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AN ASSESSMENT OF FAMILY PLANNING AND POPULATION

ACTIVITIES IN ZAMBIA

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Report Prepared for USAID Zambia

Dr. Anita Mackie  
Ms. Barbara Kennedy  
Ms. Carol Dakhs

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# AN ASSESSMENT OF FAMILY PLANNING AND POPULATION

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## INTRODUCTION

This assessment of the status of population activities in Zambia was conducted at the request of A.I.D./Zambia from September 28 through October 10, 1980. The analysis was conducted by a three person team of A.I.D. population, health and agriculture specialists representing REDSO/EA in Nairobi and both Africa Bureau's Population Division and Development Support Bureau's Population office in AID/Washington.

The team visited Government of the Republic of Zambia (GRZ) Ministry of Health and parastatal facilities and service sites. In addition, other donor agencies thought to be working in the area of population were also contacted. Interviews were conducted with fifty-one (51) individuals from both urban and rural areas namely Lusaka, Ndola, Kitwe and Fiwale Hills.

The result was that the team was able to collect comprehensive information on the status of population activities in Zambia, the linkage and complementarity of population activities as related to the agriculture strategy outlined in AID/Zambia 1982 Country Development Strategy Statement (CDSS), the role that Family Planning plays in Zambia's Primary Health Care Program, and needs and gaps identified in present and past population programs. Finally, the team has made specific recommendations for AID's role and level of effort in providing population assistances to Zambia.

I. IMPLICATIONS OF THE PRESENT SITUATION WITH RESPECT TO  
POPULATION VARIABLES IN ZAMBIA

A. Present Demographic Situation

The mid-year 1980 population estimate for Zambia in 1980 was 5.834 million, making it a relatively sparsely populated country relative to its neighboring countries. It is also relatively urbanized, with 41 percent of the population in urban areas. The population is concentrated along the line of rail with Copperbelt Province being the most populous, followed by Central Province. Northwestern Province has a density of only 3 persons per km<sup>2</sup> compared with 40 per km<sup>2</sup> in copperbelt.

The annual rate of population growth appears to have been increasing during the past decade to slightly over 3 percent. The age distribution pyramid is characteristic of populations with a high fertility rate and a high but declining mortality. Life expectancy at birth is about 47 for males and 50 for females and has been rising in recent years. Selected vital statistics appear in Appendix A.

Zambia with its rapid rate of urban growth caused by both migration and high fertility rates will probably have half its population living in cities by 1985 when the population will reach about 7 million. Young males especially leave the rural areas for jobs in the mines and in the towns, leaving a shortage of male manpower on farms. In some rural areas of Zambia there are 70 males for every 100 females. In urban areas the males outnumber the females.

The population of Zambia as a whole has a high level of fertility, with estimates of total fertility generally being in the region of 7. There were two publications of the Central Statistics Office on fertility based on the 1974 census, one dealing with fertility data from both the census questions and from pregnancy histories, the second dealing with inter-regional variations in fertility

The first publication reinterviewed a sample of about 700 women who had participated in the 1974 census. While mean total fertility for women aged 15 to 39 was not significantly different at about 3 children between the survey and the census, substantial differences existed by most other criteria. These will be summarized briefly:

- In the census, women aged 15-19 substantially under-reported their fertility, women aged 20-24 moderately under-reported, women aged 25-29 were apparently accurate and women aged 30-39 moderately over-reported.
- The degree of consistency by age groups followed the same pattern for urban and rural samples except for the 15-19's where the degree of under-reporting was greatest for single urban (and often educated) women.
- Female children were very substantially under-reported for all age groups in the census, most especially by urban women.

In 1973 a Universal Births and Deaths Registration Act was passed making registration compulsory for all ethnic groups. However, this development is still in its initial stages although improving. In 1978 over 26,000 live births occurred in rural health centers, and over 80,000 in hospitals. Thus, given the present birth rate, about half of all births are occurring in a fixed health institution. The percentage of deaths occurring annually in fixed health institutions is considerably lower, or about 17 percent of all deaths. Birth and deaths occurring outside fixed health facilities are rarely registered, making the Census the only accurate source of demographic information.

The 1974 Sample Census of Population has still not been completely analysed. In terms of the sex of the head of the household it is interesting to note that of the 12 percent of single person households, half were male and half female. Two, three and four person households were equally common, each with about 14 percent of the total population and one-third of all these households were headed by women. Female-headed households were less common in the larger households of 5 persons or over where they made up one out of every six households. Almost half the households in Zambia in 1974 had 5 or more persons.

The second publication reviewed all the historical information available on inter-regional fertility in Zambia. The major findings will be summarized:

- The Northern and Copperbelt Provinces had relatively high levels of fertility, the Western and Northwestern Provinces relatively low levels and the remaining provinces intermediate levels.

- These differences appear to be a reflection of fertility differences between tribal groups, which differences appear to persist after migrations to urban areas, suggesting that aspects of tribal customs or environmental effect may be in part responsible.
- There did not appear to be any relationship between the incidence of polygamy and the level of fertility, nor other marital factors. Only 2 percent of Zambian women aged 40 to 44 report never being married, and 18 is the average age of marriage.

Another recent publication focused on the fertility behavior and attitudes of rural women and interviewed almost 900 women in 9 districts. Some highlights of this study with data collected in 1979/80 are:

- Most subjects had been married twice.
- The average child spacing period was two years.
- Only in 2 districts Mahgu (5%) and Lundazi (17%) were there any significant number of respondents who ever applied birth control methods.
- In 5 of the 9 districts an average of 2 stillbirths had occurred before interview.
- Most respondents said that the ideal family size was "as God can give," in 2 areas one-third thought that 10 or more children was the ideal family size.
- The percentage of persons intending not to have any more children ranged between one-third in Mazabuka where the average number of living children was 4, to three-quarters in Monze where the average number of children was 5. Of those desiring to terminate at their present family size, three-quarters were women. Men were apt to want more children.

The 1974 Sample Census for Population in Zambia was still not completely analyzed. The delay in reports, only half of which had been published was attributed to lack of programmers. There was a demography section headed by Mr. Sheikk and two reports on fertility based on the 1974 data had been published in 1975. In view of the discrepancies between the Census and sample survey data reported previously it would obviously be desirable to repeat such a sample survey with the 1980 Census. Data collection for the latter had commenced in late August. Reports were not promised for another three years.

Data collection for the 1980 Census was underway at the time of the team's visit. Substantial financial assistance for the Census had been provided by UNFPA.

### Summary

The present demographic situation in Zambia is characteristic of most developing African countries with a rapidly growing population, having a high and increasing percentage of children, a low but increasing proportion of people over 60, and a low and declining proportion of people in the productive age group (15-60). This is typical of countries with a high and constant fertility and a rather high though declining mortality.

### B. Government Policy with respect to Family Planning

In the past the Government has been silent on the role of family planning or child spacing. Elective abortion in Zambia is forbidden under the Penal Code. However, according to Section 3 of the Termination of Pregnancy Act, 1972 (Act No. 26 of 1972), medical abortion is permitted if performed by a registered medical practitioner in a hospital. It is normally necessary that the physician and two other registered medical practitioners agree that (a) the continuance of the pregnancy would involve risk to the life or health (mental or physical) of either the mother or any of her existing children, or (b) there is substantial risk if the child were born it would suffer from "such physical or mental abnormalities as to be seriously handicapped."

Socio-economic considerations may play a role as in determining whether the continuance of the pregnancy would involve risk to the life or health of the mother, and account may be taken of her "actual or reasonable foreseeable environment or of her age". There is no specific provision for abortion on humanitarian grounds. In 1978 about 12,000 abortions were recorded by fixed health facilities, almost all from hospitals. There was a difference of opinion as to whether the Act had recently been amended to include social grounds. Mr. Lloyd Siama, Lawyer and General Secretary to PPAZ, said that it had not, though discussions may have occurred.

