

MAURITIUS:
POPULATION AND FAMILY PLANNING ASSESSMENT

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ABBREVIATIONS

AID	(U.S.) Agency for International Development
AF	Action Familiale (local Natural Family Planning Organization)
AVSC	Association for Voluntary Surgical Contraception
BUCEN	(U.S.) Bureau of the Census
CDC	Centers for Disease Control
CPS	Contraceptive Prevalence Survey
CSO	Central Statistics Office
CSM	Contraceptive Social Marketing
FHI	Family Health International
FLE	Family Life Education
FP	Family Planning
FPIA	Family Planning International Assistance
IFFLP	International Federation for Family Life Promotion
INTRAH	Program for International Training in Health
IPPF	International Planned Parenthood Federation
IUD	Intrauterine Device
JHPIEGO	Johns Hopkins Program for International Education in Gynecology and Obstetrics
MCA	Mauritius College of the Air
MCH	Maternal and Child Health
MBC	Mauritius Broadcasting Corporation
MOH	Ministry of Health
NFP	Natural Family Planning
OC	Oral Contraceptives (Pills)
OM	Ovulation Method of Natural Family Planning
REDSO/ESA	Regional Economic Development Services Office, East and Southern Africa (AID's Regional Office)
STM	Sympto-Thermal Method of Natural Family Planning
UNFPA	United Nations Fund for Population Activities
VSC	Voluntary Surgical Contraception

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I. PURPOSE OF MISSION

AID has provided very little population assistance to Mauritius. However, within the past three years support has been increasing. In 1983, the Government requested contraceptives from AID and assistance was also given for some natural family planning (NFP) activities. Other AID projects include a physician and nurse training program, support for family planning services including voluntary surgical contraception (VSC) and general support for family planning activities on the Island of Rodrigues, and some regional training and research activities, primarily in NFP.

As requests for AID assistance have increased and as major donors such as UNFPA and IPPF are decreasing their support, AID in collaboration with the Ministry of Health decided to formally review the population and family planning program in Mauritius. In light of these findings, they have made specific recommendations on the types of population assistance needed and determined specific areas for AID support for the next three to five years. Knowing that limited AID population resources will be available, it was decided that recommendations would focus on priority needs which will yield the greatest demographic impact.

A two-week population and family planning assessment was conducted in Mauritius from 13-24 May 1985. The team was composed of AID's Regional Population Officer for East and Southern Africa, a Demographer and a Data Processing Expert from U.S. Bureau of the Census and an independent Contraceptive Social Marketing expert. Meetings were held with key population officials in the Ministry of Health, Central

Statistics Office, Ministry of Planning, Action Familiale (AF) and Mauritius Family Planning Association (MFPA). Local pharmacies were visited and discussions held with advertising organizations such as Mauritius College of the Air. One team member spent two days on the Island of Rodrigues to assess the status of the family planning activities and determine future program needs.

The REDSO/ESA Population Officer returned to Mauritius in October 1985 to discuss the draft report and findings with Government and with non-governmental organizations involved in population and family planning. Based on recommendations made in the report, AID's population strategy and plans for the next three to five years were determined and agreed upon.

II. EXECUTIVE SUMMARY

A. Demographic History

Mauritius has had a strong family planning program for the past twenty years. Voluntary organizations, such as the Mauritius Family Planning Association (MFPA) and Action Familiale (AF), began providing family planning, including periodic abstinence in the early 1960's. By the time the Government began integrating family planning services into their health program in 1973, the birthrate had fallen from 40 to 22 per 1000 and the total fertility rate from 5.9 to 3.4. This decline in fertility was the most rapid recorded in any population of substantial size. The coincidence of the fall in fertility and rise in family planning usage leads one to conclude that the provision of family planning services was critical to this decline.

Although the Island of Mauritius has experienced a sharp decline in fertility, the small island dependency of Rodrigues has not followed this pattern. The annual growth rate for Rodrigues (which is predominantly Catholic) is 2.7 percent compared to 1.3 percent for Mauritius. Likewise, infant mortality is high and health problems such as poor water and sanitation, nutritional deficiencies, alcoholism, and large family size also plague this island.

B. Demographic Data and Data Processing Capabilities

The last Housing and Population Census was conducted in May 1983, the full analysis of which has been delayed due to data processing difficulties. The total reported population is a little over one million people, including Rodrigues. There are many sources of family planning and demographic statistics for Mauritius, and the quality of these data is quite good. Mauritius is one of the few, if not the only country in the Africa Region with complete birth and death registration.

The Data Processing Division (DPD) of the Ministry of Finance is responsible for designing, testing and implementing all systems used for data processing for Government. The single most persistent problem within DPD has been a personnel shortage and inability to retain skilled programmers due to low civil service salaries and better job opportunities in the private sector.

Mauritius has a lot of data on their family planning program and there have been many special purpose demographic surveys carried out within the last few years. These surveys play an

important role in providing data, but, the MOH and NGOs involved in the surveys should coordinate their efforts more closely. Some duplication of effort has made it difficult to compare results.

The MOH has a good system to collect statistics on FP users. However, this system was developed at a time when the family planning program relied almost entirely on oral contraceptives and collected information on visits. The program now includes a mixture of methods including natural family planning (NFP) and more information is needed on current users of all methods. A totally new system may be necessary so that complete service statistics can be collected.

C. FP Delivery Systems

1. MOH

Contraceptive usage has steadily increased over the past few years. According to 1984 Ministry of Health Statistics, 65 percent of married women of reproductive age are currently practicing family planning. Although by African standards contraceptive prevalence is high, there is still a large unmet demand for effective family planning services. This is evidenced by the large number of unplanned pregnancies and women being hospitalized for complications from pregnancy termination attempts. Also, there are long waiting lists for voluntary surgical contraceptive services, which, due to lack of space and trained personnel, are currently being done on a very small scale.

Even though the Government integrated family planning services into the MOH in 1972, total integration of MCH and FP has not taken place. MCH care, which includes prenatal, post-natal, child welfare and immunizations, continues to be delivered separately from family planning. MCH and FP services are provided in separate sessions and frequently on different days of the week. The problem is further exacerbated by the fact that MCH and FP personnel, who work in the same health facilities, have separate lines of reporting and authority. In other words, the clinics and workers were never reorganized as a result of the integration that took place 13 years ago.

The type and qualifications of personnel providing MCH and FP care are also different. MCH services are provided primarily by qualified and trained nursing and midwifery personnel, whereas FP services are handled by lay field workers and motivators, who depend on physicians to provide special FP clinic sessions. This delivery scheme, which depends upon doctors to deliver the bulk of FP services is neither practical nor cost efficient. It results in FP services being made available an average of only 10 percent of the time at MOH facilities.

In summary, the MOH has a strong FP service delivery program. It could be greatly improved if services were integrated into the MCH delivery network and if the bulk of services were provided by nurses and other trained paramedical personnel rather than by physicians.

2. MFPA

Even after the MOH integration, the Mauritius Family Planning Association (MFPA) continued to play an important role in FP. MFPA operates two clinics and a few years ago began offering voluntary surgical contraceptive (VSC) services. The MFPA which offers VSC is underutilized and its services need to be expanded.

In 1978, the MFPA took an innovative step by launching a contraceptive social marketing program (CSM) to distribute and sell condoms in the private sector. Currently, the program operates 29 vending machines and distributes through an additional 86 retailers, bringing the total to 115 retail outlets.

The program has been quite successful. In 1983-1984 MFPA was responsible for over 50 percent of all condom sales through the commercial sector in the country. However, MFPA changed the brand of condoms in the program, replacing Durex with a new "sweetheart" brand. This new brand has been plagued by product complaints, which were probably responsible for a 37 percent drop in sales in 1984. Current plans are to go back to Durex.

Although MFPA is to be commended for developing this CSM program, there are a number of weaknesses in the program as it now stands. The sales report card is poor. Due to constraints on time and transport, the target of visiting each retailer every two months is not being met and this has led to irregular supply. Some retailers run out of stock with no channel of re-supply except the next scheduled visit, while other retailers have more than one year's supply which, with poor

storage, leads to product spoilage. Advertising and display of the product could also be improved. To sum up, while the MFPA has implemented an innovative condom CSM program, the program has a number of problems which should be addressed to make the program more effective.

3. Action Familiale

Action Familiale (AF) was established in 1963 as an organization to support family welfare including natural family planning. AF has 115 educators who instruct couples on NFP, primarily using basel body temperature and cervical mucous methods.

Action Familiale has a successful NFP program and in 1984 16% of all users in Mauritius and 36.5% in Rodrigues were practicing periodic abstinence. Although the Government has supported the work of AF through small yearly grants since 1965, AF has had financial problems in meeting the needs of their national program. In spite of this, they began doing some international consulting work in 1981. Although AID has given three small grants to AF through the International Federation for Family Life Promotion (IFFLP), the project documents are quite brief and unclear, and it is difficult to determine exactly what these projects will accomplish.

AF has been successfully working in NFP for over 20 years. It is highly desirable to learn from their experience and utilize their expertise to assist other countries in the region. However, they need to solve some of their current financial difficulties and meet the needs of their national program first, before taking on additional regional training and research activities.

D. Island of Rodrigues

The Island of Rodrigues' demography bears little resemblance to that of Mauritius. Most striking are its much smaller size (35,000 inhabitants) and the fact that a majority of the people are classified as General Population and most are Catholic. In comparing vital rates, Rodrigues resembles the Mauritius of 15-20 years ago. It has a much higher birthrate, infant mortality rate and rate of natural increase.

MFPA started FP in Rodrigues but in 1972, in line with MOH integration, services were transferred to the MOH. However, growth rates started increasing and the number of FP users remained small. Therefore in 1982, the MOH once again turned over the delivery of FP to MFPA. FP services coordinated by MFPA, are now offered at all Government health facilities and MFPA also operates their own clinic in Port Mathurin. Action Familiale has also been active in Rodrigues, and approximately 35 percent of users are practicing NFP methods.

E. Recommendations

The recommendations outline a general 2-3 year strategy for the Government to make improvements in their program. They also outline in what areas AID population assistance would be available over the next few years to directly assist Government and non-government groups in making these improvements. AID population assistance will be provided through centrally funded AID cooperating agencies. Given that there is no AID Mission in Mauritius, the AID Regional Population Officer from Nairobi will make periodic visits to assist with the monitoring of these activities.

Recommendations are listed below and in parentheses after each recommendation, the likely source of funding or technical assistance are also included.

1. Ministry of Health - Improvement of Family Planning Services

a. Nurses and midwives should be taught and permitted to provide all routine FP services; field workers should expand their role in family planning; and physicians should focus on referrals and be trained to do more VSC in MOH clinics and hospitals. (Potential support: INTRAH, JHPIEGO, AVSC).

b. There is a need to change the IEC strategy to meet the needs of a more mature family planning program. Many posters and pamphlets are outdated. The program should now focus on target groups such as men and youth and reinforce the importance of adopting the most effective methods. (PCS, UNFPA)

c. It is recommended that the MOH strongly promote the adoption of effective family planning methods, such as the pill and IUD and encourage the expansion of VSC. In view of the MOH request to AID for a large supply of contraceptives, it might be advantageous for the MOH to develop a computerized inventory control system to track contraceptive supplies through the system more efficiently. (FPIA, ESAMI)

2. Support to Voluntary Organizations

a. Given AID's interest in natural family planning, support should be continued and expanded to Action Familiale.

Rather than 2-3 ad hoc projects, AID should develop a more comprehensive project that will contribute towards meeting AF's national program needs and assist AF to become a regional NFE resource center for research and training. (IFFLP, Georgetown)

b. The Mauritius Family Planning Association should focus their resources and energy on making the necessary improvements in their condom distribution program and on increasing VSC services offered at their Bell Village Clinic. (SOMARC, AVSC)

3. Rodrigues

a. The MOH and MFPA should take care not to repeat the same separate FP delivery system that was introduced and currently exists in Mauritius. The bulk of services should be provided by nurses, saving the doctors' time for handling complications and referrals. Small operations research projects should be developed to test various new FP delivery mechanisms. (ST/POP Operations Research Group)

b. A strong multi-media IEC campaign is needed in Rodrigues to encourage a two-child family norm and to encourage couples to use family planning.

4. Contraceptive Social Marketing

a. Distribution of contraceptives through the private sector should be expanded, since this could greatly increase usage by complementing the family planning services delivered by the MOH and MFPA. Further analysis should be done by Contraceptive Social Marketing experts to determine what options exist for a CSM program in the country. (SOMARC)

b. The Government should lift the taxes and duties currently charged on contraceptives imported into the country, and the ban on mass media advertising of condoms and pills should be removed. Also, pills should be taken off from the list of prescription drugs which would greatly expand access to contraceptives supplies.

5. Data Collection and Processing

a. Before initiating any new survey, thought must be given to how it answers Mauritian needs and how it complements other surveys. The current situation is one of many small surveys targeted on narrow aspects. Although some surveys look at overlapping aspects of the same problem, different survey designs and concepts make comparison of results impossible. Fewer but better designed surveys would better serve the needs of the program.

b. Unfortunately, little can be done to alleviate the delay in the tabulation of the 1983 census. To avoid similar problems in the future, it is recommended that:

i. Modern, user-friendly statistical software, for statistical and demographic analysis (such as CENTS-4 and CONCOR) should be installed on the ICL computer, and the appropriate personnel should be trained in their use.
(DDD-BUCEN)

ii. The CSO should restructure the terms of service of statisticians to include the preparation and running of statistical programs.

iii. The Government should review what microcomputers and related software various Ministries have ordered and are using. A formal entity may need to be created to avoid duplication of resources and permit standardization of equipment and software.

A tentative timetable for initial visits by AID ST/POP Cooperating Agencies has been agreed upon by Government and NGOs and is included in Annex 5 of the report. As this population strategy is focused on shorter term needs, the report and recommendations should be periodically updated to reflect current population and family health needs for the country.

The team would like to express its thanks to all the various Government and non-government organizations it worked with, especially the Ministry of Health. Everyone shared documents freely, discussed problems frankly, and carefully reviewed and critically analyzed the team's report findings and recommendations. Mauritius has a population and family program it should be very proud of and AID looks forward to providing assistance in the areas outlined in the report.

