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UNCLASSIFIED

UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
Washington, D. C. 20523

GUATEMALA

PROJECT PAPER

FAMILY HEALTH SERVICES

BEST AVAILABLE COPY

AID/LAC/P-786

PROJECT NUMBER: 520-0357

UNCLASSIFIED

AGENCY FOR INTERNATIONAL DEVELOPMENT  
**PROJECT DATA SHEET**

1. TRANSACTION CODE  
 A = Add  
 C = Change  
 D = Delete

Amendment Number \_\_\_\_\_

DOCUMENT CODE  
 3

2. COUNTRY/ENTITY  
 Guatemala

3. PROJECT NUMBER  
 520-0357

4. BUREAU/OFFICE  
 LAC

5. PROJECT TITLE (maximum 40 characters)  
 Family Health Services

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)  
 MM DD YY  
 08 31 96

7. ESTIMATED DATE OF OBLIGATION  
 (Under 'B.' below, enter 1, 2, 3, or 4)  
 A. Initial FY 92  B. Quarter  C. Final FY 96

8. COSTS (\$000 OR EQUIVALENT \$1 = )

A. FUNDING SOURCE	FIRST FY 92			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	6,942		6,942	29,500	0	29,500
(Grant)	( 6,942 )	( )	( 6,942 )	( 29,500 )	( 0 )	( 29,500 )
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S.						
1.						
2.						
Host Country	0	115	115	0	1,535	1,535
Other Donor(s)	0	1,393	1,393	0	11,142	11,142
<b>TOTALS</b>	<b>6,942</b>	<b>1,508</b>	<b>8,450</b>	<b>29,500</b>	<b>12,677</b>	<b>42,177</b>

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) PN	440	440				22,000		22,000	
(2) CS	530					7,000		7,000	
(3) AIDS						500		500	
(4)									
<b>TOTALS</b>						<b>29,500</b>		<b>29,500</b>	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)  
 420 510

11. SECONDARY PURPOSE CODE  
 4/4

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code BRW BWB POP

B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

To improve the policy environment for Family Planning in Guatemala, to increase access to and use of Family Planning and related health services by Guatemalan families, and to reduce the incidence of high-risk births.

14. SCHEDULED EVALUATIONS

Interim MM YY MM YY Final MM YY  
 08 94 03 96

15. SOURCE/ORIGIN OF GOODS AND SERVICES  
 000  941  Local  Other (Specify)

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a \_\_\_\_\_ page PP Amendment.)

I certify that the methods of payment and audit plans are in compliance with the payment verification policy.

BEST AVAILABLE COPY

*Gary Bylesby*  
 Gary Bylesby  
 Controller

17. APPROVED BY  
 Signature Terrence J. Brown  
 Title USAID Mission Director  
 Date Signed MM DD YY 09 01 92

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION  
 MM DD YY

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## INSTRUCTIONS

The approved Project Data Sheet summarizes basic data on the project and must provide reliable data for entry into the Country Program Data Bank (CPDB). As a general rule blocks 1 thru 16 are to be completed by the originating office or bureau. It is the responsibility of the reviewing bureau to assume that whenever the original Project Data Sheet is revised, the Project Data Sheet conforms to the revision.

Block 1 - Enter the appropriate letter code in the box, if a change, indicate the Amendment Number.

Block 2 - Enter the name of the Country, Regional or other Entity.

Block 3 - Enter the Project Number assigned by the field mission or an AID/W bureau.

Block 4 - Enter the sponsoring Bureau/Office Symbol and Code. *(See Handbook 3, Appendix 5A, Table 1, Page 1 for guidance.)*

Block 5 - Enter the Project Title *(stay within brackets; limit to 40 characters)*.

Block 6 - Enter the Estimated Project Assistance Completion Date. *(See AIDTO Circular A-24 dated 1/26/78, paragraph C, Page 2.)*

Block 7A. - Enter the FY for the first obligation of AID funds for the project.

Block 7B. - Enter the quarter of FY for the first AID funds obligation.

Block 7C. - Enter the FY for the last AID funds obligations.

Block 8 - Enter the amounts from the 'Summary Cost Estimates' and 'Financial Table' of the Project Data Sheet.

**NOTE: The L/C column must show the estimated U.S. dollars to be used for the financing of local costs by AID on the lines corresponding to AID.**

Block 9 - Enter the amounts and details from the Project Data Sheet section reflecting the estimated rate of use of AID funds.

Block 9A. - Use the Alpha Code. *(See Handbook 3, Appendix 5A, Table 2, Page 2 for guidance.)*

Blocks 9B., C1. & C2. - See Handbook 3, Appendix 5B for guidance. The total of columns 1 and 2 of F must equal the AID appropriated funds total of 8G.

Blocks 10 and 11 - See Handbook 3, Appendix 5B for guidance.

Block 12 - Enter the codes and amounts attributable to each concern for Life of Project. *(See Handbook 3, Appendix 5B, Attachment C for coding.)*

Block 13 - Enter the Project Purpose as it appears in the approved PID Facesheet, or as modified during the project development and reflected in the Project Data Sheet.

Block 14 - Enter the evaluation(s) scheduled in this section.

Block 15 - Enter the information related to the procurement taken from the appropriate section of the Project Data Sheet.

Block 16 - This block is to be used with requests for the amendment of a project.

Block 17 - This block is to be signed and dated by the Authorizing Official of the originating office. The Project Data Sheet will not be reviewed if this Data Sheet is not signed and dated. Do not initial.

Block 18 - This date is to be provided by the office or bureau responsible for the processing of the document covered by this Data Sheet.

PROJECT AUTHORIZATION

Name of Country: Guatemala  
Name of Project: Family Health Services  
Number of Project: 520-0357

1. Pursuant to Section 104 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Family Health Services Project for Guatemala, involving planned obligations not exceed the \$29,500,000 in grant funds over the life of project, subject to the availability of funds in accordance with A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the project. The planned life of the project is until August 31, 1996.
2. The project purpose is to increase the use, effectiveness and sustainability of family planning services in Guatemala. The Project can be considered a transitional mid-point in a forty year program of U.S. Government support for family planning in the country.
3. The Project Agreements which may be negotiated and executed by the officer(s) to whom such authority is delegated in accordance with A.I.D. regulations and Delegations of Authority shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate.

a. Source and Origin of Commodities, Nationality of Services

Commodities financed by A.I.D. under the project shall have their source and origin in the United States (Country Code 000), except as A.I.D. may otherwise agree in writing or as provided in paragraph b below.

The suppliers of commodities or services shall have the United States as their place of nationality, except as A.I.D. may otherwise agree in writing or as provided in paragraph b below.

Ocean shipping financed by A.I.D. under the project shall, except as A.I.D. may otherwise agree in writing, be financed only on flag vessels of the United States.

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Air transportation services financed under the Project shall be on U.S. flag carriers except to the extent such carriers are not "available" as such term is defined by the U.S. Fly America Act.

b. Local Cost Financing

Local cost financing is authorized only to the extent permitted by the Agency's Buy America Policy as outlined in 90 State 410442 and in HB 1B, Chapter 18. If necessary, individual waivers may be processed for procurement of goods or services which are outside the exemptions to the Buy America Policy but necessary to Project Implementation, under the criteria stated in HB 1B, Chapter 5.

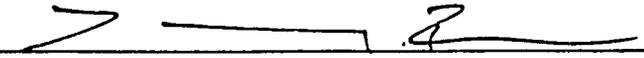
4. Conditions Precedent and Special Covenants:

- a. Ministry of Health: A special covenant will be included in the MOH/IGSS agreement that (a) the MOH Reproductive Health Unit (formerly known as the Family Planning Unit) will be adequately staffed to implement project activities, (b) all staff positions will be financed by the GOG after December 31, 1992, (c) equipment, vehicles and contraceptives procured under the current project (520-0357) and the previous project (520-0288) will be used exclusively to promote project objectives unless authorized in writing by the Mission, and (d) semi-annual progress reviews of policy development and reform will be conducted. Obligations of funds after December 31, 1992 will be subject to a prior satisfactory review by A.I.D. of the MOH compliance with the above covenant.
- b. APROFAM: There will be no special covenants or conditions precedent for disbursements to APROFAM under this project.
- c. I PROFASA: The Agreement with I PROFASA, including any special covenants or conditions precedent to disbursement, will be developed after the financial analysis/audit of I PROFASA and its affiliated companies, initiated on August 17, 1992, is completed.

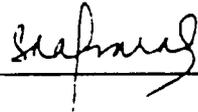
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4. Waivers

A separate waiver for international travel for training purposes was approved and is attached to this Authorization.

  
\_\_\_\_\_  
Terrence J. Brown, USAID/Guatemala  
Mission Director

Sept 1, 1992  
Date

Drafter: \_\_\_\_\_  
PDSO: SALvarado  Date 08/20/92

Clearance:  
OH&E: PO'Connor \_\_\_\_\_ Date 8/20/92  
RLA: CBrown \_\_\_\_\_ Date 8/21/92  
PDSO: TDelaney \_\_\_\_\_ Date 8/21/92  
CO: JMcAvoy \_\_\_\_\_ Date 8/21/92  
C/OH&E: GCook \_\_\_\_\_ Date 8/21/92  
CONT: GByllesby \_\_\_\_\_ Date 8/21/92  
C/PDSO: DBoyd \_\_\_\_\_ Date 8/21/92  
DDIR: SWingert \_\_\_\_\_ Date 8/21/92

ACTION MEMORANDUM FOR THE MISSION DIRECTOR

Waiver No. 520-92-030

August 27, 1992

THRU: Stephen C. Wingert, DDIR *Wingert*  
FROM: Gary W. Cook, C/OH&E *Gary Cook*  
SUBJECT: Waiver for International Travel Costs,  
Project 520-0357, Family Health Services

PROBLEM:

A blanket waiver to allow the use of Project funds to pay the international travel costs of Participant Trainees is requested to permit the implementation of the short term technical training activities of this Project.

DISCUSSION:

The Family Health Services Project design includes significant short term technical training activities. Over the LOP, it is envisioned that approximately 45 health professionals from the MOH and the IGSS will receive training in reproductive health, family planning technology, and post-partum sterilization and IUD insertion. Annually, approximately 25 professionals and/or community leaders will attend various technical seminars, workshops and meetings to update their knowledge, receive positive exposure to reproductive health topics, acquire new skills and exchange information on the provision of family planning services, with a special emphasis on underserved populations.

These training activities have been designed to complement the Policy Dialogue component of the new Project. Technical training will be carried out in third countries that have strong, effective, government-supported reproductive health services. This training will expose participants to a very positive family planning environment while expanding the technical resource base in Guatemala that is required to improve service delivery. Upon return, trainees will be prepared to implement, at the regional and local levels, the new guidelines for the provision of reproductive health services that will be developed as part of the policy dialogue components.

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ACTION MEMORANDUM

August 27, 1992

Page 2 of 3

Key administrators and community leaders will be identified by the implementing agencies, subject to AID approval, to participate in observational travel that will be designed to expose them to strong, effective service delivery systems and favorable policy environments. The objective of these trips will be to cultivate support for the provision of reproductive health services to underserved rural populations.

JUSTIFICATION:

This blanket waiver authorizing the use of Project funds to finance the payment of international air fare is justified by the Mission's interest in assuring adequate training of health professionals in sterilization techniques and surgical safety and in the creation of a cadre of opinion leaders, at the operational level, who will implement the new guidelines and policies to be developed under this project that will remove the current barriers to the provision of family planning services.

The host government and other local institutions are making available substantial amounts of local counterpart for this project. Although some of these counterpart funds could finance these costs, this justification is not being made on a financial argument but rather on the basis that experience has shown that when key individuals who are negative towards family planning are exposed to strong, government programs in the company of their peers, their power to oppose the provision of these services diminishes within their institution. By waiving the need for host government and other local institutions to finance international travel, the Mission can strongly influence the selection of the trainees and use this activity not only for training but also as an effective policy dialogue tool.

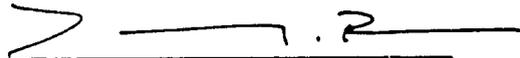
AUTHORITY:

AID Handbook 10, Chapter 16, Section 16-C, "Waivers of Host Government Funding of International Travel" paragraph 2 states "The Mission Director may authorize a full or partial waiver of the host government's or other sponsor's responsibility for a specific Mission-funded project when no general country waiver has been issued. The appropriate regional assistant administrator and OIT must be so informed."

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RECOMMENDATION:

That you approve a blanket waiver of the Participant Training policy guidance for host government and other local institutional funding of international travel and authorize the use of Family Health Services Project (520-0357) funds to finance international travel costs of Participant Trainees for short term training activities.

APPROVED   
Terrence J. Brown  
Director

DATE: Sept 1, 1992

DISAPPROVED \_\_\_\_\_  
Terrence J. Brown  
Director

DATE: \_\_\_\_\_

Clearances: OH&E: PO'Connor  Date 9/1/92  
PDSO: DBoyd  Date 9/1/92  
ODDT: BArellano  Date 9/1/92

JL:sf:3341s

FAMILY HEALTH SERVICES PROJECT

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N.	METHODS OF IMPLEMENTATION, FINANCING AND PROCUREMENT	
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## ABBREVIATIONS AND ACRONYMS

AGES	Asociación Guatemalteca de Educación Sexual
AIDS	Auto Immune Deficiency Syndrome
APROFAM	Asociación Pro Bienestar de la Familia
AVSC	Association for Voluntary Surgical Contraception
BEST	Basic Education Strengthening Project
CBD	Community Based Distribution
CDC	Center for Diseases Control, Atlanta Ga.
CELADE	Centro Latinoamericano de Demografía
CIDA	Canada International Development Agency
CPR	Contraceptive Prevalence Rate
CS	Child Survival
CSM	Contraceptive Social Marketing
CYP	Couple Years of Protection
DEMPROJ	Demographic Projections Software Program
DHS	Demographic and Health Survey
FP	Family Planning
FY	Fiscal Year
FPU	Family Planning Unit of the Ministry of Health
GOG	Government of Guatemala
G/MOH	Guatemala Ministry of Health
IE&C	Information, Education and Communication
IGSS	Instituto Guatemalteco de Seguridad Social
IMR	Infant Mortality Rate

IPPF	International Planned Parenthood Federation
I PROFASA	Importadora de Productos Farmacéuticos S.A.
IUD	Intrauterine Device
LAC	Latin America and Caribbean
LDC	Less Developed Countries
MCH	Maternal and Child Health
MIS	Management Information Systems
MOH	Ministry of Health
MWRA	Married Women of Reproductive Age
MWFA	Married Women of Fertile Age
NGO	Non Governmental Organization
OC	Oral Contraceptives
OR	Operations Research
PIPOM	Project to Inform Policy and Opinion Makers
PVO	Private Voluntary Organization
RAPID	Resources for Awareness of Population Impacts on Development
R&D	Research and Development
SEGEPLAN	Secretaría General de Planificación Económica
SOW	Scope of Work
STD	Sexually Transmitted Diseases
TARGET	Target Setting Model for Projecting Trends
TFR	Total Fertility Rate
UNFPA	United Nations Fund for Population Activities
VSC	Voluntary Surgical Contraception
WFA	Women of Fertile Age

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SUMMARY LIFE OF PROJECT BUDGET  
BY PROJECT COMPONENT

1,992\*

1,993\*\*

1,994\*\*

SOURCE	AID		HOST COUNTRY		OTHERS		AID		HOST COUNTRY		OTHERS		AID		HOST COUNTRY		OTHERS	
	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC
COMPONENTS																		
<u>COMPONENT I:</u> <u>POLICY DIALOGUE</u>																		
a. Techn. Assist.	10,000						20,000						20,000					
b. Dissemin.								7,264						63,334				
c. Observat. Travel	687						175,000						85,000					
<u>COMPONENT II:</u> <u>RESEARCH AND DEVELOPMENT</u>																		
a. Technical Assistance							246,399						246,399					
b. Operational Costs								289,649						289,649				
c. Field Costs								111,750						111,750				
d. Audit and Evaluation								2,000						2,000				
e. Contingencies								27,435						27,435				
<u>COMPONENT III:</u> <u>EXPANSION OF SERVICES</u>																		
a. Techn. Assist. APROFAM							77,500						77,500					
MOH							56,600						26,600					
IGSS	31,600						50,000						20,000					
I PROFASA	10,000																	
b. Service Delivery APROFAM		1,050,454			648,640		3,109,294				728,620		3,128,234			808,600		
MOH	21,670	97,531	115,049		90,640		46,090	609,731	376,264		271,920		343,178	389,445		271,920		
IGSS					4,773		79,300	19,000			124,033		394,251			133,916		
I PROFASA		137,258						363,454										

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X

SUMMARY LIFE OF PROJECT BUDGET BY -ii-  
PROJECT COMPONENT  
(Continued)

1,992\*

1,993\*\*

1,994\*\*

SOURCE	AID		HOST COUNTRY		OTHERS		AID		HOST COUNTRY		OTHERS		AID		HOST COUNTRY		OTHERS		
	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	
COMPONENTS																			
c. Training																			
APROFAM		32,285						67,572											
MOH		329,420						440,916											
IGSS								25,000											
I PROFASA																			
d. Promotion																			
APROFAM		165,503				648,640		502,787				728,100		558,125					808,600
MOH		2,000						19,950						11,550					
IGSS																			
I PROFASA		130,733						319,076				108,859		335,405					114,302
e. Evaluation and Audit																			
APROFAM		41,417						66,778						35,838					
MOH		10,000						21,000						21,000					
IGSS																			
I PROFASA		15,000						15,000						15,000					
f. Commodities																			
APROFAM	223,259							262,985						289,541					
MOH	94,873							112,352						123,685					
IGSS	12,712							17,020						19,176					
I PROFASA	165,197							178,635						191,829					
TOTALS	570,998	2,011,601	0	115,049	0	1,392,693	1,321,881	6,017,656	0	376,264	0	1,961,532	1,164,461	5,691,341	0	389,445	0	2,137,338	
AID Adm. support	20,000	4,000					60,000	48,000					60,000	48,000					
AID Audit Evaluation							500,000						50,000	40,000					
AID TOTALS	20,000	4,000					560,000	48,000					110,000	88,000					
GRAND TOTAL	590,998	2,015,601	0	115,049	0	1,392,693	1,881,881	6,065,656	0	376,264	0	1,961,532	1,274,461	5,779,341	0	389,445	0	2,137,338	

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SUMMARY LIFE OF PROJECT BUDGET  
BY PROJECT COMPONENT

SOURCE	1,995**						1,996***						TOTALS					
	AID		HOST COUNTRY		OTHERS		AID		HOST COUNTRY		OTHERS		AID		HOST COUNTRY		OTHERS	
	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC
COMPONENTS																		
<u>COMPONENT I:</u> <u>POLICY DIALOGUE</u>																		
a. Techn. Assist. 20,000							20,000						90,000					
b. Dissemination		63,334						63,334						197,266				
c. Observational Travel													260,687					
<u>COMPONENT II:</u> <u>RESEARCH AND DEVELOPMENT</u>																		
a. Techn. Assit. 246,399							164,246						903,443					
b. Operational Costs		233,579						155,722						968,599				
c. Field Costs		111,750						74,500						409,750				
d. Audit, Evaluation		2,000						5,200						11,200				
e. Contingencies		27,436						27,436						109,742				
<u>COMPONENT III:</u> <u>Expansion of Services</u>																		
a. Technical Assistance																		
APROFAM																		
MOH 77,500							77,500						310,000					
IGSS 26,600							36,600						178,000					
IPROFASA 20,000							20,000						120,000					
b. Service Delivery																		
APROFAM		3,205,972				888,580		2,419,656				968,560		12,913,610				4,043,000
MOH 88,747		305,605		399,919			60,000	273,970		254,700			281,238	1,630,015		1,535,377		
IGSS						271,920						201,920	79,300	19,000				1,108,320
IPROFASA		327,355				314,865		168,820				528,958		1,391,138				1,106,545

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SUMMARY LIFE OF PROJECT BUDGET BY  
PROJECT COMPONENT  
(Continued)

1,995\*\*

• 1,996\*\*\*

TOTALS

SOURCE	AID		HOST COUNTRY		OTHERS		AID		HOST COUNTRY		OTHERS		AID		HOST COUNTRY		OTHERS		
	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	
COMPONENTS																			
c. Training																			
APROFAM		79,360						45,497						297,980					
MOH		426,174						65,604						1,518,440					
IGSS		25,000						25,000						100,000					
IPROFASA																			
d. Promotion																			
APROFAM		631,108				888,580		488,084				968,560		2,345,607				4,042,480	
MOH		24,927						16,590						75,017					
IGSS																			
IPROFASA		232,533				240,033		118,517				378,053		1,136,264				841,247	
e. Evaluation and Audit																			
APROFAM		38,083												182,116					
MOH		21,000						21,000						94,000					
IGSS																			
IPROFASA		15,000						15,000						75,000					
f. Commodities																			
APROFAM		318,114						0						1,093,899					
MOH		135,876						148,985						615,771					
IGSS		21,514						24,046						94,468					
IPROFASA		205,819						69,474						811,954					
TOTALS	1,160,569	5,770,216	0	399,919	0	2,603,978	620,851	3,983,930	0	254,700	0	3,046,051	4,838,760	23,474,744	0	1,535,377	0	11,141,592	
AID Adm.	60,000	48,000					60,000	48,000					260,000	196,000					
AID Audit Evaluation							100,496	40,000					650,496	80,000					
AID TOTALS	60,000	48,000					160,496	88,000					910,496	276,000					
GRAND TOTAL	1,220,569	5,818,216	0	399,919	0	2,603,978	781,347	4,071,930	0	254,700	0	3,046,051	5,749,256	23,750,744	0	1,535,377	0	11,141,592	

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PROJECT 520-0357  
FAMILY HEALTH SERVICES PROJECT

I. EXECUTIVE SUMMARY

The problem addressed by the "Family Health Services" project is the high fertility rate in Guatemala. High fertility is a critical problem for two reasons. First, it has serious negative consequences for the health of Guatemalan families, especially for mothers and young children. Second, high fertility results in rapid population growth. Rapid population growth puts pressure on the economy, on public services, and on the environment, making national development and improvement in the quality of life increasingly difficult.

The A.I.D. "Family Health Services" Project is a transitional mid-point in a forty year program of U.S. Government support for family planning in Guatemala. With this Project, emphasis will begin to shift away from institution building and budget support and toward expanding coverage of services, working toward sustainability of family planning agencies, developing effective services for rural and Mayan people, and developing clear national policy priorities favoring family planning. The Project is a fundamental activity needed for achievement of the Mission's Strategic Objective of "Smaller, Healthier Families."

The Project has three components. The first is "Policy Development and Analysis." This component will support analytical studies, educational programs, meetings, workshops, observational travel, and mass media activities designed to make the policy environment in Guatemala more favorable toward family planning to support the removal of legal and regulatory barriers to the provision of services and to encourage the GOG and other donors to financially support the provision of services.

The second component is called "Research and Development." This component will support "operations research" in the field to test and refine new strategies for delivering family planning services to rural, poor, and Mayan families.

The third component is "Expansion of Services." This component will provide budget support, contraceptives, and technical assistance to four Guatemalan reproductive health agencies to improve their operations and to expand their coverage.

The Project is part of a Mission strategy which proposes continuation of A.I.D. support for population activities in Guatemala through the year 2010. The strategy is designed to increase contraceptive prevalence from 23% in 1987 to 43% in 2010 and decrease total fertility from 5.6 children per family to 4.2 children per family over the same period of time, while contributing to the long-term objective of sustainable national family planning programs and agencies.

## II. PROJECT RATIONALE AND DESCRIPTION

### A. The Problem

The problem addressed directly by this project is the high fertility rate in Guatemala. High fertility is a critical problem for two reasons. First, it has serious negative consequences for the health of Guatemalan families, especially for mothers and young children. Second, high fertility results in rapid population growth. Rapid population growth puts pressure on the economy, on public services, and on the environment, making national development and improvement in the quality of life increasingly difficult. This section will summarize some of the health and demographic consequences of the problem of high fertility.

According to the 1987 DHS, Guatemala has the second highest total unmet need for family planning services in the Latin American region. Guatemala is in the early stages of the demographic transition from high to low fertility, where the motivation to control fertility has emerged. This desire for lower fertility is growing faster than the availability of reproductive health services. This unmet need and demand for services will continue to grow rapidly over the next decade in both proportion of women in need and in absolute numbers of women due to the momentum of Guatemala's rapidly growing population.

Overall, the 1987 DHS data show that 47% of all MWFA do not want another child and 27% want to wait two years or more before their next pregnancy. However, only 23% of all MFWA currently use family planning methods leaving an unmet need for services of 29%. The Futures Group analysis of this need for family planning services found that substantial demand exists throughout Guatemala and can be broken down as follows: for every one urban woman using family planning services, three more urban women are in need of services; for every one rural woman, eight more are in need; and for every one Mayan woman using services, thirteen more are in need of services. (TFG:1991)

These statistics demonstrate a clear demand for the expansion of family planning services. This expansion can only be accomplished in a political environment that recognizes the importance of satisfying this demand both as an end in itself and as a means to slowing rapid population growth.

1. Health Consequences of High Fertility

Family size is an important determinant of health status, especially among the poor. Families with large numbers of children tend to have much higher levels of infant and maternal mortality and morbidity. Unnecessary suffering and deaths are all too often the price that Guatemalan families pay for the high incidence of unplanned, "high risk" births.

There are important interactions between family planning services and other health services. Family planning services and maternal/child health services are complementary and reinforce each other. Neither service will function optimally in the absence of the other.

Effective family planning services support accomplishment of health sector objectives. Using family planning to space births reduces infant and maternal mortality and morbidity. Health statistics show that if all births were spaced two years apart, infant mortality would decrease by 10% and child mortality by 21%. If childbearing were confined to the safer reproductive ages of 20 to 34, infant and child mortality rates would fall by another 5%. If fourth and higher order births were avoided, infant and child mortality would decrease by an additional 4%. The Demographic and Health Survey (DHS) data for Guatemala show that infant mortality rates for mothers under the age of 20 and over the age of 40 are 35% and 130% higher than the norm. The DHS data also show a small but increasing risk of death for all children after the third child. For the seventh or higher child the increase is 40%. The same data show a 130% higher rate of mortality for children born less than two years after the birth of a sibling.

At the same time, effective maternal/child health services support accomplishment of family planning objectives. Experience has shown that if infant mortality is high, the birth rate will tend to remain high as families have more births to replace infants that do not survive. If more children live as a result of effective maternal/child health services, parents become more open to limiting the number of births they have.

## 2. Demographic Consequences of High Fertility

Guatemala has one of the most rapidly growing populations in Latin America, increasing at the rate of over 3% per year. This means that there are an additional one million Guatemalans every two years and that the population is doubling about every 22 years.

The Guatemalan population is young; about 45% of all Guatemalans are under the age of 15 years. This means that the population would continue to expand for another forty years even if the fertility rate should drop immediately to two children per couple. If the population continues to grow at its present rate, there will be 13,150,000 Guatemalans at the end of this decade, up from 9,345,000 in 1990. As a result, there will be a need for one million new jobs, over 1,000 new rural health employees, and 4,000 new schools. Over 1,500,000 hectares of forest will be cut, 75% for firewood and subsistence farming. Studies have shown that the maximum population that Guatemala will be able to feed at its present level of technological development is 11,300,000. This level will be surpassed by the mid 1990's.

Tables I through II\* show different aspects of population growth in Guatemala through the end of the 40 year A.I.D. population program discussed throughout this paper. The four alternative population growth scenarios used in Tables I through III are the following:

- (a) "Constant": assumes a continuation of the current population growth rate. The Total Fertility Rate (TFR) remains steady 5.6 children per family through the year 2010.
- (b) "High": assumes the population growth rate slows slightly, but remains high. The Total Fertility Rate declines from 5.6 to 5.0 children per family by 2010.
- (c) "Medium": assumes moderate reduction in population growth rate. This category represents the expected outcome if the "Population and Family Health Services" Project and planned follow-on projects are successfully implemented. The Total Fertility Rate declines from 5.6 to 4.2 children per family by 2010.
- (d) "Low": assumes a large reduction in population growth. The Total Fertility Rate

declines from 5.6 to 3.3 children per family by 2010.

Table I shows projected total national population levels under the different assumptions.

TABLE I  
PROJECTED TOTAL POPULATION  
(000's)

	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2010</u>
Constant	6,917	9,345	13,150	18,689
High	6,917	9,345	12,973	17,926
Medium	6,917	9,345	12,763	16,913
Low	6,917	9,345	12,470	15,776

Table II shows the projected growth in the school-age population, demonstrating the need to expand educational services to meet the growing demand for schooling caused by population growth.

TABLE II  
PROJECTED SCHOOL-AGE POPULATION (5-19 YEARS)  
(000's)

	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2010</u>
Constant	2,642	3,614	4,847	7,002
High	2,642	3,614	4,822	6,603
Medium	2,642	3,614	4,754	6,072
Low	2,642	3,614	4,677	5,474

Table III shows the projected growth of the economically-active population, demonstrating the need for creation of new employment opportunities in the economy as the population grows.

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TABLE III  
PROJECTED ECONOMICALLY-ACTIVE POPULATION  
(000's)

	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2010</u>
Constant	2,306	3,615	4,438	6,292
High	2,306	3,615	4,438	6,204
Medium	2,306	3,615	4,438	6,088
Low	2,306	3,615	4,438	5,956

National Demographic trends and projections are discussed in more detail in Annex H.

The consequences of these trends will become increasingly serious and visible as population growth continues into the next century. Some of the consequences are already being felt. In part because of rapid population growth, social and economic development in Guatemala has been disappointing. While the Guatemalan public and private sectors have experienced periods of expansion in recent years, population growth has often swamped any additional resources that become available, leaving little to improve the quality of goods and services.

For example, Table IV illustrates how population growth has absorbed expanding resources available for public education, making it impossible for the national public school system to make significant qualitative or quantitative progress.