The Third National Development Plan (TNDP) 1980-1984 summarized the objectives and strategy for improving and expanding the health services as follows:

- (i) Continued development of an effective and integrated national health care system.
- (ii) Development of basic health services in rural areas priority being given to those areas where no such facilities exist.
- (iii) Attainment of higher levels of Zambianisation through expanded training programmes. During the TNDP, the distribution of health workers will be carefully examined.
- (iv) Movement towards complete integration and expansion of preventive and curative services.
- (v) Provision of health protection to an increasing number of mothers, infants, school-children and certain vulnerable categories of workers.
- (vi) Decentralisation of basic health services.
- (vii) Nutritional well-being of the population, with particular reference to "vulnerable groups".

The most recent document "Health by the People: Proposals for Achieving Health for All in Zambia" produced by the Planning Unit of the MOH in January, 1980 has been accepted by the MOH and is expected to be endorsed by the Party in November 1980. It is focused on the services to be provided under primary health care to tackle the main health problems of a community. The document clearly states that maternal and child services, including child spacing is one of the necessary services (pg 13).

One of the obstacles to delivery of child spacing services to women desiring them is the restriction of delivery of these services to physicians. Oral contraceptives and injectable contraceptive drugs appear on List A, or those drugs which can only be prescribed by physicians. If they were moved to List B they could be utilised by medical assistants and nurses. The insertion of IUD's is viewed by some as being a "surgical procedure" and by others as being utilization of a medical device and thus not subject to restriction of use to physicians only. With training in IUD insertion being a part of the training for family planning given to registered nurse-midwives, it is obviously desirable to allow them to do so.

The present ratio of one MD for 8,000 population means that their use must be concentrated on conditions requiring their intervention. The distribution of doctors in Zambia is most uneven. At the University

Teaching Hospital in Lusaka there are about 150 doctors and specialists. Mining companies employ about 70 in their hospitals, and about 50 are in private practice, mainly in Lusaka. *students* <sup>students</sup> Zambianization is a stated priority, but even if the present training intake of 50 students per annum were raised to 100 by 1982, there would still be a shortfall of over 100 doctors by 1990. Only 10% of the 643 MD's in the country in 1977 were Zambians.

It is clear that the present policy of giving women either a 3 months supply of oral contraceptives, or a 3 monthly injection would require 4 physician visits per annum, thus either severely restricting the patient population for these services or tying up a significant proportion of physician time. Amendment of the legal status of the Nursing Act will be necessary to allow delegation of selected practices to paramedical personnel to clarify the present situation. Movement of both oral and injectable contraceptives from List A to List B will allow their use by nurses and medical assistants.

A recent development in policy is the appointment of a committee chaired by Dr. Mwambazi, the Assistant Director for Planning in the MOH to select the members who will be invited to sit on a multi-disciplinary Committee of Ministers Conference to consider Population Policy issues. The International Labor Organization (ILO) has sponsored this activity. It was not entirely clear what the duties or authority of this committee would be at the time of the assessment.

Most respondents interviewed by the team remarked on the changing political climate towards child spacing in Zambia. They said that the topic had previously been viewed as population limitation, often involving forced sterilization procedures. Now most people understood that child spacing involved the voluntary use of modern methods and were more receptive. The single member of the Central Committee for Copperbelt Province interviewed was extremely forceful in his support for family planning.

### C. Agricultural Strategy

One of the objectives in the strategy for rural development in the Third National Development Plan is to "increase food production and various other agricultural commodities with a view to achieving not only self-sufficiency, but also promoting exports." Rural development was also seen in the plan as including the improvement of rural health.

The AID assistance program as stated in the Country Development Strategy Statement (CDSS) for 1980 will be directed towards the achievement of two basic GRZ objectives:

(1) to increase the incomes of traditional farmers; and (2) to increase total food production. It states that the overwhelming majority of the poor are composed of traditional farmer households in the rural areas, and increasing the income and therefore the purchasing power of this poor majority is a pre-condition of sustained economic growth.

The human component of the potential for agricultural growth in production and income in Zambia is seen as the most important one. A recent global analysis conducted by Hicks (1979) used multiple regression techniques to analyse the effects of a variety of factors such as level of investment, export earnings, capital flows and the nature of development policies pursued on the growth rate. The results suggested that a basic needs emphasis on development can be instrumental in increasing the Gross National Product per capita. He concluded that meeting those aspects of basic needs which build up a country's human capital by improving health and living conditions of the poor are particularly important. This suggests that assistance to FP in Zambia may benefit the total population.

The following factors are important in any consideration of the human factors involved in agricultural production:

(a) Every third Zambian child was estimated to be malnourished in 1978.

(b) Disorders of the newborn and perinatal period, many of which are due to low birthweight babies born to malnourished mothers are the two leading causes of death in Zambian hospitals.

(c) Malnutrition and anaemia together with diarrhoea (often associated with malnutrition) account for nearly one-quarter of deaths recorded in rural health centers.

(d) The percentage of childhood deaths in hospitals in Zambia directly attributed to malnutrition has actually been rising in recent years and is now about 14% of child deaths in hospitals.

(e) It is estimated that about 40% of Zambian children die before the age of 15, many from conditions which could be prevented or cured.

The role of women in Zambia agriculture should not be underestimated. At least one in five rural households is headed by women. Women in some areas conduct almost all

of the agricultural activity. Probably at least three-quarters of all agricultural labor in the traditional sector is performed by women. Women who are either pregnant or nursing for the majority of most of their adult life cannot be expected to perform the myriad tasks that are their role in Zambian society without deleterious effects on their health. Control over their reproductive cycles would:

- (a) Improve maternal health
- (b) Improve child health and increase food availability to the mother and children.
- (c) Increase the quantity and quality of the females' work capacity.

If assistance is given to improve child spacing in Zambia, agricultural productivity can be raised directly by the factors cited above, and per capita income to the farm family raised, which is at least as important as raising total farm income. In addition, raising maternal reproductive efficiency will conserve resources in both the health sector and nutritional areas.

## II. EXISTING AND PLANNED POPULATION ACTIVITIES

### A. Traditional Health Sector

A review of the literature on birth control practices makes it clear that the spacing of births was greatly valued by traditional values of the culture. Amongst many of the ethnic groups in Zambia there existed a postpartum taboo on intercourse until either the child walked or while the child was breast fed. Apart from abstinence other types of birth control methods have been utilised since time immemorial. These have included both coitus interruptus and some use of the rhythm method.

Women in traditional cultures in Zambia have always sought the assistance of local practitioners including birth attendants to prevent conception or cause abortions. Methods utilized to attain these ends include the oral intake of herbal medicine, the local application of traditional medicine and plant roots in the birth canal, and the wearing of roots, charms or other medicine on a string around the waist. Most of the scattered literature on practices had been gathered by anthropologists.

Fertility levels in Zambia vary widely from province to province, and also differs in urban and rural areas. While some variation may be attributed to the modern health sector, local traditional practices undoubtedly also play a part. One group which has a low fertility rate are the Luvale, they were extensively studied by Spring to establish the relationships between medical and ritual participation and natality. Her study indicated that their therapeutic style adversely affected fecundity and increased fetal mortality by causing non-specific infections and chemically and physically damaging the women's vagina and her health.

There is a need to know more about people's knowledge, attitudes, and practices with respect to both the traditional and modern sectors. The few comprehensive studies such as the one cited above only deal with a small percentage of the population.\*

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- \* The MOH states in its new plans that increase cooperation between the traditional and cosmopolitan practitioners. Their future plans include the identification and training of traditional healers. If FP services and information is to be made widely available, it is hoped that the MOH will utilise all resources and personnel.