III. POPULATION

A. Demographic History

Since the Island of Mauritius was first inhabited in 1715, the population grew steadily but slowly until just after World War II. A rapid decline in mortality, made possible largely through the control of malaria, led to a rapid increase in the rate of population growth. From an essentially static

situation before the War, the rate of natural increase leaped to over 3% by the early sixties. This growth rate implied a doubling time of less than 25 years and an estimated population of 2.7 million by the end of the century (see Table 1). This caused great concern by Government and led to the establishment of an active family planning program in 1964.

The decline in the birth rate during the following decade (1963-1973) was dramatic: from 40 per thousand population to 22. This decline in fertility was the most rapid recorded of any population of substantial size. It was accompanied by a decline in the rate of natural increase from 3 to 1.5 percent. The fall in fertility was caused both by rising age at marriage and falling marital fertility. The coincidence of the fall in fertility and the rise in family planning usage leads one to conclude that the provision of family planning (FP) services was also critical in this decline. (See Table 2).

Table 1: POPULATION GROWTH AND DENSITY SINCE 1901

<u>Date</u>	<u>Population</u> (000)	<u>Average</u> <u>Annual</u> <u>Growth rate</u> %	<u>Population</u> <u>Density/km²</u>
1901	371	.01	200
1921	376	.21	203
1944	419	.47	226
1952	501	2.26	270
1962	681	3.12	367
1972	826	1.94	444
1983	966	1.44	512

Table 2: IMPACT OF THE FAMILY PLANNING PROGRAMME ON FERTILITY IN MAURITIUS

<u>Year</u>	<u>% Decrease in Fertility</u>	<u>% Women Using FP</u>
1965	5	0
1966	7	3
1967	20	9
1968	22	21
1969	31	30
1970	35	37
1971	41	45

Source: William Brass, "Impact of the Family Planning Programme on Fertility in Mauritius," IPPF Medical Bulletin, Vol 10 (4), 1976.

From 1964-1973 family planning services were provided by the Mauritius Family Planning Association (MFPA) and the local natural family planning organization, Action Familiale (AF). However, in 1972, the Ministry of Health integrated and absorbed all family planning services into its health care delivery system, leaving the MFPA with only two clinics. This integration led to a certain disruption of service and a rise in fertility as measured by the total fertility rate ^{1/}, from 3.05 in 1973 to 3.47 the following year. Fertility rates began to decline again but the low fertility rate of 1973 was not again achieved until 1980.

^{1/} The total fertility rate is simply the sum of the age specific fertility rates, and thus controls for the population age structure. It shows the number of children a woman would have during her lifetime if current rates remained unchanged indefinitely.

Because of the increasing proportion of women in reproductive ages, this declining fertility was not immediately reflected in the birth rate or rate of natural increase. The birth rate has been between 24 and 28 since 1968, with the sole exception of 1973.

The Government of Mauritius set a target to achieve a net reproduction rate of 1% by the year 1987, that is, to achieve a fertility level which in the long run would lead to a stationary population. However, according to the statistics of the Ministry of Health Evaluation Unit, this goal was actually achieved in 1983. Thus the current growth rate is due entirely to an age structure which has many women in the reproductive ages.

This lowering of fertility over the last few years is an extraordinary achievement and care must be taken to avoid complacency. A lowering of fertility rates for one year does not necessarily imply the adoption of a two-child norm. Indeed, since there has been no parallel expansion of FP services in the last few years, the recent decline in fertility may be largely due to postponement of fertility because of economic conditions.

Leading the decline of fertility was a decline in mortality and especially infant mortality. Through the provision of adequate public health measures and free medical and hospital care, Mauritius has achieved a continual lowering of mortality. The crude death rate fell from 9.6 in 1963 to the current 6.6 in 1983. Infant mortality, which once averaged 140 per 1000 live births (1921-1935), has been steadily lowered to its current rate of 25.6 and is an achievement of which the country can be proud.

Finally, mention must be made of the role of migration. Although immigration predominated during the early years of the island's history, emigration has played an important role since 1963. Each year approximately 4 or 5 thousand Mauritians emigrate, many to take jobs in Australia. This out-movement has served to reduce the net rate of growth by one-half of a percent per year. Since many of the emigrants are women in their 20's and 30's, the movement has also assisted in the lowering of the birth rate.

B. Quality of Demographic Data

There are many sources of family planning and demographic statistics available for Mauritians. These include:

1. Vital Registration;
2. 1983 Census;
3. Family planning service statistics;
4. Medical and other statistics; and
5. Special surveys.

In general, the quality of these statistics is quite good, although room for improvement exists.

1. Vital Registration

Mauritius is one of the few, if not only country in the African region with essentially complete birth and death registration.

Births are registered by parents at the Registrar General's local office and must be done within 45 days of delivery. Only 14.4 percent of births occur at home without health personnel in attendance. However, the obligation to register births rests solely with the parents. A valid birth certificate is required for many reasons in Mauritius, including school enrollment and civil marriage. Stillbirths must also be registered and a death certificate is required for either burial or cremation. Regardless of the place of occurrence, a physician's report is required to register a death. If an early infant death is registered, the registrar checks to ensure that the birth was registered, and completes this if necessary.

In addition to the legal registration form, small statistical forms are filled out and sent to the Central Statistical Office (CSO). These reports include:

1. Ethnic Group
2. Sex
3. Religion
4. Residence
5. Date of birth/age
6. Profession (of mother and father)

For births, these include:

1. Age of mother, father
2. Number of previous live births of mother
3. Number of previous still births of mother
4. Date of marriage/union
5. Date of previous live birth of mother
6. Place of delivery

The most important omission is birth weight. Since most births take place in hospitals or with health personnel in attendance, these data could be easily gathered.

The death certificate includes:

1. Age at death
2. Cause of Death
3. Marital status
4. Number of live births (women only).

It also reports whether the deceased's birth has been registered.

Although no systematic study has been made on the completeness of birth and death registration, the nature of the system and the consistency, both internally and with Census figures, indicates a high degree of completeness. Analysis of infant deaths by age indicate nearly complete registration, even during the first week of life. Many countries, far more developed, have yet to achieve this level of completeness.

A former weakness in the civil registration system has recently been corrected with the institution of marriage registration in 1982. Because of the different traditions of the four major religious groups, the system was not an easy one to implement. Essentially, there are two types of marriage recognized under Mauritian law. A marriage can be registered under Civil Law, essentially the Napoleonic Code. If the couple wishes, a religious ceremony can be performed. Muslim marriages are separate under the law and these are also registered. If a Muslim couple wish, they can also register a civil marriage. Since marriage is on the birth certificate, it

is possible to ensure that the couple only enters the statistics once. Age, religion, residence, marital status and "no. of legitimate children" are coded on the statistical report. Because of the newness of the system, marriage registration is not yet complete.

2. 1983 Population and Housing Census

The 1983 Population and Housing Census was carried out in two parts. During March - May a housing census was conducted, listing all dwelling units. The population census was conducted with a reference date of 2-3 July 1983. It sought to enumerate the de facto population.

The questionnaires were distributed to households from June 25 - 30, 1983. Heads of households were requested to complete all items, except those on economic activity. The questionnaires were then collected from July 3 - 8, 1983. Enumerators checked the entries, filled in the columns on economic characteristics, and completed any blank questionnaires or items.

After office editing and coding, the data were keyed. Processing of census data is the responsibility of the Data Processing Division of the Ministry of Finance, which, because of staffing problems, is greatly overburdened (as will be discussed in the next section).

Validation was to be done on the ICL computer, but, due to processing delays, manual validations was substituted. Tabulation is being done on an ICL computer using software acquired for the 1972 Census.

Table 3: CENSUS PUBLICATION PROGRAM: CENSUS RESULTS

<u>Volume</u>	<u>Title</u>	<u>Original Scheduled Date</u>	<u>Actual or Current Planned Date</u>
I	Methodological Report	Oct 84	Oct 84
II	Demographic Characteristics Island of Mauritius	Nov 84	Nov 84
III	Geographic Migration Characteristics Island of Mauritius	Dec 84	Feb 85
IV	Housing and Living Conditions Island of Mauritius	Feb 85	Sep 85
V	Housing and Population Results Island of Rodrigues	March 85	Jun 85
VI	Households - Island of Mauritius	April 85	Oct 85
VII	Fertility and Mortality - Island of Mauritius	August 85	Nov 85
VIII	Economic Characteristics Island of Mauritius	Sept 85	Dec 86

Eight volumes are planned (see Table 3) but to date, only two statistical reports, plus the methodological report, have been published. Four more are expected by the end of the year. Because of computer processing delays, the entire series has been delayed and the final volume is not expected until December 1986.

In addition to the census results, the Central Statistical Office (CSO) is planning a series of analytical reports. These will include statistical and demographic analysis of the census results and comparisons with other data series. The series hopes to cover all aspects of census data, including such things as:

- Coverage error
- Content error
- Nuptiality and fertility
- Mortality
- Distribution and migration
- Education
- Economic activity
- Household and housing characteristics
- Projections and estimates

An ECA Regional Advisor in Population Analysis, is assisting with the development of these reports and the first report on the evaluation of basic age sex data has already been completed. Obviously, the delays in processing the tabulations have affected the delay in the analysis.

Comparisons with the previous census, vital registration and net international migration indicates that the coverage was quite good. That is:

Population	1972
+ Births	1972-83
- Deaths	1972-83
+ Immigration	1972-83
- Emigration	<u>1972-83</u>
= Population	1983

Comparison of the expected population with the population counted in 1983 indicates that the census counted 10,000 people more than expected. That is, there was a net improvement of 0.1% between censuses. Since the 1972 census counting, no doubt an undercount of more than 10,000, one cannot conclude that the 1983 results are without coverage error.

Although formal analysis is not yet completed, there is also an indication that much of the economic data may be in error. The reporting of unemployment is far higher than that reported in other CSO surveys. CSO believes that this is due to an intentional overstatement by the respondent. since unemployment compensation was an election issue near the time of the census.

The 1983 Census, like the 1972, gathered a complete pregnancy history on all married women under age 55. These data were self-reported, i.e, filled in by the household head. While the actual need for data this complete is questionable, especially in a country with nearly complete birth registration

it does provide the opportunity of comparing results of indirect estimation techniques with good vital registration data. Detailed analysis of the 1972 data have not been done but it is proposed to complete the analysis in the context of the 1983 census analysis project. Meanwhile, the vital records system is reporting extraordinary shifts in fertility. The 1983 Census data must be analyzed soon if they are to be of any value. Any decision to repeat these questions in the next census must be based on the value to the country of this type of analysis.

It must be mentioned that the 1983 Census was financed almost entirely by the Government of Mauritius. Of a total cost of about US\$ 1 million, UNFPA provided US\$ 75,319 and AID provided about US\$ 6,000 in cartographic equipment.

3. Family Planning Service Statistics

Family planning clients are monitored using a client "Case Card" to record initial visits, including a medical exam, and subsequent resupply visits. In addition, a daily appointment log is kept. This information is collated at the end of each month on the "Return or Missed Appointment" and "Home Visits" form. This form records the number of dropouts, dropouts returned, and the total number of current clients at the end of the month. Active users are estimated monthly by an active count.

The information gathered is collated on the MOH's Apple II computer, producing monthly service statistics. A Monthly Bulletin on Family Planning is produced, giving data on

new users and current users by method and by geographic zone. This bulletin is used, among other things, for administrative monitoring of the progress of the clinics in the various zones.

The current system was developed by the Evaluation Unit of the MOH. Currently the system is being used to monitor a mixture of methods, including autonomous users of NFP. Further, with the movement in Government clinics away from total reliance on the pill and towards more use of IUDs and voluntary surgical contraception (VSC), the system will be put under further strain. A totally new system may be needed in the next few years. Thought should be given to both how this new system would work, and equally important, how it can be phased in without disrupting what is for now, a very good system. The new system should also include periodic data by age, parity and length of use.

Two special problems deserve comment. The monthly bulletin includes data on current users of "Rhythm" as reported to the MOH by Action Familiale. Until recently, AF did not distinguish between couples practicing NFP in order to become pregnant from those practicing to avoid pregnancy. No follow-up was conducted on NFP graduates. Thus the user statistics, as currently reported, may be seriously misleading.

Secondly, the MOH attempts to monitor the private purchase of contraceptives by using import records from the Government. This system has recently broken down, perhaps because "contraceptives" are now included under a generic heading of pharmaceuticals. Although reports to the MOH indicate no importation of contraceptives during the last few

years, discussions with importers and distributors tell a different story. At least 40,000 cycles of pills and 700 gross of condoms were imported. We suggest that contraceptives be coded separately and the MOH contact importers and distributors to collect data on importation and distribution to the shops within the country.

4. Medical and Other Statistics

In addition to the activities of the Family Planning Evaluation Unit, the Medical Statistician compiles annual and monthly health statistics including Maternal Child Health (MCH) statistics. The reports also include data on service delivery.

Topics covered include:

- A. Population and Vital Events;
- B. Infrastructure and Personnel;
- C. Services;
- D. Morbidity; and
- E. Cause of Death Data.

It is from this system that data on septic abortions and sexually transmitted diseases (STD) are gathered. The rate of STD's (syphilis and gonorrhoea) is low - only about 2 cases in 10,000 population.

Soon after independence, the number of deaths classified as "cause unknown" rose sharply. This problem has been controlled and currently only five percent of the deaths are attributed to ill-defined conditions.

5. Other Demographic Surveys

There have been many special purpose demographic surveys scheduled or carried out within the last few years. Many are in the nature of pilot surveys, with no attempt at a random sample, and almost all purport to be self-weighting. With rare exception, there is never a justification of a given sample size: merely that this number "should be enough." Also, data are frequently not weighted up, nor is there a non-response adjustment or an attempt to estimate the variance. The Evaluation Unit at the MOH has survey expertise available to assist other groups. They should provide more guidance to the various NGOs, not only to assist with some of the methodological problems, but also to coordinate research topics among the various groups.

In spite of these drawbacks, these surveys do play an important role and each is usually designed to answer a particular question. A list of these projects is given in Table 4 and a few deserve discussion because of their particular importance.