TABLE IV  
REPRESENTATIVE PRIMARY SCHOOL INDICATORS

<u>Year</u>	<u>Primary School Population (7-14 years)</u>	<u>Primary School Enrollment (000's)</u>	<u>Teachers (000's)</u>	<u>Gross Enrollment Ratio</u>	<u>Teacher/Student Ratio</u>
1981	1,512	875	23.9	.58	1:37
1982	1,559	848	24.5	.54	1:35
1983	1,608	930	25.9	.58	1:36
1984	1,658	980	26.9	.59	1:36
1985	1,710	1,016	27.8	.59	1:37
1986	1,764	1,040	29.3	.58	1:35
1987	1,821	1,097	31.4	.60	1:35
1988	1,878	1,139	31.7	.60	1:36

Table IV shows that expanding enrollment in Guatemalan public primary schools has barely kept up with the rapidly growing school age population. Although total enrollment has increased continuously, the enrollment ratio (the ratio of enrollment to total school aged population) has improved very little. In other words, population growth has made it impossible for Guatemala to make progress toward its objective of universal primary education, in spite of the fact that increasing resources (reflected in Table IV by the increase in the number of teachers) are being provided. One consequence of this situation in the education sector is that the total number of unenrolled children, the illiterate adults of the future, is increasing with every passing year. Population growth also inhibits improvement in the quality of services. Table IV shows that the student/teacher ratio, a qualitative indicator, has not improved because growth in enrollment has been just as fast as growth of the teaching force.

Another area in which the consequences of economic growth are already in evidence is destruction of the environment and of productive resources. High population growth in the Guatemalan Highlands has resulted in 250 migrants a day moving to the jungles of the Peten in search of land for agriculture. These new inhabitants of the Peten have no experience with appropriate land use management techniques of tropical rain forests and apply agricultural methods that are not suited for this fragile ecosystem. Deforestation is occurring at a rate of between 40,000 and 60,000 hectares per year in this area. Scientists have predicted that the lush forests with high biological diversity in the Peten will disappear in approximately 20 years.

#### B. History of Family Planning Services

Family planning as a health social service began with the founding of the Asociación Pro Bienestar de la Familia (APROFAM), the local private sector affiliate of the International Planned Parenthood Federation (IPPF), in 1965. A.I.D.'s support for family planning began three years later with grant support for APROFAM. During the early years of the program, A.I.D. concentrated on importing subsidized contraceptives and expanding the institutional and human resource base of APROFAM. During the 1970's, more emphasis was given to diversification of delivery mechanisms and agencies, educational services, and policy analysis and dialogue. In 1981, the Importadora de Productos Farmacéuticos S.A. (IPROFASA) was founded as a private company to expand commercial sales and

social marketing of contraceptives. A.I.D. support for IPROFASA began in 1982.

During the early 1980's, family planning came under intense attack from religious and political groups. During this period, service delivery was curtailed, the profile of the program was lowered, and policy dialogue became a principal emphasis. During the late 1980's, the policy and public opinion climate improved. The Government of Guatemala began again to provide public sector family planning services through a small A.I.D.-supported family planning unit in the Ministry of Health. Increased priority was given by A.I.D. and the cooperating agencies to expanding the coverage of existing services, to social marketing, to linking family planning services directly to maternal/child health care services, and to involving the public sector in family planning for the first time.

Additional detailed information of a historical and descriptive nature concerning delivery of A.I.D.-supported family planning services and the structure of cooperating agencies is contained in Annex F.4, "Institutional Analysis."

### C. Constraints and Opportunities

#### 1. Constraints

The Demographic and Health Survey (DHS) of 1987 shows that Guatemala has one of the lowest contraceptive usage rates in this hemisphere. Twenty-three percent of married women of fertile age (MWFA) report currently using some form of contraception, but only 18% used one of the "modern methods." These rates compare poorly with Latin American and Central American averages for contraceptive use, currently 54% and 39% respectively. The following are some of the constraints that have made development of effective family planning services slow and expensive in Guatemala.

#### a. Policy Environment

A number of different policy factors have inhibited the expansion of family planning services in Guatemala. The Government of Guatemala has never recognized population growth as a concern or identified the provision of family planning services as a priority. Until 1985, GOG policy was openly hostile; after 1985 official policy was neutral. A number of informal operational practices act as obstacles to the establishment of strong national programs. The health care establishment, especially the medical school at the San Carlos

University, has traditionally had a strong political and ideological bias against family planning, resulting in poor training of health practitioners to provide services. Ministry of Health and Social Security (IGSS) operational guidelines have unnecessarily restricted provision of family planning services. Mass media programming norms and the restrictive sanitary code have prevented some kinds of advertising of family planning methods and services.

b. Traditional Culture and Religion

Traditional Mayan and Hispanic cultural values, the powerful Catholic Church, and many of the proliferating Evangelical churches generally favor big families and oppose or are neutral towards family planning. Family planning is widely regarded as sinful or unhealthy, especially among the Mayan population. Many individuals equate family planning with abortion. As a result, only 5.5% of Mayan couples are attempting to limit family size by using family planning methods, and the total fertility rate among Mayan families is 7.1 children per woman, compared with 5 children per woman among "non-Mayans".

c. Gender Roles and Discrimination

Historically, Hispanic culture has emphasized differences between men and women through a rigid gender role division of domestic and national life. The Spanish-speaking population has maintained a political and economic domination of the country and these two factors have served to marginalize women and Mayans from active participation in national life. At the level of the couple, men often refuse to allow their wives to use family planning methods.

d. Languages

There are 23 different Mayan languages spoken in Guatemala, and most Mayan women are monolingual. This makes the jobs of social marketing, products and services educating, and counseling Mayan users extremely difficult, requiring separate materials and bilingual staff for each different linguistic group.

e. Topography and Dispersion of the Population/  
Access to Services

The geographic isolation and dispersion of much of the rural and Mayan population throughout Guatemala is a major obstacle to the delivery of services. Millions of Guatemalans live in isolated farmsteads or tiny, remote hamlets, making it extremely costly and logistically difficult

to provide the kind of attention and continuous support that effective family planning use requires.

f. Low Educational Levels

Research has shown that educational attainment of women plays a powerful role in predisposing them to plan their families. Educational levels in Guatemala are the second lowest in Latin America and the Caribbean, after Haiti. About 80% of Mayan women are illiterate.

g. Poor Quality of Public Health Services

Although the Ministry of Health has substantial infrastructure throughout the country, severely limited resources reduce its effectiveness as a promoter of family planning services. Public health services are seriously underfunded, limiting the coverage and effectiveness of maternal and child health services needed to complement family planning.

2. Opportunities

A constellation of facilitating factors currently exists which can be exploited through the proposed project in both policy dialogue activities and in the provision of services.

a. Policy Environment

The political climate towards family planning has improved dramatically under the Serrano government. Both Vice-Ministers of health and other high level health officials recently participated in an observational trip to visit active and effective family planning programs in the region. After this trip, for the first time in the history of the MOH, the National Health Plan included lower fertility as a health goal and hence as a national health priority.

The Guatemalan Social Security Institute has proposed the formation of a reproductive health unit to provide family planning services to its clients. This project proposes to assist the IGSS in this endeavor, and this represents another strong advance for the expansion of family planning services.

The Constitution of Guatemala clearly states that every citizen has the right to determine the number and spacing of their children. This constitutional guarantee can serve as a strong legal precedent upon which explicit family planning legislation can now be justified.

b. Unmet Need and Demand for Services

Fertility desires have changed, especially in the cohort of young married women age 20-25, who have a stated ideal family size of 3.5 children. This desire for lower marital fertility indicates that the fertility transition in Guatemala is in the early stage where the motivation to control fertility has emerged and is increasing faster than the availability of family planning services.

According to the DHS, the total demand for family planning services in Guatemala is 53.4% of MWFA and less than half of this demand is currently being met. In countries like Brazil and Colombia, where the fertility transition is well advanced, over 80% of the demand is satisfied. In Guatemala, unmet need and demand for services will continue to grow rapidly over the next decade as increasing numbers of young women enter reproductive age.

The challenge of the Project is to provide family planning services for older women who do not desire any more children and to increase services for younger women in both rural and urban areas who wish to space their pregnancies. Also, the Project can work to change male attitudes toward family size and family planning use as maternal and child health services are more widely used and as the economic survival of large families becomes increasingly threatened.

c. Focus Group Research Among Mayan Speakers

Research has been conducted among different Mayan linguistic groups to guide the development of culturally appropriate information, education and communication materials and family planning services. The family planning sector has gained experience with the design and production of IE&C materials for difficult-to-reach populations. The Project will draw on this experience and that from other countries and apply it to the Guatemalan context.

APROFAM has begun to recruit and train local Mayan personnel and to design appropriate services and communication materials in order to successfully reach clients in their communities and in their own languages.

d. Topography and Dispersion of the Population

The Ministry of Health and APROFAM each have extensive distribution systems that reach far into the rural areas of Guatemala with health and family planning services and products. The two organizations are currently developing plans

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to coordinate efforts in training, product distribution, IE&C and service delivery so as to maximize their respective ability to reach isolated communities. An important activity under the Policy Dialogue Component of this Project is to get at least 10,000 of the Ministry of Health's volunteer community workers trained as family planning promoters and distributors of modern methods.

I PROFASA has also recently begun a Rural Strategy for reaching small rural communities. This strategy takes advantage of the strong market system that has existed in Guatemala for centuries. The regular weekly market days are a gathering place for people from the most remote rural communities. This market system is a tremendous and virtually untapped resource for the Project that I PROFASA is using in setting up micropharmacies. These micropharmacies, established on strategic marketing routes, provide common medicines, family planning information and temporary family planning methods to their clients.

e. Education Levels

In the 1980's, the population sector in Guatemala successfully piloted the first family life education and scholarship program for Mayan girls which has since become incorporated into the USAID's BEST (Basic Education Strengthening) Project. Education for girls and young women is now a key component of Mission education strategy. So, as educational levels are raised through USAID's efforts, this will lead to even greater demand for MCH and FP services in the future.

Successful family planning and maternal child health services have been introduced in other Caribbean and Latin American countries with low educational attainment. This experience will be incorporated by the Project implementing agencies at the same time that levels of education among young women are being raised through collaborative efforts with the BEST Project.

f. Quality of Public Health Services

The extensive physical and human infrastructure of the Ministry of Health service and product delivery systems as well as that of the Social Security Institute (IGSS), can be utilized to increase the coverage and effectiveness of maternal and child health services needed to complement family planning. The Project proposes a link between APROFAM and the Ministry of Health precisely to strengthen clients' access to quality family planning information and services. The IGSS has

made a commitment to work with USAID to expand its services to include surgical contraception and temporary modern contraceptive methods through its nationwide network of hospitals and clinics. This is an historic new avenue of service delivery nationwide.

D. Approach and Rationale: The 40 Year Strategy

The "Family Health Services Project" represents a mid-point in what is seen by the Mission as a forty year strategy of support for development of effective family planning services in Guatemala. The 40 year strategy can be thought of in three stages:

1. Stage One: "Initiation" (1968 to 1991)

During the initial two decades of A.I.D. support for family planning in Guatemala, a large number of essential activities took place which created the foundations for a permanent, effective national program. Accomplishments during this period included the following:

- o The policy environment for family planning moved generally in positive directions. Official policy changed from active opposition to neutrality. As a consequence of effective lobbying by APROFAM, the legal right of Guatemalans to determine the number and spacing of their children was formally recognized in the new 1985 Constitution.
- o A diversified institutional base was created. Over the last 25 years, APROFAM has grown to be a large, mature, respected organization with a national network of clinics and volunteer promoters. IPROFASA grew out of APROFAM ten years ago to do commercial contraceptive sales and more aggressive family planning social marketing and advertising. Subsequently, the Ministry of Health Family Planning Unit was created to provide family planning services through the large GOG public health system.
- o The scale of service delivery increased substantially. Contraceptive prevalence increased by a factor of four, from 6% in 1969 to 23% in 1989.

2. Stage Two: "Transition" (1992 - 1996)

The phase represented by the "Family Health Services" Project does not represent a sharp break with past and ongoing activities. However, the Project represents a gradual re-direction of the program in a number of different ways:

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- o Emphasis will shift from creating and building up new institutions to consolidating and improving existing agencies.
- o The tendency toward growing dependence on A.I.D. funding will be decreased.
- o The rationale for the program, which has traditionally emphasized providing family planning in order to promote "healthier families," will be expanded to also include promoting "smaller families" and reducing population growth.
- o The program will gradually assume a higher profile and be more aggressive than it has been in the past, promoting changes in public policy and in public opinion.
- o Rapid expansion of coverage levels will be accomplished by initially concentrating on easier-to-reach urban, Ladino, and middle class populations. However, an R&D activity will work on developing cost-effective services for rural, Mayan, and poor populations, initiating a broadening of focus that will continue throughout the remainder of the forty year period.

3. Stage Three: "Sustainability" (1997 - 2010)

It is planned that the third stage of the 40 year strategy will have the following priorities:

a. Financial Sustainability

"Sustainability" is defined as the ability of Project-supported services and agencies to function effectively without A.I.D. money. For private sector providers, sustainability will be attained by generating increased income through the sale of goods and services, by keeping costs low, and by attracting other donors to help finance their programs. For public sector providers, sustainability will be achieved by recovering some costs with user fees and by receiving adequate and permanent GOG budget support to cover costs.

b. High Coverage Levels

For the program to have a permanent, significant impact on the nation's total fertility rate, sustainability must be achieved at a high, not low, level of coverage. During the second and third phases of the strategy, the cooperating agencies will have to continue to expand their infrastructure, budgets, and staffs until an overall national level of at least 50% contraceptive prevalence is reached.



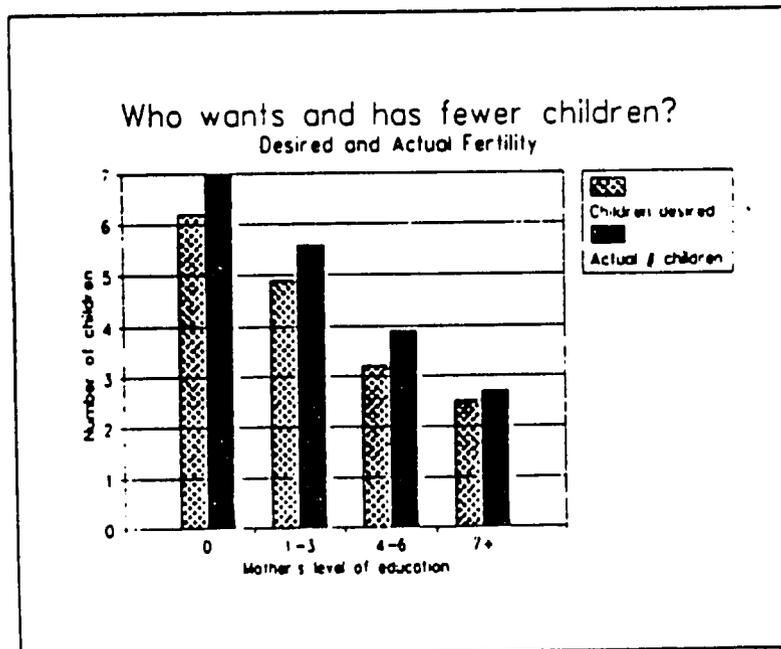
2. Strategic Objective: "Improve Basic Education"

An important feature of the design of the "Population and Family Health Services" Project is a new linkage that is planned with the Mission's "Basic Education Strengthening" (BEST) Project. Mission research has confirmed that a strong relationship exists between girls' educational attainment and fertility. Figure A shows the relationship between years of primary school completed by girls, the number of children they want, and the number of children they actually have when they become adults.

The Mission is presently undertaking an experimental activity in 13 communities which is demonstrating that small scholarships for poor girls, along with other related community activities, can reduce the girls' primary school dropout rate. Clearly, from Figure A, keeping girls in school longer can be expected to have a strong effect on fertility. As a result, the Mission is making plans to reprogram funds within the BEST project to expand programs that keep girls in school. In addition to other benefits that are expected to result from this new emphasis on improving girls' school attainment, significant changes in the knowledge, attitudes and practices of girls with regard to health and family planning can be expected as they enter the reproductive age group.

FIGURE A

DESIRED AND TOTAL FERTILITY RATES BY LEVEL OF EDUCATION



3. Strategic Objective: "Sustainable Use of the Natural Resource Base"

The answer to the problem of the destruction of the biological diversity and tropical forests of Guatemala lies in a strategy which involves the following elements: (1) promotion of sustainable economic alternatives that are compatible with the available natural resources, (2) protection of "nuclear" areas that are particularly high in biodiversity and low in economic development potential, and (3) an active program to reduce rapid population growth. The first two activities are currently being undertaken in the Mayarema (520-0395) Project, and the third will be provided under the "Family Health Services" Project. By such mutual reinforcement of projects, there will be greater probability of achieving Mission strategic objectives.

F. Other Donors

This section presents an overview of multilateral, bilateral and private donors in the population sector in Guatemala. A.I.D. has historically been the largest donor in the sector but as the family planning environment becomes more positive, it is expected that more donors will be encouraged by the GOG to support this sector.

1. Multilateral Donors

Worldwide the principal multilateral donors funding population activities are the United Nations (U. N.) and the World Bank. The role of the United Nations in this area is to provide information on global demographic trends and their interactions with various socio-economic factors; examine policy options for addressing population issues, and provide technical assistance and training. As a lending institution, the primary function of the World Bank is to negotiate loans, of which, sector research, policy dialogue and family planning service provision are all important.

U. N. population projects cover a range of program areas and are executed principally through the following agencies: the United Nations Population Division, the United Nations Population Fund (UNFPA), the United Nations Development Program (UNDP), the United Nations Children's Fund (UNICEF), the Food and Agricultural Organization (FAO), the International Labor Organization (ILO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the World Health Organization (WHO). The U. N.'s population policy activities are divided primarily between the Population Division (responsible for demographic analysis and projections

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and advising on appropriate population policies) and UNFPA which is charged mainly with the provision of financial and technical assistance to developing country institutions.

## 2. U. N. Population Division

Established in 1946 under the Economic and Social Council, the Population Division has had authority to address population issues for over forty years. Since that time, the Population Division has made important contributions in: demographic estimates and projections; studies of the relationships between demographic factors and development; and the monitoring of world population trends and policies. National demographic projections prepared by the Population Division often serve as a basis for developing national population policies and action plans, while the monitoring and dissemination of population policy data by the Division documents the growth in demand for population policies. The Division was responsible for the establishment of the Latinamerican Center of Demography (CELADE), which provides both training and technical assistance in demography for the region. In Guatemala, CELADE has provided training and assistance for various private and governmental institutions including, San Carlos University, SEGEPLAN and INE. The most recent population projections produced by SEGEPLAN were done with CELADE assistance (1988). During the life of the proposed project it is expected the CELADE will continue to provide training and technical assistance, especially for INE to carry out the national census which is planned for 1993.

## 3. UNFPA

Since its establishment in 1969, UNFPA has been involved in the following areas: (1) family planning services; (2) population education and communication, and dissemination of information on family planning; (3) basic data collection; (4) population dynamics; and (5) formulation, implementation and evaluation of population policies.

UNFPA has been a major contributor to the World Fertility Survey and in Guatemala helped finance the 1987 Demographic and Health Survey. UNFPA carries out collaborative research with the ILO and FAO which has generated awareness within the international community of demographic impacts on other social sectors. UNFPA has funded at the local level training and institutional development. UNFPA has been the most visible donor in the formulation of population policies in Guatemala and has worked for over 12 years with SEGEPLAN and other GOG institutions supporting research, seminars and workshops in population policy formulation.

UNFPA also supports the provision of family planning services through the Pan American Health Organization (PAHO) and these activities are implemented through the GOG-MOH Division of Maternal-Child Health. During the life of the proposed project it is expected that UNFPA will continue to support policy formulation, research and service provision. Additionally, it is also expected the UNICEF will continue to support child survival activities that are complementary to family planning services and that UNESCO will continue to work in primary school curriculum development that includes a strong component in demography and family life education.

The U. N.'s contribution to population policy development through regional and global conferences has been critical. The world conferences held in Bucharest and Mexico City were landmarks in the shaping of population policy. Recommendations from these conferences have provided a foundation for various population policies that have been drafted in the last several years.

#### 4. World Bank

Since 1969 the World Bank has been active in lending for population programs, promoting policy dialogue, and conducting research and analysis of population issues. In 1986 the World Bank carried out a health sector analysis in Guatemala that strongly recommended that the GOG develop a strategy to make family planning an integral part of maternal and child health care and to assign specific agency responsibilities and resources to implement the plan. The Bank was eager to negotiate a loan with the GOG to improve the services of the MOH but the GOG rejected the Bank's sector analysis and no loan was negotiated. The Mission should actively encourage both the GOG and the World Bank to reexamine this sector and the Mission should facilitate negotiations that could lead to financial support from the Bank for population activities.

#### 5. International Development Bank

The International Development Bank has provided financial assistance to the GOG to improve the physical infrastructure of the MOH network of national and regional hospitals. Hospitals constructed under this agreement are currently being occupied by the MOH and the Mission should continue to carry out policy dialogue with the MOH to restructure the budget to finance primary health care, including family planning, and to establish a fee for service system for curative care that will allow the MOH to generate income to cover some of its operating costs.

## 6. Bilateral Donors

A.I.D. has the largest bilateral population program in the world. Other countries with major bilateral population assistance programs are Canada, Denmark, Finland, France, Germany, Japan, the Netherlands, Norway, Sweden and the United Kingdom. More recently, Australia, Belgium, Italy and Luxemburg have also provided financial assistance to population activities. In Guatemala, Germany through the German Development Bank, the Netherlands through IPPF and Japan through JOICEF have been the most active other foreign donors. This is an area where A.I.D. can be instrumental in seeking participation from other foreign donors by informing their diplomatic corps of the grave threat that rapid population poses for Guatemala and by encouraging them to include population activities in programs that they undertake with the GOG.

## 7. Major Private Donors

Since the 1950s, private donors (Ford Foundation, Mellon Foundation, Rockefeller Foundation) have played a critical role in population activities throughout the world. They have supported program areas that governments have found too risky to initiate and therefore have helped set the stage for governmental activities. In Guatemala, APROFAM has been the primary recipient of private donations but these donations have not been a major part of its operating budget. IPPF has been responsible for identifying and soliciting donations for APROFAM and this activity will take on more importance over the course of the proposed project. The Mission needs to maintain communications with the IPPF regional office in New York and try to actively involve its staff in recruiting new donors for APROFAM.

Locally, APROFAM has been able to raise donations both monetary and in kind, (donation of clinic sites, construction materials and labor) to support its activities. Fundraising will continue to be an important activity for APROFAM and should be more productive under the new regional administration system since each regional director will work with a regional board that will be responsible for fundraising activities. The Mission should actively encourage APROFAM to continue their local fund raising activities and provide technical assistance to help make this effort more effective.

## 8. Non-Governmental Organizations

FUNDESA identified over 300 PVO'S working in Guatemala (FUNDESA, 1987) but few of them have strong family planning programs. However, the Mission should actively

encourage all US PVO'S working in health, education, and the environment to include a family planning component in their activities. US PVO'S with major health programs supported by A.I.D. central funds in Guatemala include CARE, SHARE, La Leche League, Project Concern International, and HOPE. The Mission should work with these PVO'S and the appropriate A.I.D. backstop in Washington to develop strong family planning components for their programs.

9. International Planned Parenthood Federation (IPPF)

Established in 1954 primarily as a service delivery organization, IPPF has made a considerable contribution to reducing rapid population growth rates worldwide. The Federation also attempts to generate public support for family planning through contact with key government officials and by sponsoring major international meetings and conferences. In Guatemala, IPPF has provided financial and technical support to APROFAM for over 25 years. During the life of the project, it is expected that IPPF support for APROFAM will be stable and may possibly increase if APROFAM shows success in reaching the Mayan population.

10. Mission Strategy

The Mission should coordinate with UNFPA in the development of the proposed project and actively seek complementary funding from them to finance both family planning service delivery and policy formulation activities. The Mission and UNFPA should analyze the demographic goals of the Mission 40 year strategy and present a joint document to SEGEPLAN, the MOH or other appropriate GOG body that clearly outlines the goals of the agencies' projects and articulates the financial support and policy reform that will be needed from the GOG in order for the demographic and health goals to be met.

The Mission should take on the role of informing the international donor community of the importance of lowering the rapid population growth rate and actively encourage their financial support of population activities. The senior Mission diplomatic staff should be involved in these activities and these presentations would be enhanced by the use of the RAPID computer model.

The Mission should identify an individual, division or office at each potential donor organization that should be kept informed of population activities and proposed project goals. If possible, official interviews with a

representative from each organization should be carried out. These visits would be especially important for the large donors such as IPPF, private US foundations and the World Bank.

### III. DETAILED PROJECT DESCRIPTION

#### A. Overall Project Design

Population dynamics are complex and influenced by a myriad of factors; political, economic and social. But, it is individual behavior multiplied thousands of times over that creates population growth and population structure. This project is designed to address population dynamics both at the macro level of policy and at the individual level of behavior.

The GOG has to address the issue of rapid population growth both implicitly and explicitly as soon as possible. The longer the government delays, the larger the problem becomes and the more difficult it becomes to provide the resources necessary to lower the total fertility rate and to eventually slow the rapid population growth rate. This project recognizes the important role the GOG must play in the nation's effort to deal with its demographic and health problems. The policy component of this project has been designed specifically to help the GOG define and articulate its role in this area. Without the political will to lower the population growth rate, progress in this area will remain slow and no significant demographic impact can be expected.

This project also recognizes that in order to reach the total fertility rate of 4.2 by the year 2010, twelve times the current number of Mayan couples will have to be reached with culturally acceptable reproductive health services. Three times the number of Spanish speaking couples will also have to be reached. In order to accomplish this, services must continue to expand well into the second decade of the next century. This expansion is hung upon two critical elements, unflinching governmental support, described above as political will, that will provide ongoing financial and institutional support as well as the removal of legal and social barriers that impinge on the provision of services. The other crucial element is the ability of Guatemalan institutions to provide reproductive health services to Mayan couples. The demographic objectives that are part of the Mission's 40 year population strategy can not be obtained without full participation of the Mayan majority.

This project design is consistent with the Mission's 40 year population strategy. It emphasizes policy change, both

implicit and explicit, as the keystone to effecting demographic change during the pivotal decade of the 1990's.

The project design also envisions the use of research and development to begin the process of reaching a substantial number of Mayan couples with family planning services. At the same time, the project is designed to rapidly expand contraceptive use through strong Guatemalan institutions, maximizing human and physical infrastructure to keep costs as low as possible.

Of the three components described above: policy dialogue, research and development and expansion of services, the current project will provide the greatest percentage of the budget to support the expansion of services. The reason for this is that, as policy development evolves, more GOG resources should be made available for this provision of services, however, during this evolution of policy when GOG funds are not yet available, services must continue to expand.

Policy dialogue serves to shield both the expansion of services in Ladino areas and the development of services for Mayan couples by providing financial resources, legitimacy, and protection from attack by pronatalist and traditional forces.

B. Component I: Policy Dialogue

1. Rationale for this Element

Government policy towards family planning creates the environment in which family planning activities are carried out. Policy also determines the amount of public funds that will be made available for family planning activities and so has a profound effect on the success or failure of a national family planning program. Throughout the developing world countries that have had the greatest success in slowing rapid population growth over the last two decades have done so within a policy environment that has been positive and strongly protective of family planning activities. Examples of countries that have reduced overall total fertility with strong government leadership are: Mexico, Indonesia, Bangladesh and Mainland China.

Throughout the world, policies, laws and programs to influence fertility are now recognized as an integral part of efforts to promote social and economic development (Population Reports, 1984). Factors which have been identified as influencing the policy reform process are:

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- o a broad consensus on the importance and need for a policy;
- o dynamic leaders, inside and outside government, who see that population policy is important, support family planning, and organize action in favor of it;
- o private organizations and institutions that take an interest in population policy -- for example, medical organizations or women's groups -- and the role of family planning associations;
- o the availability of clear, convincing evidence that high fertility causes problems such as housing shortages, food shortages, environmental degradation, high maternal and infant death rates, or deaths from induced abortions;
- o the availability of financing, both national and international, to carry out policy and implement programs;
- o the availability of personnel and physical resources to carry out policy and implement programs.

The "Family Health Services" Project will direct actions and resources at influencing each of these factors.

## 2. Guatemalan Population Policy Environment

### a. Achievements

UNFPA, APROFAM, and the Mission have been the lead agencies in the population policy dialogue process in separate but complementary domains.

UNFPA has been working formally with the Planning Ministry (SEGEPLAN) for over eleven years in the development of an explicit population policy. In October 1989, with funding from the UNFPA, a committee representing a variety of GOG agencies met to consider the need for a national population policy. A report was drafted (Comite Multisectorial, 1989) and this document has formed the basis for the current draft population policy.

The diagnosis presented in the UNFPA/SEGEPLAN draft policy is multisectoral and recognizes that population policy should be an integral component of the national development plan. It represents a broad view of the Government's role in demographic issues and is an excellent basic document for UNFPA policy dialogue activities.

APROFAM has been actively involved in a broad range of policy dialogue actions for almost ten years. In 1982, with the assistance of the A.I.D.-funded Project to Inform Policy and Opinion Makers (PIPOM), APROFAM established a formal program to educate and inform policy makers. This leadership

education activity created a group of well informed, positive, influential political leaders who spoke out and protected family planning activities during the anti-family planning crusade of the early '80's. One of the positive outcomes of that bitter political struggle was the inclusion of Article 47 in the Guatemalan Constitution which "guarantees ... the right of every Guatemalan citizen to freely determine the number and spacing of their children."

The Mission has carried out a number of activities that have had very positive effects in the policy area. The financial support by the Mission of high quality studies of demographic and health issues have served as the basis for the development of national plans of action such as the current draft of the national health plan, which includes the reduction of overall total fertility as a GOG health concern.

The Mission has facilitated the participation of high level policy makers from the IGSS in regional conferences on the provision of family planning which has resulted in the proposal to the IGSS board to include reproductive health services to their clients. Most recently, the Mission was successful in taking the two Vice-Ministers of Health and other high level health officials, to observe active and effective family planning programs in Mexico and Ecuador. As a result of this trip, a representative from the Mexican Population Commission has been invited by the Vice-Minister of Health to address the Vice-Ministerial cabinet, including the Vice-President about Mexico's dynamic population and family planning activities.