## B. Government Health Services

The COZ health budget has demonstrated an increasing national concern for health, recently the health budget has exceeded 10 percent of the national budget. While there has been a great deal of discussion on increasing emphasis on prevention, still 45 percent of the budget goes to the large hospitals (University Teaching Hospital (or UTH) Ndola, Kitwe and the specialist hospitals ). It is probably unrealistic to expect much change in the amount allocated to recurrent costs of these large curative institutions. Any increased emphasis on prevention and rural family planning services will have to be met from increases in the total dollars spent for health.

More family planning services are currently being delivered from the two largest hospitals in the country than through any other individual outlets. Visits were paid by the team to University Teaching Hospital and Ndola, and their programs were substantial though currently hindered by lack of supplies. These two units can be expected to supply the nurse midwives who would form the trainers in any expanded program.

### (1) University Teaching Hospital

The Ministry of Health's University Teaching Hospital (UTH) has the largest single family planning clinic in Zambia. Family planning services are offered every afternoon five days a week at UTH and six additional clinic sessions a week are offered by UTH staff at surrounding health centers in Lusaka.

UTH started the first family planning clinic in Zambia in 1972. In 1975, they received a two year Population Council Research Grant to launch a family planning program. At the end of the two-year program 10,000 users were serviced at eight clinic sites. The two-year research grant documented the expanding need for family planning services. Since the Population Council funds terminated, UTH has been able to maintain the family planning service, but only with a skeletal staff of trained nurses and Zambia enrolled nurses who provide all of the services with medical back-up.

Dr. Chatterjee, who heads UTH family planning unit, discussed the current problem of commodity shortages. All oral contraceptives are received from Planned Parenthood Associations of Zambia (PPAZ) and due to PPAZ shortages of contraceptives discussed in the section on PPAZ the UTH along with many other family planning clinics have not received contraceptives since March 1980.

Seventy percent of women using UTH clinics are using oral contraceptives and we were told up to 70% of all current pill users have had to temporarily discontinue using pills until a shipment arrives.

Following the pill, in preference is Depo-Provera, IUD's and last voluntary sterilization. The demand for sterilization at UTH is very low averaging about 50 patients per year.

Dr. Chatterjee has received John Hopkins Program for International Education in Gynaecology and Obstetrics (JHPIEGO) training in Advances in Reproductive Health including clinical training in laparoscopic sterilization and UTH has a working laparscope. Most sterilizations performed at UTH are done for obstetrical reasons.

Dr. Chatterjee is currently coordinating two studies of interest in family planning. One is a WHO-sponsored study on Depo-Provera. The other is on the effects of switching type and dosage of oral contraceptive, conducted partly because the problem UTH has frequently experienced in receiving commodity shipments that differ from what is ordered. Pill-users have to frequently change the type of pill due to these circumstances. Although it varies from service site to service site, consent forms signed by husbands are supposed to be a requirement prior to any women receiving contraception. This regulation is enforced at UTH

(2) Ndola Central Hospital

Family planning has been offered at this 700 bed hospital for the past seven years. Family planning services are given once a week and an average of 150 clients are seen per clinic day. The consent form is not a requirement before receiving services at this hospital. Commodities are received from PPAZ and at the time of the team's visit they had a contraceptive shortage with no pills for three weeks. Both hospitals had physicians who were dedicated to supplying family planning services to patients who desired them. Sufficient nursing staff had received FP training to deliver the present level of services. The clients of both hospitals sometimes travelled considerable distances to receive services, since so few rural areas offered FP.

(3) Other Government Hospitals

In addition to the three Central hospitals and the Special hospitals (leprosy, mental disease and children) there are 9 General hospitals located in the provincial capitals and two district capitals. Below that level are 30 District hospitals which serve as referral centers for

small facilities in the districts, 9 of these are run by Missions. While the team did not visit any of the smaller hospitals it is thought that few of the MOH hospitals offer FP services.

(4) Zambia Flying Doctor Service

The Zambia Flying Doctor Service (ZFDS) was founded in 1965. The organization based in Ndola is quasi - governmental. It receives almost all of its funding from the government but is also able to receive external support. The ZFDS has full responsibility for servicing and staffing fifteen (15) primary health care clinics in remote parts of Zambia where there are no other health facilities. They also service six Christian Mission dispensaries and health centers. The ZFDS operates with a small staff which includes medical, nursing, and paramedical personnel. They have four twin-engined planes and make daily flights to conduct clinics at various service sites. 24 - hour on - call service is also provided to pick-up and transport emergency cases to Ndola Central Hospital for treatment. Radio communication with all ZFDS clinics is available. Though reportedly expensive, it is perhaps the only way of reaching remote regions until the government develops a means of land transport to these rural areas.

The ZFDS is interested in family planning and is currently providing it on a limited scale as part of their health care activities. They average 4-5 family planning clients per clinic session and have a present case load of approximately 40-50 acceptors. Family planning services could be expanded however ZFDS, like many other health service organizations in Zambia providing family planning, does not have an adequate and continuous supply of contraceptives from PPAZ.

A few ZFDS staff have received special training in family planning. One medical doctor has attended the (JHPIEGO) Administrators course in November 1979 followed by clinical practical training in laparoscopic techniques and sterilization in Jamaica. (JHPIEGO - Johns Hopkins Program in International Education in Obstetrics and Gynaecology). There has been a delay in receiving the laparoscopic equipment to be installed for use in Zambia due to the unanticipated delay in converting a rural clinic into an operating theatre facility, and completing a landing airstrip to the clinic. It is hoped that the renovation will be completed by December 1980 after which the laparoscope can be installed for use.

There appear to be no plans by the MOH for the expansion of this expensive and primarily curative service. About 4,000 MCH patients are seen per annum and immunizations are also given. If the ZFDS continues with about the same number of staff serving remote rural clinics, its needs for commodities and training should be easily met by the channels open to other MOH family planning outlets.

(5) Rural Health Centers

The basic health facility in Zambia is the rural health center. There are over 500 currently being run by the government. They are mainly in rural areas and ideally are supposed to cover about 1,250 square kilometers. At present most lack the minimum staff, both at the medical assistant and ZEN or ZEM levels. Two-thirds have no health assistants. The new health plans call for this level to provide a wide variety of services including health education and MCH with child spacing. If the rural health centers are to be effective in providing a full range of services the staffing problems of this level will have to be addressed. An additional duty of their staff will be supervision of the Community Health Workers in each Primary Health Care Unit. At present staffing levels it is unrealistic to expect any large expansion of the FP program through MOH rural health centers or clinics.

In the long run if FP services are to be made available to the rural population, the services will have to be based at the rural health center. At the moment coverage by this level ranges from 84 percent of the rural population in reasonable distance (15-20 km) in Eastern Province to slightly over half in Northern and Western Provinces. The new plan in Health by the People calls for an increase of 200 additional health sub-centers to be built in next 10 years. It also states quite frankly that the building of 20 new District hospitals (or one for every 100,000 population increase) is not feasible given the present financial constraints.

C. Mission Health Services

The mission hospital and clinic system is a key component of the rural health delivery system. The missions operate 28 hospitals or over a third of all hospitals in the country. They also operate over 40 clinics, and probably see a larger percentage of the rural population than the number of facilities would indicate since people are aware of the better staffing and greater availability of medications at the mission facilities.

The MOH provides the mission facilities with grants to cover agreed upon percentages of staff salaries, bed costs and capital expenditures. However, in all cases the amounts reimbursed do not cover actual costs, and most missions subsidize their health services, usually with assistance from overseas mission branches. Both mission and government health services are provided free of charge. The Ministry of Health has included the CMAZ in their Primary Health Care

Program. Where it is expected to continue its roles in the delivery of primary health care and also in the training of health personnel. Currently CMAZ affiliated Missions operate 9 training schools.

(1) Churches Medical Association of Zambia

The Churches Medical Association of Zambia (CMAZ) was established in 1970 and is a registered body which coordinates church-related medical work with the Ministry of Health. Fifty percent (50%) of institutional health care in rural areas and thirty percent (30%) in urban areas are provided by CMAZ hospitals and clinics.

