES OF INFANT MORTALITY

1990 Unicef Report



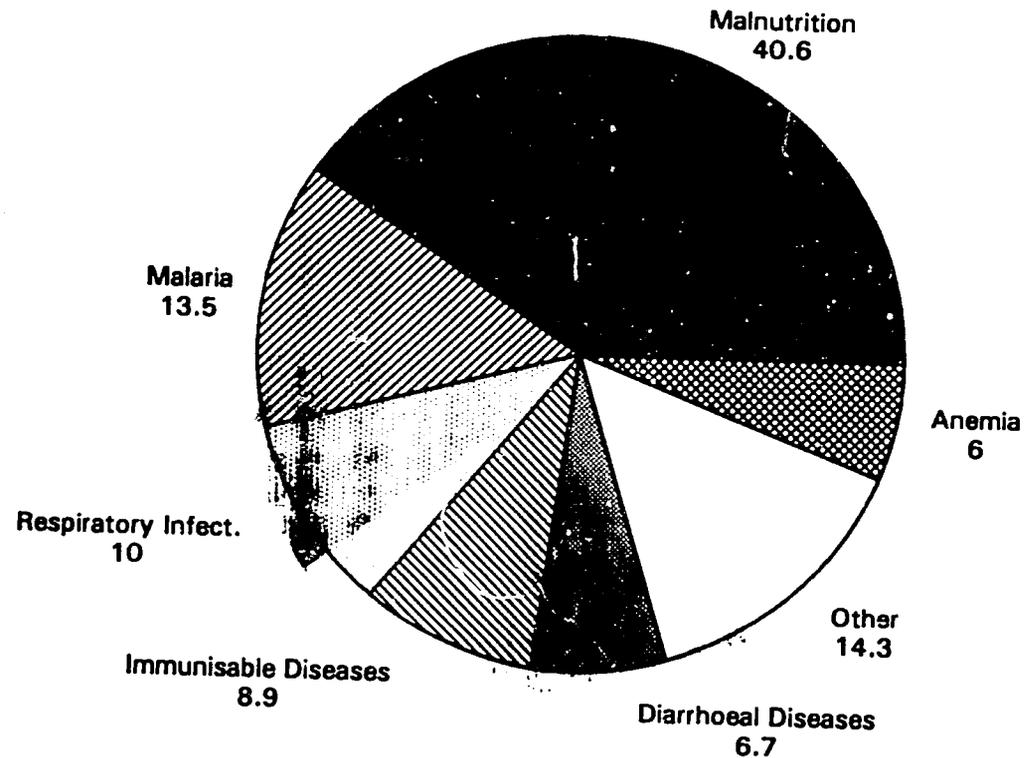
Data from 1987.

*Disorders of newborns and perinatals

Figure 5 (Annex 1)

MAIN CAUSES OF 1-14* MORTALITY

UNICEF 1990 Report



Data from 1987.

*Data only available for 1-14 year old,
but 99.3% of deaths occur to under fives

Figure 6 (Annex 1)

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2. UNDER-FIVE MORBIDITY - The morbidity patterns for children have not changed over the past decade except for a decline in cases of measles. The leading causes of out-patient morbidity in hospitals and health centers are ARI, diarrhoea, malaria, skin infections, eye disorders, ear diseases, malnutrition/anaemia, genito-urinary diseases and bilharzia. Reported cases for malnutrition (see nutrition section), malaria (*Plasmodium falciparum* chloroquine resistance is thought to be spreading at an alarming rate (ODA, 1989)) and anaemia have all been rising during the 1980s both in absolute terms and proportionately (UNICEF, 1990).

3. IMMUNIZATIONS - UNICEF reports that for 1989 there was 80% full coverage of children against the 6 Universal Childhood Immunization (UCI) target diseases. An EPI/CDD Baseline Survey Report, conducted by WHO, MOH, UNICEF and Pritech, for Zambia for 1987 found that 48% of eligible children in urban areas were fully immunized whereas in rural areas only 36% were fully protected.

4. NEONATAL TETANUS - A Neonatal Tetanus mortality survey found a NT mortality of 4.3 per 1000 lives birth with an immunization coverage rate among pregnant women to be 39% in urban and 42% in rural Zambia (ODA 1989). UNICEF (1989) reports 45% coverage of pregnant women.