Table 4: MAURITIAN FAMILY PLANNING SURVEYS
SINCE 1980

<u>Year</u>	<u>Title</u>	<u>Status</u>
1980	Fertility Patterns among Women aged 25 or under - MOH	Complete
1982	The Dropouts in the Family Planning Program of the Ministry of Health	Complete
1982	Attitudes towards Abortion - MFPA	Complete
1984	The Dropouts Survey; Mauritian Family Planning Association - MOH	Complete
1984	Knowledge, Attitude and Practice towards Family Planning in Rodrigues - MOH	Complete
1985	Mass Media Communications in Family Planning - MCA	Complete
1985	Contraceptive Prevalence Survey - MOH	In progress
1985	Autonomous Users of Natural Family Planning - AF	Scheduled 1983
1985	NFP Knowledge, Attitude, and Practice of Physicians - UNICEF	In progress

The MOH, with assistance from the Centers for Disease Control (CDC) is carrying out a Contraceptive Prevalence Survey (CPS) designed to provide data on:

1. Social and demographic characteristics;
2. Fertility;
3. Fertility preferences;
4. Use and source of contraception;
5. Sterilization demand;
6. Program or method dissatisfaction; and
7. IEC awareness.

The survey is based on a cluster sample of 1505 households in urban areas and 1955 households in rural areas on the Island of Mauritius and 480 on Rodrigues. Except for Rodrigues, the sample is designed to be self weighting. Total sample size is expected to be about 3,000 to 3,500 women.

Field work is scheduled for July 1985 with the final results expected in about 12 months. Processing and analysis will be done at CDC headquarters in Atlanta. A demographer from the MOH will travel to the US for three weeks to assist with the analysis.

In June 1981, the Ministry of Health conducted a survey of FP dropouts. The frame was drawn from MOH clinic dropouts and a cluster sample was drawn of 1350 women. Principal findings were that either actual or perceived side-effects from oral contraceptives were the major reason for discontinuing a method (38%). Many women (28%) dropped out with the intention of having more children. A sizeable

proportion dropped out due to pregnancy (8.5%) - i.e., they were method failures. Failure of the clinics to provide convenient services was seldom cited as a primary cause, although most drop outs (70%) reported that they had to wait between 30 minutes and an hour for service. About half of the dropouts continued to practice contraception, including many who purchased pills on the private market. Others practiced coitus interruptus or abstinence.

In September 1984, MFPA conducted a similar survey of its dropouts, as well as of a control group provided by MOH. The findings were similar.

A survey of autonomous users of Natural Family Planning (NFP) is currently planned. It is a priority Action Familiale project and will be funded by AID through Johns Hopkins University. The sample is of 500 parous married women aged 15-35 who are using NFP to avoid pregnancy, and who "achieved autonomy" between 1981-1983. Questions will be asked about the knowledge and use of NFP. If the woman has discontinued NFP, a "Discontinuation Form" will be completed.

There are some troubling aspects to this survey. It overlaps to a very large extent with the CPS. As designed, it will be very difficult to measure discontinuation due to method failure. If the client discontinued due to pregnancy, the questionnaire reads as follows.

10. Client states pregnancy is due to
 1. Decided to try to conceive
 2. Did not use rules
 3. Client did not think she was fertile

The very possibility of method failure is thus not allowed for. The Questionnaire is currently in draft form and will be pretested and areas such as that mentioned above will hopefully be modified. Even though a draft proposal was submitted to Johns Hopkins in March 1985, no word has yet been received on project approval, or when the survey is scheduled to start.

In April 1985, a survey was conducted by MOH on the Knowledge, Attitude and Practice (KAP) of Family Planning on Rodrigues. The study included a total of 1230 married respondents. Its principal findings are as follows: a majority (71%) believed that the ideal family size should not be more than 3 children; however, very few of the respondents wanted to remain childless. The pill, condom, depo-provera and periodic abstinence are well-known. Fifty-five (55) percent of the respondents had firm intentions to use a modern method of contraception in the future. Almost 70 percent were using some form of FP at the time of the survey; and of this group, most were using artificial methods.

A final survey which deserves mention is a KAP Survey of Physicians funded by AID through Family Health International with technical advice from the University of Exeter. This is part of a multi-country study. Interviews are being conducted with Mauritian physicians to determine their knowledge of NFP. Those seeking NFP advice in Mauritius are well-served by Action Familiale, and the MOH refers couples seeking information to AF. It is hard to see how this survey serves the family planning program needs in Mauritius.

In summary, Mauritius has many sources of demographic and family planning data. Family planning statistics are generally very good but greater attention should be paid to collecting more information on continuing users by age, parity and on methods other than the pill. Also, a number of demographic surveys have been conducted and many have methodological problems and overlap and duplicate efforts. The Evaluation Unit of the MOH should be used more as a technical resource by the various NGO groups conducting surveys. Closer coordination in identifying research needs and carrying out activities also needs to take place.

C. Data Processing Capabilities

The Data Processing Division (DPD) of the Ministry of Finance (MOF) has been responsible for designing, testing, and implementing all systems used for data processing for Government. DPD has the responsibility for the installation and maintenance of all major computer-based systems. Centralizing all data processing activities offers certain advantages, most notably the ability to achieve a degree of efficiency in allocation of human and material resources. The disadvantage of such a centralized system is that otherwise autonomous users (i.e., other Ministries) are dependent upon DPD for all data processing requirements.

The biggest problem within the DPD is the inability to retain skilled programmers and systems analysts, a situation which is common in most developing countries. Data processing personnel are in great demand and Government salaries are far below what the private sector offers. Therefore, programmers often stay in Government service only long enough to gain

experience, after which they leave for better paying positions in the private sector. In the case of Mauritius, the private sector is frequently outside the country and leads to emigration.

The DPD currently has positions for 18 personnel, however in all of these categories, there are vacancies that are unfilled due to lack of qualified candidates. These constraints obviously affect the ability of the DPD to carry out its function as the data processing "service bureau" for the GOM. Consequently, only the most essential work can be done and any new systems which are not fully developed and tested will be put "on hold" until all priority activities have been completed.

The major systems which are currently in production are the GOM payroll, processed monthly for 45 to 50 thousand persons; the payroll system for the municipalities and development workers; the system which processes contributions to the pension system for approximately 150,000 workers in the private sector; and the municipal stores and the municipal tax rates systems. In addition, the DPD processes other systems, including those dealing with health statistics and tabulation of results from the 1983 Census of Housing and Population.

As mentioned previously, there have been problems in processing data from the 1983 Census. From the beginning, there was a shortage of DPD personnel assigned to this system, due to emigration or re-assignment to other tasks which made it impossible to incorporate all of the features which had been recommended by the U.N. Regional Data Processing Advisor. The result was that the computer editing process lacked certain

critical functions and thus some inconsistencies remain in the Census data. In addition, the scarcity of personnel made it impractical to evaluate new software packages which might have facilitated many of the tasks. The programming personnel eventually fell back on certain software products provided by the computer vendor (ICL) several years ago. In addition to being extremely difficult to program and not "user-friendly," these packages are also obsolete--i.e., the vendor no longer offers support to the user in the event of problems or errors in the programs.

Given all of these obstacles, it is amazing that the CSO and DPD staff have managed to produce any data but, in fact, as mentioned earlier (see Table 3, page 20 of this report), the first three volumes of the 1983 Census have been printed (one methodological report and one volume each of demographic and migration data). The tables for the fourth volume (housing data) have been generated and are in the process of pre-publication review and the data file for Volume VI (household information) has also been created. CSO staff are also preparing, volume-by-volume, the parameters for the remaining tabulations* of which the highest priority seem to be the ones containing the information on Rodrigues.

*The team was informed that publication of Volume IX (Economic Characteristics) may be delayed due to serious inconsistencies between Census data and information reported in an Employment Survey needs using their own resources. For some users and projects (i.e. census processing for the CSO) this is not practical, as the large volumes of data and the programs necessary require the use of a large-scale computer.

Problems have also been encountered in the use of data from the MOH systems. According to MOH sources, the data are produced within a reasonable amount of time, but it is impossible to obtain any special tabulations or reports due to the shortage of DPD personnel. (In one case cited, a request for a non-routine tabulation has been pending for approximately two years).

One of the inevitable consequences of the DPD's inability to respond to users is that the users will, after a while, become discouraged and will try to reduce their dependence on the DPD by attempting to meet some or all of their information needs. In the case of the CSO and MOH they have already processed some of their own data on microcomputers in their own offices.

It might seem that using microcomputers for data processing poses no problems, but this is not entirely the case. First, the GOM has two mainframe computers which are not close to saturation in terms of workload. This means that each time a potential system is diverted from the mainframe to be run on a microcomputer, a double expense is involved, that of the microcomputer itself, and that of the investment in the mainframe computer which is not being fully utilized. Second, even though it may be argued that a microcomputer is not a large expense, the uncontrolled proliferation of different types of microcomputers in agencies throughout the GOM could quickly become expensive and confusing.

At the same time, it is not at all certain that if DPD hired five or even ten more programmers and analysts that their capacity would increase, as it is likely that DPD would

continue to lose significant numbers of skilled personnel, as long as the levels of salaries and other benefits within the Government service remain so much less than the private sector.

D. Findings and Issues

1. Problems of Illegal Pregnancy Termination

One of the most disturbing aspects of Mauritian demography is the relatively large number of women admitted to hospitals due to incomplete abortions. Induced abortion is currently illegal in Mauritius. In spite of this, a seemingly large number of women are relying on abortion to control their fertility. The number has grown steadily over the last thirty years, with only occasional and temporary declines. (See Tables 5 and 6.) As the rate of abortion related hospital admissions per hundred live births shows an even more dramatic upward trend, what is not known is the number of abortions successfully carried out which do not result in hospital admissions. A ratio of non-admitted to admitted abortion of even 5:1 would result in as many abortions per year as live births. A higher figure is of course possible. On the other hand, it could also be that many abortions may be started with the intention of admission to a hospital for completion. Thus the ratio may well be far less. Between ten and fifteen women die every year as a result of these abortions.

Besides the direct tragedy of the abortions and deaths, these figures can also serve to illustrate a large demand for fertility control which is not being met by the family planning program. That is, in current years, perhaps as many as 20,000

women are relying upon abortion to control their fertility. This figure can be compared with the 44,000 enrolled in the Government program and the 80,000 users of family planning services. Clearly, the services being provided are not fully utilized either in terms of reaching women or in terms of providing them with effective methods.

To begin to see how important these abortions have been in the reduction of fertility, one can add to the number of live births, an estimate of the number of pregnancies illegally terminated by abortion. Column 4 of Table 5 does this using a conservative assumption of one non-admitted abortion for each admitted. Thus it is possible to estimate the number and trend in pregnancies since 1956. It should be clear that while the number of live births has fallen 20 percent over the period, the number of estimated pregnancies fell only slightly. The current 1.44 growth rate is in part the result of live births. However, if these unwanted pregnancies had resulted in live births, then the magnitude of the problem and success in other areas of fertility decline would have been much less significant. Most important, what these data indicate is a real indication of an unmet demand for "effective FP services."

Table 5: ABORTION STATISTICS 1956-1983

<u>Year</u>	<u>Complications of Abortions Admitted to Hospitals</u>	<u>Number of Births</u>	<u>Percentage of live Births</u>	<u>Live Births plus 2 x Admitted Abortions</u>
1956	639	24,919	2.6	26,188
57	777	25,273	3.1	26,827
58	875	24,600	3.6	27,225
59	774	23,923	3.2	25,471
60	1,066	25,307	4.2	27,439
61	1,117	26,092	4.3	28,326
62	1,247	26,267	4.7	28,761
63	1,565	27,978	5.8	31,108
64	2,071	27,528	7.5	31,670
65	2,214	26,279	8.4	30,707
66	2,132	26,817	8.0	31,081
67	2,318	23,499	9.9	28,453
68	2,478	24,413	10.1	29,364
69	2,711	21,719	12.5	27,141
70	2,269	21,623	10.5	26,161
71	1,738	20,834	8.3	24,310
72	2,160	20,496	10.5	24,816
73	2,454	18,974	12.9	23,882
74	2,285	22,938	10.0	27,508
75	2,479	21,492	11.5	26,450
76	2,515	22,250	11.3	27,280
77	2,841	22,730	12.5	28,412
78	2,869	24,250	11.8	29,988
79	2,847	25,056	11.4	30,750
80	2,644	24,983	10.6	30,271
81	3,097	23,670	13.1	29,864
82	3,138	21,247	14.8	27,523
83	2,819	19,948	14.1	25,586

Source: Mauritius Population Sector Review, World Bank; Mauritius Register of Health Statistics.

**Table 6: ABORTION STATISTICS - ISLAND OF MAURITIUS
1979 - 1983
by Age**

		Total	Less than 15	15-19	20-44	45-49	50 and over
1979	Cases	2,847	6	245	2,563	28	5
	Deaths	13	0	0	12	1	0
1980	Cases	2,644	2	207	2,412	21	2
	Deaths	16	0	1	15	0	0
1981	Cases	3,097	4	254	2,807	26	6
	Deaths	9	0	1	8	0	0
1982	Cases	3,138	4	251	2,831	43	9
	Deaths	11	0	0	11	0	0
1983	Cases	2,819	0	224	2,557	34	4
	Deaths	6	0	0	6	0	0
Cumulative (1979-1983)							
	Cases	14,565	16	1,181	13,170	152	26
	Deaths	55	0	2	52	1	0
Cumulative Percentages							
	Cases	100.0	0.1	8.1	90.4	1.0	.2
	Deaths	100.0	0.0	3.6	94.5	1.8	0

2. Information and Data Processing Needs

Given the data processing problems, the first and most obvious need would be to make data processing positions within the DPD more attractive and competitive with the private sector. While Government civil service is bound by certain restrictions many countries faced with the same problem, have discovered legal alternatives to these restrictions. Some of these include a special-skills scale within the the civil service to accommodate data processors and other scarce personnel, a system of bonus incentives paid according to certain productivity measures, and Government-financed special training in turn for an agreement not to leave the GOM for a certain time period. These and other approaches should be considered.

A second need would be identify and use more "user-friendly" computer software packages for certain data processing requirements. Such products may be designed to facilitate certain tasks such as editing, tabulation, storage, and retrieval of data and generation of reports, and do not require sophisticated technical knowledge of computers. Employees such as statisticians, administrators and others could be trained to use these packages and thus relieve the overextended DPD staff of some of its burden.