As a body, the CMAZ is supportive of family planning. Infact, family planning services are seen as an important component of the primary health care program and are currently provided by a member of CMAZ agencies. Catholic agencies are also providing Natural Family Planning in their clinics.

The central executive body of CMAZ, realizes that all hospitals and clinics within their association are made up of autonomous agencies and do not centrally promote particular services or drugs. Therefore the decision to provide family planning services is left up to each institution. Family Planning International Assistance (FPIA) provides contraceptive supplies to 12 CMAZ hospitals. Contraceptives have been shipped directly to CMAZ headquarters. So far staff have had no problem with customs, transport or distribution to the appropriate hospital.

If FPIA were interested in providing contraceptives to additional CMAZ hospitals, the CMAZ central committee would be happy to circulate an FPIA written announcement to all its affiliates inviting them to avail themselves of FPIA's commodities assistance. The CMAZ headquarters offered to handle all of the ordering and distribution of commodities.

(2) Makeni Ecumenical Center

The Makeni Ecumenical Center offers a variety of services to a large community on the outskirts of Lusaka. Eighty percent of the clients using the Center come from the surrounding neighborhoods. The programs include education and special interest courses, medical services including family planning, pre-school services, Christian activities, treatment of malnutrition and library services. Courses include agriculture, nutrition, sewing, first aid, technical training and theology.

Family planning is offered in a one room clinic once a week. A female doctor delivers the services and the government pays all clinic staff salaries. Approximately 60-70 clients currently receive family planning services. The Family Planning International Assistance (FPIA) currently supplies all of the center's contraceptives. Forty-nine thousand (49,000) general patients were seen at Makeni last year, the majority being mothers and children.

The demand for family planning services is increasing and the Center is planning to expand its facilities and increase its staff to be able to respond to this increasing need for family planning. Staff from the Center have requested funds from the Dutch Catholic Donor Agency, MEMISA, to expand the present clinic. With this expansion the center will be able to double its capacity and offer services seven days a week. Family Planning will then be an integrated service and offered during all clinic sessions. Makeni is also interested in expanding its medical and family planning services to squatter settlements and unrecognized townships surrounding Lusaka. The expansion of these services would require a mobile clinic unit, increased commodities and the training of staff in family planning clinical skills, and client education and motivation. An approved proposal between Makeni and FPIA has been prepared to provide these mobile family planning services.

(3) Natural Family Planning Life Promotion Committee

Natural Family Planning (NFP) is a relatively new movement and is in its infancy stages in Zambia. Interest started after the 1976 World NFP conference in Australia which was attended by a few Zambians. A seminar on Family Life and Natural Child Spacing was held in Lusaka in November of 1979. The West German Catholic Donor Agency, Mesereor, provided funds for the seminar. Over 100 participants from government and non-governmental organizations interested in family planning attended. Those in attendance expressed their desire to start NFP programs but unfortunately no follow-up was performed due to lack of funds. Since that time a Family Life Promotion Committee has been developed whose membership primarily represent the Zambia Episcopal Conference Commission for Development, Christian Council of Zambia and the Zambia Council for Social Development. The purpose of this Committee is to plan actions to increase the awareness of politicians and policy makers concerning the importance of NFP, to develop a strategy to train NFP trainers, and to seek funding for the support of NFP activities.

Although the total number of user - couples is very small, NFP is practiced in all nine provinces in Zambia. While those interested in NFP say that it is not a Catholic movement, the Catholic Diocese and the Catholic Secretariat have spearheaded the movement. About 40-50% of Zambian population are Catholics although it varies drastically from province to province (i.e. Northern Province - 80%, Western Province - 10%).

NFP is seen as complimentary to other artificial methods and in NFP training sessions for potential users all methods of contraception are discussed. When couples request methods or devices other than NFP, they are referred to other traditional family planning clinics. Most NFP services are provided on an ad hoc basis. The only formal clinic to date in Zambia is at the University Teaching Hospital which is headed by Dr. Tindo.

Future plans of the Family Life Promotion Committee include conducting a users program for interested couples and a trainees program for NFP teachers planned for April 1981. MISEREOR will be providing the funding for these workshops.

III. Donor Programs in Family Planning

A. United Nations Fund for Population Activities

Family Health Project

The UNFPA - funded and World Health Organization implemented Family Health Project is currently the largest single donor to the GRZ's new Primary Health Care Programme. It calls for a \$2.1 million contribution over a three year period. While originally planned to begin in 1978, expatriate staffing problems delayed implementation by over two years. In addition, the MOH is experiencing difficulty in getting WHO to release funds for project implementation, now that the expatriate staff have arrived.

The principal UNFPA elements of this project will be:

- One Medical Officer, MOH/Child Spacing
  - One Evaluation Officer, MOH/Child Spacing
  - Fellowships for Training
  - Vehicles:
    - 20 Land Rovers for Mobile Teams
    - 8 Station Wagons for Supervisors
    - 2 Four wheel-drive-vehicles for Family Health Division/MOH
    - 1 Car for FHD/MOH
  - Clinical Equipment (including 500 IUD insertion kits)
  - Printing and Audio-visual equipment
  - Contraceptive supplies: couple years protection\*
    - 408,000 monthly cycles of pills (31,325 couple years)
    - 117,000 doses injectables (27,209 couple years)
    - 14,700 IUD's (44,100 couple years)
    - 15,500 diaphragms (31,000 couple years)
    - 15,500 doz condoms = 180,000 pieces (1,800 couple years)
- TOTAL = 135,494 couple-years of protection

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\* Couple-years of protection calculated as follows:

1 couple year = 13 cycles pills  
= 4.3 injections  
= 0.33 IUD's  
= 0.50 Diaphragm  
= 100 condoms

These supplies will be supplemented by supplies donated from other sources, probably IPPF and FPIA. The IUD kits and other contraceptives represent 9% of the total costs of this project.

The original project description indicates that while family planning (child spacing) will form part of the project, emphasis will be on other basic health services. Coverage of the at-risk populations will increase as follows: (source, p.16 of UNFPA proposal).

Service	1975 Coverage	Proposed 1983 Coverage
Under-five	40%	80%
Anti-natal	71%	95%
Post-natal	42%	80%
Child spacing	1.1%	3.5%

However, the discussions held during September and October of 1980 lead to the conclusion that there is now a large need for childspacing services, perhaps unanticipated when the project document was drafted in 1977.

As this UNFPA project represents a major input to the Primary Health Care Programme, it will be prudent to monitor its implementation to determine if there are major gaps which additional assistance can bridge. However, it is too early to make an assessment at this time.

B. Swedish International Development Authority

Primary Health Care Coordinator Training

Development assistance to Zambia from Sweden is in the form of sector support to agriculture (U.S. \$15 million in FY 80), health (U.S. \$5.4 million in FY 81), and education (U.S. \$6.7 million in FY 80). The health sector support is spent for items determined annually by a team from Sweden jointly with the Ministry of Health. In general, S.I.D.A.'s target group is the same as AID's, namely the rural poor.

The S.I.D.A. health sector support planned for FY 81 will focus on the Primary Health Care Program, and therefore will indirectly benefit the family planning services to be delivered as part of that program. The following items are illustrative for FY 81 (negotiations were almost final as of October 8, 1980, when this information was received.)

Rural Health Centers	
Construction and upgrading	U.S. \$ 125,000
Training of Personnel	
(Medical Assistants and CHW's)	1,000,000
Support for Planning Unit - MOH	
(for PHC)	175,000
Vehicle Maintenance	625,000
Materials for local nutrition Surveys	125,000
Support for post-basic nursing school	750,000
Personnel Costs	<u>2,800,000</u>
	US\$ 5,400,000

SIDA expects to be able to continue its dispersal rate of over 90% each year, due to careful timing of its missions to Zambia, followed by timely requests from the MOH for inclusion of their assistance in the budget approved by the legislature.