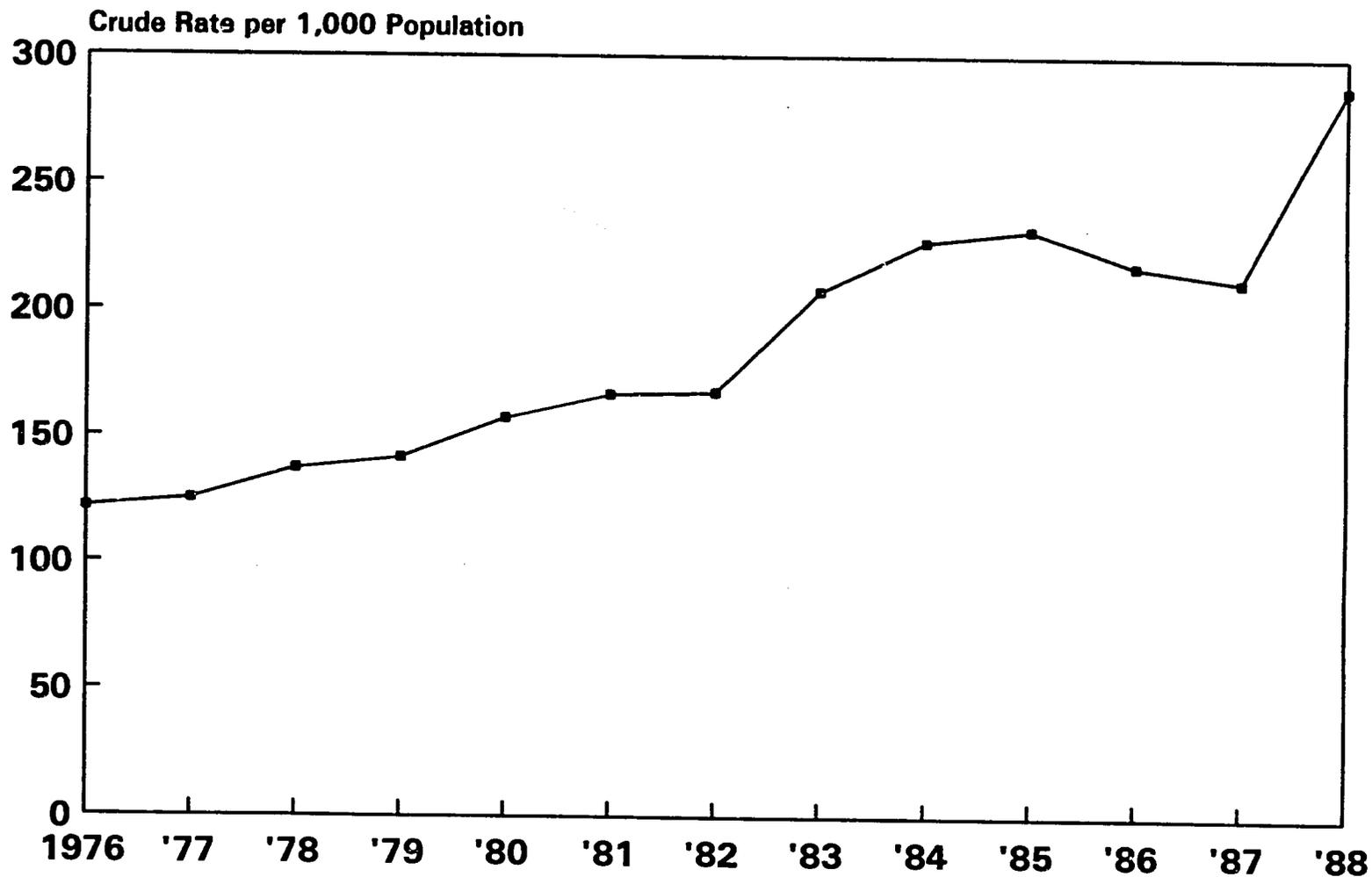
5. CONTROL OF DIARRHOEAL DISEASES (CDD) - Diarrhoeal disease morbidity is high in Zambia, with rapid urbanization and poor water and sanitation infrastructure playing an important part in its etiology. It is felt that the health service figures available represent only a small proportion of the cases (and deaths) due to this group of diseases. In a 1986 EPI/CDD survey the diarrhea incidence rate for under five children was 27% for urban and 22% for rural areas. ORS was used by 27% (32% urban vs. 22% rural and SSS was given by 42%). UNICEF reports 59% ORT use rate for 1987 - 1988.