These software packages can be obtained commercially or through donor agencies. For example, the U.S. Bureau of the Census has developed two separate packages: CONCOR (for editing and automatic correction of survey and census data) and CENTS 4 (for tabulation of data), both of which are used by many Government and non-government organizations. Installation of

the packages and training in their use can be arranged through AID. Additional software marketed commercially is also available along with installation and training.

Third, it has been noted that some user areas within the GOM are currently resorting to microcomputers in an attempt to prevent long delays and to gain a degree of autonomy over their own data. The experience of Governmental agencies worldwide shows that this is an irreversible trend, so that even if the DPD were able to increase its response to user demands, this phenomenon will continue.

However, the GOM has already made a significant investments in a large-scale computer installation and microcomputers are, best suited for small-scale processing tasks. In this context, the GOM should review what microcomputers and related software various Ministries have ordered and are using. They may need to create a formal entity to coordinate this activity. This would help the GOM avoid duplication of resources and effort and would permit standardization of equipment and software.

IV. FAMILY PLANNING DELIVERY SYSTEMS

A. Ministry of Health

Since the early 1950's, Mauritius has been concerned with rapid population growth; and during this time, several attempts were made to introduce family planning services. However, due to political and religious opposition, it was not until the 1960's that the Government was able to openly support family planning by providing support to the Mauritius Family Planning

Association (MFPA) and the Catholic-sponsored Action Familiale (AF). MFPA provided the wide range of family planning services and AF concentrated on teaching natural methods, which at that time was primarily rhythm. Public awareness and acceptance of family planning increased over the next few years and in 1970, based on strong recommendations from international experts, the Government decided to integrate family planning services into the Ministry of Health program. All but two MFPA FP clinics were taken over by the MOH, but due to various staffing and other logistical problems, it was not until 1973, that the MOH began providing FP services. Action Familiale was permitted to continue providing all natural methods through their program.

As mentioned previously, the delivery of family planning services has been a major contributing factor in the dramatic decline in fertility in Mauritius. Since the Government began integrating services in 1972, the number of family planning service delivery points increased from 102 in 1972 to 152 in 1983. A major strength of the program is the coverage of clinics and supply centers throughout the country. Most Mauritians are within a few kilometers of a family planning clinic or center, and with few exceptions, the distribution of family planning clients on Mauritius is uniform for all districts, (based on a percentage of the total population). (Family planning services on the Island of Rodrigues will be discussed under the section on Rodrigues).

In 1984, 80,799 couples in Mauritius and 3,970 couples in Rodrigues were recorded as current users of family planning, which represents 65 percent of married women of reproductive age. For reported users on Mauritius, the most popular method was the pill (45%) followed by barrier methods (22%), periodic

abstinence (16%), injectables (11%) and the IUD (6.2%). From 1983 - 1984 the use of the pill increased by 5% and barrier methods by 10.4%. New acceptors for IUDs and injectables are declining somewhat and periodic abstinence continues to be a popular method, especially on Rodrigues where 36.5% of all users for 1984 reported using this method. In 1984, Rodrigues also reported 33.4% on the pill, 17.5% on injectables, 11% on barrier methods and 2% using IUDs.

Even though family planning services were integrated into the MOH in 1972, total integration of MCH and FP has not taken place. Essentially, MCH care which includes pre-natal, post-natal, child welfare and immunizations, continues to be delivered separately from family planning. MCH and FP services are provided in separate sessions and frequently on different days of the week. In other words, the clinics and workers have never been reorganized as a result of the integration which took place 13 years ago.

To exacerbate the problem, MCH and FP personnel, while working in the same health facilities, have separate lines of reporting and authority. Statistics and reporting formats are also different. Doctors sometimes provide both MCH and FP services on a sessional basis, but they take no responsibility for the supervision of staff or the management of services, other than the direct patient care they provide. The Principal Medical Officer (PMO) of Curative Services is responsible for all physician care in the MOH where doctors are assigned on a 12 month rotating basis to various hospitals and centers throughout the country.

At the the MOH headquarters, those responsible for MCH and FP care are in separate sub-units as can be seen in the organization chart in Table 7. Therefore,

from the central level down to the individual health worker at each health center or dispensary, MCH and FP is provided by different personnel with different lines of supervision and reporting.

The type and qualifications of personnel providing MCH and FP care are also different. MCH services are provided primarily by qualified and trained nursing and midwifery personnel, whereas the FP services are handled by lay field workers and motivators. The reason for this is due to the historical way in which family planning services were provided prior to 1972.

Initially, MFPA hired and trained lay workers with no health background or experience primarily for the purpose of motivating couples to adopt and practice family planning. These field workers were women who spent a great deal of time in the community talking to potential new clients and following up on those who had missed clinic appointments. They were well suited for this work especially as all services were exclusively provided by doctors in the clinics during special FP sessions. On the other hand, the bulk of MCH care in the MOH was provided by nurses and midwives and special sessions were held by doctors to handle referrals or complications.

After integration, each of the programs and staff continued as before except that family planning services were moved into the MOH facilities. Even though nurses are taught FP in their basic educational programs, because of this set up, they do not provide any FP care. (See Table 8: Number of personnel in the FP/MCH Division).

Table 7: ORGANISATIONAL CHART
 FAMILY PLANNING, MATERNAL AND CHILD HEALTH SERVICES - 1984

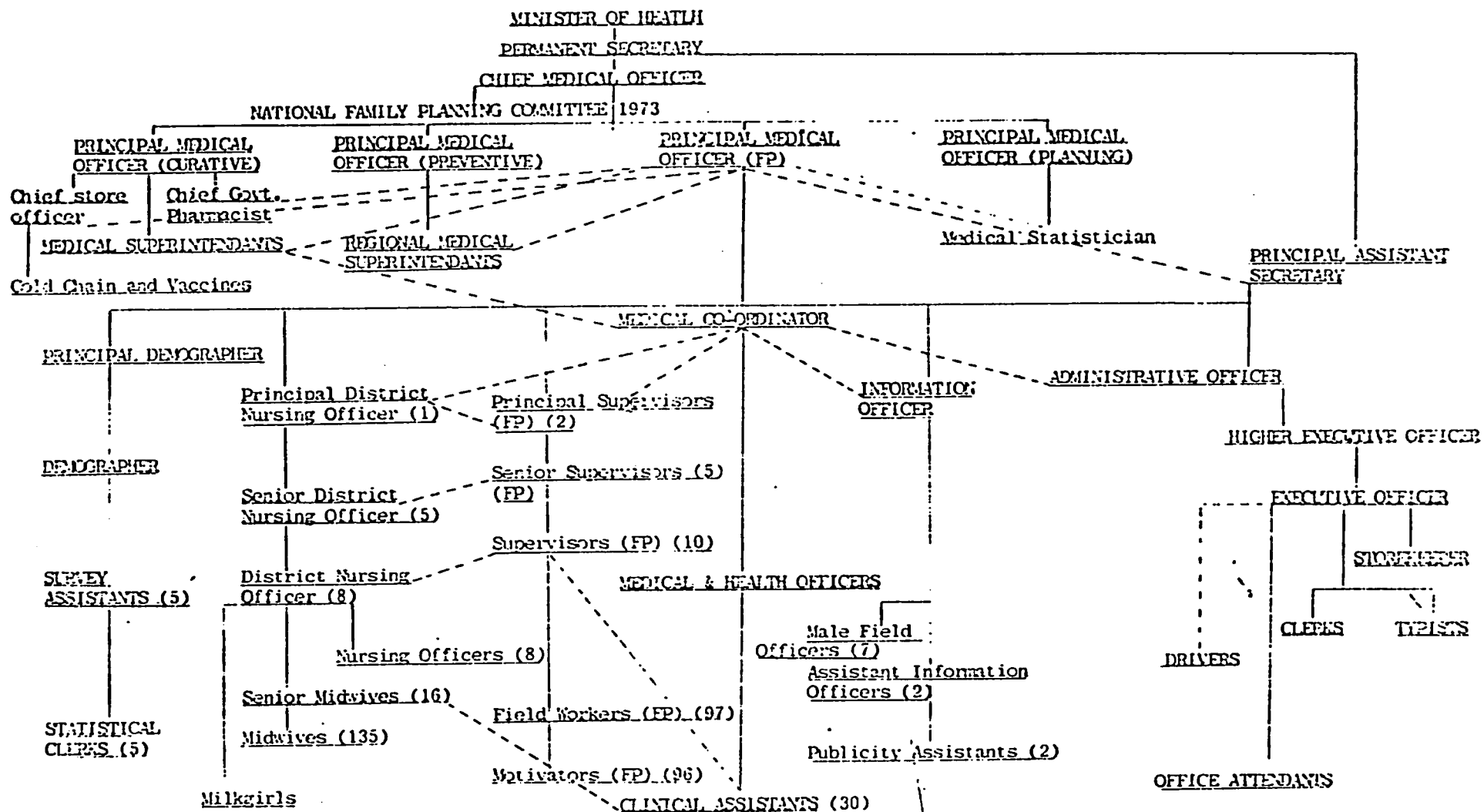


Table 8: Number of Personnel in the FP/MCH Division by Post 1972 and 1984

Category of Staff	Number in Post		Remarks
	as of 31.12.72	as of 31.12.84	
A Headquarters			
Principal Medical Officer	1	1	Head of FP/MCH Division
Medical Coordinator	1	1	
Administrative Officer	1		On part-time basis
Higher Executive Officer	1	1	
Executive Officer	1	1	
Clerical Officers	2	2	
Clerical Assistants	3	3	
Typist-stenographers	3	4	
Storekeeper	1	1	
B Evaluation Unit			
Principal Demographer	-	1	Head of Evaluation
Demographer	-	1	
Evaluation Assistant	1	-	
Survey Assistants	5	5	
Statistical Clerks	-	5	
C Information and Education Unit			
Information Officer	1	1	Head of Information/E. Unit
Assistant Information Officer	-	2	
Publicity Assistants	-	2	
Male Field Officers	5	7	
D Field Staff (FP)			
Principal Supervisors	-	2	Head of FP Field Staff
Senior Supervisors	-	5	
Supervisors	5	10	
Clerical Assistants	15	30	
Field Workers	63	97	
Motivators	60	92	
E MCH-Field Staff			
Principal District Nursing Officer	1	1	Head of District Midwifery
Senior District Nursing Officers	5	5	
District Nursing Officers	5	8	
Senior Midwives	12	16	
Midwives	177	135	
Milk girls	7	7	
F Clinical Staff			
Doctors	7	16	On part-time basis
G Others			
Drivers	5	9	
Attendants	3	1	
TOTAL	391	506	

Various international missions such as UNFPA in 1979 and 1982 and World Bank in 1983 have all cited the organizational and operational problems resulting from the lack of integration of MCH and FP. Each has given recommendations on the various models and changes the MOH should make to improve the delivery of MCH/FP services. It was not within the scope of this mission to look at the integration of MCH/FP services, except as it affects the delivery of family planning services. As it turns out, this lack of integration is one of the major problems affecting the availability of family planning services at all MOH centers. As will be discussed later in this section under Findings and Issues, this delivery scheme, which depends upon doctors to deliver the bulk of FP services, is not practical, cost efficient and results in FP services being made available only an average of 10% of the time at MOH facilities.

In summary, the MOH has a strong FP delivery program but it could be greatly improved if services were integrated into the MCH delivery network and if the bulk of services were provided by nurses and other trained paramedical personnel rather than the current reliance on the physician.

B. Mauritius Family Planning Association

The Mauritius Family Planning Association (MFPA) was a pioneer in introducing family planning in Mauritius. MFPA was established in 1957 and became a member of the International Planned Parenthood Federation (IPPF) in 1958. The MFPA is a voluntary organization with primary support from IPPF, although the GOM has provided support to the MFPA program, as have other donors for specific programs or activities. At the time of integration in 1972, MFPA had 64 clinics and 40 centers offering FP in Mauritius.

After integration, MFPA continued to operate two clinics, and one was expanded to include an operating theatre and voluntary surgical contraceptive (VSC) services were introduced. That same year, the MOH requested that the MFPA take over the family planning program on the Island of Rodrigues and since that time, MFPA has been providing all FP services (except NFP) with assistance from Family Planning International Assistance (FPIA).

1. Clinic Services

The MFPA currently operates three clinics, two on Mauritius and one in Rodrigues. Most clinics operate on a daily basis and a qualified nurse is always at the clinic to provide the full range of contraceptive services, including IUD insertion. In addition, there are medical doctors and Specialist OB/GYN's available to handle referrals or complications.

In 1975, MFPA began a VSC service program with support from the Association for Voluntary Surgical Contraception (AVSC). MFPA had to pay for VSC services through private, paying clinics and the program was expensive. However in 1980, the US Embassy gave funds to MFPA to construct clinical facilities and in 1982 funded the construction of a small out-patient operating theatre and recovery room so that MFPA could begin offering their own VSC services. AVSC is providing support to MFPA and currently the clinic offers female laparoscopy two mornings per week, performing an average of four procedures per session. There is a great demand for VSC services and MFPA has a waiting list of 300 women. The MFPA operating theatre is underutilized and should offer more VSC sessions, if additional physicians could be recruited. When Government policies

permit, both the number of sessions and clients per session should be increased to meet this unmet demand for services.

MFPA has also been providing vasectomy services once a week. Although there is not a large demand for vasectomy, MFPA has a waiting list of 40 men and should be encouraged to expand educational and service efforts in this area.

2. Information, Education and Communication Activities

The MFPA has an active information, education and communication program which includes mass media, print activities, youth programs and women in development activities.

The Mauritius Broadcasting Corporation (MBC) provides 48 television spots of peak viewing time per year to the MOH. These 15 minute segments are shared by the MOH, MFPA and Action Familiale. The MFPA television programs are telecast in Creole and the format is primarily discussions and interviews with extensive use of visual material and slides. Subjects covered include population issues, women in development, youth and family planning, surgical contraception and related topics.

MFPA also has two sixty second commercials per week on motivation for family planning. Likewise, MBC provides three ten minute radio segments per week to the MOH to be broadcast in the local languages of Bhojpuri and Creole. MOH, MFPA and AF are each given equal program air time on a rotating basis. Also, there is a special ten minute radio program for Rodrigues every Sunday shared by the three organizations and topics are geared to the special FP needs of Rodrigues.