C. Contractors and Grantees Receiving U.S.A.I.D. Support

(1) Planned Parenthood Association of Zambia

The Planned Parenthood Association of Zambia (PPAZ) was started in 1972 as an International Planned Parenthood Federation (IPPF) affiliate. The headquarter's office was moved from Ndola to Lusaka in 1978. The Lusaka headquarters shares some program responsibilities with the regional office in Ndola.

The main role of PPAZ is the dissemination of information and education on family planning through a field work program and motivation of the public to use family planning services offered by both government and parastatal facilities. While PPAZ does not offer clinical services it is their responsibility to procure and distribute contraceptives in bulk and free of charge to approximately 205 clinic and hospital sites throughout the country. Practically all contraceptive procurement in Zambia is performed by PPAZ.

The PPAZ has 14 branch offices that cover all nine provinces. Each branch office has one paid field officer and volunteers who assist in the program areas of information education and motivation.

Since its formation, the PPAZ has experienced a large turnover of staff and volunteers. Consequently administration and management of the organization has been weak. The 1979 IPPF annual report on PPAZ states: "In terms of past performance PPAZ has been characterized by rapid turnover and poor program development and implementation. Administration has been weak and has lacked the necessary capacity to implement a viable and dynamic program. Essential documents have not only been submitted late, they have been poorly prepared."

By far the most serious problem PPAZ has experienced to date was last December 1979 when the office headquarters was totally destroyed by fire. The major disaster, attributed to an electrical fault in one of the cables on the roof of the building, resulted in the loss of their entire stock of commodities, office furniture, audio visual equipment, office files and accounting documents. The estimated total loss was K51,006. AID assisted the PPAZ in recovering part of their losses by providing U.S. 9,000 dollars from its special population activities account for the purchase of office equipment and a new generator. A commodity order was placed to the IPPF regional office in Nairobi to replace those contraceptives lost in the fire. The Consignment arrived in Dar es Salaam in February 1980. It had been pilfered during shipment, and settlement of the insurance claim was not promptly addressed by PPAZ. A routine shipment of commodities did not arrive in Lusaka until seven (7) months later or until Sept. 1980. This resulted in many of the family planning clinics in Zambia completely running out of contraceptives. The University Teaching Hospital, the largest family planning clinic in Zambia, had not had contraceptives since March 1980. Although the contraceptives did finally arrive six months later, this problem raised many questions concerning the ability of PPAZ to be the sole supplier of

contraceptives to Zambia, and further what role PPAZ would play in the Government's new primary health care program.

(2) The Pathfinder Fund

This six month project (PIN 6298) conducted with the PPAZ trained 30 rural Zambia enrolled nurses (ZENs) in family planning (including IUD insertion) The training was conducted at the UTH. The objective was to equip ZENs with the necessary family planning skills to enable them to deliver services in clinics where family planning is currently not being offered due to lack of trained personnel.

To date all 30 have been trained but there has been no follow-up due to inability to start new family planning services because of the contraceptive shortage.

(3) The Centre for Population Activities

This support was given to assist the PPAZ in improving the quality and availability of family planning services through management/supervisory training. It began in 1978 when a few PPAZ staff members attended a management program in Mauritius and Washington D.C. At that time PPAZ requested CEFPA assistance to conduct in-country management programs for PPAZ and MOH staff. The following have been conducted to date:

1. May 1979 "Staff and volunteers Workshop" co-sponsored by PPAZ in Ndola.
2. March 1980 "Effective management and supervisor workshop, co-sponsored by PPAZ in Livingston

The second workshop was unique in that it involved MOH personnel who worked with PPAZ in providing management and supervisory training to those individuals in the actual implementation of family planning services.

(4) Johns Hopkins Program for International Education in Gynaecology and Obstetrics (JHPIEGO)

In April 1979 a System A Laparoscope and a Laproscator were installed at the University of Zambia Teaching Hospital by a JHPIEGO consultant, Dr. Kevin Kearney. Four physicians, one administrator and one nurse from this institution have received JHPIEGO training in reproductive health and laparoscopic sterilization. JHPIEGO has also trained a nurse from the Makulu Health Center and an administrator affiliated with the Ministry of Health.

In November 1979, Dr. Bijon Paul of the Zambia Flying Doctor's Service attended a JHPIEGO Administrators Course, followed by clinical practical training in Jamaica at the University of the West Indies. JHPIEGO has written to the Director of

Zambia Flying Doctor's Service, Dr. Silemu, requesting that an institutional form be completed and returned to JHPIEGO in order to make arrangements for a field visit by a JHPIEGO consultant and installation of endoscopic equipment.

JHPIEGO would like to recruit new candidates from Zambia for future English language courses and would like to have a candidate from Zambia for the upcoming English Infertility Course offered in the U.S. and at regional sites in Africa.

(5) Family Planning International Assistance (FPIA)

FPIA has been supplying contraceptives to CMAZ, ZFDS and the Makeni Ecumenical Center. Also, FP service and program support has been requested by the ZFDS and Makeni Ecumenical Center. FPIA has assisted in the development of two projects which would enable these two organizations to greatly expand their present capability to provide family planning services especially to couples in nurse and semi-rural areas.

The aim of the two projects Zambia-01 and Zambia-02 is to begin meeting the needs for family planning in the country while laying the groundwork for future expansion of family planning activities in Zambia. Specifically, the Zambia-01 project would be implemented with the participation of two highly respected national medical organizations: the Zambia Flying Doctors Service, and the Zambia Nurses' Association. Currently family planning services must be delivered by a doctor or in the presence of one. The combined efforts of these two groups will ease the way to independent service delivery by nurses and other paramedicals. It is expected that the group's observations will be utilized in the form of recommendations to the national government concerning strategies for integrating family planning services and primary health services with the use of properly trained paramedicals in the delivery of services.

The Zambia-02 project will in turn also be implemented with the participation of two highly respected organizations: the YWCA, Lusaka Branch and the Makeni Ecumenical Center. The combination of two fixed centers in the city plus the five mobile clinics would permit the provision of family planning services to people who would not receive them otherwise. As with Zambia-01, the training of the staff in clinical and motivational techniques of family planning would contribute significantly to the acceptance of family planning and its delivery by paramedicals.

The team discussed the Zambia-01 FPIA project proposal with officers of the Regional Office in Nairobi. It was mutually agreed that due to unforeseen delays, the objectives of this program were no longer relevant and FPIA decided to withdraw this proposal. The ZFDS was delivering services at a limited number of clinics and could receive their F.P. supplies through the Ndola branch of the WFPA. A sufficient number of the ZFDS staff had already been trained in service delivery techniques.

IV. PROBLEMS AND NEEDS IDENTIFIED IN THE PROVISION  
OF FAMILY PLANNING SERVICES

In observing clinic facilities and talking with family planning leaders in both government and non-governmental programs, the following problems, experienced by most clinic services and staff were identified:

A. Commodity Shortages

Except for Makeni Ecumenical Center and some of the CMAZ mission hospitals, Planned Parenthood Association of Zambia (PPAZ) provided all contraceptives to government and parastatal family planning clinics. Each clinic or hospital places their orders directly to PPAZ. PPAZ orders and delivers contraceptives to each clinic. No central government body coordinates what is being ordered, how much, or where it is being sent. The recent critical problem of lack of commodities is not entirely the fault of PPAZ but continuing users all over Zambia have had to stop taking pills due to the lack of supply and are at an undesired risk of pregnancy. A routine shipment had been sent by IPPF Nairobi and arrived during the team's visit. However, having the supply in country does not always solve the problem. Transport has been and continues to be a problem for all most ministry and parastatal programs, including PPAZ. An adequate and continuing supply of contraceptives was urgently needed. If PPAZ is to be a major supplier and distributor of contraceptives, they could use assistance in setting up a management and commodity system. Care must be taken to provide a continuous supply of contraceptives and provide pill users with same type and dosage of pill.