All of the implementing agencies, have contributed to improving the policy environment by desensitizing the theme of contraception throughout the country through the mass media and other marketing activities.

#### b. Constraints

A number of different political factors have inhibited the expansion of family planning services in Guatemala. The Government of Guatemala has never officially recognized rapid population growth as a concern or identified the provision of family planning services as a health priority. The GOG has not adopted an official population policy, although discussions about the need for such a policy have been held intermittently since the late 1970's.

The medical school at the San Carlos University, has traditionally had a strong political and ideological bias against family planning, resulting in negative

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attitudes towards family planning in general and little training of health practitioners to provide family planning services. The Ministry of Health and the Guatemalan Social Security Institute (IGSS) operational regulations have unnecessarily restricted the provision of family planning services.

A democratically elected government must be responsive to its electorate and can only implement policy that has popular support without risking loss of power. The coalition government currently in power has not created a strong enough power base to directly challenge the Christian Democrat opposition party and its powerful ally, the Catholic Church on the issue of family planning. As the use of family planning methods becomes more acceptable and widespread, this will validate government policy development in this area.

At the operational level, regulations and practices exist that inhibit efforts by both commercial, private sector companies and organizations as well as governmental units to provide family planning services and products. These regulations and practices include but are not limited to, lack of budget support for the MOH Family Planning Program, contradictory clinical protocols for the provision of family planning services, lack of standard MOH hospital regulations for the clients who seek access to sterilization, restrictions on advertising and promotion of contraceptive methods, restrictions on what contraceptives can be supplied by different types of health providers and restrictions on the use of newer family planning technologies.

c. Opportunities

The policy environment for family planning in Guatemala is improving. The efforts of APROFAM and UNFPA have paid off in that there is growing understanding of population-related demographic and health issues on the part of political leaders and the general public. The former Minister of Health served on the Population and Development Commission of the Congress during the previous government and is very aware of both the health and demographic imperatives underlying family planning activities. One of the current Vice-Ministers of Health is a former president of the APROFAM Board of Directors and is on leave from his duties as a member of the IPROFASA Board of Directors. Family planning has never before had this visible and high level of support.

The universities, the institutions that shape the thinking of Guatemala's future leaders, have moved away from a strident ideological opposition to family planning. Recent work with the San Carlos University by APROFAM/MOH

representatives has produced a draft curriculum for the medical school that includes a unit on reproductive health and demographic issues.

Attacks on family planning and APROFAM in the press are now rare, while articles in support are on the rise.

3. Agenda for Policy Development

a. Goal

The activities of this component are designed to provide technical assistance and resources to national institutions in both the private and public sector which are responsible for the formulation and implementation of population policies. The goal of this assistance is to improve access to family planning services and to increase national resources available to financially support these services.

1) Key Elements.

Five key elements have been identified as crucial areas where policy development and reform must take place in order for this component to be successful. These key elements are: a. development of an inter-sectoral consensus on basic issues for the formulation of a national population policy; b. development of national plans to expand family planning services; c. increase public sector resources designated for family planning programs; d. reform laws and government regulations that impede access to family planning services and that can improve the legal environment for the provision of family planning products and services by the private sector; and e. increase private sector resources designated for family planning services and products.

Each host country implementing agency will have a role in the policy dialogue process. The activities of this component will be coordinated through an interinstitutional committee chaired by the Chief of the Office of Health and Education of the USAID Mission. Below is an illustrative policy dialogue agenda that outlines the areas in which the activities of this component will be focused.

a) Development of Inter-Sectorial Consences

The project will provide resources through the implementing agencies to various public and private sector activities to enhance the development of an inter-sectorial consensus on basic issues for the formulation of a national

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population policy. The Project will support an increase in the intensity of the ongoing APROFAM/MOH-FPU policy dialogue process via several related approaches. The first approach is to establish and maintain direct dialogue through personal visits by APROFAM/MOH-FPU staff with opinion leaders in government, the private sector, the Congress, the mass media, the universities, professional sectors, and women's groups. Two hundred leaders, including the President and all Ministers and Vice-Ministers, will be visited during the course of the Project. The two-fold objective of these visits is to establish working relationships between national leadership and family planning professionals and to alert the leaders to the demographic and health problems addressed by APROFAM/MOH activities. Among planned outcomes of these meetings is the establishment of more structured seminars.

A second approach using more structured working meetings will also be financed under this component. Meetings specifically designed as follow-up to the personal visits described in the preceding paragraph will be held. These meetings will include small groups of middle to high level representatives of the organizations whose leaders were visited previously. These sessions will include a presentation of the Resources for Awareness of Population Impacts on Development (RAPID) program or other similar product produced especially for this activity. These sessions will be designed not only to alert the participants of the impact of rapid population growth on national life, but also to stimulate them to take action in the formulation of a national population policy.

Working meetings will also be held every two weeks with legislators who are members of the Congressional Population and Development Commission. These working sessions are designed to result in consensus on basic themes for the formulation of a national population policy and to inform legislative leaders of the resources needed to implement expanded family planning services.

A third approach to consensus building for the population policy dialogue consists of conducting five seminars annually, which include high level leaders in public, private, academic, mass media and women's sectors, to discuss demographic problems and look for potential solutions. Each seminar will have approximately 100 participants. Special speakers will be arranged according to the interest of each group.

Observational and study trips to countries with family planning programs relevant to Guatemala will be arranged for opinion and governmental leaders and funded by the Project. Programs in countries such as Mexico, Ecuador, and Peru will be

studied. The Project will fund approximately five visits per year, with an average of about ten persons on each trip. Persons targeted for travel include Ministers, Vice-Ministers, business leaders and Congressional leaders.

b) National Plans to Expand Family Planning

Under this project the Mission will undertake two types of activities. First, the Mission will support a demographic and health study to serve as a baseline for this project and to provide an information base for the formulation of national health plans. Second, the Mission will work with the MOH, IGSS, San Carlos University, the National Health Council and other institutions as appropriate to include family planning issues and goals in their work plans and other planning documents.

c) Public Sector Resources

The Mission will work with all the governmental implementing agencies to increase the amount of funds available for family planning activities. For the IGSS this will include the financing of the creation of a reproductive health unit, provision of post-partum family planning services and later, the provision of family planning methods to any client who requests the service. AID and the MOH will formulate a financial plan to present to the Ministry of Finance that show increasing support for family planning activities over the course of the project. The Mission will finance the basic administrative, training and supervision costs of the FPU and the MOH will assume the costs of the provision of family planning services through its network of volunteers, posts, centers and national hospitals.

The Mission will also involve other multilateral and bilateral international donors in the policy dialogue process by involving their representatives in coordinating meetings and seminars, to develop a donor consensus of the importance of population growth issues. Where appropriate, the Mission will encourage the GOG to explicitly seek financial support for family planning activities.

d) Legal and Regulatory Reform

Under this project, an exhaustive review and analysis of legal and regulatory impediments will be carried out. The study will present recommendations to reform the legal and regulatory statutes and a course of action. This report will be carried out in conjunction with the implementing agencies and will be presented by them to the appropriate GOG

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officials and will form the basis for specific policy reform linkages to Mission allocation of funds to the MOH.

e) Private Sector Resources

The Mission will work with APROFAM to expand its private resource base both nationally and internationally. Technical assistance will be provided in the area of grant writing, fund raising and in service provision to the private sector. The Mission will also actively encourage the development of family planning services on site by private industry and business through both APROFAM, IPROFASA and other private sector providers. (See Policy Matrix Summary, Annex M).

C. Component II: Research and Development:  
Strategies to Expand Family Planning Services  
to Rural Areas

1. Background

In Guatemala, family planning programs have been much more effective in reaching urban, primarily Ladino populations than the Mayan populations living in rural areas. In spite of earnest outreach efforts by family planning providers to establish a clientele and provide family planning services to the Mayan population, this group has proven to be difficult to serve. In 1983, use of modern family planning methods among the Mayan population of Guatemala was a low 5%. The 1987 DHS revealed that this group's contraceptive prevalence rate has remained basically unchanged (5.6%).

While access to family planning services and information is quite limited in rural areas, this situation alone is not responsible for the high fertility rate of the Mayan population. Recent studies have shown the existence of significant socio-cultural barriers to the use of contraception among the Mayan population. Many Mayans, regardless of their religious preferences, believe that the use of modern contraceptive methods is a sin. The only contraceptive methods widely accepted by Mayans are natural family planning methods. Furthermore, having children is believed to be the will of God and interfering with this process is considered to be sinful and dangerous. Studies have shown that men are the ones who decide if women will use a family planning method. Men are jealous of their wives and believe easy access to contraception could encourage infidelity. They frequently cite that as a principal reason for not allowing women to contracept. Despite these cultural inhibitions and reservations, data strongly suggest that Mayan couples, in particular women, are interested in planning their families.

While research has shown that Mayan women wish to have more control over their fertility, strategies used in the past have not been successful in reaching the Mayan population. Therefore, research is needed to design cost-effective and culturally appropriate service delivery strategies. In order to achieve a major increase in contraceptive prevalence throughout the country, and significant progress towards local sustainability of services, it is critical that A.I.D. identify and test effective service delivery strategies for the rural population.

This project will develop and test new and better methodologies for reaching the rural population through applied research, in particular "Operations Research" (OR), in the Guatemalan highlands. Operations Research involves systematic and intensive testing of different strategies and interventions in designated geographic areas and continuously refining the approach until optimal interventions have been identified. Testing alternative service delivery strategies before they are implemented on a wide scale by the family planning service delivery organizations will ensure an efficient utilization of resources.

The design of this component and the specific programmatic issues identified for testing below are based on the lessons learned from previous quantitative and qualitative research conducted in Guatemala.

In order to have a significant impact on the health status of the population, this project component will target those departments of Guatemala with the poorest socio-economic indicators. Thus, attention will be focused primarily on the densely populated departments of the Highlands. These include: Quetzaltenango, Chimaltenango, Sololá, San Marcos, Huehuetenango, Totonicapan, Alta Verapaz and Quiché.

## 2. Goal and Objectives

### a. Goal

The primary goal of this project component is to develop and test strategies to expand family planning service delivery among the Mayan population.

Within a period of three to four years, accumulated field experiences will lead to the identification of a set of approaches and methodologies to reach Mayan communities with culturally, economically and technically appropriate

reproductive health services. Although these strategies will only be tested with the four major linguistic groups (which comprise the majority of the Mayan population), the vast body of literature on Mayans suggests that commonalities between all twenty-three groups will facilitate the successful application of the strategies in other areas.

As effective strategies are identified, they will be integrated into ongoing activities under way in the Highlands, supported by Component 3 of the "Family Health Services" Project. Later, implementation of the full strategy will be supported on a massive, Highlands-wide scale under the follow-on project which will begin in 1996 or 1997. Therefore, the strategy developed under this component will form the basis of activities under the third stage of the USAID forty-year strategy.

#### b. Objectives

- o Develop new research-based strategies for delivering cost-effective family planning services to rural, Mayan, and poor segments of the Guatemalan population.
- o Establish interim and long-term mechanisms for the dissemination and institutionalization of research results.
- o Foster inter-institutional collaboration.

Other anticipated benefits of this activity include: (1) strengthening local research capabilities by providing training to bilingual/Mayan professionals, and (2) supporting institutional efforts to integrate Mayan personnel into research and service delivery activities in the area of reproductive health. Such personnel will be key in assisting family planning organizations to provide services to Mayan populations during the follow-on project. Additionally, family planning agencies will gain useful experience in conducting applied research and providing services to the Mayan population.

### 3. Component Design

#### a. Implementation Mechanism

The Mission will buy into an R&D/POP institutional contract for this component. The institutional contractor will recruit local professionals and field staff to establish a local office. The preferred arrangement would be to involve a local institution that is a Mayan directed and/or staffed institution with programmatic and research experience in

reproductive health. The advantages of subcontracting such an institution include: 1) a quick start-up time and potentially lower costs; 2) utilization of existing local bilingual (Mayan language) resources; and 3) strengthening of national institutional capabilities.

The USAID Population Office will establish a Research Subcommittee of the General Project Coordinating Commission which will meet quarterly in order to foster inter-institutional collaboration in research. This Subcommittee will consist of representatives from: USAID/G, APROFAM, IPROFASA, MOH, IGSS and other public and private agencies working in family planning, the R&D professional unit established to implement research activities, and the technical advisor, as well as other organizations with experience and/or potential interest in family planning in rural areas. USAID will initially coordinate the activities of this Subcommittee. Specific materials and supplies needed to support the work of the Subcommittee will be provided by the project's technical contractor.

The role of the Subcommittee will include:

- 1) participation in the review and selection of the technical assistance (TA) organization;
- 2) definition of the relationships between the R&D unit of the project and participating agencies;
- 3) provision of a forum for the continuous dissemination of research results; and
- 4) other activities to be determined as needed.

The Subcommittee will function as an advisory committee and will not require a specific office, commodities or paid staff.

The R&D Unit will work with existing family planning service organizations via the R&D Subcommittee (described below) to establish research priorities, coordinate research activities and disseminate results. Specifically, the family planning institutions will be responsible for the service delivery components of the research with support from the R&D Unit in planning, training and monitoring. The R&D Unit will be primarily responsible for the research-related activities such as data collection and analysis. It will also assist participating institutions in implementing new intervention strategies or in scaling-up strategies which have proven to be successful. The R&D Unit and the individual institutions will also be responsible for identifying short-term technical assistance needs and contracting for them. Close collaboration between the R&D Unit and the individual family planning agencies will be critical for the success of this project.

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The R&D Unit will have a budget with which it will finance the research activities selected. The allocation of these resources will be the responsibility of the R&D Unit and its technical advisor in conjunction with the Mission and the Subcommittee. Overall financial management will be the responsibility of the institutional contractor.

It is envisioned that the R&D Unit will have a core staff of professional Guatemalans, bilingual field trainers and supervisors, and support staff which will be responsible for assisting the different family planning agencies to conduct the research projects described below. Four professional staff will be needed: one with skills in project administration, one with a background in qualitative research, one with quantitative research or survey experience, and one health educator with training experience. It will also be necessary to have a core team of field supervisors representing the major Mayan language groups with experience in interviewer training who will work as translators and carry out training in Mayan languages. A support staff will include two secretaries, a driver and a messenger. The majority of the personnel should be Mayan with experience in research and service delivery in Mayan areas.

#### 4. Research Topics and Development Activities

Although there is a substantial literature on the health status and the cultural attitudes and beliefs of Mayan populations related to health services utilization, there is a need for practical applied projects to develop and test effective strategies for service delivery in rural areas. The Research and Development component of this project will assist service delivery institutions to test strategies to deliver effective, culturally sensitive services to rural populations.

Due to the fact that reaching rural populations has proven to be quite difficult, projects will be of sufficient duration to allow for change to occur (two to three years). Smaller scale projects of shorter duration (maximum eighteen months) will also be conducted to address operational problems or to carry out quick evaluations. Given the length of the larger projects, mechanisms for dissemination of interim research findings will be included. Some projects will be of widespread interest, while others will be of special interest to particular institutions. Studies will employ a range of quantitative and qualitative research methods but will rely heavily on service statistics and on low cost research methods such as focus groups and mini-surveys.

The R&D Unit, in consultation with the Subcommittee, will prioritize research projects according to the following guidelines: cultural appropriateness, the existence of research which provides a basis for the strategy to be tested, sustainability, cost-effectiveness, innovativeness, institutional commitment to the intervention, feasibility of scaling-up, and potential for demographic impact.

This component of the Project will finance two general categories of studies. The first, referred to as the development of "New Strategies", will consist of studies which test new activities which appear to hold promise for Guatemala but have never been tried. The second category, "Operational Issues", will explore ways to improve or fine tune existing service delivery strategies. In general, "New Strategies" research projects will be larger than the "Operational Issues" projects. A minimum of three larger projects with an average cost of \$115,000 will be undertaken, while approximately four smaller projects with an average cost of \$25,000 will be conducted. If additional funding can be obtained from a centrally-funded population operations research project, more studies will be done.

Potential research topics are listed below under the two categories of studies.

(1) "New Strategies"

These projects will test new strategies or modifications in existing service delivery modalities. The following is an illustrative list of research areas that will be addressed under the "New Strategies" research category.

- o The 1987 DHS, as well as qualitative research by Ward et. al, has shown that a substantial number of Mayans declare to be using or have an interest in using rhythm to space births. However, the qualitative research as well as an ongoing Operations Research Project with rural agricultural workers indicate a misconception concerning the fertile period. To what extent is the training and use of special promoters to teach natural family planning (calendar method) teamed with APROFAM community based distribution workers more effective than the training of existing community based distribution workers in the provision of natural family planning education? Do either of these strategies produce natural family planning users? Does use of natural family planning lead to the adoption of modern methods?

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- o It has also been found that in Mayan cultures the man plays a determining role in decision-making concerning the use of family planning. To what extent do promotional strategies (IE&C or male promoters) directed towards Mayan men increase utilization of family planning by men and women?
- o Cultural differences and communications barriers have been shown to negatively influence client-provider interactions. How effective is the provision of training in cultural sensitivity in: 1) improving the attitudes of service providers toward Mayan clients?, 2) improving provider-client interactions?, and 3) increasing the acceptance of family planning services by the Mayan population?
- o A further analysis of the 1987 DHS (CDC, 1991) suggests that contraceptives provided by injection of hormonal contraceptives (injectables) may be more convenient and/or culturally acceptable to rural populations than other modern methods. To what extent will the availability of injectables through the Ministry of Health and/or APROFAM promoters increase contraceptive prevalence?
- o Qualitative research (Ward, et.al) and Operations Research carried out by AGES indicates that sex education is more acceptable to rural populations than is an exclusive emphasis on family planning promotion. Does education on sexuality and family planning combined with the provision of contraceptive methods for young Mayan couples produce positive changes in contraceptive knowledge, attitudes, intent and/or practices?
- o Currently forty-five percent of the total population of reproductive age is under the age of fifteen. Thus, a focus on this special group is increasingly important. To what extent does Family Life Education for teachers, parents and youth positively influence knowledge and attitudes related to reproductive health and fertility? Will the provision of educational scholarships combined with Family Life Education for Mayan girls have a positive effect on factors related to actual or intended delayed childbearing and/or family planning use?
- o The periodic market system in Guatemala is one of the most well-articulated and widely-used in Latin America. Research on health services utilization suggests that this market system could be utilized to improve access to health services as has been done in other Latin American

settings. How feasible and cost-effective are market-based systems for the distribution of family planning methods? Which marketing agents are most effective?

- o Approximately 70 percent of all births in rural areas are attended by traditional birth attendants (TBA's). Consequently, there has been interest in including TBA's in family planning efforts. What is the feasibility, effectiveness and potential for impact of training TBAs in family planning? What are the most effective training and supervision strategies? Would TBA's be more effective proponents of natural family planning methods than modern methods?

(2) "Operational Issues"

Research projects which fall under this heading include small scale operational issues and evaluations. These activities would not require development or testing of new service delivery strategies. Projects may be smaller in scale than the ones suggested above in terms of duration and/or budget, but may actually be of equal or greater programmatic importance. The following is an illustrative list of "Operational Issues" research topics.

- o Which Ministry of Health personnel (rural health technicians, volunteer promoters, nurse auxiliaries, nurses, medical students doing social service) are the most effective family planning promoters? How effective are the training mechanisms utilized?
- o To what extent does the use of bilingual family planning providers increase knowledge and acceptability of family planning methods?
- o Are female promoters/educators more effective than male promoters/educators in promoting family planning?
- o APROFAM is implementing a number of innovative approaches in rural areas which have yet to be evaluated. These include: work with community leaders, physicians and church groups as well as the use of Mayan couples as promoters. In addition, other strategies designed to improve service access could be the focus of Operations Research efforts.
- o IPROFASA has recently launched an innovative strategy to reach the rural population through the establishment of micropharmacies in communities of 2,500-3,000 inhabitants. The impact of this strategy in terms of community development, cost-effectiveness, long-term sustainability

and demographic impact needs to be assessed. Plans for increasing access to IPROFASA's products through the use of the existing micro-pharmacies as wholesalers to individuals from smaller communities should be evaluated.

- o Strategies to provide family planning services to maquila (factory) workers should be evaluated for cost-effectiveness.
- o There is concern regarding contraceptive continuation rates among the family planning agencies. Research efforts could examine differences by region and causes for discontinuation and continuation.
- o What is the acceptability and impact of the IE&C campaigns of APROFAM and IPROFASA?

d. Methodology

Once a research topic is selected, the family planning institutions will submit brief proposals expressing their interest in conducting research in that area. If more than one institution is interested, the R&D Unit and the Subcommittee will select which institution(s) will conduct the research. The R&D Unit will work with the participating institution(s) to develop a research protocol detailing the study methodology. At this point, the technical advisor and the institution will decide what, if any, technical assistance is needed beyond that which will be provided by the R&D Unit. For example, expertise in natural family planning methods may be needed to carry out some of the projects mentioned above. They will also decide what resources the institution will contribute to the project, for example vehicles and staff time.

The first step in carrying out the research will be the development and testing of the research instruments to be used in collecting baseline data. After the instruments are validated, field personnel will be hired and trained. While the baseline data are being collected, service delivery staff, such as clinic personnel, will be trained to conduct the new intervention. If necessary, new supervision and information systems will be established at this point. After collection of baseline data, the intervention will begin. Endline data will be collected after a sufficient period of time has passed to allow measurement of the impact of the intervention. Data analysis and preparation of progress and final reports will be conducted primarily by the R&D Unit, however participation of the family planning institution will be encouraged.

In order to provide a more concrete idea of how the research will be carried out, an illustration of the implementation of a "New Strategy" and an "Operational Issues" project is provided below.

(1) Illustrative Research Methodology for a Large "New Strategy" Study: Training of Male Promoters and Targeted Information, Education and Communication (IE&C) for Mayan Men

Once the Subcommittee and the R&D Unit have decided that the training of male promoters and the development of an Information, Education & Communication (IE&C) campaign for Mayan men is a priority research area, APROFAM will submit a brief proposal expressing its interest in testing this strategy within their service delivery model. A project coordinator from APROFAM will be designated to work with the R&D Unit to conduct the research. The Resident Advisor and APROFAM will work together to design the research and plan project activities. A close collaborative working relationship between APROFAM and the R&D Unit is critical for several reasons: 1) APROFAM will be more likely to implement research recommendations if it feels ownership of the project; 2) it is more likely that the intervention will fill APROFAM's needs; 3) logistical problems will be avoided; and 4) the resources of both APROFAM and the R&D Unit will be maximized.

In terms of institutional responsibilities, APROFAM will provide funds to pay the field personnel who will implement the strategy, educational materials and use of a vehicle for supervision of the intervention. The R&D Unit will hire a group of temporary interviewers to collect the baseline data. It will also provide per diem for APROFAM staff attending project trainings, contract technical assistance, purchase gas, etc. During data collection, and to a lesser extent during the intervention phase, staff from the R&D Unit will make supervision visits to the study communities. If the project is large enough to merit it, a project office will be opened in the Highlands.

Instruments will be developed to collect baseline data on the knowledge, attitudes and practices of Mayan men toward family planning in selected communities. In addition, data may be collected in control communities where the intervention will not be implemented. Management information systems will be reviewed to ensure that adequate service statistics can be collected from study communities to allow

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measurement of the intervention's impact. If the existing information systems will not provide this information, additional data collection forms will be designed. The R&D Unit will hire and train fieldworkers who will conduct interviews with men before the intervention begins and/or in control communities.

Meanwhile, APROFAM will design IE&C materials for Mayan men and hire male promoters to work in the experimental communities. If the intervention includes educational materials and/or a radio campaign, an IE&C and/or radio specialist might be contracted to provide assistance to the APROFAM in developing and pre-testing the campaign. The R&D Unit will participate in the development of the IE&C campaign as well as the training of the male promoters.

APROFAM staff will provide services targeting Mayan men for a one to two year period. Afterwards, interviews will be conducted in the experimental communities. Results from the baseline and endline surveys, data from the control communities and service statistics will be analyzed to assess the impact of the intervention. The R&D Unit will be primarily responsible for data analysis and preparation of the final report, while APROFAM will organize an end of project conference and, if warranted, interim meetings to share research results to other institutions. In addition, results of the research will be presented at Subcommittee meetings.

Based on the conclusions of the field study, modifications and improvements will be incorporated into ongoing project activities that could benefit from better support from Mayan males. Finally, in 1996, new activities based on the field research will be incorporated into the design of a follow-on A.I.D. project that will begin in 1997.

(2) Illustrative Research Methodology for a Small "Operational Issues" Study: Training of MOH Personnel to Provide Injectables

This "Operational Issues" project is much smaller than the study described above. To carry out this project, the R&D Unit will hire and train fieldworkers who will conduct interviews with users of injectables to ascertain their degree of satisfaction with the method. The R&D Unit will also review the MOH's information system and, if necessary, assist them in developing new forms to gather the service statistics needed to evaluate the impact of providing injectables. The MOH will provide the personnel who will offer the method, train their staff to provide injectables and obtain the injectables. A

defined geographic area will be selected to pilot test the provision of injectables. The R&D Unit may hire a clinical expert in injectables to provide input into the design of the research and to assist the MOH in training staff and setting up supervision systems.

5. Implementation of Research Results

The R&D Unit will be responsible for supporting the individual organizations in the implementation of research results. Technical assistance in this area will address both dissemination and utilization of findings.

a. Dissemination Activities

The project will support the following kinds of activities to maximize the application of the research results:

- o A fully elaborated design for the follow-on project of continuing A.I.D. support in the population sector will be presented in a synthesis paper summarizing the results of the research conducted over the four year period.
- o Regular progress and planning meetings with the Subcommittee and family planning organizations as appropriate.
- o Preparation of interim summaries and final reports. Results will be presented at end-of-project conferences organized by the agency in which the strategy was tested.
- o Presentation of results at regional and international conferences and through professional publications.
- o Organization of a regional conference sharing successful strategies for reaching rural and indigenous populations. This conference will be financed by the institutional contractor.
- o Ongoing outreach to Mayan organizations.

b. Utilization of Research Results

Two months after completion of a specific research activity, the service agencies will be responsible for presenting an implementation plan to the Subcommittee which details how the service delivery strategy will be institutionalized or scaled-up if it has been successful. The plan will specify TA needs and the R&D Unit's role in follow-up.

Two to four months following the submission of the implementation plan, the R&D Unit will assess the institution's progress.

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When appropriate, institutions which have identified successful strategies will share their results and assist other interested organizations in adopting them with the assistance of the R&D Unit.

6. Implementation

a. Implementation Arrangements

It is planned that funds will be obligated through a single institutional contractor. This will facilitate financial accounting, commodities procurement and contracting of local and international staff.

b. Implementation Plan

"New Strategies" and "Operational Issues" research projects will be conducted simultaneously. Once initial projects are well underway, additional studies will come on line. Research will begin with the identification of research priorities in the Subcommittee meetings. Subsequently, protocols will be developed by the R&D Unit in collaboration with the participating agency/ies. Approximately two months will be dedicated to the development and testing of research instruments and training of fieldworkers/interviewers, etc. Project activities will begin with baseline measurements conducted over a one to two month period. A time period of one to two years will be dedicated to conducting the interventions.

For the "New Strategies" Projects, six-month project reports will be prepared by the agency and R&D Unit personnel and presented to the Subcommittee. Final reports will be submitted for all projects.

Implementation plans will be submitted approximately two months following completion of the final reports. Implementation progress will be evaluated by the R&D Unit within two months of submission of the plans. The duration of the "New Strategies" projects will be approximately two years, while the "Operational Issues" projects will average about one year each.

Other project activities include quarterly Subcommittee meetings and outreach efforts to Mayan organizations. Annual audits will be conducted.

Important end-of-project activities include the completion of the synthesis paper by the R&D Unit in the second quarter of 1996 and a Regional Conference to be held during the last quarter of the project.

Key implementation events are presented in the Project timeline in Section C (page 37).

#### 7. Monitoring and Evaluation

This component has built-in monitoring and evaluation mechanisms. These include quarterly Subcommittee meetings, interim and final reports, implementation plans and evaluations, and the final synthesis paper which is the principal product of this four-year effort.

Process indicators for monitoring and evaluation will include degree of participation of each family planning agency, timely achievement of planned activities, and dissemination and utilization of research results. In addition, this component will be evaluated as part of the overall mid-term Project Evaluation.

#### 8. Sustainability

The research activities undertaken in the first four years of the twenty year A.I.D. "Family Health" initiative will contribute to overall project sustainability through the development of cost-effective rural strategies to be institutionalized by existing family planning organizations. For this reason, the research projects will include cost-effectiveness analyses.

The objective of this component is not to create a permanent institution or institutional capability to perform research. Nevertheless, the sustainability of existing Guatemalan family planning organizations will be improved by the development of strategies which will increase agencies' cost-effectiveness and coverage as well as strengthening their internal research capabilities. In addition, the experience acquired by local, particularly Mayan, personnel during this project will be critical in the wide-scale implementation of the rural strategies during the next twenty years of service delivery expansion. Similarly, the experience gained by the participating family planning institutions during these four years of integrating Mayan staff will be a key factor in their future efforts to successfully reach the rural population. A side benefit of this component will be an increased ability among family planning institutions to coordinate their outreach efforts, particularly in rural areas.