The MFPA has a print program which has produced posters, calendars, desk calendars, stickers, license holders and pamphlets. Two very important booklets, that have recently been developed, are Family Law and Women's Rights and Sex Education for Youth. The production of print material is totally dependent upon the availability of outside financial assistance.

MFPA conducts a number of youth activities which include a Family Life Education (FLE) program in primary and secondary schools and the creation of a number of youth clubs. FLE was introduced into secondary schools on a pilot basis and based on the success of this effort, the Ministry of Education has fully incorporated FLE into the curricula of most secondary schools in the country. MFPA developed the basic curriculum for FLE and continues to provide back up for the national program in the form of materials, teaching aids, and technical assistance. Based on this experience, MFPA started developing materials and introducing FLE into primary schools, initially through the education of teachers and parents.

For out-of-school youth, MFPA organizes various family life talks and seminars to youth leaders and through youth clubs. The purpose is to create a cadre of young persons well versed in FLE who can more convincingly reach other members of their peer group. Youth clubs are a feature of Mauritian life, are well organized and serve an important social function. Members are from both sexes aged 15 and up.

MFPA also operates a sewing school for teenage daughters of FP clients as part of their women and development program.

Currently, 160 students are attending this one year course. In addition to teaching the full range of sewing skills, the course curriculum includes FLE and population issues. Each graduate is given a certificate and is assisted in locating a job.

3. Contraceptive Social Marketing Program

In 1978, the MFPA took an innovative step and launched a Contraceptive Social Marketing (CSM) program which consisted of private sector condom distribution. MFPA placed vending machines in stores and public places followed by the introduction of over-the-counter sales in general stores which were non traditional outlets for contraceptives.

Currently, the program operates 29 vending machines with approximately 22 in working order at any given time. Twenty new vending machines have recently arrived; some will be used to replace old machines and the others will be placed in new locations. Over-the-counter sales are available from the vending machines outlets along with an additional 86 retailers, bringing the total to 115 retail outlets which sell MFPA condoms.

The condoms are sold in packets of four pieces at a retail price of Rs 1.00 per packet. The condoms are placed with the retailer on a "sale or return" basis and the retailer is given a 20% commission on all sales.

Over the past few years, MFPA has reported the following sales through their outlets:

	<u>Packs of four</u>	<u>Units</u>
1981	22,894	91,576
1982	32,962	143,848
1983	41,669	166,676
1984	26,136	*104,544

In comparison, the reported condom sales from non-MFPA outlets for the past two years has been:

1983	89,568
1984	93,088

Therefore, MFPA through its CSM program, was responsible for over 50 percent of all condom sales in the country for 1983-84.

The program was launched with Durex, the best known condom in Mauritius. Durex private sector sales averaged 115,200 units per year until 1981 and 230,400 units per year for 1982-84. This means that through the CSM program there has been a net increase in condom usage by 115,200 units.

In 1984, due to a shortage of Durex at IPPF and their suggestion to test another Korean brand, Sweetheart condoms were introduced into the program. This new brand has been plagued by product complaints. The MFPA logo on the package has led consumers to believe they are locally manufactured and

* It is important to note that the drop in condom sales in 1984 coincided with the introduction of the new Sweetheart product.

less reliable. Some customers also feel that they are too small, are of poor quality, and that they burst easily. The MFPA justifiably blames the new product for a 37% drop in sales in 1984. Current plans are to change back to Durex.

The MFPA Community Based Distribution (CBD) Officer is responsible for the supervision and operation of the CSM program. Condoms distribution is made direct to the retailer by the CBD Officer where visits to each outlet are supposed to be made every two months. Sales revenue are also collected during these visits. Retailers are responsible for refilling their machines from their stocks and are expected to inform the MFPA of any machine malfunction. Supposedly, all retailers are trained once a year in how to manage the program, marketing skills and vending machine repair.

Advertising support has been limited to a leaflet "Durex on sale here" which was produced at the launch of the program. There have also been occasional mentions of the program on MFPA radio and television broadcasts.

The MFPA is to be commended for starting this innovative service delivery program which has doubled the sale of condoms through the private sector. The program also added 115 non-traditional outlets to the contraceptive delivery system in the commercial sector.

There are however, a number of weaknesses in the program as it now stands. The sales report card is poor. It registers visits by the CBD Officer only when there are sales or collection of revenue, and consequently it is not possible to chart a meaningful sales pattern.

The target of visiting each retailer every two months is not being met. If a retailer is not present at the time of the visit, the only follow up is the next "scheduled" visit. This means in practice, that some retailers are not seen for six months or more. Perhaps due to the infrequency of meeting retailers, the CBD Officer does not have as good rapport with the retailers as he should.

The uncertainty of timing of visits has led to a system of irregular supply. Some retailers can run out of stock with no channel for re-supply except the next "scheduled" visit. Other retailers have more than a year's supply placed with them, and with poor storing facilities, leads to product spoilage.

Some products are poorly placed in shops, and in some cases condoms are in display windows under the full glare of the sun. But most supplies are, almost universally, hidden away.

Many vending machines are placed inside shops which also sell MFPA products over the counter, thereby duplicating efforts. The role of the machines seems to more an advertising item than a sales outlet.

Advertising is limited to a leaflet on Durex. This apart from its poor design quality is deceiving as it advertised "Durex" when "Sweetheart" condoms are on sale.

In summary, while the MFPA has implemented an innovative CSM program, it has a number of problems, which if addressed could make the program more effective. MFPA is aware of these problems and have said they will develop a plan to review problems identified by this assessment within the near future.

C. Action Familiale

Action Familiale was established in 1963 as an organization to promote the welfare and happiness of families. It supports harmony in marriage, responsible parenthood and natural methods of family planning. The Central headquarters in Rose Hill has a staff of six to manage the day to day operation of the program. (See Table 9)

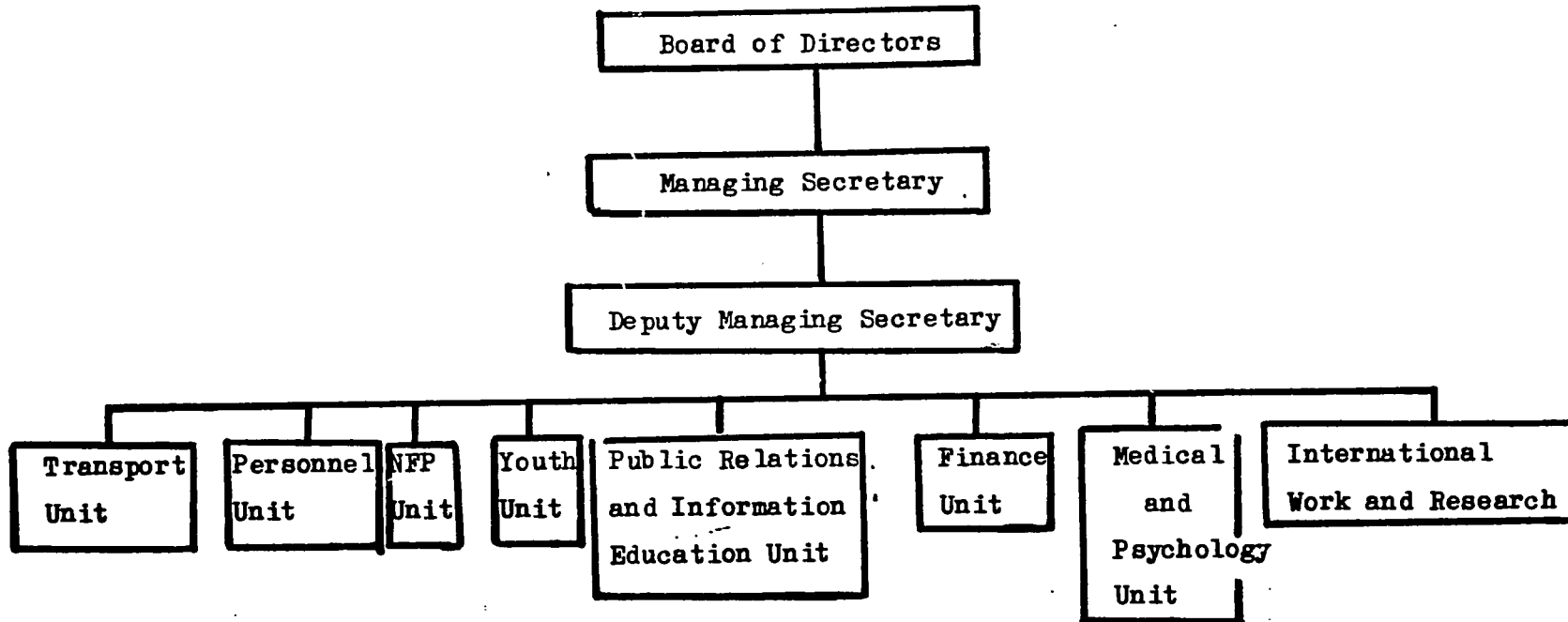
AF has 115 educators, and most education and NFP instruction takes place through home visiting or at one of the 49 Teaching Centers in the country. Educators recruit potential users by visiting maternity wards in hospitals, well-baby and post-natal clinics, social centers, through organized premarital counseling and some door to door canvassing. All educators are part time, and most are women and successful users. The work of the educators in teaching, follow-up and monitoring NFP clients is supervised by Regional Supervisors. These supervisors in turn are supervised by five zonal supervisors who are accountable to the NFP Coordinator at headquarters.

Teaching new users is almost exclusively done at the home of the couple on an individual basis. AF teaches the sympto-thermal methods of periodic abstinence which includes two primary indices for determining ovulation (eg. basal body temperature and changes in the cervical mucous). The average period for a couple to learn the method without assistance (autonomy) takes an average of 6-9 months. For the first two months, educators go to the home once a week for instruction and thereafter, once or twice a month until the couple becomes an autonomous user. After reaching autonomy, AF periodically follows-up clients, but no systematic follow-up system exists.

Table 9: ACTION FAMILIALE

ORGANIZATION CHART

1984



Based on a program evaluation conducted in 1980, it was discovered that the program primarily served young couples, those with less than two children and that 80% of the users were housewives. Also, users had at least a primary school education and 50 percent were Catholics. Some of the reasons for selecting natural methods included recommendations by satisfied users, religious beliefs and fear of adverse health related side effects from other methods.

AF began offering NFP services on Rodrigues about the same time as services were introduced in Mauritius, in the mid-60's. Activities are carried out in very much the same way through educators, supervisors and voluntary youth educators. Due to the higher percentage of Catholics on Rodrigues, NFP has a higher percentage of users and in 1984 approximately 36.5 percent of women between the ages of 15-49 were practicing NFP. AF has been recruiting about 200 new couples each year in Rodrigues.

In 1965, the Government began providing a small grant to AF, at approximately \$18,000 per year. FPJA also provided early support to the work of AF and in 1975 when the grant ended, the Government increased its contribution to AF to approximately \$32,000 per year. The Government also added a small yearly grant of \$4,000 to support NFP activities on Rodrigues.

However since 1978, AF has had difficulty meeting program expenses exacerbated by a compulsory increase in salary allowances and inflation. These additional costs had to be covered by AF even though the Government subsidies remained the

same. Therefore, AF has been functioning on a deficit budget for the past few years, which has greatly limited expansion of its national program, in fact in some cases, on-going programs have had to be cut back.

In spite of these limitations, AF began to be involved in international technical assistance and consulting in 1981, after the joint NFP Pan African workshop held in Mauritius jointly sponsored by the International Federation for Family Life Promotion (IFFLP). AF has received support from UNFPA, WHO, MISEOR and CIDA for national and international activities. In 1985 and 1986 AF received support from five donor groups (including AID through IFFLP) and inclusive of GOM contributions and other donations AF had an overall budget of \$197,000 and \$140,000 respectively as shown in Table 10.

In 1983, through a cooperative agreement with IFFLP, AID provided \$84,000 to AF for an NFP Evaluation Project. The project provided support to evaluate the AF NFP service program and included a review of NFP resources, services and outputs, the identification of deficiencies and the implementation of any necessary corrective actions to improve AF's program.

Although not a part of the project agreement, the need to develop client forms was identified and AF developed a new registration, follow-up and discontinuation form. Funds for printing these new forms were available through the project. Draft National NFP Program Guidelines have also been developed and will be finalized at the upcoming July 1985 Africa Zonal Meetings. In reviewing these guidelines, they are complete, thorough and will be an excellent guide describing the role and responsibility of each NFP worker. It should however, include guidelines on what information educators give when discussing artificial methods, as these topics are discussed with couples.

Table 10: ACTION FAMILIALE
DONOR AND GOVERNMENT SUPPORT

1984 - 1985

<u>Donor/Source</u>	<u>Type</u>	<u>1984</u> <u>Amount</u>	<u>1985</u> <u>Type</u>	<u>Amount</u>
AID/IFFLP	Evaluation Project	\$ 84,200	Continuing	
	Gen Support		Continuing	
	research/Tng	\$ 20,000		
			Supplemental Support Research Training	\$ 25,000
CIDA/IFFLP			Strengthening Nat Program	\$ 25,000
UNFPA	IEC-Rodrigues	\$ 13,000	Continuing	
			Equipment & other Support	\$ 21,000
MISEREOR	Recurrent Exp	\$ 6,000		
Development & Peace	Youth Activities and Equipment	\$ 10,000		
GOM	NFP-Rodrigues	\$ 4,245	NFP-Rodrigues	\$ 4,245
	Gen Support (Salaries & other costs)	\$ 55,000	Gen Support (Salaries and other costs)	\$ 57,000
Other Donations and Sales	Gen Support	\$ 5,000	Gen Support	\$ 7,700
		<hr/>		<hr/>
		\$197,445		\$139,945

In July 1984, a second IFFLP/AID project was approved to assist AF in becoming a training center for the IFFLP Africa Regional Zone. A further IFFLP project supplement was also developed to increase the activities of the original research and training grant.

In reviewing these latter two project proposals it is difficult to determine just exactly what the purpose of these projects is or what activities will be supported. Short term training, in-country training and equipment and supplies are mentioned but there is no overall description of how this grant will assist AF in becoming an international research and training center. The budget does not cover many of the costs for activities described in the sub-agreement. Obviously, for any project that is developed, clear written project objectives, descriptions and evaluation criteria are needed.