It would be desirable to analyse the need for contraceptive supplies and make numeric recommendations. Unfortunately, the data gathered to date are significantly inaccurate and vague to make such estimates impossible.

Mr. Daka of PPAZ provided the following data. On October 8, 1980. In 1979, a total of 105,910 cycles of orals were distributed. There were 23,172 new acceptors (all methods) and 43,542 continuing users (all methods). (No definition of new and continuing was provided.)

If we assume that half of all acceptors (new and old) used pills, then 33,357 women chose pills, and received an average of 3 cycles per woman. Either the figures are very low, or a majority of women accepted towards the end of the year. Inasmuch as IPPF's assessment team of March, 1980 also commented that user statistics were inconsistent, probably these figures are not complete.

However, if the assumption is made that the statistics are consistently flawed, then the number of cycles distributed to users in the January through June, 1980 period (38,302) demonstrates clearly that the commodity shortage has affected clinical distribution (due to lack of backup stocks), as that is only 36% as many cycles as were distributed in 1979. The situation clearly needs a more detailed examination; this is covered in the recommendations.

B. Legal Constraints against Trained Nurses/Midwives providing Family Planning Services

A number of nurses and midwives have received training in family planning. However, most are not able to practice family planning as it is seen as the responsibility of the physician. UTH was the only large family planning service visited where there was an exception to this rule. Prescribing pills and inserting IUD's are legally seen as prescribing medical drugs and performing medical procedures. There was alot of interest expressed by both physicians and especially nurses in changing this legal constraint in order to enable nonphysicians to provide clinical family planning services.

Another problem is that trained family planning nurses are often assigned to work in wards that do not include family planning activities. There is a lack of recognition of nursing specialization and therefore nurses are rotated throughout hospitals and clinic services by the assigning Nursing Matron or the Provincial Medical Officer. The Zambia Nurses Association is trying to make changes in this system by developing clinical interest groups in speciality areas (150 nurses are currently part of the FP interest group), by revamping curricula of nurses and midwives to include skills and information about family planning and by educating those making assignments to specific nursing positions.

C. Lack of Trained Manpower to Provide Family Planning Services

The new "Health by the People" primary health care program calls for family planning to be provided at all rural health centers throughout Zambia. The current basic curricula of all health professional roles includes little, if any, family planning training. Infact the curricula of basic health programs still emphasizes curative care with only brief mention of FP. To produce health workers who can provide preventive primary health care requires curriculum re-development, a development currently underway in a number of health programs. For example, the Nurses and Midwifery Act. No. 55 of 1970 is being revamped to include a broader curriculum in primary health to include family planning.

V. RECOMMENDATIONS FOR ASSISTANCE TO POPULATION/FAMILY PLANNING IN ZAMBIA

A. Rationale vis-a-vis USAID CDSS Objectives

The USAID/Zambia CDSS for the period FY82 - 86 concluded that AID/Zambia strategy should have two objectives, and should not be distracted by activities which do not contribute to those objectives. This approach was accepted by AID/W with the clear understanding that although the objectives of increased small farmer income and increased food production are in the agricultural sector, activities in the population sector might also contribute to progress towards the objectives.

The role of population growth (approximately 3%) in Zambia's development was discussed in the CDSS. In recent years real income per capita has been declining (p. vii, CDSS); there is insufficient data to make the same conclusion about per capita food production; although the incidence of malnutrition increased markedly between 1970/71 (23%) and 1978 (38%) among children under five (p. 36, CDSS) which indicates serious problems concerning food consumption, probably related to either production or income levels, both of which affect food availability.

An examination of the potential impact of slower population growth on each of the two AID/Zambia objectives reveals the following factors. It is assumed that this reduction will be accomplished by means of lower fertility (births per woman) produced by increased practice of contraception resulting from better availability of family planning (child-spacing) services and supplies on a nationwide basis.

(1) Increasing Small Farmer Income

If the rate of population growth were less than the current 3%, what impact might that change have on small farmer income? In per capita terms, the relationship is clear: as a small farmer's income rises, it rises faster on a per capita basis if he has fewer rather than more family members among whom to divide it. This also holds at the national level.

More reproductive efficiency, meaning fewer pregnancies which end in a fetal death, a still-birth, or a live birth followed by an infant or child death, which come as a consequence of better spaced pregnancies and fewer total births, requires less investment by the small farmer of his income or other resources which produce income such as his and his wife's time, or foodstuffs lost when a pregnancy terminates early or a child dies.

Therefore, effectively, available income is increased. Examples of expenditures which might be avoided for a child who subsequently dies would be fees in cash or in kind for traditional medical care, or for expenses attendant to schooling for children, such as books or uniforms.

Small farmer incomes would also increase as a consequence of family planning in that food produced and not consumed to support pregnancies or offspring who later die is available as surplus to sell thus increasing farm income.

## (2) Increasing Total Food Production

Again the relationship of slower population growth to food production per capita, the reason given for the choice of this objective in the CDSS (p. 46) is clear, and operates as described above concerning small farmer income per capita.

The mechanism described above which will increase small farmer income will of course also have the effect of increasing production since farmers will be able to purchase more of the inputs necessary to production.

Women are heads of at least 20% of rural households in Zambia, and as much as 80% of all food in the traditional sector in Zambia is produced by women. Production can be increased if there is a decrease in the 5.1 years the average Zambian woman now spends pregnant, and the 13.8 years she now spends nursing the average of 6.9 children she bears. Pregnancy reduces her ability to perform labor, while nursing requires that she have the infant with her constantly restraining how fast she can work and how far away from home she can work. If women had an average of 4 children instead of the current 6.9, the average woman would spend 8 years less either pregnant or nursing, which would make her more available for such work, thus increasing the productivity of women farmers and therefore the entire agricultural sector. The same would apply to Zambia's overall productivity, which could be increased if a larger proportion of adult women were able to participate in the economy of the nation. (Currently, women 15-49 have lower rates of employment than those younger or older p.10-11 - CDSS.)

There are few women agricultural agents or women working in positions related to agriculture such as in credit or marketing institutions. One reason is their higher drop-out rate from secondary schools, frequently attributable to unwanted pregnancies. Were this constraint addressed, more female might qualify for these agriculturally related occupations.

To increase total production in Zambia will require more complex management and increased inputs (p. 22, CDSS). Slower population growth will provide an increased time period during which such management and inputs can be developed before increased lands are required to produce food to feed an increased population or for export.

The choice of nationwide availability of family planning services and supplies as the means to reduce population growth in Zambia, will influence the outcome. Population growth occurs when births and net migration exceed deaths. This is the case in Zambia, with a birth rate of 52 per 1000, and a death rate of 21 per 1000, and negligible net migration, leading to a growth rate of approximately 3.1% per year. Any or all of the following would cause the growth rate to decline: an increase in the net outmigration rate; an increase in the death rate; or a decrease in the birth rate. As net outmigration only moves population problems, and increasing death rates are both unlikely and undesirable from a human point of view, a reduction in the birth rate, or fertility, is the method of choice in reducing population growth.

The birth rate may be reduced by decreasing the rate of conception or by the practice of abortion following conception. While Zambia has a very liberal abortion law among Sub-Saharan African States, this means of reducing the birth rate is costly both in health terms and in health care resources required, and is not desirable as a large-scale measure. Therefore, reducing the rate of conception is the method of choice to reduce the birth rate.

Conception rates can be reduced by reducing exposure to pregnancy, which occurs in Zambia when men migrate to the cities, leaving women behind. However, the higher birth rates in cities in Zambia may indicate that while rural wives experience reduced exposure to pregnancy, due to male rural to urban migration, total pregnancies may not be reduced as much as might be expected.