C. Timeline of Research and Development Activities

Key: OI = Operational Issues  
 NS = New Strategies  
 IMP= Implementation

Activity	1992	1993			1994	1995	1996
Quarter	4	1	2	3	4	1-4	1-3
Contract TA/Identify Mayan Org.				X			
Establish Office					X		
Create Subcommittee					X		
Outreach to Mayan Org's						X	X
Create Resource Bank						X	
Report on Training Needs						X	
Subcommittee Meeting		X	X	X	X	X	X
Select NS Projects						X	
Devlp NS Instruments and Training							X
Initiate NS Activities							X
NS Intervent.						X	X
NS Progress Report							

(...Continued)

Activity	1992	1993				1994	1995	1996
Quarter	4	1	2	3	4	1-4	1-4	1-3
NS Final Rep.								
NS Imp. Plan								X
NS Imp. Eval.								
Identify OI Projects					X	X		
OI Protocol					X	X		
Initiate OI Activities					X	X		
OI Intervntn					X	X	X	
OI Final Rep.					X		X	
OI Imp. Plans						X	X	
OI Imp. Eval.								X
Synthesis Paper					X	X	X	X
Regional Conf.								X
Audit					X	X	X	X

**SUMMARY LIFE OF PROJECT BUDGET BY PROJECT COMPONENT**  
**OPERATIONS RESEARCH AND DESIGN COMPONENT**

SOURCE	1,993*		1,994*		1,995*		1,996**		TOTAL	
	AID		AID		AID		AID		AID	
CURRENCY	FX	LC								
COMPONENTS										
<b>COMPONENT I: POLICY DIALOGUE</b>										
b. Dissemination Costs		7,264		63,334		63,334		63,334		197,266
<b>COMPONENT II: RESEARCH AND DEVELOPMENT</b>										
a. Technical Assistance	246,399		246,399		246,399		164,246		903,443	
b. Operational Costs		289,649		289,649		233,579		155,722		968,599
c. Field Costs		111,750		111,750		111,750		74,500		409,750
d. Audit and Evaluation		2,000		2,000		2,000		5,200		11,200
f. Contingencies										109,742
<b>TOTAL</b>	<b>246,399</b>	<b>410,663</b>	<b>246,399</b>	<b>466,733</b>	<b>246,399</b>	<b>410,663</b>	<b>164,246</b>	<b>298,756</b>	<b>903,443</b>	<b>1,696,557</b>

\* September to December 1992

\*\* All Calendar Year

\*\*\* January to August, 1996

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D. Component III: Expansion of Services

1. Ministry of Health Family Planning Unit (MOH/FPU)

a. Background

(1) Introduction

The Guatemalan Ministry of Health (MOH) plays a key role in the overall "Family Health Services" Project strategy because it operates the largest health care delivery system in the country and currently provides the majority of maternal-child health services. Through the MOH Family Planning Unit (MOH/FPU), this large, established network of physical infrastructure and human resources can be used to provide family planning services to all parts of the country, including many geographically isolated rural areas. The potential of the Ministry of Health to expand the coverage of family planning services is great, and this component of the Project is designed to tap this potential.

The MOH Family Planning Unit was established in 1982. It is a vertical administrative unit that has been responsible for three functions: (1) training, (2) supervision and (3) logistics. Actual service delivery is provided in an integrated fashion through the Ministry of Health system of hospitals, clinics, health posts, health centers, and volunteer health promoters.

Through the "Family Health Services" Project, the MOH/FPU will expand successful activities that are already in operation and add new services. The new services, described below in detail, are voluntary surgical contraception in regional hospitals and provision of temporary family planning methods through the large corps of MOH community-based volunteer health promoters.

(2) Achievements

The MOH's current family planning program dates from mid-1986 and is, in large measure, funded by A.I.D. In May, 1985, when the "Expansion of Family Planning Services" Project Agreement was signed, the MOH was still reeling from the effects of the civil war and the anti-family planning campaign which had seriously affected the MOH. Much of the MOH infrastructure was destroyed or closed due to lack of personnel, and many community health workers, tagged as "subversives", had either fled or been killed. MOH family planning activities were at a virtual standstill from 1979 until

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mid-1986. Since that time the Family Planning Unit has been able to establish itself as well-functioning administrative unit.

The Family Planning Unit has assumed all logistical responsibilities for the provision of contraceptive supplies to the Ministry of Health facilities nationwide. The Unit has a well-controlled warehouse and distribution system that is functioning satisfactorily. The Family Planning Unit has been able to establish a supervision system that is designed to provide two supervision visits a year to each of the almost 1,000 functioning Ministry health posts and health centers. Within the Ministry, only the Family Planning Unit has this kind of relatively strong supervisory capability.

The Unit is also carrying out its training function in an efficient and effective manner. Through technical assistance from Development Associates, the quality of training activities has improved substantially.

Perhaps the most important thing the Family Planning Unit has accomplished has been to tactfully integrate family planning into Ministry health services in the context of "reproductive risk". The Family Planning Unit has carried out training sessions for decision level Ministry personnel on reproductive risk and skillfully convinced Ministry leaders that the provision of family planning methods is a legitimate preventive health activity that has a positive impact on saving the lives of mothers and children.

The MOH Family Planning Unit has continuously increased the level and coverage of its services since its founding. In 1990, the MOH program provided a total of 70,113 Couple Years of Protection, up by 13,525 or 20% from 1989. The main family planning service provided by the MOH is voluntary surgical sterilization. The Ministry's family planning services break down as follows:

Voluntary Surgical Contraception	47,592	68%
Oral Contraceptives	14,240	20%
IUD's	3,013	4%
Condoms	4,185	5%
Vaginal Tablets	1,083	1%

Based on DHS Data (adjusted), it is estimated that the MOH Health System should provide 26% of the total family planning services in Guatemala by 1992. This percentage should increase to 30% by 1995.

(3) Constraints

The Family Planning Unit is part of the Ministry of Health and is constrained by the same factors that limit the Ministry's effectiveness. The Ministry's budget is allocated by the national Congress and reflects political factors and GOG budget austerity. Approximately 80 percent of the Ministry's budget is used to maintain the 35 politically-popular national hospitals. This leaves only 20 percent for preventative public health services. Staffing within the Ministry does not place priority on assigning Mayan speakers to Mayan areas. Many health posts are deserted for long periods of time. MOH health facilities at all levels tend to be chronically under-equipped, under-supplied, and under-maintained.

Supervision of services in the field is very limited. Administrative support is erratic. Commodity management and distribution is spotty. Information management is poor.

The Family Planning Unit has historically been constrained by the unwillingness of the Government of Guatemala to decisively confront the population issue. The Ministry of Health has not set clear goals for the provision of family planning services nor established a philosophy of care that recognizes the reproductive rights of Guatemalan couples.

Technically, the Family Planning Unit is restricted by the Guatemalan Sanitary Code and Ministry of Health regulations and protocols in the provision of family planning methods. Some methods of family planning have not been registered in Guatemala such as Norplant, and others, such as Depoprovera and Noristerat, are not purchased by the Ministry of Health. National hospitals and Type A health centers (those with surgical capabilities) do not have standardized clinical protocols for the provision of IUD'S and voluntary surgical contraception. Current volunteer health promoter norms do not allow them to distribute hormonal family planning methods.

At the present time the Family Planning Unit is not clearly identified as a MOH unit. The Family Planning Unit does not appear on the MOH Organization chart and operates directly out of the Office of the Vice-Minister.

(4) Opportunities

The Ministry of Health is the largest provider of maternal child health (MCH) services and the second

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largest provider of Family Planning services in Guatemala. Its network of posts, centers and hospitals offers the greatest potential for expanding the provision of family planning services in the most cost-effective manner for Guatemala.

The Family Planning Unit has been working with area chiefs and rural health technicians to revise the norms under which volunteer promoters work. The Family Planning Unit is ready to test a community distribution system of hormonal and barrier methods when the Ministry of Health approves the revised norms.

The national hospitals have also begun to request assistance from the Family Planning Unit to establish voluntary surgical contraception (VSC) as part of their regular services. These hospitals will play an important role in the expansion under the "Family Health Services" Project.

The Family Planning Unit has established a solid base and a good image within the Ministry for the provision of family planning methods and the Unit has the capacity to expand quickly.

The Family Planning Unit has created a positive attitude in the Ministry, has gained respect as a competent administrative unit and is creating demand among service providers for training, supplies and follow-up supervision. These significant accomplishments have created a solid institutional and political foundation for the proposed expansion of services under the "Family Health Services" project.

b. Goal and Objectives of the FPU

(1) Goal: Increase family planning coverage, quality and efficiency of the Ministry of Health Family Planning Unit so that a total of 720,500 CYP are provided through MOH outlets during the life of the Project.

(2) Objectives

- (a) Continuation and improvement of services presently offered.
- (b) Expansion of MOH hospital-based family planning services.
- (c) Expansion of the number of social

and geographical groups reached by the family planning program with new emphasis on the male population and the rural Guatemalan Highlands.

(d) Provision of new family planning methods, including injectable hormonal methods and implants.

(e) Increasing the MOH proportion of total users to 30% of all users nationwide.

(f) Coordination of efforts in rural outreach strategies, mass media and training with APROFAM, IGSS, and IPROFASA.

c. Activities

(1) Hospitals

Through the "Family Health Services" Project, the Ministry of Health-Family Planning Unit will assist 26 of the 35 national hospitals and three Type A Health Centers in the establishment of post-partum family planning services, including both voluntary surgical contraception and temporary methods.

Much of the work of the hospitals as they presently function is attending births. The national public health system tries to encourage mothers with normal pregnancies to give birth elsewhere because of overcrowding in the hospitals. As a result, many of the hospital births are "high risk births" involving complications. The hospitals also see surprising numbers of post-abortion complications. A good number of these patients subsequently request surgical sterilization. The hospitals often cannot provide this elective surgery because staff and facilities are overextended with emergencies. Complex paperwork and inconsistent clinical protocols are other reasons the hospitals often prefer to postpone or deny requests from patients for surgical sterilizations. Furthermore, conditions in the hospitals sometimes discourage patients who are considering surgical contraception. Lack of privacy, unsanitary operating rooms, poorly trained medical staff, and lack of modern surgical equipment can make voluntary surgical contraception an unnerving experience.

The "Family Health Services" Project will improve the capacity of the MOH hospitals to provide more and better voluntary surgical sterilizations,

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and will help upgrade conditions to make the operation as safe and comfortable as possible. An estimated 13 percent of hospital births will be followed by voluntary surgical contraception or I.U.D. insertion by the end of this Project.

Under the Project, each hospital will receive an initial evaluation visit during which the physical space for voluntary surgical contraception will be assessed. If the physical space fails to meet minimal surgical safety standards, a renovation plan will be negotiated with the hospital director. Renovation of the hospital's surgical area will be limited to upgrading the space to meet accepted surgical safety standards and the provision of minimal recovery and private counseling areas. Only minor upgrading of the operating room areas in the hospitals will be financed. In most cases project-financed renovation will consist only of installing ceramic tile, which can be easily washed and disinfected, over dirty cement floors and walls. In some cases, private areas may be improved to serve as quiet recovery rooms and/or as private family planning counseling rooms. The A.I.D. Grant to the MOH will provide only materials. The hospital will provide labor. A.I.D. costs for the materials should not normally exceed \$5,000 per hospital.

The Project will also provide sets of specialized surgical tools required to perform voluntary sterilizations, including minilaparoscope kits, I.U.D. insertion kits, vasectomy kits, manual resuscitation equipment, and a supply of surgical supplies such as gowns and gloves.

The Project will provide professional in-service medical training to the M.D.'s, nurses, anesthesiology technicians, and social workers in the 26 hospitals to upgrade their skills and surgical techniques with regard to voluntary sterilization.

Technical assistance and some of the training will be provided through a project institutional contractor or through a Mission buy-in to the centrally-contracted Association for Voluntary Surgical Contraception (AVSC).

The hospital subcomponent of the Project will generate approximately 174,000 CYP's over the life of the project.

## (2) Health Centers and Posts

The network of small health centers and health posts that covers rural Guatemala is the natural

infrastructure to use for expanding the coverage of family planning to large numbers of low-income users at low cost. The health centers and health posts are located in small communities and are more accessible to the rural population than are larger health facilities. Of the 1,200 health centers and health posts that exist in the country, normally about 800 are staffed, equipped, and functioning. Although supplies, support services, and supervision are always in short supply, many MOH local staff people are surprisingly committed and conscientious. The health posts and health centers are on the front line in successful child survival activities in Guatemala, and have demonstrated their effectiveness in the recent cholera outbreak. The Project will increase the number of active health centers and posts offering family planning services to about 1,000.

Since the founding of the MOH Family Planning Unit, rudimentary family planning services have been offered by a growing number of health centers and health posts. So far, this program has met with success. The average number of family planning users has grown from 6 users per facility in 1985 to 66 users per facility in 1990. The health posts and health centers offer temporary family planning methods only. They also make referrals to the hospitals for voluntary sterilizations, and provide patient supervision and follow-up care near home for patients who have had operations at the hospitals. Finally, they supervise the local community volunteer promoters (see next section) who will play a key role in the expansion of services under the "Family Health Services" Project.

Under the Project, the reproductive health services offered by the health posts and health centers will be improved and expanded. A major national in-service training program for MOH field staff will provide several series of seminars in the different geographic health areas in subjects such as I.U.D. insertion, the correct use of new injectable contraceptives, and reproductive health including STD's. Most of this training will be provided in the health area offices by professional staff of the Family Planning Unit, with logistics costs and instructional materials financed by the Project. In addition to providing technical training, an important function of the seminars for field staff will be to raise awareness on the part of field staff concerning the demographic and health consequences of high fertility, and to motivate field staff to enthusiastically promote family planning in the course of their work.

Another activity under the Project will be strengthening the system of field supervision for the health posts and health centers. Supervisors will regularly visit the

posts and centers, motivating staff and providing supplies and materials.

Finally, the Project will continue to provide adequate supplies of the temporary contraceptive methods dispensed by the health posts and health centers. The contraceptive distribution arrangements will be improved. The system of sale of the contraceptives and utilization of the money received, which is now cumbersome and ineffective, will be studied and restructured.

The services offered by the health posts and health centers will be promoted in local communities by the MOH volunteer health promoters. They will also be advertised throughout the country by an APROFAM mass media campaign, financed by the Project.

The MOH health posts and health centers will provide approximately 307,500 CYP's during the life of the Project.

### (3) Community Services

The Ministry of Health operates a network of 16,000 volunteer health promoters. Local residents of small communities with no other health services, the volunteer health promoters organize preventive health activities in their communities. These promoters are already recruited and trained. A system of supervision, often staffed by a tecnico en salud rural (TSR), operates reasonably well in much of the country. To date, family planning services have not been part of the responsibilities of the volunteer health promoters.

A new activity with great potential to expand coverage at a low cost is getting the volunteer health promoters to provide family planning methods. With Project support, the Family Planning Unit will train, supply and supervise 4,000 community volunteers in "reproductive risk" and family planning methods. The volunteers will be trained to recognize women at high reproductive risk and to offer them family planning information and selected methods.

Volunteers will be directly supplied with condoms, orals and injectable contraceptives. A simple system of data collection will be developed to allow volunteers to record contraceptive distribution and referral. The volunteer will be directly supervised by the rural health technicians who in turn will be supervised by the Family Planning Unit. During the life of project it is expected that 239,000 CYPs will be provided through this distribution mechanism.

This project will also train a total of 9,000 traditional birth attendants (TBAs) in birth spacing and in reproductive risk identification and referrals. TBAs are not necessarily appropriate for family planning services though, in practice, it is important to have them well-versed and knowledgeable in related issues so as to better serve their clients.

(4) Support Services

The following logistical and support services will continue to receive A.I.D. grant support under the "Family Health Services" Project.

(a) Training

The Family Planning Unit will carry out almost 3,000 training activities for approximately 84,000 health providers. These activities will be both theoretical and practical and will focus on reproductive health, including STD's, and the provision of family planning methods.

(b) Supervision

The Family Planning Unit will continue its successful supervision program and provide two annual follow-up visits to each post and center. The supervision system will be modified based on the results of operations research that is currently ongoing with technical assistance from the Population Council.

(c) Commodities and Logistics

The unit will continue to order contraceptives through the Contraceptive Procurement Table (CPT) process and to receive, warehouse, and distribute them to ensure a constant supply for the Ministry of Health family planning services. The unit will also be responsible for providing minimal equipment and supplies for IUD and VSC services. Procurement of contraceptives, equipment and medical supplies will be done by USAID/Guatemala.

(5) Management Information System (MIS)

The MIS Unit is currently receiving assistance in upgrading its various internal control systems. Contraceptive distribution is managed through a system designed by the Center for Disease Control which will be upgraded to include supervision and training data which is currently hand

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tabulated. Technical Assistance will be provided by CDC and a local business consulting firm to upgrade the MOH/Family Planning Unit management information systems.

d. Summary of Projected MOH CYP's for Project Period

MOH Hospitals, Health Centers and Posts

Female Surgical Sterilizations .....	124,000
Male Surgical Sterilization .....	54,000
IUD .....	87,000
Oral Hormonals .....	109,000
Injectable Hormonals *. .....	65,000
Condoms .....	42,500
Sub-Total of CYP at Hospitals, Health Centers and Posts.....	481,500

Voluntary Health Promoters

Oral Hormonals .....	90,000
Injectable Hormonals *. .....	90,000
Condoms.....	59,000
Sub-Total of CYP provided by Voluntary Health Promoters .....	239,000
TOTAL CYP PROVIDED BY THE MOH SYSTEM.....	720,500

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\* Injectables will not be supplied by A.I.D. nor USAID/Guatemala. However, the MOH will deliver this number of CYPs with injectables or another comparable method.

e. Timeline for MOH/Family Planning Unit

Activity	1992	1993				1994	1995	1996
Quarter	4	1	2	3	4	1-4	1-4	1-3
<b>I. TRAINING</b>								
Medical Staff	X	X	X	X	X	XXXX	XXXX	XXX
Paramed. Staff	X	X	X	X	X	XXXX	XXXX	XXX
Admin. Staff	X	X	X	X	X	XXXX	XXXX	XXX
<b>II. SERVICE EXPANSION</b>								
Hospitals and Health Centers	X	X	X	X	X	XXXX	XXXX	
Promoters		X	X	X	X			
Trad. Birth Att.		X	X	X	X			
<b>III. CONTRACEPT. DISTRIBUT.</b>								
Hormonal Methods	X	X	X	X	X	XXXX	XXXX	XXX
Condoms	X	X	X	X	X	XXXX	XXXX	XXX
IUDs	X	X	X	X	X	XXXX	XXXX	XXX
Surgical Cont.	X	X	X	X	X	XXXX	XXXX	XXX
<b>IV. IE&amp;C (to be done with APROFAM)</b>								
Radio		X	X	X	X	XXXX	XXXX	XXX
Print Materials		X	X	X	X	XXXX	XXXX	XXX
<b>VI. FACILITIES</b>								
Needs Assessment	X							
Remodeling			X	X	X			

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**SUMMARY LIFE OF PROJECT BUDGET BY PROJECT COMPONENT  
MINISTRY OF HEALTH/FAMILY PLANNING UNIT**

1,992\*

1,993\*\*

1,994\*\*

SOURCE	AID		HOST COUNTRY		AID		HOST COUNTRY		AID		HOST COUNTRY	
	CURRENCY	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	
COMPONENTS												
<b>COMPONENT I: POLICY DIALOGUE</b>												
a. Technical Assistance					10,000				10,000			
<b>COMPONENT III: EXPANSION OF SERVICES</b>												
b. Service Delivery	21,670	97,531		115,049	123,590	576,731		376,264	142,231	308,178		389,445
c. Training		299,420				440,916				256,326		
d. Promotion		2,000				19,950				11,550		
e. Evaluation		10,000				21,000				21,000		
f. Commodities	94,873				112,352				123,685			
<b>TOTAL</b>	<b>116,543</b>	<b>408,951</b>	<b>0</b>	<b>115,049</b>	<b>245,942</b>	<b>1,058,597</b>	<b>0</b>	<b>376,264</b>	<b>275,916</b>	<b>597,054</b>	<b>0</b>	<b>389,445</b>

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\* September to December 1992

\*\* All Calendar Year

\*\*\* January to August, 1996

**SUMMARY LIFE OF PROJECT BUDGET BY PROJECT COMPONENT**  
**MINISTRY OF HEALTH/FAMILY PLANNING UNIT**  
(Continued)

1,995\*\*

1,996\*\*

TOTAL\*\*\*

SOURCE	AID		OTHERS		AID		OTHERS		AID		OTHERS	
	CURRENCY	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	
<b>COMPONENTS</b>												
<b>COMPONENT I: POLICY DIALOGUE</b>												
a. Technical Assistance		10,000			10,000					40,000		
<b>COMPONENT III: EXPANSION OF SERVICES</b>												
b. Service Delivery	166,247	268,605		399,919	137,500	233,970		254,700	591,238	1,485,015		1,535,377
c. Training		426,174				65,604				1,488,440		
d. Promotion		24,927				16,590				75,017		
e. Evaluation		21,000				21,000				94,000		
f. Commodities	135,876				148,985				615,771			
<b>TOTAL</b>	<b>312,123</b>	<b>740,706</b>	<b>0</b>	<b>399,919</b>	<b>296,485</b>	<b>337,164</b>	<b>0</b>	<b>254,700</b>	<b>1,247,010</b>	<b>3,142,472</b>	<b>0</b>	<b>1,535,377</b>

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\* September to December 1992  
\*\* All Calendar Year  
\*\*\* January to August, 1996

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2. Importadora de Productos Farmacéuticos, S.A. (IPROFASA)

a. Background

(1) Purpose/Mandate

The private for-profit firm, Importadora de Productos Farmacéuticos, S.A. (IPROFASA), was licensed under Guatemalan law in November 1981. In August 1982, IPROFASA signed a five year Cooperative Agreement with USAID/Guatemala to expand the availability of modern contraceptives at affordable prices throughout Guatemala through a commercial retail sales program. Contraceptives are provided free by A.I.D. to IPROFASA, which in turn wholesales them to pharmacies and other retail outlets.

The life-of-project Couple Years Protection (CYP) (see page 101 for explanation of CYP measure) outputs were originally expected to reach 65,000 by September 1, 1987, and were adjusted to 153,000 as the project was extended to August 30, 1992. By August, 1991, IPROFASA had achieved a total of 151,731 CYP by distributing modern temporary contraceptive methods (pills, condoms, and vaginal tablets) through 1,265 points of sale throughout urban and semi-urban areas of 21 of Guatemala's 22 departments.

(2) A.I.D. Financing History

USAID/Guatemala obligated US \$1,908,000 to fund IPROFASA from September 1, 1982, to September 1, 1987. Ten amendments increased total obligations to U.S. \$6,617,698 and extended the activity through August 30, 1992.

Initially, in 1984, A.I.D.'s contribution represented 100% of IPROFASA's operating costs. By 1991, A.I.D. was covering about 75% of IPROFASA's operating costs, with the remainder covered by sales revenues and other sources of income. Revenues generated from sales are placed in a separate bank account in order to build up a reserve to offset operating costs and to provide a basis for financial sustainability once A.I.D. funding ceases.

Prevailing economic conditions in Guatemala led IPROFASA to invest the company's cash reserves in real property to shelter them from inflation and devaluation. The use of these reserves for long-term investment in IPROFASA's land and building is currently helping to reduce IPROFASA's operating costs and generate revenues.

(3) Relationships

The Cooperative Agreement between A.I.D. and IPROFASA was drafted in 1981 in close collaboration with APROFAM, the local IPPF affiliate, with both organizations initially sharing certain common board members. Later, IPROFASA and APROFAM separated legally and operationally from one another as it became clear that the development strategies of the two organizations were divergent.

APROFAM, with its distribution of contraceptive products and variety of reproductive health services, and IPROFASA, the commercial sector distributor of temporary method contraceptive products, sometimes perceive the other as unfair competitor. A.I.D., however, regards the two organizations' differing price scales, different products and services, different target markets, and the large untapped potential demand for contraceptive services that exists in Guatemala as a basis for complementarity rather than unhealthy competition.

IPROFASA has begun to collaborate with other family planning providers in Guatemala under the recently formed council of agencies or General Coordinating Committee. IPROFASA and the other agencies work together principally in technical areas such as data sharing, operations research planning, and market analysis. USAID was requested by the agencies to coordinate activities among the different agencies.

b. Obstacles and Constraints

(1) Climate for Family Planning in Guatemala

The Guatemalan sociocultural, religious, and political context has characteristically been a hostile environment for family planning promotion and services. Despite the growing visibility and acceptance of family planning promotion and service delivery in the past five years, providers continue to worry about possible backlash against their programs. IPROFASA could be especially vulnerable because of its high profile, created by visible advertising in all major national mass media.

(2) Limitations due to Donated Commodities

Receiving donated commodities constrains IPROFASA's flexibility in marketing contraceptives

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because USAID provides a narrower selection of contraceptive products and brands than do commercial manufacturers and suppliers. This reduces IPROFASA's ability to segment the consumer market.

Also, A.I.D. periodically changes its contracts with suppliers. Social marketing programs invest a lot of time, energy, and funds to build a market for certain brands. The costs of having to introduce new brands and build their markets are high.

## (2) Regulatory Restrictions

USAID regulations prohibit procurement of certain effective modern methods not approved by the U.S. Federal Drug Administration. This has reportedly discouraged IPROFASA from including hormonal injectables such as Depoprovera in its product line. Injectables could be successfully marketed by IPROFASA in commercial outlets. They have a number of advantages over present products, including a popular preference in Guatemala for injections, minimal support service requirements, and minimal demands on the user.

Guatemalan Government regulations restrict brand advertising of contraceptives classified as ethical drugs that technically require a prescription, such as oral contraceptives. This somewhat limits IPROFASA's media options for advertising and promotion. Regulations also restrict the sale of certain kinds of contraceptives in certain categories of pharmacies, again reducing IPROFASA's marketing flexibility.

The import duties charged IPROFASA on contraceptive commodities are high because contraceptives are classified as commercial products rather than as products imported for a social good. This raises the retail price of IPROFASA's products.

## (3) IPROFASA's Marketing Strategy

IPROFASA has concentrated more on capturing a bigger share of existing users, at the expense of other suppliers, than on expanding its market by bringing in new users. Also, IPROFASA has concentrated on expanding distribution to a greater number of outlets, concentrating more on promotion to the trade than on marketing directly to potential consumers. These practices may have reduced IPROFASA's effectiveness in expanding family planning to growing numbers of users.

(4) Management and Staffing

I PROFASA's Board of Directors and management staff have characteristically been Ladino males from upper socioeconomic classes. There is little representation of female, Mayan and rural members of Guatemalan society in I PROFASA. This inevitably limits the company's ability to reach its target markets, which are largely female, lower class, and rural Guatemalans.

(5) Market Analysis and Strategy Development

I PROFASA's uses a cash flow accounting system rather than a cost accounting system which would allow it to evaluate progress by project and activity areas. The company's data collection system is adequate for the operations and activities it currently performs. However, the data are not entered into a comprehensive MIS system, nor linked with the financial accounting system. As a result, I PROFASA management does not have a clear definition of its target markets and potential audiences in either qualitative or quantitative terms.

(6) Profitability of Contraceptive Social Marketing

I PROFASA's management feels that the potential for profit from sales of unsubsidized contraceptives is limited. This view encourages dependency on USAID and reduces initiative in identifying new products and opening new markets. Surveys conducted for A.I.D. by the Enterprise Project/John Snow, Inc. in 1988-89 of family planning providers in Asia, Latin America, and Africa, suggest that providers of contraceptive products and services have only achieved complete financial sustainability through profits from abortion services and/or by adding non-contraceptive products and/or services to the contraceptive social marketing product line. I PROFASA needs to be motivated to think and behave like a private company, creatively and aggressively adding new product lines and seeking new opportunities to increase its profitability.

c. Accomplishments

(1) Contraceptive Advertising

I PROFASA has succeeded in introducing highly visible advertising of family planning into the national mass media in the face of traditional fear, opposition, and communication taboos concerning discussion of human

80x

reproduction. IPROFASA's advertising has apparently desensitized the general public to discussion of family planning. Largely because of IPROFASA, family planning can now openly be discussed, marketed, and used in Guatemala.

(2) Success in the Commercial Marketplace

IPROFASA has developed a positive national identity and market niche as the only major Guatemalan distributor of a line of contraceptive products and brands. Informal surveys indicate that IPROFASA is known throughout Guatemala's principal urban areas as the nation's distributor of contraceptive products, and its name recognition is growing in rural areas. IPROFASA has been successful at delivering a range of low-cost family planning products, using low social marketing pricing, to 87 percent of pharmacies in 21 of the 23 departments of Guatemala. The company has recently opened distribution of condoms through 35 non-traditional commercial urban sales points.

In 1990, IPROFASA introduced family planning information and Pantera condoms into rural communities through a micropharmacy program which now has 55 outlets in small rural and indigenous communities in three departments of Guatemala.

IPROFASA's sales have steadily increased over the years with the exception of the vaginal tablet brand, Lirio (see below).

UNIT SALES OF IPROFASA PRODUCTS

<u>Year</u>	<u>Condom</u> <u>Scudo</u>	<u>Condom</u> <u>Pantera</u>	<u>Vaginal</u> <u>Tablets</u> <u>Lirio</u>	<u>Oral</u> <u>Cont.</u> <u>Perla</u>	<u>Oral</u> <u>Cont.</u> <u>Iproday</u>
1986	382,000		532,000	50,520	
1987	435,000	19,900	467,000	49,200	
1988	615,000	33,700	461,000	66,800	
1989	802,000	137,000	569,000	122,000	
1990	1,056,000	266,000	608,000	162,000	8,600
(8mos) 1991	827,000	189,000	365,000	110,000	13,500

d. Opportunities

(1) Revised Objectives

USAID's and IPROFASA's success in accomplishing the original goal of establishing a viable company now opens the way for a second phase that will focus on market expansion via increased sales (CYPs) to new and continuing users. Conditions are right for rapid progress by IPROFASA toward financial and technical sustainability.

(2) Large Potential Demand for Family Planning Methods

The 1987 Demographic and Health Survey reported a large potential demand for contraceptives among women of reproductive age in Guatemala. With 45 percent of the population under 15 years of age, there is a very large group of young people moving into reproductive age. They will need easy access to family planning information and contraceptive products. These factors present a large potential demand and market for IPROFASA in urban and semi-urban areas.

(3) Low Vulnerability to Opposition

IPROFASA now appears relatively safe from attack from anti-family planning groups. This may be due to the fact that firms in the private commercial sector are freer and less subject to political pressure than are other kinds of organizations.

(4) Corporate Commitment to IPROFASA's Future

IPROFASA's four member Board of Directors has demonstrated a strong and sustained commitment to family planning activities as well as to IPROFASA as a company. This commitment can be expected to assure the firm's commitment to expanding and sustaining contraceptive social marketing after graduation from USAID financial and technical assistance.

e. Goal and Objectives

(1) Goal

To develop and implement a sustainable long-term strategy to expand the availability of affordable temporary contraceptive methods through private commercial channels.