Action Familiale has been working in NFP for over 20 years. They have achieved impressive results and are the most experienced NFP program in the Africa Region. It is highly desirable to learn from AF's experience and utilize their expertise to assist other countries. Yet, AF can only expand so fast. Given their financial difficulties, care has to be taken to assure only priority areas are addressed first.

Given AID's interest in natural family planning, support should continue and possibly expand to assist AF meet the needs of their national program and provide support for AF to eventually become a regional resource center for training and research. What is needed first is for AF to develop a comprehensive project plan and document based on a general

review of needs. Rather than two or three ad hoc projects, AID should fund a more comprehensive project to cover AF's program needs over the next two-three years.

D. FINDINGS AND ISSUES

1. Improving The Delivery of Family Planning Information and Services

a. The use of Paramedical Personnel:

As mentioned earlier, the delivery of FP services in the MOH is almost exclusively dependent upon the physician. The way services are currently organized, the physician is the only member of the FP health care delivery team that has medical and health training. For the most part, nurses do not provide FP services but rather work in other MCH services.

This dependence on the physician greatly affects the availability of family planning services. At present, the MOH has 107 clinics which offer doctor-provided FP sessions and 51 supply or mobile centers which do not. Where doctors do provide FP they only come to the clinic on an average of one session per week. Each center is potentially open a total of 11 sessions per week (M-F am/pm and Sat am). According to the MOH list of medical sessions, the total number of doctor FP sessions equals 123.5 sessions out of a potential 1177 sessions per week. This means that if the majority of FP is provided by the doctor, FP is only offered at 10.5 percent of all clinic sessions (This is only calculating those centers that offer FP doctor sessions).

While it sometimes varies, a doctor visit is required for the initial pill visit and every six months for continuing pill users. As a woman is not usually given more than three cycles of pills per visit, this means that one half of all visits for pill users requires consultation with a doctor. As 57.3 percent of all users on Mauritius and 41 percent of all users on Rodrigues are using the pill this requires a substantial amount of the doctor's time.

Likewise, all visits associated with IUDs including insertion, string check or removal require a doctor visit. While some nursing officers do give injectables, this method is almost exclusively given by the doctor, which includes four visits a year for each continuing user. The only methods that do not require a doctor's visit are condoms, foaming tablets and periodic abstinence. An additional problem in the MOH is that most doctors rotate in the health system every 12 months and as a result, there is very little provider continuity in FP clinics.

This lack of availability of FP services also affects the number of FP acceptors in the program. It is generally accepted that when services are offered frequently and at convenient times, more clients avail themselves of such services. In 1983, the two MFPA clinics each averaged a total of 612 new acceptors for the year as compared to an average of 52 new acceptors for MOH clinics. Obviously, one reason for this drastic difference in the number of new acceptors is that MFPA has someone available at all times to provide FP, there is provider continuity, they offer services at convenient times such as lunchtime and in the evenings and FP services are provided by both doctors and nurses.

While the MOH may not be able to provide FP services at convenient times for all clients, they could nonetheless make FP services available in more clinic sessions by using nurses and midwives. At present, these personnel are seldom utilized for FP. The bulk of FP services in most developed and developing countries are provided by nurses and midwives. Once properly trained, it has been clearly demonstrated that they can handle the bulk of FP visits for pills, injectables and IUD insertion and removal. With training and the development of screening protocols, nurses and midwives would be able to safely handle all normal clients and refer all others for medical consultation. The doctor's role in FP could then be better used to handle complications or referrals, screening high risk clients, and performing more complicated procedures such as voluntary surgical contraception.

Family planning field workers could also be taught to take a more active role in FP service delivery. It has been shown for example, in countries such as Zimbabwe, that field workers (with similar educational backgrounds to those in Mauritius) can learn to take blood pressure, and distribute and resupply oral contraceptives and other non-clinical methods* without problems.

In addition to expanding the FP skills of Field Workers, there is a need to review the current counseling methods and refresher training needs of FP Field Workers and

* A clinical method is that which requires a client to visit a clinic such as for IUDs and VSC. Non-clinical methods include pills, condoms, foam/jelly and NFP.

Motivators. According to a 1982 Drop out Survey, 74.7 percent of family planning users in the MOH were recruited by Motivators. The main reason for dropout was common side effects including nausea, vomiting and dizziness. Many pill users will experience some side effects within the first few months of initial use. As the majority of dropouts reported they did so because of side effects, the current information given by FP personnel should be reviewed to assure that accurate information is given on how to use methods correctly and what to expect in terms of common side effects.

In summary, the MOH currently depends upon the doctor to deliver of routine FP services. As a result, FP services are only available to most clients at limited times or on an average of one-two sessions per week at any MOH FP clinic. This can affect the number of new acceptors and continuing users in the program. Nurses and midwives are currently not providing FP, and with training could assume the major role in providing the bulk of FP services, as evidenced by the experience of other. Field workers could also expand their role in the delivery of FP and with carefully prepared checklists and training, they could distribute pills and other non-clinical methods. By training nurses to handle all routine FP services, the doctors time could be better spent handling high risk cases, referrals and performing more technical procedures such as voluntary surgical contraception.

b. Information, Education and Communication:

For a country that has been providing FP services for almost 20 years, information, education and communication (IEC) programs have played an important role in creating an almost universal awareness and acceptance of family planning. However, as the family planning program is now mature, there is a need to change the IEC strategy to meet current program needs. Many of the posters and pamphlets are outdated and are geared towards recruitment of new acceptors. The FP program in Mauritius should now focus on specific problem areas or hard to reach groups, such as youth and men and attempt to reinforce the importance of continuing on a method and adopting effective methods. The concept of the two child family could also be more widely promoted.

c. The Role of Voluntary Organizations:

The Mauritius Family Planning Association has done a commendable job over the years. MFPA originally set up the entire FP program in Mauritius and more recently, has continued in Rodrigues. While the Government provides the major share of family planning services, MFPA continues to play an integral and complimentary role by focusing on hard to reach and priority groups such as youth and men. MFPA is currently offering some evening clinics and is assisting the MOH in providing VSC services. MFPA should continue to reinforce the FP work of the MOH by offering services that are otherwise not available in the MOH and for special target groups. MFPA has also developed some innovative programs in areas such as IEC, youth clubs and contraceptive social marketing and this should also continue.

Action Familiale has also played an important role in providing marriage counseling, fertility awareness and natural family planning services. While use effectiveness is not as high for NFP as for other modern methods, for various religious and other preferences, natural methods will be the only method of choice for some users.

Action Familiale has had a long history of experience in running a national NFP program. For the most part, collaboration with other FP groups has been very good. Recently, there has been interest by AID and other countries to learn about the AF program. AF needs to solve the financial needs of their national program. Care will have to be taken to assure that the international NFP projects do not interfere with implementing of AF's national program.

2. Contraceptive Requirements and Method Mix

a. Method Mix

In 1984 contraceptive prevalence was 65 percent of married women of reproductive age, including natural family planning.

The most popular methods in Mauritius are the pill (45%) followed by barrier methods (22%) periodic abstinence (16%) injectables (11%) and IUDs (6%). For Rodrigues, the most popular method is periodic abstinence (36.5%) the pill (33%) injectables (17.5%) barrier methods (11%) and IUDs (2%).

Comparing the differences between Mauritius and Rodrigues, it can be seen that in Rodrigues, a higher percentage use periodic abstinence (36.5%) as compared to Mauritius (16%). The pill is the most popular method in Mauritius (45%) and the second most popular in Rodrigues (33%). For Mauritius and Rodrigues only 62 and 52.5 percent of all reported users are currently using the most effective methods, such as pills, IUDs and injectables, whereas 38 percent of all users on Mauritius and 47.5 percent in Rodrigues are using less effective methods such as barrier methods and periodic abstinence.

Three Government hospitals offer VSC Services and in 1983 and 1984, 500 and 800 VSC cases were performed. Calculating the average of 200 per year performed by the MFPA, VSC represents only about 1 percent of all users.

While the country has a high percentage of couples practicing family planning, many are on less effective methods and are thus at greater risk of method failure and unwanted pregnancy. In fact, as discussed under a previous section, Mauritius has an acute problem of hospitalized incomplete abortion. While the reasons for this high abortion rate are unknown, those using less effective methods are more prone to a method failure. At the same time, there is a large demand for VSC with waiting lists of over 470 couples. One reason that VSC is not more widely available is due to the lack of theatre space in government hospitals and trained physicians to perform these services.

While assuring free and informed choice, and understanding that for some, NFP will be the only method of choice, there is a need to encourage couples to adopt effective methods, and to expand the capacity of both the MOH and MFPA to meet the current demand for VSC services.

b. Contraceptive Requirements

Until 1983, contraceptive supplies were provided to the MOH by UNFPA. In 1983, UNFPA informed the MOH that except for injectables, they would no longer provide supplies. In November 1983, the MOH officially requested AID assistance for contraceptives. In February 1984, a consultant from the Centers for Disease Control (CDC) visited Mauritius in response to this request, to review the current supply and logistics system determine the present supply situation, and forecast requirements for the next four years. It was agreed that for 1984, central AID funds would be used for contraceptives and that another AID funding mechanism would be identified to fund the supplies needed for the following three years.

In early 1984, supplies were ordered and as can be seen from Table 11, all ordered supplies have been received, except those ordered in early 1985. The team visited Central Stores and conducted a physical inventory of stock on hand. While a complete assessment was conducted by the CDC (See Freidmann report), a quick review of supplies was also undertaken.

Central Stores keeps a 12 month stock on hand (i.e. buffer stock) and currently contraceptive supplies are stored in two warehouses. Pills and foaming tablets are stored in Section A (Drugs and Tablets) and condoms and IUDs are stored in Section B (Surgical Gloves and Equipment). The present system of having contraceptives stored in two locations is not ideal but all contraceptives will soon be moved to Section B, which will have adequate space and air conditioning. There were some problems with certain supplies being stored on the floor and boxes not arranged according to first in first out, or

according to expiration dates, but the team was told these problems would soon be corrected. The Stock Balance and remaining 1985 contraceptive requirements were calculated (See Table 12) and an order placed to AID/Washington to send the supplies needed for the remainder of the year.

Contraceptive requirements and procurement tables were filled out for the next three years including cost requirements and can be found in Annex 4 of the report.

IPPF has also been supplying contraceptives to MFPA but due to funding cuts to IPPF, AID supplies are no longer available through IPPF. MFPA submitted their request for contraceptives to the MOH which could have been included in the overall AID request for contraceptives.

In summary, it is recommended that the MOH promote more effective family planning methods, such as the pill and IUD, and encourage the expansion of VSC. AID should also immediately send someone to Mauritius to write up a project proposal for requested contraceptive supplies. In line with the MOH request to AID for supplies, the MOH may want to develop a computerized inventory control system to more efficiently track supplies.

3. Expansion of Contraceptive Social Marketing

There is almost universal awareness of family planning in Mauritius and motivation to use family planning is high. The Ministry of Health is the major provider of FP. However,

Table 11: MAURITIUS MINISTRY OF HEALTH
STATUS OF CONTRACEPTIVES ORDERED AND
RECEIVED FROM AID
(MAY 1985)

<u>Item</u>	<u>Ordered</u>	<u>Date</u>	<u>Received</u>	<u>Date</u>	<u>Remaining</u>
Femenal	25,000	2/84	25,000	7/84	-
Lo-Femenal	325,000	2/84	324,910	11/84/4/85	-
Cu-7	1,000	2/84	1,000	7/84	-
Lippes C	1,000	2/84	1,000	7/84	-
Foaming Tablets	405,000	2/84	398,400	3/85	6,600
Condoms	1,800,000	2/84	1,849,600	3/84/7/84	-
Femenal	25,000	3/85			
Lippes C	1,000	3/85			
D	1,000	3/85			

Source: Central Supplies Division, MCH/FP Unit MOH

Table 12: MAURITIUS
 MINISTRY OF HEALTH
 CONTRACEPTIVE STOCK BALANCE
 AND 1985 REQUIREMENTS
 (MAY 1985)

<u>Stock Balance Orals</u>	<u>1985 Requirements</u>	<u>+ or -</u>	<u>Balance Required</u>
488,459 cycles*	511,860	- 23,401	**125,000 (Femenal)
<u>IUDS</u>			
CU-7 3,085			
Lippes C 434	4,256	1,359	+ 2,897
D 737			-0-
<u>Foaming tablets</u>			
398,400	666,752	-268,352	275,000
<u>Condoms</u>			
<u>Colored</u>			
49mm 142,000			
52mm 132,000			
Non-Colored 1,028,600	1,847,555	-818,955	900,000
49mm 449,600			
52mm 305,000			

*Includes Eugynon,
 Lo-Femenal, Minovlar
 Noriday, Norminest,
 Ovulen 50

**This amount needed
 Due to Numerous brands
 left in system and potential
 expiration of pills in stock

even if services were to be strengthened or expanded, there would still be a certain percentage of potential users, such as men, who for a variety of reasons, will not go to a FP clinic.

The commercial sector in Mauritius has actively marketed contraceptives for the past 20 years. Since 1978, the MFPA has been operating a condom distribution program, as mentioned under the section on MFPA.

Under Contraceptive Social Marketing (CSM), contraceptive products are promoted or advertized using proven marketing techniques and are sold at an affordable cost to the consumer. The sale of over-the-counter contraceptives is a proven, cost effective additional delivery mechanism. With few exceptions, most countries sell contraceptives through local pharmacies and retail outlets. However, at current prices, many cannot afford to purchase them.

A CSM program sells donated contraceptive supplies through existing sales channels at subsidized and affordable prices to consumers. The program could provide FP to those women who, for many reasons, cannot or do not use clinic-based services and who cannot afford current commercial sector prices. It could also provide services to men who do not use the women-oriented, clinic-based delivery system.

CSM programs in other countries have increased total contraceptive usage rates of all FP delivery systems. It does not take current users away from their existing source of

supply, but through advertising, clients either go to clinics or purchase supplies through commercial outlets. This has already been shown to be true in Mauritius where the MFPA CBD program doubled condoms sales through the private sector.