6. MATERNAL MORTALITY - The Maternal Mortality Rate is estimated at 200/100,000 lives births. The mean age of first pregnancy is less than 18 years. While coverage figures for Antenatal care are fairly high (60 - 70%) and demonstrate the acceptability to the population of this intervention, the quality of the care provided is still low for any significant impact on maternal or perinatal mortality. Many women attended only once or twice (UNICEF, 1990).

7. MALARIA - Malaria is endemic in all of Zambia and is a leading cause of morbidity and mortality. It is the most common cause of hospital admission for all age groups. During the period 1976-1986 there was over a two-fold increase in the number of hospital deaths due to malaria (Figure 8). The incidence rate has steadily increased from 121.5 in 1976 to 217.5 in 1986 (Figure 7). The

MALARIA: ANNUAL INCIDENCE RATE

1976 - 1988



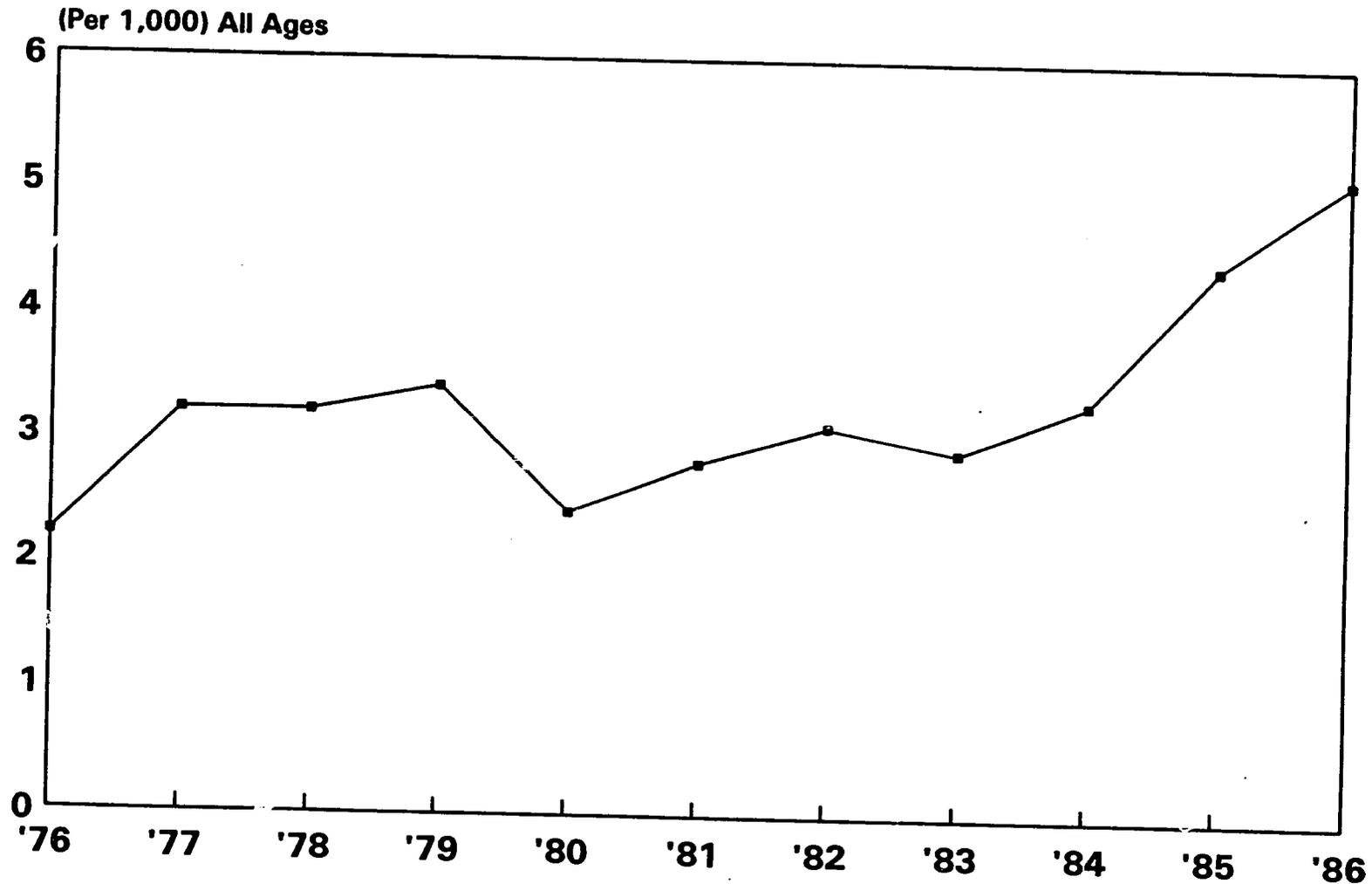
Bulletin of Health Statistics, MOH.