Conception rates can also be reduced by the practice of contraception. Every individual interviewed indicated that currently the demand for family planning services and supplies far outstrips the supply. Therefore, the more effective provision of contraceptive services and supplies on a nationwide basis in Zambia will very likely increase the proportion of women contracepting, and thereby reduce population growth rates, simultaneously increasing small farmer income and total agricultural production. The provision of family planning services and supplies is hampered at this time by several constraints, described more fully in section II.D above. Briefly, there are a lack of supplies and an adequate logistics system; lack of management skills at the PPAZ, which are essential to expansion and monitoring of services, and a similar lack of skills in the information and education arena.

B. Recommendations for Suggested Assistance

The recommendations section which follows addresses the desirability of assistance for commodities, technical assistance, participant training, and local cost projects. The recommendations go beyond activities which can or should be funded by AID or its intermediaries, and include recommendations for action by IPPF and UNFPA. A final section is included concerning the management role of AID/Zambia in carrying out these recommendations and subsequent situations which will arise. The implementation of these recommendations is felt to be the minimum necessary for the expansion of nation-wide family planning services in Zambia to meet current and future demand.

(1) Commodities

The greatest impediment to provision of adequate family planning in Zambia encountered was lack of contraceptive supplies. The total amount of supply entering the country is quite modest, and there is no reservoir of supply to cushion the system against problems such as the PPAZ fire of December, 1979 or the shipment problems occurring in March, 1980 (the combination resulted in no supplies for 3-4 months in many places during June - Sept. 1980). There is only one major importer (PPAZ) which subjects the entire supply to the same problems of transport and warehousing.

Recommendation 1: Contraceptive Supplies

(a) There should be multiple sources of supply to multiple recipients, using multiple warehouse points. For example, regarding oral contraceptives,

IPPF continue donations to PPAZ  
FPIA begin donations to PPAZ  
FPIA continue donations to CMAZ  
UNFPA donate, as planned, to MOH

For injectables,  
IPPF donate to PPAZ  
UNFPA donate as planned to MOH  
CMAZ receive supplies from MOH and/or PPAZ

(b) A minimum of six-month's supply should be routinely maintained in warehouses as a buffer against transport problems such as PPAZ experienced in the March-September 1980 period.

(c) Sharing of donated commodities should be practiced when any supply line experiences problems.

## (2) Technical Assistance

Technical assistance is needed in Zambia in the fields of commodity management and logistics, management of the PPAZ, and information, education, and communications (IEC) programs. The second priority recommendation, then, is as follows:

### Recommendation 2: Technical Assistance

(a) Technical assistance should be provided to the PPAZ, in consultation with the MOH, the CMAZ, and the ZFDS, regarding contraceptive supply and logistics. The following items need to be addressed.

- Estimation of quantities needed, by brand including backup stock
- ordering schedules
- Relative cost/merits different shipping modes, routes
- Distribution and record keeping in-country
- Relationships between importers\* for sharing/distributing stocks.

(b) Technical assistance should be provided to the PPAZ concerning overall management. Essentially every aspect of their operation is conducted with less than the efficiency necessary due to scarce resources. The PPAZ needs to learn how to make their good intentions and commendable goals a reality. Among other things this technical assistance should cover:

- personnel
- budget
- relationships with major donors.
- fundraising

(c) Technical assistance is also needed in the field of information, education, and communication (IEC), following the appointment of a new permanent director for IEC at the PPAZ. This is one of the two roles PPAZ fills in the system for delivery of family planning services. Current activities are limited, and while field officers clearly make presentations routinely at MOH clinics and to community groups, much more could be done to promote child spacing by Zambian couples. Technical assistance is needed to formulate (and possibly to carry out) such plans, which must be made in concert with the MOH health educators as part of the Primary Health Care program. A small scale KAP (Knowledge, Attitudes, and Practices) survey might be useful in designing such a program.

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\* Happily, there are no problems to report regarding customs clearance by any agencies currently receiving donated commodities.

(d) The authors recommend that, if possible, technical assistance in all three fields be rendered by IPPF's Africa Regional staff, as all three areas are PPAZ functions. As a second alternate, IPPF might carry out assistance in commodity management and overall management, with the University of Chicago Family Studies and Research Center (an AID/W/DS/POP/IEC grantee) providing the assistance in IEC. A third choice would be for a single AID/W grantee/contractor, possibly CDC, to do all three parts of the technical assistance.

(e) PPAZ be encouraged to submit a paper on its future roles and functions to the MOH for the new Primary Health Care Plan.

### (3) Participant Training

Participant training is not, at this time, of sufficient priority to warrant recommending more. At least 2 nurses have received US-based training; 3 physicians have attended JHPIEGO; and approximately a dozen individuals have attended CEFPA workshops.

After the technical assistance described above can be accomplished, the need for further participant training can be better assessed especially regarding in-country training.

### (4) Other Organization Programs

There are several small projects involving local cost decisions about which had been deferred pending this analysis. The recommendations are as follows:

(a) FPIA-02, which would provide a mobile clinic for use by staff from Makeni Ecumenical Center, should be re-drafted to take into account changes over the last year, and to make Makeni Center the lead recipient agency. This will maximize the probability of successful implementation of this project.

(b) FPIA-01, which was proposed as a grant to the Zambia Flying Doctors Service, would have provided contraceptive commodities and training for clinic personnel to provide family planning services on a pilot basis as demonstration of the Primary Health Care Programme, in order to encourage the MOH to adopt PHC on a nationwide basis. The contraceptive commodities are still badly needed, and can be provided through PPAZ and MOH channels as recommended above. However, the project proposal should be withdrawn from consideration by FPIA since

its demonstration effect has been overtaken by events. (already accomplished).

(c) The Center for Family Planning Activities had proposed to PPAZ an on-going series of management workshops. These should not be planned, as CEPPA's contract with the Office of Population has terminated, and competition for the follow-on contract may result in selection of a different firm. In addition, the consultant to the PPAZ for management should have input into decisions regarding necessary activities to improve management at the PPAZ.

(d) The training of a physician from ZFDS at JHPIEGO and the subsequent donation of a laparoscope was concurred in by the previous MAO in Zambia. To date, the laparoscope has not been shipped because the ZFDS has not completed renovations of a clinic into an operating theatre for its use. It is anticipated that ZFDS will be ready to receive the laparoscope by January, 1981. While it is best that this laparoscope be installed as planned, demand for sterilization at this time is quite low (approximately 1% of acceptors); therefore no more JHPIEGO training or laparoscopes should be approved for Zambia at this time.

#### (5) Other AID Activities

(a) RAPID - when the preliminary figures are available from the 1980 census, AID/Zambia should request that work begin on a RAPID presentation for Zambia. This will assist the GRZ in comprehending the nature and scope of its population growth, and should lead to better planning in all development programs.

(b) As the agricultural extension agents training program is developed, a short section on the benefits of family planning and the availability of services in Zambia should be developed and included. AID/Zambia may call on AID/W for provision of assistance probably by a contractor/grantee.

### C. Suggested Management Role for AID/Zambia

#### (1) General

(a) AID/W contractor/grantees may contact Zambia agencies directly with regard to provision of information or supplying project-produced materials or supplies; however, new projects must be cleared by AID/Zambia prior to development. (No projects other than those described above are anticipated; however, circumstances may change) Contractor/grantees are to provide information copies of communications to AID/Zambia.

(b) AID/W communications with Zambian agencies to be cleared by AFR/DR/POP and Zambia desk and information copies will be supplied to AID/Zambia.

(2) Specific to Team's Recommendations:

(a) AAO should authorize FPIA staff approved by the Nairobi office to travel to Zambia as needed, not requiring concurrence on every trip but only to be informed of upcoming travel with specified (perhaps 2 weeks) prior notice. FPIA staff should be available to AAO (or designee) to brief and debrief concerning each trip, or provide trip reports to AAO, at discretion of the AAO.