(2) Objectives

- o Expand the total market for temporary contraceptives using commercial marketing techniques and channels.
- o Make significant progress toward becoming a technically and financially autonomous company. Achieve 74% coverage of all operating costs with the exception of commodities.
- o Achieve at least 243,000 Couple Years of Protection through the distribution and sale of temporary family planning methods over the life of the Project.
- o Participate in testing parts of the rural outreach strategy.
- o Cooperate in family planning activities with other agencies so as to provide economies of scale, avoid duplication of effort, and design strategies to reach consumers more effectively.

f. Activities

The IPROFASA subcomponent of the "Family Health Services" Project will provide A.I.D. support for two major activities: (A) a series of four year and ten year management analyses and planning studies, followed by implementation of the recommendations by IPROFASA, and (B) continuation of A.I.D. funding support, on a diminishing basis, for IPROFASA's successful commercial contraceptive marketing activities.

(1) Management Analysis and Review

The "Family Health Services" Project will assist IPROFASA in reviewing its management structure, operations, and marketing strategies. IPROFASA will begin to place greater emphasis on increasing market coverage and sales in order to make rapid progress toward financial and technical sustainability. The lessons learned from IPROFASA's valuable experience in the Guatemala market as well as the benefits of financial investments made over the years in expanding contraceptive markets will be carefully assessed and incorporated.

The Project will fund an initial management review and analysis to be conducted by an external firm and supervised by a qualified advisor. The analysis will review marketing management both at administrative and programming levels. It will examine the efficiency and effectiveness of IPROFASA at managing by goals and objectives.

This process will be followed by a restructuring of IPROFASA's management and administrative systems according to recommendations made by the review.

The review process will begin with a desk review of all relevant secondary research, IPROFASA's and other commercial sector firms' distribution and sales data, its current activities, the history of its goals and objectives and an examination of all communication materials (promotion, advertising, informational, public relations, etc.) developed since 1984. IPROFASA's Board and senior management will be closely involved with the firm's investigation so as to cultivate their appreciation of why the marketing approach (including research and analysis of MIS data) vs. the sales approach is more effective at increasing market coverage in an immature and unsaturated market context.

The final report will include, but not be limited to, a discussion of: (1) the principal characteristics of the contraceptive market in Guatemala -- its actual and potential size, target segments, locations, pricing and competitions analyzed in terms of both the trade and consumers; (2) IPROFASA's management/administrative structure and staffing and recommended changes with rationale; (3) IPROFASA's MIS and accounting systems and their effectiveness for effective operations as well as strategic planning; (4) an analysis of its current and planned investments and operating costs, including a review of the firm's history of return on investments in land, buildings and affiliated companies/businesses and an analysis of major line items of operating costs as a yearly percentage of total operating costs; and (5) an assessment of IPROFASA's internal capability to independently meet its social marketing and financial sustainability goals.

IPROFASA will, with project technical assistance, develop a ten-year marketing strategy for financial and technical sustainability based on the what is learned from the management review and analysis. The strategy will define ways of expanding the size of the overall market for temporary contraceptive methods while leading to elimination of the need for USAID assistance (including commodities) before the end of the ten-year strategy period.

Once the ten-year strategy is designed, IPROFASA management will operationalize its revised market focus. The new strategy will be aimed at carefully identified target groups and will include plans for an expanded product/brand line, new pricing and distribution strategies, a new communication strategy, and market research to meet consumer needs and increase contraceptive use.

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The ten-year strategy will be accompanied by a more detailed four-year restructuring and sustainability plan. The four-year plan will be divided into three components: (1) an organizational plan for management and administration, (2) an operations plan including MIS and accounting systems, and (3) a marketing plan including expansion of IPROFASA's product/brand line, improvements in distribution and pricing practices, a revised communication and public relations plan, a market research plan, and profit and loss statements.

Specifically, this four-year restructuring and sustainability plan will include the following information:

a) Organizational Plan for Management and Administration

The planning process will begin with an efficiency and effectiveness review and audit to identify ways in which productivity can be increased while reducing personnel costs. Based on the results of this review, IPROFASA, with the help of Project technical assistance, will develop a revised staffing and organization plan which will identify the steps necessary to effect the desired performance changes. This part of the plan will include, but not be limited to, an organizational chart, guidelines on compensation, recommendations regarding part-time versus full-time positions, and relative cost and benefits of subcontracting certain functions and/or of locating selected functions outside of Guatemala City closer to points of sale and the consumers.

The staffing and organization plan should seek to assure that the staff skills are appropriate to market development, that their numbers contribute to competitiveness and productivity, and that the firm's structure and human resources are efficient and geared to taking pro-active advantage of market opportunities.

(b) Management Operations Plan

The Project will provide outside technical assistance to improve IPROFASA's internal processes for managing the procurement, packaging, warehousing, and distribution of contraceptives and family health products. Based on the results of the management review, IPROFASA will develop a revised management plan. This plan will include, but not be limited to, a revised MIS linked to a cost-accounting system to assure efficient planning, budgeting, monitoring, and

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reporting. The MIS should allow for planning and tracking activities by major functions (e.g. Procurement, Packaging, Warehousing, Distribution, Promotion, Communication, Sales, etc.) to maximize customer satisfaction and sales, and reduce costs.

(c) Marketing Plan

The Project will provide technical assistance to improve IPROFASA's internal processes for gathering and analyzing data on the Guatemala market for contraceptives and family health products. The marketing plan should assure that IPROFASA is able to gather and analyze the following types of data relative to contraceptive retail sales:

- (1) demographics/geographics, gender distribution, age distribution, and socio-economic status;
- (2) products available, products with sales potential with or without A.I.D. subsidies, competitive pricing, and
- (3) types/numbers of outlets currently selling or with potential to sell contraceptive products.

The plan should also seek to assure IPROFASA's ability to:

- (1) use these data strategically to develop and evaluate contraceptive and family health products and brands, pricing and promotional strategies, and distribution points; and,
- (2) effectively promote, advertise, and provide contraceptives at a reasonable cost.

(2) Continuation of Contraceptive Social Marketing

Successful IPROFASA contraceptive social marketing activities will receive continuing A.I.D. financial support under the "Family Health Services" Project. A new focus and priority, however, will be on achieving self-sustainability during the life of the Project so that IPROFASA dependency on A.I.D. funding will not become permanent. For this reason, IPROFASA will not receive funding to expand any further into rural, poor, and Mayan markets which are not able to generate enough revenues from sales to cover costs.

IPROFASA will concentrate on expanding and improving its services to urban, Ladino, and middle class markets which have good prospects for becoming financially profitable. It will also develop, with its income from the sale

86+

of A.I.D.-donated contraceptives, new lines of health-related products which will be permanently profitable. This will permit IPROFASA to continue to be an effective source of contraceptive social marketing services into the future without depending on A.I.D. for operating costs beyond 1997.

The following ongoing activities will receive continued A.I.D. financial support as part of the "Family Health Services" Project:

(a) Contraceptive Sales

IPROFASA has been successful in marketing four contraceptive products, including pills, condoms, and vaginal tablets, in over 1,200 commercial outlets nationwide. In addition to the traditional retail sales in pharmacies, IPROFASA has been successful in expanding its points of sale to include Super 24's and Rapi-Tiendas, which are popular new Guatemalan convenience stores.

In addition to the distribution of contraceptive products, IPROFASA has trained pharmacists and other commercial distributors in family planning methods, marketing techniques and customer satisfaction. In a recent study by The Futures Group, pharmacists in over 300 outlets were surveyed. A majority reported high satisfaction with the benefits of this training and indicated an interest in additional training.

The "Family Health Services" Project will continue to support these successful activities by providing donated contraceptives and A.I.D. financial support, on a diminishing basis, for operating costs.

(b) Advertising

In addition to its retail sales and training activities, IPROFASA has been successful in advertising contraceptive products on TV, radio and in the press. This is a particularly remarkable achievement considering the past sensibilities to family planning in Guatemala and the need for caution in publicizing this type of product. IPROFASA's tasteful advertising and discretion have netted very positive results including winning the prestigious Jade Award for excellence in advertising.

IPROFASA's advertising will continue to receive Project support from A.I.D. through 1996.

(c) Micropharmacies

In 1988 the IPROFASA Cooperative Agreement was amended to include contraceptive marketing among the rural population, especially in the Highlands. As a result of this amendment, IPROFASA has created the micropharmacy program which establishes small points of sales in rural areas.

Community leaders with entrepreneurial talent and social commitment are identified, trained in administrative and technical areas, supplied with a counter case for keeping their products, and provided with contraceptives (condoms) as well as other health products which they eventually reimburse from the sale of the products. In many cases, these points of sale are the only health "facility" in the local community. In order to support this program, IPROFASA has created regional offices in Quetzaltenango and in Sololá with additional personnel such as medical doctors, sales supervisors, educators, and promoters who assist the local vendors with administration of their businesses, a continual product supply, and ideas for special promotions. At present there are 55 such micropharmacies in Totonicapan, Quetzaltenango, and Sololá.

The Project will not support expansion of the chain of rural micropharmacies. The existing micropharmacies will be operated and evaluated under the "Research and Development" Component of the Project, but further expansion of the number of micropharmacies will not be considered by A.I.D. unless the micropharmacies should prove to be economical and financially self-sustaining.

g. A.I.D. Support for IPROFASA under the "Family Health Services" Project

Under the "Family Health Services" Project, support for all of the contraceptive social marketing activities will be continued, but on a different basis than in the past. A.I.D. support for IPROFASA's operating expenses will decline gradually to 26%, forcing IPROFASA to gradually generate new revenues to cover its full operating cost budget by the end of the Project in 1996.

Technical assistance for IPROFASA will be provided by an A.I.D. institutional contractor, either through a Mission buy-in to a centrally-funded contract or

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through a direct Mission contract with a technical assistance firm.

The Cooperative Agreement between USAID/Guatemala and IPROFASA will specify monitoring and evaluation procedures which provide the following kinds of information on a continuous basis:

- (1) variances from planned activities and expenditures, based on approved work plans and budgets;
- (2) sales volume, distribution, CYPs, revenues, category growth and brand market shares;
- (3) expansion in the size of the contraceptive market;
- (3) progress towards profitability and sustainability; and
- (4) differential results with different target groups in quantitative and qualitative terms.

h. Timeline for IPROFASA Activities

YEAR	1992	1993				1994	1995	1996
QUARTER	4	1	2	3	4	1-4	1-4	1-3
<b>I. MANAGEMENT PLANNING</b>								
SOW for Mgmt. Review	X							
Mgmt. Review & Analysis			X	X	X			
Mgmt. Restructure						XXXX		
10-Year Inst. Dev. Strategy w/ 4-Year SubPlan						XXX		
Policy Change Dialogue	X	X	X					
<b>II. MARKETING ACTIVITIES</b>								
Advertising/Promo	X	X	X	X	X	XXXX	XXXX	XXX
Retailer Training		X		X		X X	X X	X X
Consumer/Worksite Training	X		X		X	X X	X X	X X
Project Eval. Research							X	X
Monitor Research	X		X		X	X X	X X	X X
R&D (Rural Areas)	X	X	X					
New Product Introductions			X			X	X	X
Product Sale & Distribution	X	X	X	X	X	XXXX	XXXX	XXX
Annual Mkt. Plans		X				X	X	X

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**SUMMARY LIFE OF PROJECT BUDGET BY PROJECT COMPONENT**  
**IMPORTADORA DE PRODUCTOS FARMACEUTICOS S.A.**

1,992\*

1,993\*\*

1,994\*\*

SOURCE	AID		OTHERS		AID		OTHERS		AID		OTHERS	
	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC
COMPONENTS												
<b>COMPONENT III: EXPANSION OF SERVICES</b>												
a. Technical Assistance	10,000				50,000				20,000			
b. Service Delivery		137,258		4,773		363,454		124,033		394,251		133,916
d. Promotion		160,733				352,076		108,859		370,405		114,302
e. Evaluation and Audit		15,000				15,000				15,000		
f. Commodities	166,197				178,635				191,829			
<b>TOTAL</b>	<b>176,197</b>	<b>312,991</b>	<b>0</b>	<b>4,773</b>	<b>228,635</b>	<b>730,530</b>	<b>0</b>	<b>232,892</b>	<b>211,829</b>	<b>779,656</b>	<b>0</b>	<b>248,218</b>

\* September to December 1992

\*\* All Calendar Year

\*\*\* January to August, 1996

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**SUMMARY LIFE OF PROJECT BUDGET BY PROJECT COMPONENT  
IMPORTADORA DE PRODUCTOS FARMACEUTICOS S.A. (IPROFASA)**

(Continued)

1,995\*\*

1,996\*\*

TOTAL\*\*\*

SOURCE	AID		OTHERS		AID		OTHERS		AID		OTHERS	
	CURRENCY	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	
COMPONENTS												
COMPONENT III: EXPANSION OF SERVICES												
a. Technical Assistance		20,000			20,000					120,000		
b. Service Delivery		327,355		314,865		168,820		528,958		1,391,138		1,106,545
d. Promotion		269,533		240,033		158,517		378,053		1,311,264		841,247
e. Evaluation and Audit		15,000				15,000				75,000		
f. Commodities	205,819				69,474				811,954			
TOTAL	225,819	611,888	0	554,898	89,474	342,337	0	907,011	931,954	2,777,402	0	1,947,792

- \* September to December 1992
- \*\* All Calendar Year
- \*\*\* January to August, 1996

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IMPORTADORA DE PRODUCTOS FARMACEUTICOS S.A. - IPROFASA

Project Generated Funds and Percentage of Total  
Operating Costs

(In US Dollars)

Operating Costs YEAR	1992	1993	1994	1995	1996	TOTAL
I. Sale of Contraceptives	262,462	341,277	371,241	408,522	449,350	1,832,852
II. Rent	20,967	20,976	20,976	20,976	20,976	104,871
	283,429	362,253 (37%)	392,217 (39%)	429,498 (37%)	470,226 (38%)	1,937,723

**USAID CONTRIBUTION TO IPROFASA**  
**(In US Dollars)**

<b>YEAR</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
<b>Total Operating Cost Budget</b>	<b>980,422</b>	<b>1,012,874</b>	<b>1,149,786</b>	<b>1,229,348</b>
<b>% of USAID Contribution</b>	<b>78%</b>	<b>75%</b>	<b>51%</b>	<b>26%</b>

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IMPORTADORA DE PRODUCTOS FARMACEUTICOS S.A. - IPROFASA

COUPLE YEAR PROTECTION (CYP) - ESTIMATED BASED ON SALES 1990-1991\*

PRODUCT	1,992	\$	1,993	\$	1,994	\$	1,995	\$	1,996	\$	TOTAL
<u>CONDOMS</u>	17,700	109,226	19,070	173,669	20,570	186,736	23,050	210,373	25,220	230,763	1,016,377
Scudo	13,000	86,666	14,000	149,333	15,000	160,000	17,000	181,333	18,700	199,467	854,499
Panther	4,700	22,560	5,070	24,336	5,570	26,736	6,050	29,040	6,520	31,296	161,878
<u>PILLS</u>	16,615	129,236	19,383	145,108	21,537	166,505	23,922	184,949	26,537	204,667	938,459
Perla	14,846	108,079	17,460	122,109	19,461	141,676	21,615	157,357	23,999	174,313	800,915
Proday	1,769	21,157	1,923	22,999	2,076	24,829	2,307	27,592	2,538	30,354	137,544
<u>VAGINALS</u>											
Lirio	4,000	24,000	3,750	22,500	3,000	18,000	2,200	13,200	2,320	13,920	106,890
<b>TOTALS</b>	<b>38,315</b>	<b>262,462</b>	<b>42,203</b>	<b>341,277</b>	<b>45,107</b>	<b>371,241</b>	<b>49,172</b>	<b>408,522</b>	<b>54,077</b>	<b>449,350</b>	<b>2,061,726</b>
<u>INJECTABLES</u>			2,500		3,000		3,750		4,500		13,750
<b>GRAND TOTAL</b>	<b>38,315</b>	<b>262,462</b>	<b>44,703</b>	<b>341,277</b>	<b>48,107</b>	<b>371,241</b>	<b>52,922</b>	<b>408,522</b>	<b>58,577</b>	<b>449,350</b>	<b>2,075,476</b>

\*8 Month Sales projected to 1 year

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3. APROFAM

a. Background

(1) Introduction

APROFAM, the Guatemalan Family Welfare Association, is a private, not-for-profit association without political or religious affiliation. It is dedicated to the promotion of maternal and child health, responsible parenthood and family planning among Guatemalans. APROFAM was founded in 1964 by a multi-disciplinary group of professionals including medical doctors, nurses and social workers. It obtained legal status under the laws of Guatemala in 1965 and became an affiliate of IPPF (International Planned Parenthood Federation) in 1969.

(2) Achievements

APROFAM's greatest strength lies in its vast experience in family planning and reproductive health in Guatemala which has been accumulated over the past 25 years. The association has been successful in expanding its scope and operations despite severe threats to its existence in the conservative climate of Guatemalan religious and state policies.

APROFAM also has extensive experience with donor agencies such as IPPF, USAID/Guatemala, Canadian International Development Agency (CIDA) and the Japanese Government. This enhances management's ability to identify and obtain funding from new sources and to successfully administer donations and grants from a variety of different organizations.

The breadth of services and products which APROFAM provides allows programs to be flexible and comprehensive. This is an advantage when trying to reach a variety of target populations with varying cultural and linguistic backgrounds in dispersed and remote geographical locations.

APROFAM has just undergone a thorough institutional review and analysis which resulted in a long-term strategy and plan for restructuring which, if carried out, should further strengthen and expand the association's activities, programs and services.

Nationwide, APROFAM operates 15 clinics nationwide that offer a range of medical services related to reproductive and maternal/child health and family planning. It

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also supports associated private doctors who deliver these same services in communities that do not have an APROFAM facility. A variety of health products are available at APROFAM medical clinics. APROFAM clinics and associated doctors perform male and female voluntary surgical contraception, IUD insertion as well as provide temporary contraceptive methods including injectables, condoms, pills and vaginal methods.

The community based distribution program operates in 21 departments of Guatemala providing family planning information at the community level and delivering temporary methods of contraception, oral rehydration salts and anti-parasitic medications to consumers at low prices through 2050 voluntary promoters/distributors. APROFAM also distributes its products to private clinics throughout the country.

APROFAM's department of education, information and training runs informational and motivational activities of different kinds with varied groups, including policy makers, opinion leaders, young men and women, university and medical students, military personnel, and rural community leaders. The department develops and produces appropriate materials, including videos, TV and radio spots, print materials, school materials, RAPID presentations on the consequences of overpopulation, documentaries on population and the environment, posters, brochures, fliers, calendars, and other promotional/informational materials for family planning. The department also coordinates with other departments to prepare for conferences, presentations and publications.

The research and evaluation department conducts studies that contribute to improving the quality of all the programs and activities APROFAM carries out. The results of these studies are used to improve services in the departments of clinical services, community services and information, education and training.

The department of information provides all other APROFAM departments with management information relevant to each respective activity area.

APROFAM has expanded its family planning services to various areas of the country that are not being covered by other institutions. APROFAM has also expanded the variety of health services it offers to mothers and their children. As a result, APROFAM is the largest provider of reproductive health services including STD diagnosis and treatment in the country.

(3) Constraints

One weakness of the association is that it operates under a formal and somewhat rigid hierarchical management structure with decision-making concentrated at the top. This sometimes reduces flexibility and responsiveness to new problems and opportunities, especially at remote field sites.

The staff of APROFAM, both central and regional, includes more males and Ladinos than females and Mayans. There is no equivalent of an equal opportunity employment policy.

The association has not had a strong market focus in its program and activities. Over the years, APROFAM has concentrated on delivering services and products rather than identifying the consumer's needs before developing programs, activities, materials and approaches. A stronger market focus would provide a higher level of quality of care which would translate into increased and more satisfied use of contraceptive methods and reproductive health services.

(4) Opportunities

According to the 1987 DHS, contraceptive prevalence in Guatemala was a low 23.2% of women in union. The DHS also found that 65% of women not currently using family planning would like to have no more children or would like to space their pregnancies. This means that more than half a million Guatemalan couples are potential family planning clients. This provides a tremendous opportunity for APROFAM and the other family planning institutions to expand their services by recruiting new users.

b. Goals and Objectives of Subcomponent

(1) Goal

The goal of this subcomponent is to expand APROFAM's current family planning and maternal and child health activities, while increasing cost-effectiveness and revenues. APROFAM will provide 1,252,600 CYP during the LOP. This will be approximately 53% of all CYP provided under the Project.

(2) Objectives

- o Promote demand for reproductive health services in the Guatemalan population.

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- o Improve the quality of family planning and other maternal and child health activities.
- o Expand access to and efficiency of APROFAM service units.
- o Develop and set in motion a twenty year sustainability plan.

c. Activities

The objectives of this component of the "Family Health Services" Project will be achieved through three principal subcomponents. The first will be expansion and improvement of family planning services through a mix of clinical and non-clinical APROFAM facilities. The second will be expanded information, education, and communication (IE&C) activities to raise the awareness of Guatemalan leadership and of the general public about the population explosion and to attract new users. The third subcomponent is management improvement and administrative decentralization.

(1) Subcomponent 1: Services

(a) Clinical Services

APROFAM's network of clinics is designed to provide high quality family planning and maternal and child health services at low cost. APROFAM clinics provide both surgical and temporary methods. The two different kinds of clinical services described below will provide about three-quarters of the Couple Years of Protection that will be generated by APROFAM with A.I.D. support under the "Family Planning Services" Project.

(i) APROFAM Clinics

APROFAM's 15 clinics were established to provide family planning services, obstetric and gynecological (surgery, pre and post natal) care, well baby care, pap smears, oral rehydration, parasite control, sexually transmitted disease (STD) control and education services. Clinical services are the traditional core of the APROFAM program. APROFAM's "pro-family" philosophy and the quality and safety of the services it provides at the clinics have helped change the image of family planning in Guatemala. This component of the "Family Health Services" Project will continue to provide financial support to operate APROFAM's highly respected clinical program throughout Guatemala. It will also fund establishment of approximately four small "satellite" clinics in areas of heavy demand. The "satellite" clinics will offer only temporary methods and MCH services, and thus have lower installation and operating costs.

The Project will support expansion of the range of services offered by some of APROFAM's less-complete clinics, improving the quality of their services and making them "full service" facilities. However, it is important to note that the "Family Health Services" Project does not plan to support additional expansion of the network of full-service APROFAM clinics. Expansion of coverage to new users will be accomplished through a major expansion of APROFAM's more cost-effective services -- the "Community Based Distribution" posts and the program of support to private, non-APROFAM clinics. Nevertheless, it is important that the existing network of clinics be maintained and improved, because the other cheaper, "low technology" services need the clinics for training, supervision, and referrals of complicated cases. For this reason, A.I.D. will continue to support a major share of the operating costs of these clinics throughout the life of the Project.

The existing 15 clinics will continue to provide and expand the provision of family planning services and related health services. While principally a family planning provider, APROFAM has found that providing certain complementary health services improves its image, attracts more clients, and reinforces family planning behaviors. The package of services that will be extended to all 15 of APROFAM's clinics has the following services:

- reversible family planning methods
- voluntary surgical contraception (VSC)
- Ob-gyn pre and post natal care
- Growth and weight control for babies
- IE&C activities about family planning services
- Oral rehydration therapy
- Parasite control
- Sexually-transmitted disease services (including AIDS)
- Maternity (delivery) services
- Gyn. surgical procedures
- Diagnostic services
- Early cancer detection

In addition to these core services, the Project will support establishment and expansion of services which can generate revenue for the clinics. These services, which have already proven profitable in a few clinics, include medical laboratories and pediatric health services. The Project will provide funding support and technical assistance for expanding clinic-based revenue-generating services.

Technical assistance in developing revenue-generating services may be provided using experienced advisors from the International Executive Service Corps (IESC).

This subcomponent is expected to deliver a total of 974,710 CYPs via APROFAM Clinics.

(ii) Private Clinics

The objective of APROFAM's private clinic support program is to provide services in areas not served by APROFAM's own full-service clinics. To the extent possible, the same services are offered by the APROFAM-supported private clinics as are offered by APROFAM's own clinics. The program has two variants, depending on local circumstances. If the local clinic has adequate infrastructure and medical staff, APROFAM trains the local staff in voluntary surgical contraception and other family planning methods. If, on the other hand, there is not an adequate private clinic, a mobile APROFAM surgical unit supports the local physician with periodic visits to his/her office. The local physician gets together a group of 20 or so clients who wish voluntary surgical contraception. The APROFAM mobile unit then visits the physician's office and helps perform the surgery. The rest of the time, the local physician provides temporary family planning methods.

With either of these two variants of the private clinic service, APROFAM, with Project support, will provide advisory services and training to the local physicians and their clinical staff, appropriate surgical equipment and contraceptives, periodic supervision and support, and a small fee for each operation performed. The private clinics are required to have good quality facilities, well-trained staff, and high standards.

The program of APROFAM support for private clinics has proven to be very cost-effective, and the "Family Health Services" Project will provide resources for expansion into many new communities that presently do not have access to voluntary surgical contraceptive services. The Project will finance expansion from the approximately 75 private clinics that presently receive APROFAM support to around 250 private clinics by 1996.

APROFAM's program of support for non-APROFAM clinics also includes offering family planning services at other Guatemalan health institutions. For instance, APROFAM is presently offering family planning services, mainly

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voluntary surgical contraception and IUD's, at the Hospital Roosevelt and at IGSS hospitals.

(iii) Community Physicians

The Project will provide funding to increase the number of APROFAM-established community physicians by about 5, from 18 communities now to about 23 in 1996. The objective of the Community Physician Program (Médicos Comunitarios) is to offer family planning and general medical services in rural communities through general practitioners trained in family planning techniques. The start-up and initial operation of the clinics, plus contraceptive supplies and other medical supplies, are provided by APROFAM. Once the physician is established in his/her new community, APROFAM support is gradually withdrawn over a three year period. This program is based on a very successful Mexican model.

The private clinics and community physicians are expected to provide 72,800 CYPs by the end of FY 1996.

(b) Non-Clinical Services

(i) Community Based Distribution (CBD)

The Community Based Distribution program at APROFAM presently has 2,400 distribution posts operated by trained volunteer personnel in communities throughout Guatemala. Under the "Family Health Services" Project, the total number of posts will be increased from 2,400 to 4,900 by 1997 and the total number of CYPs provided will be 205,090.

The Community Based Distribution service is inexpensive. It is also effective, generating more new users and more VSC acceptors than any other APROFAM service. The APROFAM community representative under this program receives no salary and works out of his or her home. The volunteer dispenses temporary family planning methods directly, or refers people to other APROFAM or MOH facilities for other methods. Volunteers are respected individuals who live in the community where they work and speak the local language. Male volunteers work with male clients and female volunteers work with female clients.

Some special techniques have been developed in order to promote and increase the acceptance of family planning at the Community Based Distribution Posts, including:

- community theater
- team presentations of family planning methods followed by referral of interested individuals; in some cases transportation is provided.
- special promotion for Mayan groups based on an award-winning technique using slides and flip charts developed by the Japanese family planning program.
- placing Community Based Distribution Posts at "Maquiladoras" (assembly factories mainly for clothing export products) where many women work
- sale of popular non-prescription pharmaceutical products
- sale of injectable hormonal contraceptives by volunteer promoters trained to give them

(2) Subcomponent 2: Information, Education, and Communication (IE&C)

Under the "Family Health Services" Project, APROFAM's Information, Education, and Communication (IE&C) Unit will expand its services. The IE&C Unit will coordinate the APROFAM's communication activities, supporting each department and program with printed material, videos and television and radio spots or programs as needed. The activities of the Information, Education and Communication Unit can be divided into three areas: communication, education and training, and special programs. Project-supported activities planned for each of these three areas are described below.

(a) Communication

With Project support, APROFAM will conduct mass media campaigns to promote its maternal/child health services and inform its target population about contraceptive methods and birth spacing. Mass media campaigns will target men and women between 15 and 45 years of age living in urban and peri-urban areas with low educational levels. A separate campaign for future use in Mayan areas will be developed as part of the Research and Development Component.

Project-funded mass media activities will include radio programs, television spots and documentaries, the production of mini-plays and mini-series, and advertisements in newspapers. Messages will be developed taking into consideration the socio-cultural characteristics of the target population. Pre and post evaluations will be conducted of all the messages. Publications such as pamphlets, calendars and manuals will also be produced.

The information strategies used in the advertising campaigns will have the following features: 1) reinforcing the concept of quality of services; 2) generally emphasizing the concept of "birth spacing" rather than "family planning"; 3) providing information on temporary contraceptive methods; 4) countering negative rumors regarding contraceptive methods; 5) educating the population about the concept of reproductive risk; 6) reinforcing the benefits of birth spacing through the use of testimonials; and 7) orienting young people on the benefits of birth spacing as part of responsible parenthood.

(b) Education and Training

The long-term objective of the educational activities APROFAM will carry out is to change attitudes toward family planning and to explain the demographic pressures facing Guatemala. APROFAM will target organized community groups such as schools, factories, neighborhood committees and the military for its educational activities. The objective of APROFAM's training activities is to improve and ensure the quality of care of the services provided by APROFAM personnel as well as by the staff of other institutions which request training.

The IE&C Unit will provide a total of 99 sessions in-service training for all levels of APROFAM staff, including medical and paramedical personnel, social workers, department heads, directors, supervisors, administrative personnel and community personnel such as youth multipliers, community based distribution educators and volunteers and traditional birth attendants. Depending on the needs of the personnel, the topics to be covered will include management training, human relations and contraceptive technology. In addition to seminars and workshops, training activities will include site visits to other programs and participation in conferences and meetings.

Project-funded training for private organizations will cover the following themes: maternal and child health, birth spacing with a focus on reproductive risk and the delivery of family planning methods, among others. The educational activities organized for Mayan leaders will include a discussion of the benefits of birth spacing. The objective of these activities will be to gain the support of Mayan leaders for maternal/child health programs. During the four years of the program, educational activities will expand to include Mam and Kekchí speaking areas. Other special projects to be conducted under this project include the commercialization of

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training courses and publications. A total of 99 workshops for approximately 2,300 Mayan leaders and representatives from Mayan organizations will be held during the Project.