Figure 7 (Annex 1)

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MALARIA: CASE FATALITY RATE

1976 - 1986 (HOSPITAL BASED)



Bulletin of Health Statistics, MOH

Figure 8 (Annex 1)

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hospital case fatality rate has sharply increased, more than doubling from 2.2 per 1,000 to 5.1 per 1,000 in 1986 (Figure 8). Many factors may influence these trends, including increasing disease virulence, increased chloroquine resistant strains, and changes in community prophylaxis (MOH, 1986).

8. HIV/AIDS - The National AIDS Prevention and Control Programme (NAPCP) has information on 3,155 reported cases of AIDS and 12,815 reported cases of ARC up to June 1990, with an accelerating trend. HIV seroprevalence studies from 1987 give figures of 10 -15% among blood donors, with lower figures (0-7%) in rural areas. In 1990, seroprevalence among antenatal Clinic attenders at a sentinel site was 20 -25%, while groups at risk or high prevalence groups showed higher rates - 67% for TB patients and 50% for STD clinic attenders in Lusaka. Preliminary information from UTH reveals that the proportion of AIDS-related diseases among all surgical and medical inpatients has increased from 10% in 1986/87 to at least 30% nowadays (UNICEF, 1990). These figures may be on the low side.

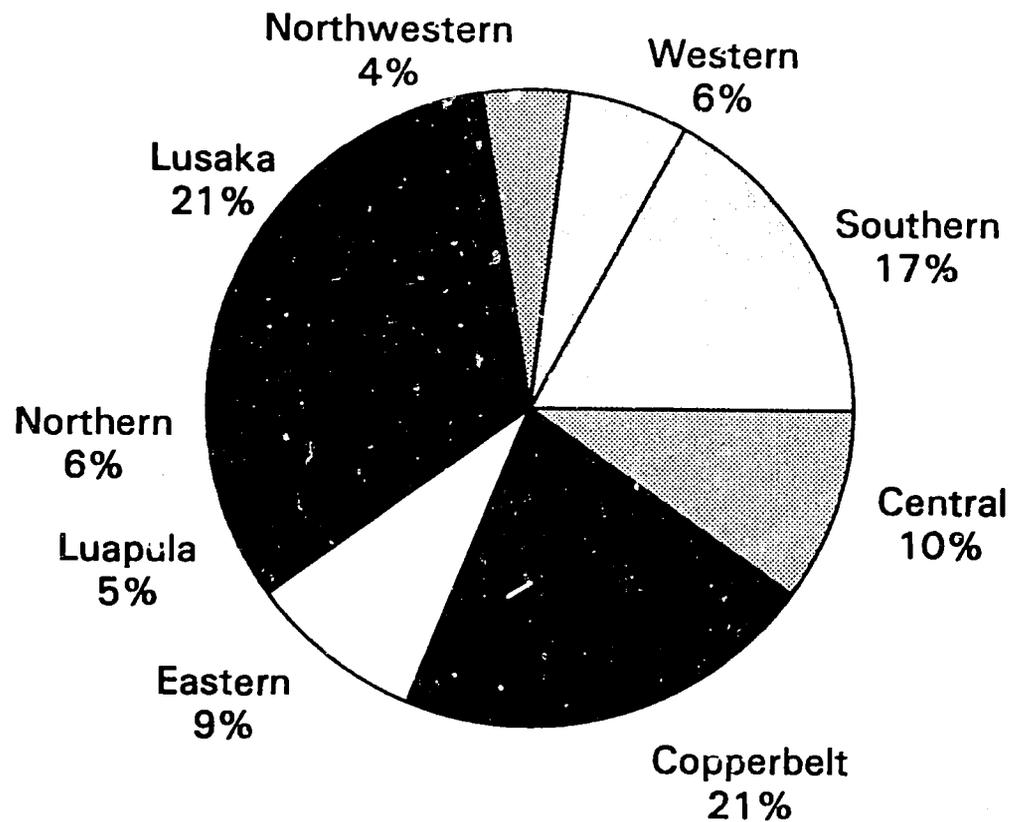
9. CHOLERA - In April of 1991 the MOH announced that 760 people had died of cholera out of 10,000 reported cases in seven out of nine provinces. "Aid agencies have been slow to respond to this year's outbreak, which many thought could have been prevented. Last year 200 people died in Lusaka and donors provided more than \$1 million towards the relief effort. However, their reluctance this year may have been the result of allegations of misappropriation of funds by those who managed the programme last year" (EIU, 1991).