(b) The technical assistance recommended for PPAZ, to be provided as far as possible by IPPF, and would therefore not require action by AID/Zambia. In the event that IPPF requests that AID/W provide such technical assistance, every effort will be made to do using only one contractor/grantee rather than several.

(c) REDSO/EA will coordinate/monitor the implementation of these recommendations as requested by AID/Zambia.

3. Re-assessment of the situation by a similarly-composed team is recommended no later than October, 1982.

APPENDIX A

Selected Vital Statistics \*

Total population (est. mid 1980)	5.828 million
Total female population	2.934 "
Female, aged 15-49	1.291 "
"          "    (in unions)	0.929 "
% women in union, aged 15-19	37%
% women in union 20-24	81% "
% utilizing any form of contraception.	1%
Birth rate 49 per 1,000	
Total fertility rate 6.9 .	
Females mean age at marriage	18.0 years
Rate of natural increase	3.2%
No. of years to double population	22 years
Population projection for year 2000	10.7 million
Percent of population under 15	46%
Per capita Gross National Product	\$480
Life expectancy at birth (male/female)	47/50 years
Infant mortality rates (male/female)	56/132 per 1,000
Women as a percent of total labor force	32%
Employed women in agriculture	64%
Percent of population in urban areas (male, female)	35/33%
Percent of pop. aged 6-11 in school (male/female)	75/70%
Percent of pop. aged 12 or 17 in school (male/female)	64/42%
Percent of adults who are literate (male/female)	61/34%

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\* Source: Population Reference Bureau

ABBREVIATIONS

CDSS	Country Development Strategy Statement
CEPFA	Centre for Population Activities
CMAZ	Churches Medical Association of Zambia
FP	Family Planning
FPIA	Family Planning International Assistance
GRZ	Government of the Republic of Zambia
IE & C	Information, Education and Communication
IPPF	International Planned Parenthood Federation
IUD	Intrauterine Devices
JHPIEGO	The Johns Hopkins Program for International Education in Gynecology and Obstetrics
MCH	Maternal and Child Health
MOH	Ministry of Health
NFP	Natural Family Planning
PMO	Prevential Medical Officer
PPAZ	Planned Parenthood Association of Zambia
UNFPA	United Nations Fund for Population Activities
ZFDS	Zambia Flying Doctors Service

PERSONS CONTACTED

Family Planning Assessment Team

September 28 - October 10, 1980

1. Mr. Martin  
Primary Health Care Advisor  
Planning Unit  
Ministry of Health  
Lusaka
2. Dr. Lungu  
Asst. Director  
Preventative Services  
Ministry of Health  
Lusaka
3. Joyce Nkausu  
Assistant Registrar  
Impala House  
The General Nursing  
Council of Zambia  
Lusaka
4. M. Macwangi  
Provincial Public Health Nurse  
Ndola
5. Mr. Chesterman  
Executive Director  
Churches Medical Assoc.  
of Zambia  
Lusaka
6. Mr. Saviye/  
Mrs. Betty Mapoma  
Asst. Secretary  
Churches Medical Assoc.  
of Zambia  
Lusaka
7. Dr. G. I. Kimemiah  
Medical Officer  
WHO Advisor  
Family Health Program  
Ministry of Health  
Lusaka
8. Mrs. K. Sikota  
Principal Nursing Officer  
Traditional Medicine  
Ministry of Health  
Lusaka
9. Irene Beers  
Clinical Services  
Family Health Program  
Ministry of Health  
Lusaka
10. Theresz Mainga  
Administration & Training  
Family Health Program  
Ministry of Health  
Lusaka
11. Barnabas Michelo  
Health Education  
Family Health Program  
Ministry of Health  
Lusaka
12. Dr. Theresa Watts  
Senior Lecturer  
Dept. of Community Medicine  
Medical School of Zambia  
P. O. Box 50110  
Lusaka
13. Dr. Amonin  
Lecturer  
Dept. of Community Medicine  
Lusaka
14. Mrs. Gentles  
Post Basic Nursing Tutor  
University Teaching Hospital  
Lusaka

15. Dr. Mwambazi (Pediatrician Tulane)  
Asst. Director of Planning  
Ministry of Health  
Lusaka
16. Dr. S. L. Nyaywa  
Maternal Child Health Specialist  
(Pediatrician Berkeley)  
Ministry of Health  
Lusaka
17. Mr. Clarence S. Hall  
WHO Health Education Specialist  
Family Health Program  
Ministry of Health  
Lusaka
18. D. Mulenga  
Programme Officer  
World Bank  
Lusaka
19. Mr. P. C. Muzeta  
Assistant Secretary  
Zambia Episcopal Conference  
Commission for Development  
Lusaka
20. Mrs. Molly Dzabala  
Program Director  
for Vocational School  
YWCA Lusaka Branch  
Lusaka
21. Mrs. Winnie Kasapo  
Assistant Chief Nursing  
Officer (Training)  
Ministry of Health  
Lusaka
22. M. C. Banda  
Executive Director  
Planned Parenthood Assoc.  
of Zambia (headquarters)  
Lusaka
23. Godfrey C. Banda  
National Treasurer  
Planned Parenthood Assoc.  
of Zambia (headquarters)  
Lusaka
24. Loison Daka  
Field Coordinator  
Acting I, E & C Director  
Planned Parenthood Assoc.  
of Zambia (headquarters)  
Lusaka
25. Mr. Halsiindi  
Financial Officer  
Planned Parenthood Assoc.  
of Zambia (headquarters)  
Lusaka
26. Mrs. Pricilla Musanya  
Executive Secretary  
Zambia Council for  
Social Development  
Lusaka
27. Dr. Al Medwetz  
Management Training Officer  
Zambia Council for  
Social Development  
Lusaka
28. Jeanne McCormick  
Women & Development Coord.  
Zambia Council for  
Social Development  
Lusaka
29. Faith Mwila  
Executive Director  
Red Cross of Zambia  
Lusaka

30. P. J. Dil  
Managing Director  
Makeni Ecumenical Center  
Lusaka
31. Dr. T. K. Chatterjee  
Chief, Dept. of ob/Gyn  
University Teaching Hospital  
Lusaka
32. SR. Winnie Chisha  
Nursing Sister  
(In charge of FP)  
University Teaching Hospital  
Lusaka
33. Maud Moonze  
Chairperson - Lusaka Branch  
Zambia Nurses Association  
Lusaka
34. Dorothy Mhango  
Public Secretary - Lusaka Branch  
Zambia Nurses Association  
Lusaka
35. Mr. Sheikk  
Demographer  
Bureau of the Census  
Central Statistic's Office  
Lusaka
36. Mr. H. Mpanda  
Program Asst.  
UNFPA  
Lusaka
37. Fiwale Mission Clinic  
2 - of 3 nurses  
(Medical Assistant)  
Fiwale Hills
38. Abigail E. Somanje  
Field Officer  
Planned Parenthood Association  
of Zambia  
Ndola
39. Dr. Bijon K. Paul  
Zambia Flying Doctors Service  
Ndola
40. Ruth Nakazwe  
Registered Nurse  
Zambia Flying Doctors Service  
Ndola
41. Dr. Assanah  
Medical Officer Superintendent  
Ndola Central Hospital  
Ndola
42. Dr. Sylvia Lehrer  
Dept. of Obstetrics/  
Gynecology  
Ndola Central Hospital  
Ndola
43. Mr. S. J. Soko  
Managing Central Committee  
Copperbelt Province  
Ndola
44. Mrs. Anne Puta  
Organizing Secretary  
Zambia Nurses Association  
Kitwe
45. Lloyd Siam (lawyer)  
General Secretary  
Planned Parenthood Association  
of Zambia  
Ndola
46. Mr. Michel Iskanter  
Regional Coordinator  
UNICEF  
Woodgate House  
Lusaka
47. Mr. Larry Williams  
Assistant Program Officer  
UNICEF  
Woodgate House  
Lusaka

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