(c) Community Participation and Special Programs

APROFAM has developed several models for the effective utilization of community leaders and organized groups to promote and provide non-clinical contraceptive methods and to refer potential users to family planning services. In order to implement these strategies, community leaders, small clinic personnel, marketplace medicine venders, and others will be recruited and trained. They will then receive ongoing training and supervision in order to assure good delivery of services.

(ii) El Camino

The adolescent center "El Camino" provides a wide range of medical, recreational and social services to low-income youth between the ages of eleven and twenty-one years living in the metropolitan area. The goal of El Camino is to reach young people with family life education and family planning services in order to broaden their life options by providing them the knowledge, skills and services needed to plan their reproductive life.

The Project will continue to support operation of the "El Camino" Program. Also, during the four years of the project, El Camino will open a new sub-center in Quetzaltenango. The new center will organize educational activities which provide information on family life education, reproductive health and responsible parenthood to Mayan youth and youth organizations.

(ii) Training of Military Personnel

With Project support, APROFAM will provide information and orientation to Guatemalan military personnel about responsible parenthood, family planning, substance abuse and sexually transmitted diseases. In addition APROFAM will develop an internal capacity in the military to provide this education themselves through the training of two educators per brigade or military base.

The activities of this component will include: training and supervising military educators and supervisors, establishing information systems, producing a flip chart and a video and the provision of educational materials and condoms.

(iii) "Learning to Live"  
("Aprendiendo a Vivir")

The objective of APROFAM's "Learning to Live" program is to empower young people through an educational process which teaches decision-making skills. The long-term goal of the program is to prevent unwanted pregnancies, abortions, abandoned children, sexually transmitted diseases, dropout and substance abuse among Guatemalan youth.

With Project support, APROFAM will train teachers and community leaders to offer the "Learning to Live" curriculum to young people. The "Learning to Live" educational process is unique in that it permits young people to: 1) recognize their own potential; 2) analyze their environment; 3) reflect on the situation; 4) share hopes and aspirations with their parents, teachers, and peers; 5) interchange ideas and feelings with community leaders; and 6) design a life plan. Currently the program is offered in one-third of all Guatemalan public secondary schools and will be expanded to include the remaining ones during the life of the project.

Activities of this component will include: training educators; developing three flip charts (family life education, adolescence, anatomy, pregnancy and childbirth); publishing pamphlets for Mayan areas (family life education, adolescence, anatomy, pregnancy and childbirth, drugs and sexually transmitted diseases); and providing materials and support to "Learning to Live" educators. In addition, APROFAM will produce a pilot radio program based on the "Learning to Live" curriculum.

(3) Subcomponent 3: Management  
Decentralization and Regionalization

The objective of this activity is to strengthen APROFAM's management systems in order to make the most effective and efficient use of resources. Under this subcomponent of the "Family Health Services" Project, APROFAM will begin to implement some of the management restructuring and decentralization recommendations previously developed by Price Waterhouse technical assistance. This activity will have two major parts -- regionalization and management strengthening.

(a) Regionalization

With its planned growth in services and field staff, APROFAM has outgrown its ability to effectively

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manage its resources from a central headquarters. Price Waterhouse assisted APROFAM in developing a phased approach to decentralizing its operations. The process will begin with a pilot regional office in Quetzaltenango and eventually could extend to a total of four regional offices covering the country. The present central office would continue to serve as the regional office for Guatemala City.

The objective of the next phase of the regionalization effort at APROFAM is to test the benefits of a decentralized administrative structure. The Quetzaltenango pilot test will require one new regional director, one regional accountant, one secretary and one supply manager. If the four contemplated regional offices are eventually established, a total of 17 new employees will be necessary.

(b) Management Strengthening

APROFAM recently underwent a thorough management review and analysis which resulted in a restructuring of the association (see Organizational Chart in Annex F.4) to facilitate the process of regionalization as well as to maximize flexibility in the expansion of operations and service delivery. The Project will provide support to APROFAM in implementing recommendations for management improvements in the areas of management information, statistics and evaluation, supply management and revenue generation. Each of these three areas is described briefly below.

(i) Management Information

Given the growth of APROFAM and the need to handle an increased volume of information, the development of an Information Unit (Departamento de Computacion) was recommended by Price Waterhouse. The Project will support technical assistance to help integrate the accounting and logistics reporting functions of the former computer center with new functions such as a Clinic Administration System (SAC - Sistema de Administracion de Clinicas). Also new support activities such as computerized preparation of texts, library control, etc., will be developed. A total of three employees will be paid by the Project and computer and printer hardware will be financed.

(ii) Statistics and Evaluation

The main purpose of the Evaluation and Statistics Unit (ESU) is to provide APROFAM's senior staff with useful programmatic information on APROFAM's different activities. It also supports administrative supervision,

project monitoring, and control activities. The evaluation and statistics Unit will conduct feasibility studies for new projects and will support the planning activities of APROFAM as required.

(iii) Logistics

The Logistic Support Unit will provide all the areas of APROFAM the proper supply of the necessary items at all units. Inventory control, supply planning and distribution programming are main activities of this unit.

Main activities expected to be carried out by the Logistics Support Unit (SU) are:

- Quality control of all purchased and donated products
- Inventory control of contraceptives, clinical supplies and fixed assets of APROFAM.
- Supplies planning (purchasing and requesting of donated products.
  - . Physical inventory
  - . Transfer of supplies

The Project will continue to provide operating expenses to support these essential support functions.

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d. Summary of Distribution of Projected  
CYP's Among APROFAM Services for  
Project Period

APROFAM Clinical Services

Female Surgical Sterilizations .....	773,847
IUD .....	109,069
Oral Hormonals .....	40,252
Injectable Hormonals*.....	27,803
Condoms .....	23,739

Sub-Total of CYP at APROFAM Clinics..... 974,710

CBD Promoters

Oral Hormonals .....	161,005
Condoms.....	44,085

Sub-Total of CYP provided by Voluntary  
Health Promoters ..... 205,090

Other APROFAM Providers

IUD .....	27,268
Oral Hormonals .....	20,126
Injectable Hormonals*.....	1,668
Condoms .....	23,738

Sub-Total of CYP at Other providers  
Facilities..... 72,800

TOTAL CYP PROVIDED BY THE APROFAM SYSTEM 1,252,600

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\* Injectables will not be supplied by A.I.D. nor USAID/Guatemala. However, APROFAM will deliver this number of CYPs with injectables or another comparable method.

e. Timeline for APROFAM Activities

YEAR	1992	1993				1994	1995	1996
QUARTER	4	1	2	3	4	1-4	1-4	1-3
<b>I. IE&amp;C</b>								
Mass Media Campaigns	X	X	X	X	X	XXXX	XXXX	XXX
Education and Training	X	X	X	X	X	XXXX	XXXX	XXX
El Camino	X	X	X	X	X	XXXX	XXXX	XXX
Opinion Leaders	X	X	X	X	X	XXXX	XXXX	XXX
Trng. Military	X	X	X	X	X	XXXX	XXXX	XXX
"Learning to Live"	X	X	X	X	X	XXXX	XXXX	XXX
<b>II. SERVICE OUTLET EXPANSION</b>								
Rural APROFAM Cl. w/ MCH	11 CL	15 CL	X	X	X	XXXX	XXXX	XXX
Private Clinics	75	100	X	X	X	150	200	250
Community Physicians <sup>1</sup>	18	19				21	22	23
CBD	2400	3100				4000	4500	4900
<b>III. IMPROVED MANAGEMENT</b>								
Regionalise / Decentralise Admin.	X	X	X	X	X	XXXX	XXXX	XXX
Management Restructuring	X	X	X	X	X	XXXX	XXXX	XXX
MIS	X	X	X	X	X	XXXX	XXXX	XXX
Evaluation and Statistic	X	X	X	X	X	XXXX	XXXX	XXX
Logistics	X	X	X	X	X	XXXX	XXXX	XXX

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TIMELINE FOR APROFAM ACTIVITIES (CONT.)

\* "X" on this table refers to continuing existing programs and activities while increasing their coverage and improving their quality.

1 Total number of community physicians active in APROFAM program.

**SUMMARY LIFE OF PROJECT BUDGET BY PROJECT COMPONENT**  
**ASOCIACION PRO BIENESTAR DE LA FAMILIA - APROFAM**

1,992\*

1,993\*\*

1,994\*\*

SOURCE	AID		OTHERS		AID		OTHERS		AID		OTHERS		
	CURRENCY	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC		
COMPONENTS													
COMPONENT I: POLICY DIALOGUE													
c. Observation. Travel		687			175,000				85,000				
COMPONENT III: EXPANSION OF SERVICES													
d. Service Delivery			1,050,554		648,640		3,109,294		728,620		3,128,234	808,600	
e. Training			32,235				67,572				73,266		
d. Promotion			165,503		648,640		502,787		728,100		558,125	808,600	
e. Evaluation and Audit			41,417				66,778				35,838		
f. Commodities	223,259					262,985				289,541			
TOTAL	223,946		1,289,759	0	1,297,280	437,985	3,746,431	0	1,456,720	374,541	3,795,463	0	1,617,200

\* September to December 1992

\*\* All Calendar Year

\*\*\* January to August, 1996

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**SUMMARY LIFE OF PROJECT BUDGET BY PROJECT COMPONENT**  
**ASOCIACION PRO BIENESTAR DE LA FAMILIA - APROFAM**  
(Continued)

1,995\*\*

1,996\*\*

TOTAL\*\*\*

SOURCE	AID		OTHERS		AID		OTHERS		AID		OTHERS		
	CURRENCY	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC		
COMPONENTS													
COMPONENT I: POLICY DIALOGUE													
c. Observation. Travel										260,687			
COMPONENT III: EXPANSION OF SERVICES													
b. Service Delivery			3,205,972		888,580		2,419,656		968,560		12,913,710	4,043,000	
c. Training			79,360				45,497				297,980		
d. Promotion			631,108		888,580		488,084		968,560		2,345,607	4,042,480	
e. Evaluation and Audit			38,083			0					182,116		
f. Commodities	318,114					0				1,093,899			
<b>TOTAL</b>	<b>318,114</b>		<b>3,954,523</b>	<b>0</b>	<b>1,777,160</b>	<b>0</b>	<b>2,953,237</b>	<b>0</b>	<b>2,905,680</b>	<b>1,354,586</b>	<b>15,739,413</b>	<b>0</b>	<b>8,085,480</b>

\* September to December 1992

\*\* All Calendar Year

\*\*\* January to August, 1996

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4. Instituto Guatemalteco de Seguridad Social (IGSS)

a. Background

(1) Purpose/Mandate

(a) Programs

The Guatemalan Social Security Administration delivers preventive and curative health services (primarily for accidental trauma, illness, and maternity) financed through contributions from employers, employees, and the national government.

Overall management is divided between finance and service delivery divisions. The service delivery is supervised by the Directorate of Medical and Hospital Services. The Directorate is composed of four departments: (1) Preventive Medicine, (2) Central Medical Services, (3) Departmental Medical Services, and (4) Technical Services.

Maternal and Child Health is primarily served by the Maternal and Child Hygiene Unit, under the Department of Preventive Medicine and two major hospitals, under the Department of Central Medical Services. The hospitals are the Hospital of Gynecology and Obstetrics and the Juan José Arévalo Hospital. IGSS attended 22,731 deliveries in 1989, of which 90% were at these two Central Medical services hospitals.

While IGSS's data base is weak, it is believed that the maternal and child morbidity and mortality rates are high among some segments of its membership. Significant contributing factors to these high rates are: (a) malnutrition, diarrhea, anemia, multiple pregnancies, and pregnancies to teen-age and middle-age women.

IGSS is particularly interested in receiving A.I.D. assistance in meeting demand among its members for family planning and child spacing information and services, especially for women identified as being at high risk for pregnancy.

(b) Service Coverage

IGSS provides assistance for workers who fall victim to accidents/trauma in 22 of Guatemala's 23 departments, and accident, illness, and maternity services in

ten departments (principally those closest to the capital city). The program provides services to approximately 30% of the "economically active" work force, their spouses and dependents, or about 17% of the total Guatemalan population of 9.6 million people (estimated for 1990).

Number of Beneficiaries  
by Category (1989)

Workers	788,367
Spouses	271,163
Children (under 5)	372,971
Widows	14,772
Invalids	65,087
Pensioners	2,347
Others	16,278
Total	1,530,985

In 1990, IGSS attended 15,318 deliveries, of which 2,420 (16%) were Caesarean. A total of 1,610 uterine ligations were performed as a result of incomplete abortions; 1,103 tubal ligations were performed by Laparoscopy or during Caesareans. A total of 14,996 prenatal consultations were conducted, covering about 98% of the women who eventually delivered at IGSS facilities, with an average of 4.5 visits each during pregnancy.

b. Constraints

(1) IGSS has traditionally lacked a clear definition of policy in support of strengthening its reproductive health services. Pockets of resistance to family planning persist among certain members of IGSS senior management.

(2) With only minor exceptions, IGSS has never received international assistance for its services.

(3) Most of IGSS's medical staff members are lacking in up-to-date training and information on safe motherhood and reproductive risk, family planning and child spacing.

c. Accomplishments

(1) IGSS informally opened a "Family Orientation Clinic" at the Hospital of Gynecology and Obstetrics in the 1970's, offering condoms, IUDs, and Surgical Contraception by Laparoscopy.

(2) Though IGSS is not able to insert as many IUD's as requested by its female beneficiaries, a recent study on Copper T-380A insertions done by IGSS tracked 100 IUDS inserted, and calculated an expulsion rate of only 8% in the first 30 days.

d. Opportunities

(1) Recent changes in the Guatemalan national government, participation by IGSS at international conferences on family planning, and study tours by senior IGSS staff to the reproductive and family health programs of other countries' Social Security institutions have led to a more receptive climate for family planning in IGSS.

(2) With A.I.D. support, IGSS has already initiated three national research studies on: a) the levels of contraceptive use among the beneficiaries of IGSS's obstetric and gynecological services to be conducted at 16 service sites, (b) the factors influencing reproductive risk among the target population, and (c) the rates of maternal and perinatal mortality among IGSS's target population.

(3) There is significant anecdotal evidence of a demand for reproductive risk counseling and family health and child spacing services in excess of IGSS's current capacity to respond.

e. Goals and Objectives

The goal of this project component is to improve the health of Guatemalan women and children eligible for Social Security services, decreasing infant and/or maternal mortality, morbidity, and reproductive risk through an enhanced IGSS program of reproductive health, family health, and child spacing.

The IGSS subcomponent has the following objectives:

- (a) To introduce the concepts of reproductive health and reproductive risk to IGSS medical staff.
- (b) To reduce infant and maternal morbidity and mortality rates among IGSS eligible beneficiaries through the establishment of appropriate policies, programs, and staffing.
- (c) To promote education in reproductive and family health within IGSS and among its eligible beneficiaries.

f. Activities

(1) Technical Assistance

(a) Research and Data Management

Currently the IGSS Reproductive Health Unit is carrying out three epidemiological studys to determine both reproductive risk of IGSS clients and demand for family planning services. Under this Project, these data will be further analyzed to determine costs and benefits for the institution if family planning services are provided. Additionally, a data collection system will be established to monitor the progress of project activities.

(b) Clinic Protocols and Policy

Based on the results of the studies, an institutional policy in support of providing reproductive risk reduction services will be drafted and presented to the IGSS Board of Directors. Under the Project appropriate protocols for clinic and hospital levels will be developed to remove barriers that inhibit clients from receiving family planning services.

Other institutional regulations will be reviewed and modified to reduce barriers and to expand services. At present, services are offered to employee spouses only when they are pregnant. Preventative family planning services are not offered. Hormonal contraceptives are not supplied for birth spacing. The policy review will identify these sorts of restrictions and present recommendations for eliminating them.

(c) Training

With Project support, IGSS health providers will be trained in how to integrate family planning services into the IGSS health care system. Intitally with technical assistance, a core group of IGSS trainers will be trained. A training program for IGSS staff will be designed and implemented. The training will include reproductive risk, family planning methods, informed consent, and counseling techniques. Training content and format will be tailored specifically for different levels of IGSS health providers.

(2) Clinical Services

(a) Reproductive Health Services

Through this Project an IGSS reproductive health unit will be developed. This unit will implement and supervise training, family planning services, and data collection and analysis. During the life of the project, services will initially be offered at two IGSS hospitals for postpartum patients. The services will be promoted through prenatal clinics and the School for Mothers. As demand grows, services will also be offered to additional IGSS clients through a reproductive health care clinic housed at the OB-GYN hospital. It is also planned that selected family planning services will gradually be integrated into the full IGSS network of clinics and hospitals. This integration will be implemented by the Reproductive Health Unit after IGSS policies and protocols and been revised.

(3) Supplies and Equipment

In order to carry out the activities described above, the Project will provide contraceptives and selected basic hospital and surgical equipment. The APROFAM repair and maintenance team will be used to train IGSS in maintenance of this equipment. A.I.D. will provide limited contraceptive supplies to the IGSS and provide TA to help the IGSS obtain contraceptives in the future.

g. Timeline for IGSS Activities

YEAR	1992	1993				1994	1995	1996
QUARTER	4	1	2	3	4	1-4	1-4	1-3
<b>I. TECHNICAL ASSIST.</b>								
Information System	X	X	X	X	X			
Training in MIS			X	X			XX	
Inventory Mgmt. Training (CPT) 1			X	X			XX	
Dev.Repro.Risk Unit	X	X						
Training Trainers		X	X					
FP Prog.Mgmt.Trng.			X			X	X	X
FP Clinic Mgmt. Training				X		X	X	X
FP Prog.Eval.Trng.						X		X
Policy & Protocol Development	X	X	X					
<b>II. EQUIPMENT DEL.</b>								
Deliver Laparoscope		1*						
Anesth. Machines		1*						
IUD Insert Kits		30*						
Breast Pumps		1*						
Fetal Monitors		2*						
Neonatal Transport Incubator		1*						
Photocopier	1							
Slide Projectors	1							
Overhead Projector	1							
Projection Screens	1							
Video Recorder		1						
Video Monitor		1						

III. COMMODITIES								
Oral Contracept.	X	X	X	X	X	XXXX	XXXX	XXX.
Condoms	X	X	X	X	X	XXXX	XXXX	XXX
IUDs	X	X	X	X	X	XXXX	XXXX	XXX
IV. FACILITY REMODELING								
Needs Assessment	X	X						
Remodeling/Const.				X	X	X		

1 Contraceptive Procurement Table preparation.

\* Specific delivery to be determined at a later date based on technical assistance recommendations.

**SUMMARY LIFE OF PROJECT BUDGET BY PROJECT COMPONENT  
INSTITUTO GUATEMALTECO DE SEGURIDAD SOCIAL (IGSS)**

1,992\*

1,993\*\*

1,994\*\*

SOURCE	AID		OTHERS		AID		OTHERS		AID		OTHERS	
	CURRENCY	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	
COMPONENTS												
COMPONENT I: POLICY DIALOGUE												
a. Technical Assistance		10,000			10,000					10,000		
COMPONENT III: EXPANSION OF SERVICES												
a. Technical Assistance		31,600			56,600					26,600		
b. Service Delivery				90,640	79,300	19,000		271,920				271,920
c. Training						25,000				25,000		
f. Commodities		12,712			17,020					19,176		
<b>TOTAL</b>		<b>54,312</b>			<b>90,640</b>	<b>62,920</b>	<b>44,000</b>	<b>271,920</b>		<b>55,776</b>	<b>25,000</b>	<b>271,920</b>

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**SUMMARY LIFE OF PROJECT BUDGET**  
**INSTITUTO GUATEMALTECO DE SEGURIDAD SOCIAL (IGSS)**  
(Continued)

1,995\*\*

1,996\*\*\*

TOTAL

SOURCE	AID		OTHERS		AID		OTHERS		AID		OTHERS	
	CURRENCY	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	
COMPONENTS												
COMPONENT I: POLICY DIALOGUE		10,000			10,000					10,000		
COMPONENT III: EXPANSION OF SERVICES												
a. Technical Assistance		26,600			36,600					178,000		
b. Service Delivery				201,920				201,920	79,300	19,000		1,108,320
c. Training			25,000			25,000				100,000		
f. Commodities		21,514			24,046				94,468			
<b>TOTAL</b>		<b>58,114</b>	<b>25,000</b>		<b>271,920</b>	<b>70,646</b>	<b>25,000</b>		<b>201,920</b>	<b>401,768</b>	<b>119,000</b>	<b>1,108,320</b>

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IV. IMPLEMENTATION PLAN

A. A.I.D. Mission Implementation Arrangements

Overall internal Project management will be the responsibility of the USAID/Guatemala Office of Health and Education (OH&E). The Project Manager will be the USPSC Population Officer, who will be supervised by the USDH Health Development Officer.

OH&E will contract an FSN Project Assistant and Project Secretary with Project funds. It is planned that the FSN OE staff of OH&E will assist the Project staff in the following:

1. to represent AID in policy dialogue with the Government of Guatemala in the area of population/family planning.
2. to assist in the coordination of diverse population sector activities, including "Family Health Services" Project activities, PD&S activities, and R&D/POP activities taking place in Guatemala
3. to serve as coordinator and facilitator of interactions and complementary activities among Guatemalan family planning agencies
4. to assist in the supervision of the Project's institutional contractors
5. to assist in the monitoring and supervision of the project's R&D component
6. to maintain a greater Mission field presence than has been possible in the past.
7. to monitor contraceptive procurement and distribution.

The Mission population program in the Office of Health and Education will be entirely funded by "Family Health Services" Project resources. In-house, the Project will fund salaries of the U.S. PSC Population Officer, an FSN Project Assistant and a FSN secretary.

The Mission Strategic Objective team Project Design Committee will be used as a project implementation task force. The team will meet quarterly or semiannually and individual members will help OH&E monitor and manage the project when particular issues or problems arise.

B. Component Implementation Arrangements

Within Section III, the detailed project description, three components are described: Policy Development and Analysis, Research and Development, and Expansion of Services. Each component is different in its scope and content, and therefore requires special types of technical inputs and expertise. The Implementation Strategy reflects these special needs and is described below.

1. Component I: Policy Development and Analysis

APROFAM will continue to take the lead in implementing these activities. Funds will be obligated through a grant to support the following activities: Opinion Leader Dialogue, Demographic and Reproductive Health Research and Dissemination, and Observational Visits. Additional complementary funding for related activities outside of the Project will be provided through PD&S support of the 1992/3 Demographic and Health Study and possibly support for a national census when the GOG determines this activity will take place. Also, central funds will be sought through the OPTIONS project, managed by R&D/POP, to complement local activities.

2. Component II: Research and Development

This component will be implemented either through a Mission buy-in to the S&T/POP INOPAL (Investigation Operational en America Latina) project or through a Mission-procured institutional contractor. The contractor will establish a local office and use Mayan personnel to carry out the scope of work. The contractor will work under the supervision of OH&E and in coordination with the project research subcommittee. Funds to cover research field work carried out by MOH-FPU and APROFAM will be obligated directly to these institutions and funds for the technical assistance and analysis will be obligated to the contractor.

3. Component III: Expansion of Services

a. APROFAM

As noted in the institutional analysis, APROFAM is the recognized national leader in the provision of reproductive health care throughout Guatemala. The USAID Mission has been supporting APROFAM since 1969 and they have a proven track record at successfully implementing A.I.D. projects. This project will provide a grant to APROFAM to carry

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out the activities described in Section III. APROFAM will participate in the Project Coordinating Committee and the Communication and Research Subcommittees. APROFAM will be the lead institution for the production of mass media messages and print material and will produce material for the MOH and IGSS. These activities will be coordinated through the Communications Subcommittee. APROFAM will procure all goods and services necessary for the implementation of its activities under this project in accordance with A.I.D. procurement regulations, with the exception of contraceptives which will be procured by R&D/POP through an OYB transfer.

b. Ministry of Health-Family Planning Unit

A bilateral grant will be provided to the GOG-MOH to carry out the activities described in Section III. The Family Planning Unit will be the implementing unit. The Unit will procure goods and services locally as necessary for the implementation of the project, in accordance with A.I.D. regulations. The Mission will procure vehicles, medications and surgical equipment. R&D/POP will procure contraceptives through and OYB transfer.

A Mission buy-in to AVSC will be carried out to provide reproductive health care technical assistance to assist the FPU in the establishment of VSC services and other postpartum family planning services in the national hospitals and in the training of health care providers. Local TA in coordination with the CDC will be used to upgrade the Unit's MIS.

c. Instituto Guatemalteco de Seguridad Social (IGSS)

Financial regulations of the IGSS prohibit it from receiving funds directly from A.I.D. A Mission buy-in to AVSC will be carried out to provide financial support and technical assistance to the IGSS. The contractor will procure all necessary surgical, hospital, and audiovisual equipment. The contraceptives needed by the IGSS will be procured by R&D/POP through an OYB transfer. The same contractor that provides TA to the MOH-FPU will also be used to carry out these activities.

d. I PROFASA

A cooperative agreement will be signed with I PROFASA to carry out project activities. Technical assistance

will be provided through an institutional contractor with proven experience in social marketing and business development. Contraceptives will be procured through an OYB transfer to R&D/POP.

C. Overall Coordination of Activities

A Project Coordinating Committee will be managed by USAID/Guatemala with participation by representatives of all the cooperating agencies. The members of the coordinating committee will try to combine forces on activities such as commodity procurements, technical assistance, and training so that individual Project-supported activities will simultaneously benefit all of the different agencies. The coordinating committee will also manage data collection activities, linking the different agencies' evaluations, pooling survey data, working with the Mission on the DHS and the INE household survey, advising the planned 1993 national census, and helping the Mission with Project reporting.

The coordinating committee will also serve as a political coalition, working together to lobby for appropriate policy changes in different health institutions, in the Guatemalan private sector, and in the Government.

The committee will try to rationalize the resources available to each of the different agencies to make their different services and programs as mutually-reinforcing as possible. The Coordinating Committee will be a neutral forum for dividing up the "turf" so that services provided by the different agencies complement each other, reducing competition for the same clients and the accompanying conflict and resentment. It is hoped that working together on the coordination of different activities will bring the agencies into better communication and, eventually, effective coordination.

A major responsibility of the Coordinating Committee will be management of the Research and Development Component of the "Family Health Services" Project. The Coordinating Committee will define the research agenda, plan the pilot projects, jointly implement them with their own agencies' resources, evaluate the results, and determine how the conclusions fit into a long term national strategy for implementation under the planned follow-on project or in their ongoing programs.

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D. Procurement Plan

Contraceptive procurement for all the agencies will be done by USAID/Guatemala through AID/Washington. These procurements are guided by the Contraceptive Procurement Tables, prepared annually by Center for Disease Control consultants. Contraceptive specifications are developed by AID/Washington.

As Operational Program Grantees (OPG's), APROFAM and IPROFASA will carry out all local procurement of goods and services in accordance with standard handbook 13 procurement procedures. IPROFASA and APROFAM will carry out procurement of off-shore short term technical assistance, in consultation with USAID/Guatemala. Annually AID and APROFAM will review the requirements for financing new motorcycles procurements. Procurement will be carried out in accordance with HB13 including the necessary waivers. It is anticipated that no more than 100 motorcycles will be procured over the LOP.

For the MOH and IGSS, USAID/Guatemala and AVSC, based on facility evaluation, will provide procurement services contraceptive equipment (including surgical, hospital, and clinical equipment and vehicles for supervision). Short term TA will be procured for the MOH and the IGSS by AVSC, through a Mission buy-in to an existing AID/Washington contract. All other MOH procurement will be local.

For the Research and Development component, the Mission will carry out a buy-in to an existing AID/Washington contract with the Population Council. Offshore procurement of vehicles and computer equipment and all local procurement will be done by the Population Council. (See Annex N, Methods of Implementation, Financing and Procurement.)

Gray Amendment

Every possible effort will be pursued to utilize Gray Amendment firms, where their input is appropriate.

E. Illustrative Training Plan

A substantial amount of short term technical assistance is envisioned for this project. In all cases it is anticipated that these short term specialists will work side by side with their host country counterparts and will provide significant on the job training. Additionally, several specific training events have been built into the project design. They are outlined below by project component.

1. APROFAM

a. In-Country On an ongoing basis APROFAM will conduct training for their community based distributors, new administrative, clinical, and supervisory staff. Additionally on a twice yearly basis they will conduct a training for trainers course for staff from other institutions. APROFAM will also continue to conduct courses for medical providers in both theoretical and clinical aspects of contraception, including VSC.

b. Off-Shore Third Country and United States. It is planned that APROFAM staff will participate both as observers and presenters in a wide variety of seminars, workshops and seminars throughout the region.

c. Length of Training Approximately one week will be the average length of training.

d. Number of Participants Approximately twenty individuals a year will be involved in this training.

2. MOH-FPU

a. In-Country: The largest component of the Ministry's budget for this project will be devoted to training. The FPU will conduct ongoing courses in family planning and reproductive health for personnel at all levels of the Ministry. A work plan will be presented annually to AID that will specify the number of courses and the proposed number of participants. The supervision provided by the Ministry will be carried out as on the job training and fulfill both functions of control of AID commodities and maintaining quality of care standards in reproductive health care. Additionally, with TA from AVSC, the MOH-FPU will establish regional training centers for post-partum family planning services and IUD training.

b. Off-Shore Third Country. Through the buy-in with AVSC, a core group of hospital directors, physicians and social workers will be sent to third country family planning programs to be trained in post-partum family planning techniques. These individuals will then be utilized as in-country trainers at the regional centers described above.

c. Length of Training The third country training will be carried out within a two week period.

d. Number of Participants Approximately 15 individuals will be trained each year for two years.

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3. IGSS

a. In-Country: In conjunction with AVSC a series of training sessions on reproductive health and family planning will be given to all IGSS personnel working in the Maternal-Child Health service.

b. Off-Shore: Third Country Through the AVSC buy-in training in VSC techniques and post-partum IUD placement will be provided to a core of IGSS physicians in a third country family planning program, they will then return and provide ongoing training in clinical family planning skills to IGSS medical providers.

c. Length of Training: This training will be carried out within a two week period.

d. Number of Participants: Approximately 15 individuals will be trained during the first 18 months of the project.