Mauritius has developed efficient private sector distribution and service capabilities. The current condom distribution program has already shown that the commercial sector can expand efforts in making contraceptives affordable and available to the public. It is recommended that consideration be given to expanding CSM efforts in Mauritius either through the current MFPA program or through direct contact with private sector firms currently selling contraceptives in the country. Additional information on CSM and suggestions for expansion of CSM in Mauritius can be found in Annex 3.

4. Constraints on Importation and Advertising Contraceptives

Contraceptives can be imported into Mauritius duty free, but apparently application for tax exempt status can be lengthy and time consuming. Generally, oral contraceptives are classified as pharmaceuticals and a 13.2 percent stamp duty and 13.31 percent fiscal duty is charged at the time of order. At times, condoms and vaginal foaming tablets have also attracted stamp duty, fiscal duty and/or sales tax. IUDs are classified as "instruments" and attract a stamp duty, a 30 percent import duty and sales tax. This makes contraceptives expensive to import, and transfers higher costs to consumers. The duties and taxes for contraceptives should be removed.

Other constraints are as follows.

- There is a general ban on mass media advertising of pharmaceuticals with the exception of medical journals and point of sale. The total family planning program would benefit from an exemption of this ban for contraceptive supplies.

- Oral contraceptives are listed as a prescribed drug, although in practice, the prescription rule does not apply. The removal of pills from the list of prescribed drugs would benefit the further availability and sale of pills by making it possible to sell at a further three to four thousand outlets. Retailers could be educated to advise and refer clients to clinics for medical check ups as necessary and advertising could recommend that clients receive an annual examination

Removing some of these constraints on duty and advertising and whether or not it is decided to expand the CSM program, would greatly enhance the ability of the commercial sector to purchase, advertise and sell contraceptives.

V. ISLAND OF RODRIGUES

A. Background

The demography of Rodrigues bears little resemblance to that of Mauritius. Most striking are its much smaller size (35,000 inhabitants as of the 1983 Census) and the fact that a majority of the people are classified as General Population and most as Catholic.

In comparing vital rates (See Table 13), Rodrigues resembles the Mauritius of 15 or 20 years ago. It has a much higher birthrate, and infant mortality rate and rate of natural increase. Only the crude death rate is lower, no doubt due a younger age structure rather than lower mortality. Unfortunately, due to the very small population and the lack of 1983 Census data, a more detailed analysis of either fertility or mortality is not possible.

Rodrigues has problems which distinguish it from Mauritius, such as a low literacy rate (10%) and limited resources which force it to be strongly dependent upon Mauritius. The standard of living and nutritional status are lower and problems such as alcoholism, teenage pregnancy, sanitation and water problems are more prevalent.

The Mauritius Family Planning Association (MFPA) started FP in Rodrigues but in 1972, in line the MOH integration services were transferred to the MOH. However, growth rates started increasing and the number of FP users remained small. Therefore in 1982, the MOH once again turned over the delivery of FP to MFPA. FP services coordinated by MFPA are now offered at all Government health facilities and MFPA also operate their own clinic in Port Mathurin.

Similar to Mauritius, MFPA organized services in Rodrigues by using Field Workers and Motivators in the community with referral to the nearest clinic for services. FP services are dependent upon the physician and MCH and FP are two parallel systems. In other words the same delivery system is being used as in Mauritius. Therefore, when the MOH takes over FP they will inherit the same problems as currently exist on Mauritius.

Table 13: VITAL RATES FOR THE ISLAND OF RODRIGUES AND
ISLAND OF MAURITIUS
1983

	<u>Island of Rodrigues 1983</u>	<u>Island of Mauritius 1983</u>	<u>1966</u>	1983 percentage difference (Rodrigues Divided by Mauritius x 100)
Crude Birth Rate	32.0	20.8	35.6	53.8
Crude Death Rate	6.0	6.6	8.9	-9.1
Rate of Natural Increase	26.0	14.2	26.7	83.1
Infant Mortality Rate	62.4	25.6	64.2	104.6

Action Familiale (AF) has also been providing natural family planning (NFP) and opened a branch office in Rodrigues in 1964. AID provided early support to the work of AF on Rodrigues through a small FPIA grant. The AF program is organized locally and currently has 1,770 couples practicing NFP. Approximately 200 new couples are recruited each year. The Government provides a small grant to AF for support of NFP on the Island.

B. Family Planning Needs

Voluntary organizations such as MFPA and AF have played a crucial role in the delivery family planning information and services in Rodrigues. As on Mauritius, AF is working through its voluntary network to teach and follow-up couples desiring NFP. While MFPA operates one private clinic in Port Mathurin, the remaining FP services are provided in MOH clinics and centers and are organized and delivered in the same way as on Mauritius. The same system of separate family planning Field Workers and Motivators along with doctor FP sessions has been introduced in Rodrigues.

Consequently, the same problems of lack of integration and limited availability of FP services. Therefore, while trying to expand FP on the Island, this lack of available services limits the number of new potential users as well as services for continuing users.

There are only a total of five doctors on the island at any given time. Due to competing demands on the doctor's time, often, only an hour is spent providing family planning during scheduled FP sessions. This limits availability even further.

The Government should consider training paramedical workers on a pilot basis to provide FP and also test out alternative models for the integration of MCH/FP services before it takes over the FP service program on the island. Small operations research projects could provide the necessary background in order to make the best changes in the current system of delivery of MCH/FP services both on Rodrigues and in Mauritius.

A strong multi-media campaign to promote family planning is also needed in Rodrigues. Messages should be developed to promote the two child family norm and encourage couples to adopt family planning methods. Promotion of specific methods should be avoided, and messages should indicate there is a right method for everyone. Local slide shows and videos may also work well.

VI. AID AND OTHER DONOR ASSISTANCE

A. UNFPA

Following a UNFPA Mission in 1970, several UN Agencies began supporting the Government Family Planning Program. UNFPA has had an active program in Mauritius since 1971, and was a major donor to the Ministry of Health's new integrated MCH/FP program which began in 1972. Since 1980, assistance has remained relatively stable at a yearly level of between 250-300,000 US Dollars. A brief description of current projects include:

1. MCH/FP Services to the MOH. This project started in 1972 and is currently in its last year of operation. Total funding has been approximately \$2,000,000 and current support includes clinic equipment, audio-visual equipment, and seminars on youth and responsible parenthood.

2. Strengthening MCH/FP Services in Rodrigues. This three-year project started in 1983 and includes support for constructing three health centers, conducting two KAP surveys, local training of health and lay workers and funds to Action Familiale and Mauritius Family Planning Association to expand their family planning work. Total funding is approximately \$272,000.

3. Provision of Contraceptive Supplies. The project will provide depo-provera and thermometers to Mauritius and Rodrigues for three years, or for the period 1985-1987. Total funding is approximately \$125,000.

4. Contraceptive Prevalence Survey. This project will assist and support the MOH to conduct a contraceptive prevalence survey in 1985. Staff from the Centers for Disease Control will provide four months of technical assistance to this survey. Total cost is \$24,922.

5. Population and Family Life Education in the Schools. This is a three year project (84-86) that is assisting the Ministry of Education in the development of educational materials to be included in the basic curriculum of secondary schools students. Total funding is \$115,000.

6. Assistance to the Population Census This four year project has assisted Central Statistics Office in carrying out the 1983 Population Census by providing data processing equipment, training fellowships, technical assistance and a National Seminar. Total funding is \$75,319.

After 1982, UNFPA assistance program began to decrease and support is now concentrated on Rodrigues. New projects currently being planned for 1985 include an information, education and communication sub-component to be added to the Rodrigues MCH/FP Service project and a women's project.

B. IPPF

The Mauritius Family Planning Association has been financed by the International Planned Parenthood Federation since its founding in 1958. MFPA currently receives an annual cash grant of approximately \$200,000 and an additional grant of commodities worth \$75,000. Total IPPF funding is expected to decrease by about 25 percent starting in 1985-1986, as a result of withdrawal of AID funds to IPPF. Most of the current projects described under the MFPA Section of the report are funded by IPPF.

C. World Bank

The IBRD conducted a Population Sector Assessment in Mauritius in November 1983 but have no current plans to develop a project or provide assistance to the population program.

D. AID

The overall AID assistance strategy for Mauritius has been to help the GOM achieve macroeconomic stabilization by providing a modest amount of balance of payments support through CIP and PL 480 programs. The local currency generations have provided budgetary support for priority development activities. The strategy for use of local currency is to promote private sector activities in key development sectors such as agriculture, export processing, manufacturing, tourism promotion, and services; and to support agricultural diversification and sustainable food policies; and to assist the GOM to provide essential services (e.g. water supply) to the poorest elements of the population.

AID has been providing very little population assistance to Mauritius. Since 1972, AID sponsored short term training of about 20 participants and in 1980, under the US Embassy self-help fund, MFPA received a \$20,000 grant to construct operating facilities at their Bell Village Clinic. However, within the past two years, AID assistance has been increasing through assistance from some of AID's centrally funded projects. Some of the current projects include:

1. FPIA - Rodrigues Family Planning Project with MFPA

This project started in July 1980 to enable MFPA (on behalf of the MOH) to begin offering FP services on the Island of Rodrigues. The amount of funding for the current period (1984-1985) \$38,049. Total funding for this project is approximately \$107,990.

2. AVSC -Fertility Management Program with MFPA

AVSC began work in Mauritius in September 1975, and through May 1980, \$40,248 had been committed. This represented two projects. The first was delayed due to political difficulties and the second project was not continued due to the high cost of referring clients to a private clinic on behalf of MFPA. Approximately 50 vasectomies and 30 minilaparotomies were performed under these two projects. However, due to the high cost, AVSC declined to consider further assistance to MFPA until it could operate its own facility to perform VSCs.

The Bell Village MFPA Medical/Surgical facility was constructed in 1980. Consequently, AVSC signed an

agreement for \$32,967 to support continued VSC services. This project terminated in December 1984.

A new three year project was signed in January 1985. Total project funds to date equal \$110,750 with funding for 1985 equaling \$37,535.

3. INTRAH Regional Family Planning Visual Communications Workshop with MFPA

This project will support a regional anglophone workshop for approximately 25 participants in August 1985. Total cost of the workshop is \$51,214.

4. CDC - UNFPA Jointly Funded Contraceptive Prevalence Survey Project with the Ministry of Health

This is a one year (April 85-86) project to conduct a CPS Survey in order to evaluate the full range of family planning services delivered in Mauritius. Technical assistance will be provided by CDC and two consultants will assist in questionnaire design, sampling procedures, interviewer training, and data processing and analysis. Total UNFPA funding equals \$27,922 with CDC technical assistance calculated at approximately \$30,000 or a total combined cost of \$57,922.

5. JHPIEGO Comprehensive Reproductive Health Education and Training Program with the MOH

In August 1984, JHPIEGO signed an agreement with the MOH to support a two year in-service training program for all

physicians and nursing personnel in the MCH/FP Division in the MOH. Approximately 65 participants will be trained with the first year funding equivalent to \$49,547.

6. FHI-Institute of Population Studies KAP, NFP Study

Mauritius is participating in a five country study of the knowledge, attitudes and practice of physicians about NFP methods, fertility awareness and breastfeeding. Total in-country costs are calculated at \$4,000.

7. IFFLP NFP Technical Assistance to Action Familiale

This \$20,000 18 month project will support NFP training scholarships, standardization of reporting forms and support for a study on the Autonomous NFP couple. The project was signed in July 1984 and will terminate in December 1986.

8. IFFLP Evaluation Project with Action Familiale

This is a two year \$97,300 multi - country project implemented by IFFLP which will terminate in 1985. The Mauritius portion of the project will evaluate the work of Action Familiale which includes testing an evaluation instrument and guide and developing a list of standards for NFP programs.

9. Contraceptives to the MOH

In September 1983, the Government of Mauritius requested AID assistance in providing approximately \$1,250,250 worth

of contraceptive supplies to the MOH for the four year period 1984 - 1987. AID/W office of Population Commodities Division agreed to donate the supplies for 1984, after a CDC consultant visited Mauritius to validate the contraceptive needs. Supplies received to date equal approximately \$125,230. In later 1985, calculations will be made for the 1985 - 1987 requirements and an agreement will be developed to cover the cost of these contraceptive supplies for the next three years. .

Total estimated AID assistance in 1985 is approximately equivalent to \$230,000 not calculating contraceptive costs.

VII. RECOMMENDATIONS AND AID ASSISTANCE

The recommendations outline a general 2-3 year strategy for the Government to make improvements in their program. They also outline in what areas AID population assistance would be available over the next few years to directly assist Government and non-government groups in making these improvements. AID population assistance will be provided through centrally funded AID cooperating agencies. Given that there is no AID Mission in Mauritius, the AID Regional Population Officer from Nairobi will make periodic visits to assist with the monitoring of these activities.

Recommendations are listed below and in parentheses after each recommendation, the likely sources of funding or technical assistance are also included.

A. Ministry of Health - Improvement of Family Planning Services

1. Nurses and midwives should be taught and permitted to provide all routine FP services; field workers should expand their role in family planning; and physicians should focus on referrals and be trained to do more VSC in MOH clinics and hospitals. (Potential support: INTRAH, JHPIEGO, AVSC).

2. There is a need to change the IEC strategy to meet the needs of a more mature family planning program. Many posters and pamphlets are outdated. The program should now focus on target groups such as men and youth and reinforce the importance of adopting the most effective methods. (PCS, UNFPA)

3. It is recommended that the MOH strongly promote the adoption of effective family planning methods, such as the pill and IUD and encourage the expansion of VSC. In view of the MOH request to AID for a large supply of contraceptives, it might be advantageous for the MOH to develop a computerized inventory control system to track contraceptive supplies through the system more efficiently. (FPIA, ESAMI)

B. Support to Voluntary Organizations

1. Given AID's interest in natural family planning, support should be continued and expanded to Action Familiale. Rather than 2-3 ad hoc projects, AID should develop a more comprehensive project that will contribute towards meeting AF's national program needs and assist AF to become a regional NFP resource center for research and training. (IFFLP, Georgetown)

2. The Mauritius Family Planning Association should focus their resources and energy on making the necessary improvements

in their condom distribution program and on increasing VSC services offered at their Bell Village Clinic. (SOMARC, AVSC)

C. Rodrigues

1. The MOH and MFPA should take care not to repeat the same separate FP delivery system that was introduced and currently exists in Mauritius. The bulk of services should be provided by nurses, saving the doctors' time for handling complications and referrals. Small operations research projects should be developed to test various new FP delivery mechanisms. (ST/POP Operations Research Group)

2. A strong multi-media IEC campaign is needed in Rodrigues to encourage a two-child family norm and to encourage couples to use family planning.