10. SEXUALLY TRANSMITTED DISEASES - The greatest number of STDs are seen in the most urbanized provinces - Lusaka and Copperbelt (Figures 9). The system of data collection for hospital admissions and deaths is limited to include only gonorrhoea and syphilis categories.

11. WATER SUPPLY AND SANITATION - There are wide variations in safe water supplies and sanitation. In 1980 the MOH found that 70% of the total population in the 10 largest urban centers, 45% in peri-urban areas, and 32% in rural areas had an acceptable water supply. (ODA, 1989) There has been a recent decline in the maintenance of water and sewerage systems, most likely playing a major role in the repeated cholera epidemics.

SEXUALLY TRANSMITTED DISEASES 1988

Proportional Incidence - Adult Cases



ANNEX 1

IV.F. FAMILY PLANNING

High fertility and low prevalence of contraceptive use within Zambia indicate the need for family planning services is great. Zambia's population is estimated to be about 7.8 million with an annual growth rate of about 3.7%. The total fertility rate for the country is a high 7.2 with the prevalence rate for contraceptives of only 4% in rural areas, 15-16% in urban communities, and 9% for all methods, including modern. Knowledge of contraceptive methods is a low 42% in rural areas and only 66% in urban areas - some of the lowest rates in eastern and southern Africa (Pathfinder, 1991).

The recent adoption of a National Population Policy is encouraging but at this early stage is more permissive than proactive. While most hospitals and health centres throughout the country claim to offer family planning services, the effectiveness of service delivery is highly questionable. Various studies of family planning services in Zambia have indicated weak implementation of program initiatives by MOH, inadequate numbers of trained staff, and lack of donor coordination (Pathfinder, 1991).

IV. AREAS FOR FURTHER EXPLORATION BY ASSESSMENT TEAM

IV.A. GOVERNMENTAL POLICY

1. What is the source of motivation for the development of policy?
2. What is the process for developing and adopting policy, and what are the respective roles of the MOH, the Central Committee, and others?
3. What's the commitment to implement policies that are adopted?
4. What is MOH policy regarding support of PHC versus curative services?
5. What is the government's level of commitment to the National Population Policy adopted in 1990?
6. What are the policy implications, regarding health issues, resulting from the upcoming elections?

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IV.B ORGANIZATION AND MANAGEMENT

1. What are the components within the health system are working well and what components are not? What are the problem areas?
2. How does MOH relate to non-governmental providers, i.e. unions, church organizations, etc.? Does MOH see this relationship changing? If so, how? How is MOH viewed by them?
3. How does MOH's organization help or hinder policy implementation?
4. How far has MOH progressed in moving towards decentralization?
5. What is the level of management capability within MOH, and how aware are they of their strengths and weaknesses?
6. What kind of MIS is appropriate? What information is needed and what will be used?
7. What is the existing role of UTH in fulfilling overall MOH goals?
8. What barriers stand in the way of UTH fulfilling its potential?

IV.C. WORKFORCE PLANNING/TRAINING

1. Does a formal workforce plan exist? Is it needed?
2. What is the ability of the system to identify and/or produce required professionals?
3. What are the impediments to retaining or recruiting needed workers? (cross reference to educational sector)
4. What kind of training is most appropriate in light of current conditions?

IV.D. HEALTH FINANCING OPTIONS

1. What is the government's level of financial support for health in the last few years - have trends changed?
2. What is MOH policy regarding implementation of user fees and community initiatives for cost sharing?

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3. What is the government's (Ministry of Finance) policy regarding the retention of revenues collected by local hospitals and health facilities?

4. How has cost sharing progressed among the CMAZ organizations?

IV.E. DONOR PARTICIPATION AND COORDINATION

1. What are current donor interests and roles? What support is currently provided or planned?

2. How effective is donor coordination? What is the status of the Social Action Program?

3. What are AID/W's and Africa Bureaus' expectations regarding Zambia?

4. What is USAID's comparative advantage?

5. What is the USAID Mission's ability and interest in supporting any HPN activities?

6. What are the optional levels of support based on Mission staffing and interest?

IV.F. HEALTH STATUS

1. What are major environmental condition affecting health status?

2. What are MOH's priorities? What do they identify as their most serious health problems?