4. I PROFASA

a. In-Country: I PROFASA will continue to provide training in use of contraceptive methods to drugstore personnel. They will also provide visits to physicians to update their knowledge on I PROFASA's new products.

5. Research and Development Component

a. In-Country: As part of the scope of work for this component, the Population Council will provide on the job training to local staff in research techniques, data gathering, and analysis. The Council will hold regular seminars for local family planning agencies on the results of their studies and investigations. They will provide TA to interested agencies to implement successful interventions.

b. Off-Shore: Third Country and United States It is envisioned that various staff members will participate in regional workshops, seminars and conferences that pertain to the provision of family planning services to difficult to reach populations.

c. Length of Training: Average length of training for this activity is one week.

d. Number of Participants: Approximately 5 individuals will be trained a year for the life of the project.

Due to the critical nature of the proposed off shore training for medical providers a Mission approved waiver to use funds from the proposed project to finance international travel is included in this project paper. (See Annex O for Training Summary.)

## V. MONITORING AND EVALUATION PLAN

### A. Indicators and Targets

Evaluating the impact of the "Family Health Services" Project presents measurement problems because of the lag between provision of services and appearance of measurable effects on demographic indicators. Fortunately, some early measurable near-term indicators exist that give indications of progress and serve as temporary surrogates for permanent effects that can not be measured until later.

The basis for evaluating the "Family Health Services" Project will be its contribution toward achieving a USAID/Guatemala strategic objective:

#### "SMALLER, HEALTHIER FAMILIES"

The Mission Performance Indicators selected to track progress in achieving the strategic objective are:

Contraceptive prevalence rate increase from 27% in 1991 to 32% in 1997 (disaggregated for urban/rural couples)

Decrease infant mortality from 71.4/1000 in 1991 to 66/1000 in 1997.

Both of these indicators are measured approximately every five years by the Mission financed National Demographic and Health Survey (DHS). The DHS is scheduled for 1993 and 1998. Thus, it brackets the "Family Health Services" Project nicely and will give good measurement of change in these and many other relevant and very specific family planning and health indicators.

Key indicators and Mission targets are the following:

1. Couple Years of Protection (CYP)

Couple Years of Protection (CYPs) is a standard indicator designed and used to track the progress of family planning programs worldwide. CYPs are generated from service statistics and can be analyzed monthly, quarterly, or yearly, allowing more precise monitoring of project progress than prevalence rates which are collected every three to five years. In the case of the "Family Health Services" Project, CYPs will contribute directly to annual estimates of the first Mission Performance Indicator, contraceptive prevalence rate, which will be measured in 1993 and again in 1998.

The Couple Years of Protection (CYP) noted in Table I were calculated using the international standard formulas set by the Center for Disease Control (CDC) and used in family planning programs worldwide. The formulas vary by method according to the inherent characteristics of each method and its administration.

The number of CYPs generated by distribution and sale of oral contraceptives is calculated by dividing annual distribution figures by 13. The divisor, 13 represents the number of cycles a woman must use to protect herself from unwanted pregnancy over the course of one full year.

The calculations for CYPs produced by condom and vaginal tablet use are the same and are based on an estimate of average use by consumers per year. It is assumed that couples will have approximately 100 sexual relations per year. Therefore, every 100 condoms and every 100 vaginal tablets distributed are registered as one CYP. For instance, when 350 vaginal tablets are distributed and sold, a total of 3.5 CYPs are estimated to be generated.

Users of IUDs (380 Copper T) are advised to have a new one inserted after four years of successful use. For the purposes of calculating CYPs, the number of IUDs inserted is multiplied by 3.5 which represents less than the technically possible 5.4 years of use to account for loss, early removal, pregnancy, expulsion, etc. Therefore, if an institution's medical staff performs total of 560 IUDs insertions annually, they will have contributed 19,600 CYPs to the Project goal of 2,350,420 CYPs by the end-of-project.

Voluntary surgical contraception (VSC), both male and female, is currently considered to protect an individual for 12.5 years. A total of 12.5 CYPs are attributed to each procedure performed the year in which it was performed. This formula is more straightforward a calculation than trying to carry users of surgical contraceptors over for 12.5 years on projects and in studies that last less than the 12.5 years. The method used also prevents the tendency to count VSC users more than once over time.

The total number of CYPs estimated to be generated by end of Project by all four counterpart institutions is 2,350,420 (see Table I for detail). Figure I shows the Mission's projections of couple years of protection with and without continuing A.I.D. support to the population sector. The year 2,010 represents the target figures for the 20 year strategy. By interpolation, the year 1997 shows the expected end of project status, that will result from the "Family Health Services" Project. The difference between the A.I.D. and no A.I.D. conditions represents the independent impact of A.I.D. programming. Figure II and III provide the some information for the indigenous (Figure II) and Ladino (Figure III) subpopulations.

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TABLE I  
COUPLE YEAR PROTECTION  
All Components

	1,992*	1,993	1,994	1,995	1,996**	CYP	TOTAL	\$
I PROFASA	12,771	42,203	45,107	49,172	54,077	9%	203,330	12%
A PROFAM	90,906	290,170	308,884	328,961	233,679	53%	1,252,600	59%
MOH-FPU	11,500	101,000	165,000	224,000	219,000	31%	720,500	15%
IGSS	6,263	32,765	38,531	44,815	51,616	7%	173,990	2%
TOTAL	121,440	466,138	557,522	646,948	558,372		2,350,420	

\* Four-month period  
\*\* Eight-month period

Figure I

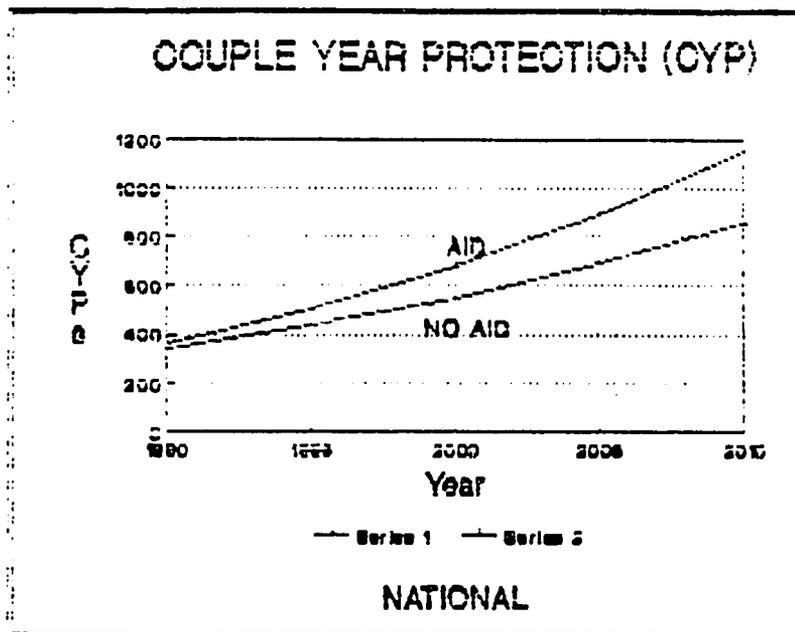


Figure II

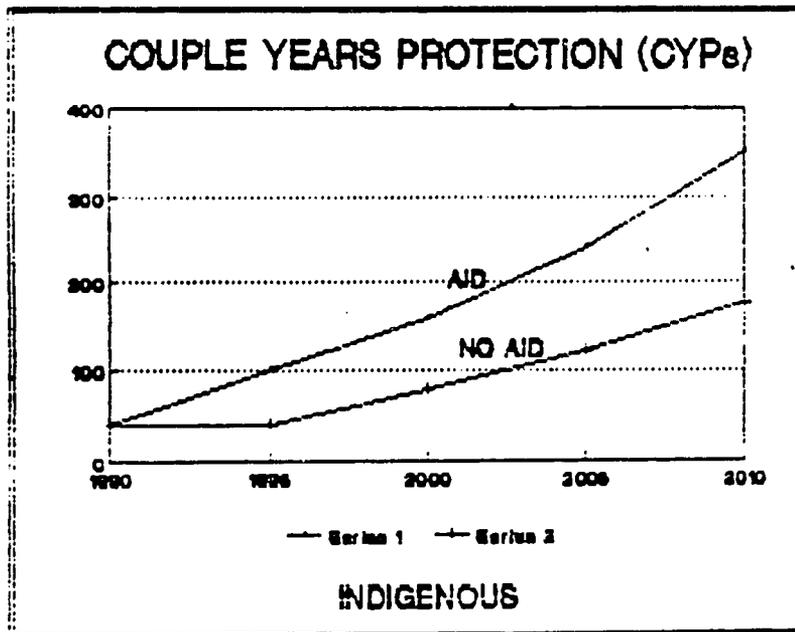
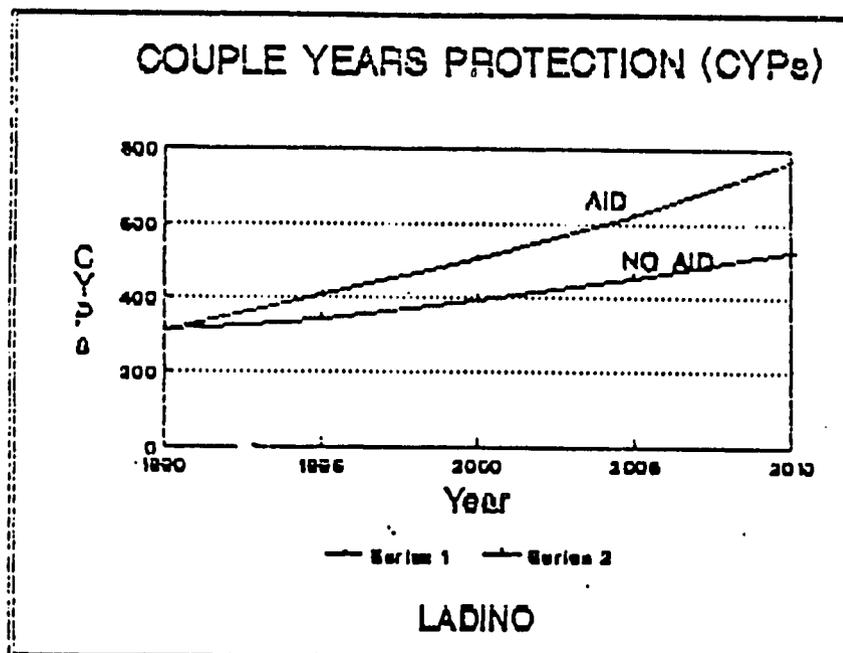


Figure III



2. Contraceptive Prevalence

Contraceptive Prevalence is measured by the DHS every five years. Since the DHS is based on a representative national sample, its results give a valid indication of national trends. Furthermore, DHS results make it possible to control for demographic or other dimensions ( rural-urban, indigenous-Ladino, age) to get an indication of success for different target group segments.

Figures IV, V, and VI show Mission projections of contraceptive prevalence with and without A.I.D. support, for national, indigenous and Ladino populations.

Figure I

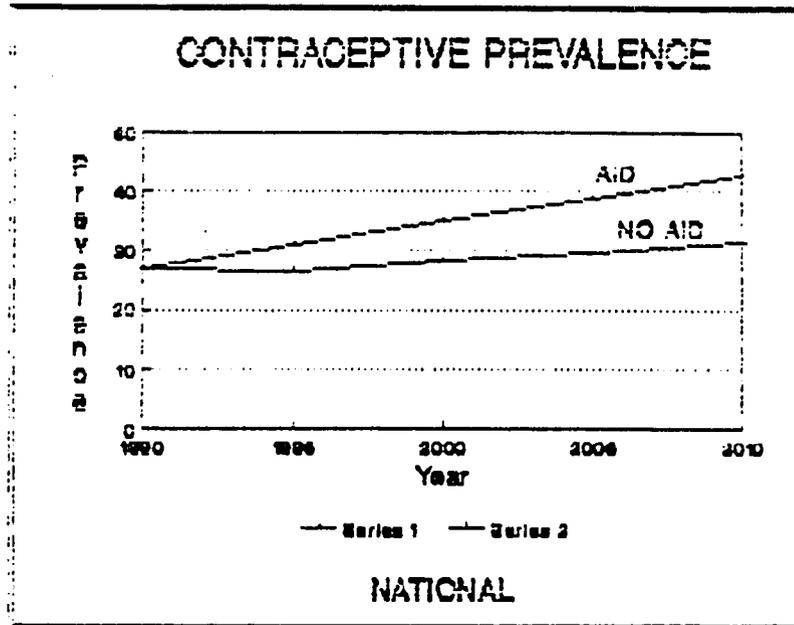
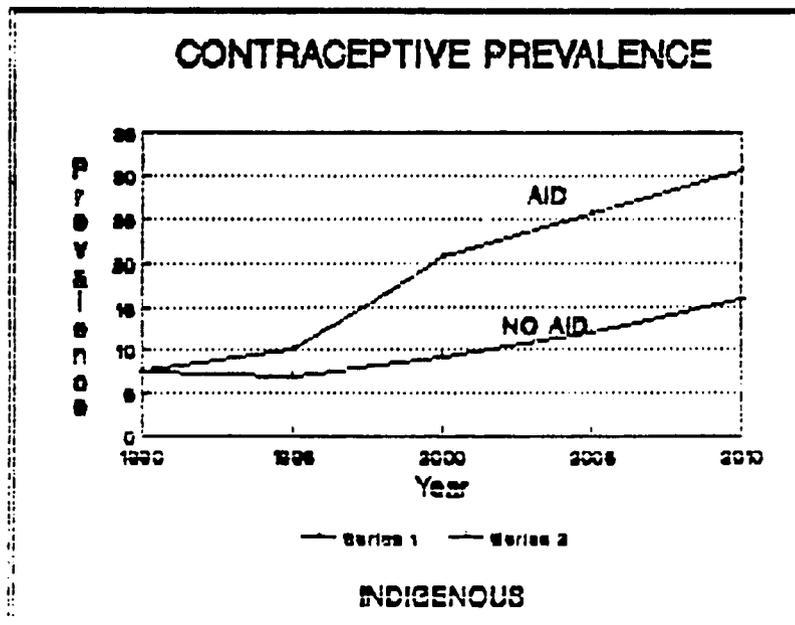
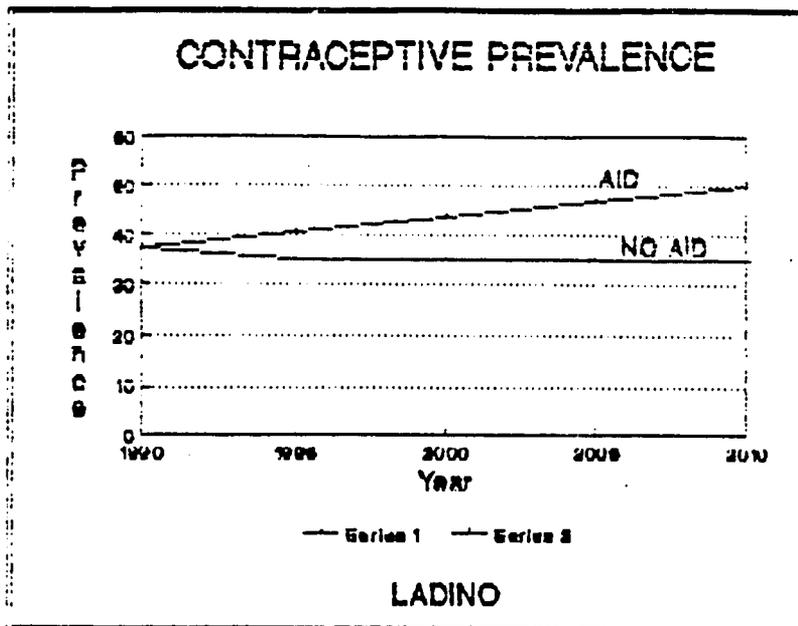


Figure II



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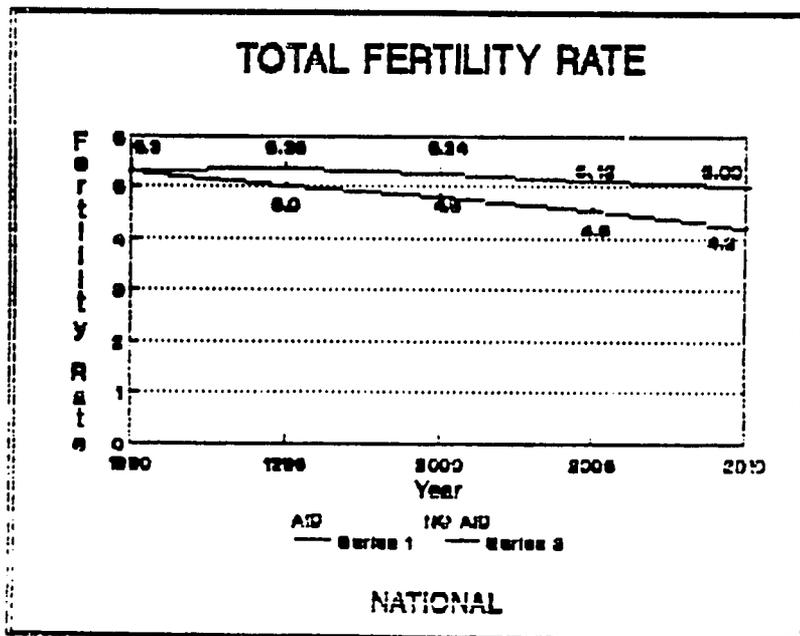
Figure III



3. Total Fertility Rate (TFR)

Total Fertility Rate is also measured by the DHS every five years. Total Fertility is the average number of children per family in Guatemala.

Figure I



## B. Monitoring and Evaluation Plan

The monitoring of this Project will be the primary responsibility of the Project Officer under the direction of the Mission Health and Population Officer. The implementation staff for the Project will receive guidance from the Strategic Objective Team chaired by the Chief of the Office of Health and Education.

### Sources of monitoring and evaluation information:

1. Mid-term and final evaluations will be performed by an outside social science research organization with project funds. The mid-term evaluation will be a process evaluation, concentrating on progress toward meeting project objectives and suggesting ways to restructure components and, if necessary, reprogram funds to more effectively complete the project. The final evaluation will evaluate the quantitative impact of the project on demographic and health indicators. It will also review in detail progress toward achieving policy and public opinion objectives.

2. The Demographic and Health Survey (DHS) will be performed during the first year of the project, financed by OHE Project Development and Support (PDS) funds. The DHS will serve as a key data point in the evaluation of the Mission and national population programs. The DHS will be repeated in 1997, following completion of the project. While it does not coincide precisely with the beginning and end of this project, it will be the single best indicator of program success as measured by key indicators that can only be measured through a major national survey. These indicators include Total Fertility Rate and Contraceptive Prevalence Rate.

3. A National Census is tentatively planned by the Government of Guatemala for 1992. If it is carried out, the census will be an important source of statistical information on the size, distribution, and composition of the Guatemalan population. The census will provide invaluable information on shifts in the rural/urban population and in the distribution of indigenous subpopulations. The census will be useful in evaluating the impact of the A.I.D. population program over the last two decades, will permit the project to revise projections and indicators based on fresh data, and will serve as a benchmark in the evaluation of the A.I.D. 20 year population strategy in the year 2010.

4. A Mission-sponsored Household Survey will be implemented by the Instituto Nacional de Estadística (INE) in

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1992, This survey will provide useful information based on a sample of families concerning changing health and population practices and conditions throughout the country. It is planned that this household survey will be repeated periodically, providing another source of longitudinal data to help assess program impact and to better understand demographic and health phenomena in Guatemala.

5. Mission/OHE Project Monitoring will include constant oversight and supervision of activities, both in the central offices of the implementing agencies and in the field. An FSN Administrative Assistant and secretary will be added to the staff of OHE using Project funds to strengthen OHE's monitoring capability and field presence. Semiannual reports, including CYP statistics will be submitted to USAID by each of the grantees for analysis and assessment of Project progress.

6. The Mission will contract a Guatemalan CPA firm to maintain a program of financial monitoring and technical assistance. The CPA contractor will perform financial diagnostic reviews of participating agencies prior to the obligation of funds. Then, using Project funds, it will provide technical assistance in strengthening the agencies' accounting systems and perform annual financial reviews.

7. Post-partum contraception and Voluntary Surgical Contraception services provided by the MOH and IGSS will be monitored by regular visits from AVSC staff through a Mission buy-in to their centrally funded Project. Technical expertise and experience is needed for this area to maintain maximum surgical and clinical security for family planning users.

8. Contraceptive procurement and contraceptive distribution systems will be reviewed periodically by staff from the CDC through the centrally funded contraceptive logistics management agreement. This review will include warehousing, quality control and software update and training on the MIS.

9. Market retail audits will be carried out yearly by an independent market research firm to monitor the flow of AID donated goods into the retail sector and to assess the availability and quality of social market brands and contraceptive services.

10. Progress in policy dialogue will be measured both by the increase of Government and other donor funds made available to finance the provision of reproductive health services as well as changes in regulatory status that impede the

delivery of services. Through a buy-in to the centrally funded OPTIONS Project, the Futures Group staff will annually review progress made towards the elimination of regulatory barriers identified in the initial legal and regulatory review.

VI. FINANCIAL PLAN AND ANALYSIS

A. Summary Financial Plan

Over the Life of the Project (September 1992 to August 31, 1996, AID will provide \$29.5 million dollars in grant funds; the Government of Guatemala (GOG) will contribute the equivalent of \$1.5 million dollars to finance the operational costs of the Family Planning Unit. The equivalent of \$11.1 million dollars will be generated by the commercialization of contraceptive goods and services through IPROFASA and APROFAM or donated by various international agencies or PVO's (IPPF, UNFPA, JOICEPF).

The Table contained on page 125 provides a budget summary and financial plan by contributor by year. The table contained on page 126 provides a budget summary and financial plan by component.

The obligation plan, by year, by institution is found on page 127.

B. Audit

The grantees will contract an annual audit of the funds under this grant. The grantees will select and independent auditor from the AID approved list of the audit firms. The audit will be a financial audit performed in accordance with the "Guidelines for the Financial Audits Contracted by Foreign Recipients" issued by the AID Inspector General and the Government Auditing Standards (1988 revision). The approximate annual cost of doing these audits for the USAID project being implemented by the grantees is \$42,000.

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C. Financial and Management Diagnosis

For the three implementing agencies (APROFAM, IPROFASA and MOH-FPU), internal control structure and management and financial capabilities were found to be adequate to implement the project.

Certain findings did cite areas where improvements can be made. Some corrective actions have been initiated. Other actions will be taken during the first stages of the Family Health Services Project.

Price Waterhouse pointed out that no institution has enough financial liquidity to undertake the project under an expenditure-reimbursement method. This finding supports the need for USAID to provide advances during the LOP, except in the case of the Ministry of Health where arrangements are being made to establish a revolving fund.

An audit of IPROFASA's subsidiary firms will be carried out. The findings of this audit may impact on authorization and obligation decisions relating to IPROFASA.

(Note: Based on the Final Price Waterhouse Reports, additional information may be added to this section).

BUDGET SUMMARY AND FINANCIAL PLAN  
ALL CONTRIBUTORS

SOURCE	1992			1993			1994			1995			1996			TOTAL
	AID	HOST COUNTRY	OTHERS													
COMPONENTS																
COMPONENT I Policy Dialogue	10,687	---	---	202,264	---	---	160,334	---	---	83,334	---	---	83,334	---	---	547,953
COMPONENT II Research & Development	---	---	---	677,233	---	---	677,233	---	---	621,164	---	---	427,184	---	---	2,402,734
COMPONENT III Expansion of Services	2,571,912	115,040	1,392,693	6,460,040	376,264	1,961,532	6,010,235	309,445	2,137,330	6,226,207	399,919	2,603,970	4,094,343	254,700	3,046,051	38,039,786
AID Adm Support	24,000			100,000			100,000			100,000			100,000			456,000
AID Audit Evaluation				500,000			90,000						146,496			730,496
Total	2,606,599	115,040	1,392,693	7,947,537	376,264	1,961,532	7,053,002	309,445	2,137,330	7,038,705	399,919	2,603,970	4,053,277	254,700	3,046,051	42,176,969

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BUDGET SUMMARY AND FINANCIAL PLAN BY COMPONENT  
(in 000's)

	USAID			HOST COUNTRY			OTHERS			TOTALS
	FX	LC	TOTAL	FX	LC	TOTAL	FX	LC	TOTAL	
COMPONENTS										
COMPONENT I Policy Dialogue	350.7	197.3	548.0	----	----	----	----	----	----	548.0
COMPONENT II Research & Development	903.4	1,499.3	2,402.7	----	----	----	----	----	----	2,402.7
COMPONENT III Expansion of Services	3,584.6	21,778.2	25,362.8	----	1,535.4	1,535.4	----	11,141.6	11,141.6	38,039.8
AID Adm. Support/ Audit/Evaluation	910.5	276.0	1,186.5	----	----	----	----	----	----	1,186.5
TOTALS	5,749.2	23,750.8	29,500.0	----	1,535.4	1,535.4	----	11,141.6	11,141.6	42,177.0

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PROJECT 520-0357

Obligation Plan

0	Fiscal Year				TOTAL
	1,992	1,993	1,994	1,995	
APROFAM	\$4,000,000	\$5,000,000	\$4,000,000	\$3,000,000	\$16,000,000
I PROFASA	842,000	1,000,000	800,000	255,402	2,897,402
MOH (including AVSC and OR buy-in)**	1,500,000	2,000,000	1,684,000	1,616,010	6,800,010
OYB Transfer for Contraceptives	500,000	500,000	500,000	1,116,092	2,616,092
AID Adm.*	<u>100,000</u>	<u>600,000</u>	<u>266,000</u>	<u>220,496</u>	<u>1,186,496</u>
TOTAL	\$6,942,000	9,100,000	7,250,000	6,208,000	29,500,000
=====	=====	=====	=====	=====	=====

\*This line item includes funds for the DHS-GIS in the FY 1993.

\*\*This assumes deob/reob authority of at least \$500,000 in 1993. If reob funds are not available, this amount will be reduced to \$1,500,000 in 1993 and the 1995 amount will be increased to \$2,116,010.

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ANNEX A  
STATUTORY CHECKLISTS

GUATEMALA

5C(1) - COUNTRY CHECKLIST - 1992

Listed below are statutory criteria applicable to the eligibility of countries to receive the following categories of assistance: (A) both Development Assistance and Economic Support Funds; (B) Development Assistance funds only; or (C) Economic Support Funds only.

A. COUNTRY ELIGIBILITY CRITERIA APPLICABLE TO BOTH DEVELOPMENT ASSISTANCE AND ECONOMIC SUPPORT FUND ASSISTANCE

1. Narcotics

a. Negative certification (FY 1991 Appropriations Act Sec. 559(b)): Has the President certified to the Congress that the government of the recipient country is failing to take adequate measures to prevent narcotic drugs or other controlled substances which are cultivated, produced or processed illicitly, in whole or in part, in such country or transported through such country, from being sold illegally within the jurisdiction of such country to United States Government personnel or their dependents or from entering the United States unlawfully?

.....No, the President has not so certified

b. Positive certification (FAA Sec. 481(h)). (This provision applies to assistance of any kind provided by grant, sale, loan, lease, credit, guaranty, or insurance, except assistance from the Child Survival Fund or relating to international narcotics control, disaster and refugee relief, narcotics education and awareness, or the provision of food or medicine.) If the recipient is a "major illicit drug producing country" (defined as a country producing during a fiscal year at least five metric tons of opium or 500 metric tons of coca or marijuana) or a "major drug-transit country" (defined as a country that is a significant direct source of illicit drugs significantly

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affecting the United States, through which such drugs are transported, or through which significant sums of drug-related profits are laundered with the knowledge or complicity of the government):

(1) does the country have in place a bilateral narcotics agreement with the United States, or a multilateral narcotics agreement?

.....Multilateral. Guatemala is a signatory to the U.N. Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988.

(2) has the President in the March 1 International Narcotics Control Strategy Report (INSCR) determined and certified to the Congress (without Congressional enactment, within 45 days of continuous session, of a resolution disapproving such a certification), or has the President determined and certified to the Congress on any other date (with enactment by Congress of a resolution approving such certification), that (a) during the previous year the country has cooperated fully with the United States or taken adequate steps on its own to satisfy the goals agreed to in a bilateral narcotics agreement with the United States or in a multilateral agreement, to prevent illicit drugs produced or processed in or transported through such country from being transported into the United States, to prevent and punish drug profit laundering in the country, and to prevent and punish bribery and other forms of public corruption which facilitate production or shipment of illicit drugs or discourage prosecution of such acts, or that (b) the vital national interests of the United States require the provision of such assistance?

.....Yes

c. Government Policy (1986 Anti-Drug Abuse Act of 1986 Sec. 2013(b)). (This section applies to the same categories of assistance subject to the restrictions in FAA Sec. 481(h), above.) If recipient country is a "major illicit drug producing country" or "major drug-transit country" (as defined for the purpose of FAA Sec 481(h)), has the President submitted a report to Congress listing such country as one: (a) which, as a matter of government policy, encourages or facilitates the production

.....a) No

or distribution of illicit drugs; (b) in which any senior official of the government engages in, encourages, or facilitates the production or distribution of illegal drugs; (c) in which any member of a U.S. Government agency has suffered or been threatened with violence inflicted by or with the complicity of any government officer; or (d) which fails to provide reasonable cooperation to lawful activities of U.S. drug enforcement agents, unless the President has provided the required certification to Congress pertaining to U.S. national interests and the drug control and criminal prosecution efforts of that country? .....b) No  
.....c) No  
.....d) No

2. Indebtedness to U.S. citizens (FAA Sec. 620(c): If assistance is to a government, is the government indebted to any U.S. citizen for goods or services furnished or ordered where: (a) such citizen has exhausted available legal remedies, (b) the debt is not denied or contested by such government, or (c) the indebtedness arises under an unconditional guaranty of payment given by such government or controlled entity? .....No

3. Seizure of U.S. Property (FAA Sec. 620(c)(1)): If assistance is to a government, has it (including any government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities? .....No

4. Communist countries (FAA Secs. 620(a), 620(f), 620D; FY 1991 Appropriations Act Secs. 512, 545): Is recipient country a Communist country? If so, has the President: (a) determined that assistance to the country is vital to the security of the United States, that the recipient country is not controlled by the international Communist conspiracy, and that such assistance will further promote the independence of the recipient country from international communism, or (b) removed a country from applicable .....No

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restrictions on assistance to communist countries upon a determination and report to Congress that such action is important to the national interest of the United States? Will assistance be provided either directly or indirectly to Angola, Cambodia, Cuba, Iraq, Libya, Vietnam, Iran or Syria? Will assistance be provided to Afghanistan without a certification, or will assistance be provided inside Afghanistan through the Soviet-controlled government of Afghanistan?