D. Contraceptive Social Marketing

1. Distribution of contraceptives through the private sector should be expanded, since this could greatly increase usage by complementing the family planning services delivered by the MOH and MFPA. Further analysis should be done by Contraceptive Social Marketing experts to determine what options exist for a CSM program in the country. (SOMARC)

2. The Government should lift the taxes and duties currently charged on contraceptives imported into the country, and the ban on mass media advertising of condoms and pills should be removed. Also pills should be taken off the list of prescription drugs could greatly expand access to contraceptives supplies.

E. Data Collection and Processing

1. Before initiating any new survey, thought must be given to how it answers Mauritian needs and how it complements other surveys. The current situation is one of many small surveys targeted on narrow aspects. Although some surveys look at overlapping aspects of the same problem, different survey designs and concepts make comparison of results impossible. Fewer but better designed surveys would better serve the needs of the program.

2. Unfortunately, little can be done to alleviate the delay in the tabulation of the 1983 census. To avoid similar problems in the future, it is recommended that:

a. Modern, user-friendly statistical software, for statistical and demographic analysis (such as CENTS-4 and CONCOR) should be installed on the ICL computer, and the appropriate personnel should be trained in their use.
(DDD-BUCEN)

b. The CSO should restructure the terms of service of statisticians to include the preparation and running of statistical programs.

c. The Government should review what microcomputers and related software various ministries have ordered and are using. A formal entity may need to be created to avoid duplication of resources and permit standardization of equipment and software.

A tentative timetable for initial visits by AID ST/POP Cooperating Agencies has been agreed upon by Government and NGOs and is included in Annex 5 of the report. As this population strategy is focused on shorter term needs, the report and recommendations should be periodically updated to reflect current population and family health needs for the country.

Annex 1

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Annex 2

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Annex 3

ADDITIONAL INFORMATION ON CONTRACEPTIVE SOCIAL MARKETING.

Review of Existing Marketing Infrastructure

Mauritius has a number of companies which handle a range of highly sophisticated capital goods to everyday consumer items and have excellent coverage of the country. These include manufacturers, marketing organizations and representatives.

Mass media in Mauritius is very well developed. The Mauritius College of the Air, a parastatal institution of the Ministry of Education, offers distance educational methods through the mass media and has had experience in conducting qualitative communication surveys.

There are some 65,000 television sets in Mauritius with some 5-6 viewers per set giving at least 80% coverage. There are approximately 450,000 radios, with one set for ever 2.25 persons, which is massive coverage for a developing country. There is also a full range of newspapers available with half a dozen dailies and weeklies. Total circulation per week is in excess of 400,000. Outdoor advertising and hand painted bill boards are available, although restricted by traffic rules and regulations. To place an advertisement, a site permission must be sought from the Municipal Council or Department of Works and the Police Traffic Department.

Printing facilities are well developed with four major presses offering first class color reproductions. Color separations are available locally or where the size is too

large, they can be brought in quickly. There are also silk-screen facilities for printing on plastics and other non-paper materials.

There are more than 20 companies registered as advertising agencies in Mauritius and of these, 14 are officially "recognized" and are therefore entitled to agency commission by the Mauritius Broadcasting Corporation.

The media are supportive of the government's policy on population and family planning efforts. The Mauritius Broadcasting Corporation currently offers the MOH one fifteen minute peak viewing period per week on television and three ten minutes programs on radio.

Mailing lists are available for all medical practitioners and registered pharmacists for direct mail reach.

Consumer Targets for a CSM Program

1. Married women between the ages of 15-49 who are at risk of unwanted pregnancy and are not currently obtaining a method of contraception from any of the existing delivery systems:

	('000)
Total married women 15-49 as at mid 1983	: 130.5
Less current MOH acceptors	: 44.4
Less current MFPA acceptors	: 21.1
Less current AF acceptors	: 12.2
Less commercial sector acceptors	: 3.0
Total at risk	49.8

2. Married women 15-49 who wish to temporarily avoid a pregnancy (spacing) but who for a variety of reasons do not wish to use an IUD or hormonal contraceptive and/or obtain services from existing delivery points.

3. Sexually active men whose partners are at risk and who do not use currently available delivery systems. They number in excess of 198,000.

	('000)
Total number of men above 18 years old as at mid '83	290.4
* Less MOH condom acceptors in men years	9.7
* Less MFPA condom acceptors	.8
* Less MFPA CSM condom acceptors	.2
* Less commercial sector condom acceptors	.7
** Total number unprotected men	279.0
*** Less total partners acceptors	81.0
Total men with partners at risk	198.0
* 125 condoms used to designate a man year or couple year protection	
** Without the deletion of VSCs and infertile men	
*** Total number of women acceptors 15-49 but not including VSCs or infertility rates, based on one partner per man.	

Objectives of a CSM Program

1. To provide an additional delivery system for contraceptive services to couples at risk who for various reasons do not use the currently available services.
2. To significantly increase the number of users of modern methods of contraception and to increase total couple years protection* (CYP) by
 - 7,000 by end of year 1
 - 8,400 by end of year 2
 - 10,000 by end of year 3

Current CYP levels for Mauritius are:

	<u>O.C.</u>	<u>CCNDOM</u>	<u>FOAM</u>	<u>TOTAL</u>
MOH	25,819	9,692	3,497	39,008
MFPA	1,580	954	140	2,674
Commercial Sector	3,076	691	N/A	3,767
Totals	30,475	11,337	3,637	45,449

*CYP is a unit of measurement of modern (here excluding NFP) contraceptive methods e.g. one CYP equals 13 cycles of orals or 125 condoms or 125 foam tables.

3. To use culturally sensitive communications, advertising and promotion to aid in the de-sensitization of contraceptive methods and promote adoption of contraceptive methods.

CSM Program for Mauritius

An expanded CSM program could be launched under the auspices of the Ministry of Health. The MOH would enter into an agreement with an appointed distributor who would act as the managing agent for contraceptives. The distributor would subcontract with the suppliers for any necessary services e.g. advertising research and packaging. Funding and technical assistance in program design, providing an initial program manager for the first 3 to 6 months, the start up and ongoing assistance, advice and evaluation could be supplied by AID's Social Marketing for Change (SOMARC) project.

SOMARC was created by AID to work closely with host country governments, AID missions and private sector agencies to fund and design contraceptive social marketing programs. Commodities would be donated by AID and initially, four products could be launched; a standard dose oral contraceptive, a low dose oral contraceptive, a condom and a vaginal foaming tablet.

The products would each have individual brand names which would be researched locally. They would be attractively packed to ensure desirability and provide a reassuring image. A local managing agent who would be responsible for distribution which would take place in two phases:

- Phase one would distribute contraceptives to the 80 retail pharmacies, private medical practitioners, sugar estate clinics, and major supermarkets in Mauritius.
- Phase two would expand distribution of the non-prescription contraceptives into the 3-4 thousand general goods outlets available in Mauritius, including Rodrigues.
- The products could reach the consumer at heavily subsidized prices. Prices would be approximately be Rs 1.50 for a packet of 4 condoms or 4 foaming tablets and a cycle of pills could sell at Rs 5.00.

Those within the distribution chain would receive customary trade percentage levels. This income is a major motivator for the trade to treat the products a serious commercial line and to encourage a "push" through the distribution chain to the consumer.

In order to maximize the impact and input of the program the brands could be advertised both at the point of sale and in carefully phased the mass media campaigns. All advertising would be fully researched on content, understanding and sensitivity to cultural norms. The research could be carried out by Mauritius College of the Air, who have experience in message research and have a qualified psychologist on staff.

And last there could also be a Program Review Board appointed by the MOH to whom all advertising and research findings would be shown prior to use.

Annex 4

AID Contraceptive Requirements^{1/}
for Ministry of Health - Mauritius
(1985 - 1988)

	<u>1985</u>	<u>1986^{3/}</u>	<u>1987</u>	<u>1988</u>	<u>Total 3 years</u>
Orals	335,646	176,214	185,024		
^{2/} Buffer Stock	<u>176,214</u>	<u>185,024</u>	<u>194,024</u>		
	511,860	361,238	379,300	388,551	<u>1,252,398</u>
Condoms	1,211,512	610,043	667,845		
Buffer Stock	<u>636,043</u>	<u>667,845</u>	<u>701,237</u>		
	1,847,555	1,297,888	1,369,082	1,402,475	4,514,525
Foaming Tablets	437,215	229,537	241,014		
Buffer Stock	<u>229,537</u>	<u>241,014</u>	<u>253,064</u>		
	667,752	470,551	499,078	506,129	1,631,381
IUDs	877	482	530		
Buffer Stock	<u>482</u>	<u>530</u>	<u>583</u>		
	1,359	1,012	1,113	1,166	3,484

^{1/} based on statistics on users and amounts distributed

^{2/} Buffer Stock equals 6 months requirement for following year

^{3/} Yearly Increase calculated at a 5 percent increase in usage of all methods except IUD at 10 percent

AID CONTRACEPTIVES REQUIREMENTS FOR MAURITIUS

1985-1987

Item	Amt	1985	Amt	1986	Amt	Cost	Total (All years)	
		Cost		Cost			Amt	Cost
<u>1/</u> Orals	125,000	\$ 19,375	361,300	\$ 59,615	379,300	\$ 66,388	865,000	\$ 145,368
<u>2/</u> Condoms	900,000	\$ 43,200	1,300,000	\$ 65,000	1,400,000	\$ 72,800	3,600,000	\$ 181,000
<u>3/</u> Foaming Tablets	275,000	\$ 198,000	480,000	\$346,600	500,000	\$360,000	1,255,000	\$ 903,600
IUDS								
<u>4/</u> CU ³ 80	-0-		1,500	\$ 1,275	1,640	\$ 1,476	3,140	2,750
Lippes								
		Total Cost		\$ 260,575		\$471,490		\$500,654
							Freight	\$1,233,719
							10%	123,272
						Total Cost	\$1,355,991	

1/85 = 15.5¢/cycle
86 = 16.5¢/cycle
87 = 17.5¢/cycle
2/85 = 4.80/100
86 = 5.00/1000
87 = 5.20/100

3/85-87 = 7.2¢/tab
4/85 = 80¢/unit
86 = 85¢/unit
87 = 90¢/unit

Annex 5 Timetable for Scheduling Initial Visits of AID Cooperating Agencies

1985 - 1986

	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Finalize project for Contraceptives (FPIA)	Site Visit (REDSO)			(Submit to FPIA)											
Modify JHPIEGO training project					(7 days)										
Expand VSC program (AVSC)								(7 days)							
Develop Operations Research Projects with MFPA (ST OPS Research Group)								(14 days)							
Develop NFP project with AF (Georgetown)					(14 days)										
Assessment Visit for CSM (SOMARC)								(14 days)							
Technical Assistance to MFPA IEC program (PCS)										(7 days)					

U.S. GOVERNMENT

M E M O R A N D U M

Date: January 9, 1986
From: Barbara Kennedy, ^{BK} Population Officer, REDSO/ESA
Subject: Final Report: Mauritius Population and Family Planning Assessment Report
To: See Distribution

Attached please find a copy of the final report of the Mauritius Population and Family Planning Assessment which was conducted in May 1985.

At the request of the US Embassy in Mauritius and the Ministry of Health, it was decided to formally review the population and family planning program in Mauritius. The purpose of the mission was to make specific recommendations on the types of population assistance needed and to determine specific areas for AID support for the next three to five years.

The assessment team met with key population officials in the Ministry of Health, Central Statistics Office, Ministry of Planning, Action Familiale (AF), and the Mauritius Family Planning Association (MFPA). Local pharmacies were visited and discussions held with advertising organizations such as Mauritius College of the Air. One team member spent two days on the Island of Rodrigues to assess the status of the family planning activities and determine future program needs.

The REDSO/ESA Population Officer returned to Mauritius in October 1985 to discuss the draft report and findings with Government and non-governmental organizations involved in population and family planning. Based on recommendations in the report, AID's population strategy and plans for the next three to five years were determined and agreed upon.

AID population assistance will be provided through centrally-funded cooperating agencies. Recommendations for a two-three year strategy to enable Government to improve its program and likely sources of AID funding and technical assistance are listed below.

A. Ministry of Health

1. Train paramedical workers to provide routine FP services; expand the role of field workers; and train physicians to handle complications, referrals and VSC (INTRAH, JHPIEGO, AVSC).
2. Update the IEC strategy to focus on youth and men; and focus on continuing users (PCS, UNFPA).
3. Promote adoption of effective FP methods (oral contraceptives, IUDs) and expand VSC. Also, adopt a computerized system for contraceptive logistics (FPIA, ESAMI).

B. Voluntary Organizations

1. Develop a comprehensive natural family planning project with Action Familiale (IFFLP, Georgetown).
2. Improve condom distribution and VSC services of the Mauritius Family Planning Association (SOMARC, AVSC).

C. Island of Rodrigues

1. Utilize nurses to provide most of the FP services, and test new FP delivery mechanisms through operations research (ST/POP Operations Research Group).
2. Develop a strong, multi-media IEC campaign to promote FP (PCS).

D. Contraceptive Social Marketing

1. Expand distribution of contraceptives through the private sector (SOMARC).
2. Lift taxes and duties charged on imported contraceptives; remove ban on advertising of condoms and pills; and remove oral contraceptives from the prescription list.

E. Data Collection and Processing

1. Utilize modern, user-friendly statistical software for statistical and demographic analysis and train personnel in their use (DDD, BUCEN).
2. The Central Statistical Office should utilize statisticians to prepare and run statistical programs.

If you have any questions or comments, please contact the REDSO/ESA Population Officer or the Economics Officer in the U.S. Embassy in Mauritius.

We hope that all the ST/POP groups mentioned above will be able to provide the assistance needed. We look forward to implementing what we feel is a well thought out AID population assistance plan that responds to priority needs as identified by the team and the Government of Mauritius.

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