5. Mob Action (FAA Sec. 620(j)): .....No  
 Has the country permitted, or failed to take adequate measures to prevent, damage or destruction by mob action of U.S. property?
6. OPIC Investment Guaranty (FAA Sec. 620(l)): .....No  
 Has the country failed to enter into an investment guaranty agreement with OPIC?
7. Seizure of U.S. Fishing Vessels (FAA Sec. 620(o); Fishermen's Protective Act of 1967 (as amended) Sec. 5): .....No  
 (a) Has the country seized, or imposed any penalty or sanction against, any U.S. fishing vessel because of fishing activities in international waters? (b) If so, has any deduction required by the Fishermen's Protective Act been made?
8. Loan Default (FAA Sec. 620(q); FY 1991 Appropriations Act Sec. 518 (Brooke Amendment)): .....a) No  
 (a) Has the government of the recipient country been in default for more than six months on interest or principal of any loan to the country under the FAA? .....b) No  
 (b) Has the country been in default for more than one year on interest or principal on any U.S. loan under a program for which the FY 1990 Appropriations Act appropriates funds?
9. Military Equipment (FAA Sec. 620(s)): .....Yes, taken into  
 If contemplated assistance is development loan or to come from Economic Support Fund, has the Administrator taken into account the percentage of the country's budget and amount of the country's foreign exchange or other resources spent on military equipment? consideration by the Administrator at the time of approval of the 1991 OYB, and to be considered again final funding for the 1992 OYB is appropriate

(Reference may be made to the annual "Taking Into Consideration" memo: "Yes, taken into account by the Administrator at time of approval of Agency OYB." This approval by the Administrator of the Operational Year Budget can be the basis for an affirmative answer during the fiscal year unless significant changes in circumstances occur.)

10. Diplomatic Relations with U.S. (FAA Sec. 620(t)): Has the country severed diplomatic relations with the United States? If so, have relations been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?

.....No

11. U.N. Obligations (FAA Sec. 620(u)): What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the A.I.D. Administrator in determining the current A.I.D. Operational Year Budget? (Reference may be made to the "Taking into Consideration" memo.)

.....Guatemala is in arrears the payment of obligations to the U.N. This was taken into account by the Administrator at the time of the 1991 OYB. Guatemala is also in arrears for purposes of Article 19 of the U.N. Charter. Guatemala's arrearages in general, and for purposes of Article 19 of the U.N. Charter, will both be taken into account by the Administrator as final funding for the FY 1992 OYB is appropriated.

12. International Terrorism

a. Sanctuary and support (FY 1991 Appropriations Act Sec. 556; FAA Sec. 620A): Has the country been determined by the President to: (a) grant sanctuary from prosecution to any individual or group which has committed an act of international terrorism, or (b) otherwise support international terrorism, unless the President has waived this restriction on grounds of national security or for humanitarian reasons?

.....a) No  
.....b) No

b. Airport Security (ISDCA of 1985 Sec. 552(b)): Has the Secretary of State determined that the country is a high terrorist threat country after the Secretary of Transportation has determined, pursuant to section 1115(e)(2) of the Federal Aviation Act of 1958, that an airport in the country does not maintain and administer effective security measures?

.....No

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13. Discrimination (FAA Sec. 666(b)): Does the country object, on the basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. who is present in such country to carry out economic development programs under the FAA? .....No

14. Nuclear Technology (FAA Secs. 669, 670): Has the country, after August 3, 1977, delivered to any other country or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements or safeguards, and without special certification by the President? Has it transferred a nuclear explosive device to a non-nuclear weapon state, or if such a state, either received or detonated a nuclear explosive device? If the country is a non-nuclear weapon state, has it, on or after August 8, 1985, exported (or attempted to export) illegally from the United States any material, equipment, or technology which would contribute significantly to the ability of a country to manufacture a nuclear explosive device? (FAA Sec. 620E permits a special waiver of Sec. 669 for Pakistan.) .....No  
.....No

15. Algiers Meeting (ISDCA of 1981, Sec. 720): Was the country represented at the Meeting of Ministers of Foreign Affairs and Heads of Delegations of the Non-Aligned Countries to the 36th General Assembly of the U.N. on Sept. 25 and 28, 1981, and did it fail to disassociate itself from the communique issued? If so, has the President taken it into account? (Reference may be made to the "Taking into Consideration" memo.) ..... N/A: Guatemala no: NAM country.

16. Military Coup (FY 1991 Appropriations Act Sec. 513): Has the duly elected Head of Government of the country been deposed by military coup or decree? If assistance has been terminated, has the President notified Congress that a democratically elected government has taken office prior to the resumption of assistance? .....No

17. Refugee Cooperation (FY 1991 . . . . .Yes  
Appropriations Act Sec. 539): Does the  
recipient country fully cooperate with the  
international refugee assistance  
organizations, the United States, and  
other governments in facilitating lasting  
solutions to refugee situations, including  
resettlement without respect to race, sex,  
religion, or national origin?

18. Exploitation of Children (FY . . . . .No  
1991 Appropriations Act Sec. 599D,  
amending FAA Sec. 116): Does the  
recipient government fail to take  
appropriate and adequate measures, within  
its means, to protect children from  
exploitation, abuse or forced conscription  
into military or paramilitary services?

B. COUNTRY ELIGIBILITY CRITERIA APPLICABLE  
ONLY TO DEVELOPMENT ASSISTANCE ("DA")

1. Human Rights Violations (FAA Sec. . . . .No  
116): Has the Department of State  
determined that this government has  
engaged in a consistent pattern of gross  
violations of internationally recognized  
human rights? If so, can it be  
demonstrated that contemplated assistance  
will directly benefit the needy?

2. Abortions (FY 1991 Appropriations . . . . .No  
Act Sec. 535): Has the President  
certified that use of DA funds by this  
country would violate any of the  
prohibitions against use of funds to pay  
for the performance of abortions as a  
method of family planning, to motivate or  
coerce any person to practice abortions,  
to pay for the performance of involuntary  
sterilization as a method of family  
planning, to coerce or provide any  
financial incentive to any person to  
undergo sterilizations, to pay for any  
biomedical research which relates, in  
whole or in part, to methods of, or the  
performance of, abortions or involuntary  
sterilization as a means of family  
planning?

C. COUNTRY ELIGIBILITY CRITERIA APPLICABLE ONLY TO  
ECONOMIC SUPPORT FUNDS ("ESF")

Human Rights Violations (FAA Sec. 502B): Has it been determined that the country has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, has the President found that the country made such significant improvement in its human rights record that furnishing such assistance is in the U.S. national interest?

5C(2) - ASSISTANCE CHECKLIST

Listed below are statutory criteria applicable to the assistance resources themselves, rather than to the eligibility of a country to receive assistance. This section is divided into three parts. Part A includes criteria applicable to both Development Assistance and Economic Support Funds resources. Part B includes criteria applicable only to Development Assistance resources. Part C. includes criteria applicable only to Economic Support Funds.

CROSS REFERENCE: IS COUNTRY CHECKLIST UP TO DATE?

A. CRITERIA APPLICABLE TO BOTH DEVELOPMENT ASSISTANCE AND ECONOMIC SUPPORT FUNDS

1. Host Country Development Efforts (FAA Sec. 601(a)): Information and conclusions on whether assistance will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; and (f) strengthen free labor unions.

2. U.S. Private Trade and Investment (FAA Sec. 601(b)): Information and conclusions on how assistance will encourage

- a. No, except to encourage use of U.S. produced contraceptives.
- b. Yes, by bolstering the family planning activities of APROFAM, a private voluntary organization and by supporting a private commercial retail sales (CRS) program.
- c. Yes, by assisting some of these organizations with Family Planning Services in the Community Based Distribution (CBD) project activity.
- d. Yes, by supporting a CRS program which will provide price competition in the local contraceptives market.
- e. N/A
- f. Some labor and trade groups will receive family planning services under this project.

Project will make use of U.S.-produced contraceptives, and will in part draw on U.S.-based technical advisors in implementing

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U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

the project.

### 3. Congressional Notification

a. General requirement (FY 1991 Appropriations Act Secs. 523 and 591; FAA Sec. 634A): If money is to be obligated for an activity not previously justified to Congress, or for an amount in excess of amount previously justified to Congress, has Congress been properly notified (unless the notification requirement has been waived because of substantial risk to human health or welfare)?

A Congressional Notification for the proposed project was sent through Guatemala 005448/01 date May 21, 1992. The CN expired on July 16, 1992.

b. Notice of new account obligation (FY 1991 Appropriation Act Sec. 514): If funds are being obligated under an appropriation account to which they were not appropriated, has the President consulted with and provided a written justification to the House and Senate Appropriations Committees and has such obligation been subject to regular notification procedures?

N/A

c. Cash transfers and nonproject sector assistance (FY 1991 Appropriations Act Sec. 575(b) (3)): If funds are to be made available in the form of cash transfer or nonproject sector assistance,

N/A

has the Congressional notice included a detailed description of how the funds will be used, with a discussion of U.S. interests to be served and a description of any economic policy reforms to be promoted?

4. Engineering and Financial Plans (FAA Sec. 611(a)): Prior to an obligation in excess of \$500,000, will there be: (a) engineering, financial or other plans necessary to carry out the assistance; and (b) a reasonably firm estimate of the cost to the U.S. of the assistance? Yes

5. Legislative Action (FAA Sect. 611(a) (2)): If legislative action is required within recipient country with respect to an obligation in excess of \$500,000, what is the basis for a reasonable expectation that such action will be completed in time to permit orderly accomplishment of the purpose of the assistance? N/A

6. Water Resources (FAA Sec. 611(b); FY 1991 Appropriations Act. Sec. 501): If project is for water or water-related land resource construction, have benefits and costs been computed to the extent practicable in accordance with the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See A.I.D. Handbook 3 for guidelines.) N/A

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7. Cash Transfer and Sector Assistance (FY 1991 Appropriations Act Sec. 575(b)): Will cash transfer or nonproject sector assistance be maintained in a separate account and not commingled with other funds (unless such requirements are waived by Congressional notice for nonproject sector assistance)? N/A

8. Capital Assistance (FAA Sec. 611(e)): If project is capital assistance (e.g., construction), and total U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistance Administrator taken into consideration the country's capability to maintain and utilize the project effectively? N/A

9. Multiple Country Objectives (FAA Sec. 601(a)): Information and conclusions on whether projects will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions. See number 1

10. U.S. Private Trade (FAA Sec. 601(b)): Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

See number 2

11. Local Currencies

a. Recipient Contributions (FAA Sec. 612(b), 636(h)): Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.

A.I.D. has negotiated with the GOG to provide a substantial contribution to the project in local currency through the Ministry of Health.

b. U.S.-Owned Currency (FAA Sec. 612(d)): Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?

N/A

c. Separate Account (FY 1991 Appropriations Act Sec. 575). If assistance is furnished to a foreign government under arrangements which result in the generation of local currencies:

N/A

(1) Has A.I.D. (a) required that local currencies be deposited in a separate account established by the recipient government, (b) entered into an agreement with that government providing the amount

N/A

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of local currencies to be generated and the terms and conditions under which the currencies so deposited may be utilized, and (c) established by agreement the responsibilities of A.I.D. and that government to monitor and account for deposits into and disbursements from the separate account?

(2) Will such local currencies, or an equivalent amount of local currencies, be used only to carry out the purposes of the DA or ESF chapters of the FAA (depending on which chapter is the source of the assistance) or for the administrative requirements of the United States Government?

N/A

(3) Has A.I.D. taken all appropriate steps to ensure that the equivalent of local currencies disbursed from the separate account are used for the agreed purposes?

N/A

(4) If assistance is terminated to a country, will any unencumbered balances of funds remaining in a separate account be disposed of for purposes agreed to by the recipient government and the United States Government?

N/A

## 12. Trade Restrictions

a. **Surplus Commodities** (FY 1991 Appropriations Act. Sec. 521(a)): If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative,

N/A

and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity?

b. Textiles (Lautenberg Amendment) (FY 1991 Appropriations Act Sec. 521(c)): Will the assistance (except for programs in Caribbean Basin Initiative countries under U.S. Tariff Schedule "Section 807," which allows reduced tariffs on articles assembled abroad from U.S.-made components) be used directly to procure feasibility studies, prefeasibility studies, or project profiles of potential investment in, or to assist the establishment of facilities specifically designed for, the manufacture for export to the United States or to third country markets in direct competition with U.S. exports, of textiles, apparel, footwear, handbags, flat goods (such as wallets or coin purses worn on the person), work gloves or leather wearing apparel?

N/A

13. Tropical Forests (FY 1991 Appropriations Act Sec. 533(c) (3)): Will funds be used for any program, project or activity which would (a) result in any significant loss of tropical forests, or (b) involve industrial timber extraction in primary tropical forest areas?

N/A

14. Sahel Accounting (FAA Sec. 121(d)): If a Sahel project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of project funds (either dollars or local currency generated therefrom)? N/A

15. PVO Assistance

a. Auditing and registration (FY 1991 Appropriations Act Sec. 537): If assistance is being made available to a PVO, has that organization provided upon timely request any document, file, or record necessary to the auditing requirements of A.I.D., and is the PVO registered with A.I.D.? Yes

b. Funding Sources (FY 1991 Appropriations Act, Title II, under heading "Private and Voluntary Organizations"): If assistance is to be made to a United States PVO (other than a cooperative development organization), does it obtain at least 20 percent of its total annual funding for international activities from sources other than the United States Government? N/A

16. Project Agreement Documentation (State Authorization Sec. 139 (as interpreted by conference report)): Has confirmation of the date of signing of the project agreement, including the amount involved, been cabled to State L/T and A.I.D. LEG within 60 days of the agreement's entry N/A

into force with respect to the United States, and has the full text of the agreement been pouched to those same offices? (See Handbook 3, Appendix 6G for agreements covered by this provision).

17. Metric System (Omnibus Trade and Competitiveness Act of 1988 Sec. 5164, as interpreted by conference report, amending Metric Conversion Act of 1975 Sec. 2, and as implemented through A.I.D. policy): Does the assistance activity use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric, and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will A.I.D. specifications use metric units of measure from the earliest programmatic stages, and from the earliest documentation of the assistance processes (for example, project papers) involving quantifiable measurements (length, area, volume, capacity, mass and weight), through the implementation stage?

N/A

18. Women in Development (FY 1991 Appropriations Act, Title II, under heading "Women in Development"): Will assistance be designed so that the percentage of women participants will be demonstrably increased? Yes

19. Regional and Multilateral Assistance (FAA Sec. 209): Is assistance more efficiently and effectively provided through regional or multilateral organizations? If so, why is assistance not so provided? Information and conclusions on whether assistance will encourage developing countries to cooperate in regional development programs. No

20. Abortions (FY 1991 Appropriations Act, Title II, under heading "Population, DA," and Sec. 525):

a. Will assistance be made available to any organization or program which, as determined by the President, supports or participates in the management of a program of coercive abortion or involuntary sterilization? No

b. Will any funds be used to lobby for abortion? No

21. Cooperatives (FAA Sec. 111): Will assistance help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward a better life? Yes

**22. U.S.-Owned Foreign Currencies**

a. Use of currencies (FAA Secs. 612(b), 636(h); FY 1991 Appropriations Act Secs. 507, 509): Describe steps taken to assure that, to the maximum extent possible, foreign currencies owned by the U.S. are utilized in lieu of dollars to meet the cost of contractual and other services. N/A

b. Release of currencies (FAA Sec., 612(d)): Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release? N/A

**23. Procurement**

a. Small business (FAA Sec. 602(a)): Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed? N/A

b. U.S. Procurement (FAA Sec. 604(a)): Will all procurement be from the U.S. except as otherwise determined by the President or determined under delegation from him? Yes

c. Marine insurance (FAA Sec. 604(d)): If the cooperating country discriminates against marine insurance companies authorized to do business in the U.S., will commodities be insured in the United States against marine risk with such a company? N/A

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d. Non-U.S. agricultural Procurement (FAA Sec. 604(e)): If non-U.S. procurement of agricultural commodity or product thereof is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? (Exception where commodity financed could not reasonably be procured in U.S.)

N/A

e. Construction or engineering services (FAA Sec. 604(g)): Will construction or engineering services be procured from firms of advanced developing countries which are otherwise eligible under Code 941 and which have attained a competitive capability in international markets in one of these areas? (Exception for those countries which receive direct economic assistance under the FAA and permit United States firms to compete for construction or engineering services financed from assistance programs of these countries.)

N/A

f. Cargo preference shipping (FAA Sec. 603)): Is the shipping excluded from compliance with the requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 percent of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag

No

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commercial vessels to the extent such vessels are available at fair and reasonable rates?

g. **Technical Assistance** (FAA Sec. 621(a)): If technical assistance is financed, will such assistance be furnished by private enterprise on a contract basis to the fullest extent practicable? Will the facilities and resources of other Federal agencies be utilized, when they are particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

Some TA will be provided through buy-ins; other TA will be competed and some will be provided by the CDC, a federal agency.

h. **U.S. air carriers** (International Air Transportation Fair Competitive Practices Act, 1974): If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available?

Yes

i. **Termination for convenience of U.S. Government** (FY 1991 Appropriations Act. Sec. 504): If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States?

N/A

j. **Consulting services** (FY 1991 Appropriations Act Sec. 524): If assistance is for consulting service through

Yes

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procurement contract pursuant to 5 U.S.C. 3109, are contract expenditures a matter of public record and available for public inspection (unless otherwise provided by law or Executive order)?

k. Metric conversion (Omnibus Trade and Competitiveness Act of 1988, as interpreted by conference report, amending Metric Conversion Act of 1975 Sec. 2, and as implemented through A.I.D. policy): Does the assistance program use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric, and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will A.I.D. specifications use metric units of measure from the earliest programmatic stages, and from the earliest documentation of the assistance processes (for example, project papers) involving quantifiable measurements (length, area, volume, capacity, mass and weight), through the implementation stage?

N/A

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1. Competitive Selection procedures (FAA Sec. 601(e)): Will the assistance utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise? Yes

24. Construction

a. Capital project (FAA Sec. 601(d)): If capital (e.g., construction) project, will U.S. engineering and professional services be used? N/A

b. Construction contract (FAA Sec. 611(c)): If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable? Construction contracts of less than \$60,000 each for building of ten clinics will be carried out, following all A.I.D. regulations

c. Large projects, Congressional approval (FAA Sec. 620(k)): If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million (except for productive enterprises in Egypt that were described in the Congressional Presentation), or does assistance have the express approval of Congress? N/A

25. U.S. Audit Rights (FAA Sec. 301(d)): If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights? N/A

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26. Communist Assistance (FAA Sec. 620(h)). Do arrangements exist to ensure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries? N/A

27. Narcotics

a. Cash reimbursements (FAA Sec. 483): Will arrangements preclude use of financing to make reimbursements, in the form of cash payments, to persons whose illicit drug crops are eradicated? Yes

b. Assistance to narcotics traffickers (FAA Sec. 487): Will arrangements take "all reasonable steps" to preclude use of financing to or through individuals or entities which we know or have reason to believe have either: (1) been convicted of a violation of any law or regulation of the United States or a foreign country relating to narcotics (or other controlled substances); or (2) been an illicit trafficker in, or otherwise involved in the illicit trafficking of, any such controlled substance? Yes

28. Expropriation and Land Reform (FAA Sec. 620(g)): Will assistance preclude use of financing to compensate owners for expropriated or nationalized property, except to compensate foreign nationals? Yes

in accordance with a land reform program certified by the President?

29. Police and Prisons (FAA Sec. 660): Will assistance preclude use of financing to provide training, advice, or any financial support for police, prisons, or other law enforcement forces, except for narcotics programs? Yes

30. CIA Activities (FAA Sec. 662): Will assistance preclude use of financing for CIA activities? Yes

31. Motor Vehicles (FAA Sec. 636(i)): Will assistance preclude use of financing for purchase, sale, long-term lease, exchange or guaranty of the sale of motor vehicles manufactured outside U.S., unless a waiver is obtained? Yes

32. Military Personnel (FY 1991 Appropriations Act. Sec. 503): Will assistance preclude use of financing to pay pensions, annuities, retirement pay, or adjusted service compensation for prior or current military personnel? Yes

33. Payment of U.N. Assessments (FY 1991 Appropriations Act Sec. 505): Will assistance preclude use of financing to pay U.N. assessments, arrearages or dues? Yes

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34. Multilateral Organization Lending (FY 1991 Appropriations Act Sec. 506): Will assistance preclude use of financing to carry out provisions of FAA section 209(d) (transfer of FAA funds to multilateral organizations for lending)? Yes
35. Export of Nuclear Resources (FY 1991 Appropriations Act Sec. 510): Will assistance preclude use of financing to finance the export of nuclear equipment, fuel, or technology? Yes
36. Repression of Population (FY 1991 Appropriations Act Sec. 511): Will assistance preclude use of financing for the purpose of aiding the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights? Yes
37. Publicity or Propaganda (FY 1991 Appropriations Act Sec. 516): Will assistance be used for publicity or propaganda purposes designed to support or defeat legislation pending before Congress, to influence in any way the outcome of a political election in the United States, or for any publicity or propaganda purposes not authorized by Congress? No
38. Marine Insurance (FY 1991 Appropriations Act Sec. 563): Will any A.I.D. contract and solicitation, and N/A

subcontract entered into under such contract, include a clause requiring that U.S. marine insurance companies have a fair opportunity to bid for marine insurance when such insurance is necessary or appropriate?

39. Exchange for Prohibited Act (FY 1991 Appropriations Act Sec. 569): Will any assistance be provided to any foreign government (including any instrumentality or agency thereof), foreign person, or United States person in exchange for that foreign government or person undertaking any action which is, if carried out by the United States Government, a United States official or employee, expressly prohibited by a provision of United States law?

N/A

B. CRITERIA APPLICABLE TO  
DEVELOPMENT ASSISTANCE ONLY

1. **Agricultural Exports**  
(Bumpers Amendment) (FY 1991  
Appropriations Act Sec. 521(b),  
as interpreted by conference  
report for original enactment):  
If assistance is for agricul-  
tural development activities  
(specifically, any testing or  
breeding feasibility study,  
variety improvement or intro-  
duction, consultancy, publica-  
tion, conference, or training),  
are such activities: (1) spe-  
cifically and principally de-  
signed to increase agricultur-  
al exports by the host country  
to a country other than the  
United States, where the ex-  
port would lead to direct com-  
petition in that third country  
with exports of a similar com-  
modity grown or produced in  
the United States, and can the  
activities reasonably be ex-  
pected to cause substantial  
injury to U.S. exporters of a  
similar agricultural commodi-  
ty; or (2) in support of re-  
search that is intended prima-  
rily to benefit U.S. producers?
2. **Tied Aid Credits** (FY  
1991 Appropriations Act, Title  
II, under heading "Economic  
Support Fund"): Will DA funds  
be used for tied aid credits?
3. **Appropriate Technology**  
(FAA Sec. 107): Is special  
emphasis placed on use of ap-  
propriate technology (defined  
as relatively smaller, cost  
saving, labor-using technolo-  
gies that are generally most  
appropriate for the small  
farms, small businesses, and  
small incomes of the poor)?

N/A

No

N/A

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4. Indigenous Needs and Resources (FAA Sec. 281(b)): Describe extent to which the activity recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.

5. Economic Development (FAA Sec. 101(a)): Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth?

6. Special Development Emphases (FAA Secs. 102(b), 113, 281(a)): Describe extent to which activity will: (a) effectively involve the poor in development by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, dispersing investment from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using appropriate U.S. institutions; (b) encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the

The project recognizes the economic necessity and the desire of the people to limit family size, will encourage institutional development of the Ministry of Health Unit charged with supervising and coordinating family planning activities, and will provide information and education to enable people to make rational decisions about family planning.

Yes

- a. The project will insure wide participation of the poor in the benefits of development by extending access to affordable material and child health and family planning services at a local level. The project will have a special emphasis on the extension of services to the poor rural population.
- b. N/A
- c. The project will rely on the local resources and self-help of a variety of local public and private agencies in implementing the project.
- d. Women and women's organizations will be direct project beneficiaries. Most salaried and volunteer providers of family planning services will be women.

participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries.

e. N/A

7. Recipient Country Contribution (FAA Secs. 110, 124(d)): Will the recipient country provide at least 25 percent of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)?

Yes

8. Benefit to Poor Majority (FAA Sec. 128(b)): If the activity attempts to increase the institutional capabilities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the poor majority?

Yes

9. Abortions (FAA Sec. 104(f); FY 1991 Appropriations Act, Title II, under heading "Population, DA," and Sec. 535):

a. Are any of the funds to be used for the performance of abortions as a method of family planning or to motivate or coerce any person to practice abortions?

No

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b. Are any of the funds to be used to pay for the performance of involuntary sterilization as a method of family planning or to coerce or provide any financial incentive to any person to undergo sterilizations? No

c. Are any of the funds to be made available to any organization or program which, as determined by the President, supports or participates in the management of a program of coercive abortion or involuntary sterilization? No

d. Will funds be made available only to voluntary family planning projects which offer, either directly or through referral to, or information about access to, a broad range of family planning methods and services? Yes

e. In awarding grants for natural family planning, will any applicant be discriminated against because of such applicant's religious or conscientious commitment to offer only natural family planning? No, but all grant recipients must follow A.I.D. family planning policy in the provision or referral to methods chosen voluntarily by the client.

f. Are any of the funds to be used to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning? No

g. Are any of the funds to be made available to any organization if the President certifies that the use of No

these funds by such organization would violate any of the above provisions related to abortions and involuntary sterilization?

10. **Contract Awards** (FAA Sec. 601(e)): Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

Yes

11. **Disadvantaged Enterprises** (FY 1991 Appropriations Act Sec. 567): What portion of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, colleges and universities having a student body in which more than 40 percent of the students are Hispanic Americans, and private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans or who are economically or socially disadvantaged (including women)?

To be determined. Gray Amendment Organizations will be given strong consideration in the procurement of services.

12. **Biological Diversity** (FAA Sec. 119(g): Will the assistance: (a) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity; (b) be provided under a long-term agreement in which the recipient country agrees to protect ecosystems or other wildlife habitats; (c) support efforts to identify and survey ecosystems in recipient countries worthy of protection; or (d) by any direct or indirect

N/A

means significantly degrade national parts or similar protected areas or introduce exotic plants or animals into such areas?

13. Tropical Forests (FAA Sec. 118; FY 1991 Appropriations Act Sec. 533(c)-(e) & (g)):

a. A.I.D. Regulation 16: Does the assistance comply with the environmental procedures set forth in A.I.D. regulation 16? N/A

b. Conservation: Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent feasible: (1) stress the importance of conserving and sustainably managing forest resources; (2) support activities which offer employment and income alternatives to those who otherwise would cause destruction and loss of forests, and help countries identify and implement alternatives to colonizing forested areas; (3) support training programs, educational efforts, and the establishment or strengthening of institutions to improve forest management; (4) help end destructive slash-and-burn agriculture by supporting stable and productive farming practices; (5) help conserve forests which have not yet been degraded by helping to increase production on lands already cleared or degraded; (6) conserve forested watersheds and rehabilitate those N/A

which have been deforested; (7) support training, research, and other actions which lead to sustainable and more environmentally sound practices for timber harvesting, removal, and processing; (8) support research to expand knowledge of tropical forests and identify alternatives which will prevent forest destruction, loss, or degradation; (9) conserve biological diversity in forest areas by supporting efforts to identify, establish, and maintain a representative network of protected tropical forest ecosystems on a worldwide basis, by making the establishment of protected areas a condition of support for activities involving forest clearance or degradation, and by helping to identify tropical forest ecosystems and species in need of protection and establish and maintain appropriate protected areas; (10) seek to increase the awareness of U.S. Government agencies and other donors of the immediate and long-term value of tropical forests; (11) utilize the resources and abilities of all relevant U.S. government agencies; (12) be based upon careful analysis of the alternatives available to achieve the best sustainable use of the land; and (13) take full account of the environmental impacts of the proposed activities on biological diversity?

**c. Forest Degradation:**  
Will assistance be used for:  
(1) the procurement or use of logging equipment, unless an

N/A

environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner and that the proposed activity will produce positive economic benefits and sustainable forest management systems; (2) actions which will significantly degrade national parks or similar protected areas which contain tropical forests, or introduce exotic plants or animals into such areas; (3) activities which would result in the conversion of forest lands to the rearing of livestock; (4) the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undergraded forest lands; (5) the colonization of forest lands; or (6) the construction of dams or other water control structures which flood relatively undergraded forest lands, unless with respect to each such activity an environmental assessment indicates that the activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development?

**d. Sustainable Forestry:**

N/A

If assistance relates to tropical forests, will project assist countries in developing a systematic analysis of the appropriate use of their total tropical forest resources, with the goal of developing a national program for sustainable forestry?

e. Environmental Impact Statements: Will funds be made available in accordance with provisions of FAA Section 117(c) and applicable A.I.D. regulations requiring an environmental impact statement for activities significantly affecting the environment? N/A

14. Energy (FY 1991 Appropriations Act Sec. 533(c)): If assistance relates to energy, will such assistance focus on: (a) end-use energy efficiency, least-cost energy planning, and renewable energy resources, and (b) the key countries where assistance would have the greatest impact on reducing emissions from greenhouse gases? N/A

15. Sub-Saharan Africa Assistance (FY 1991 Appropriations Act Sec 562, adding a new FAA chapter 10 (FAA Sec. 496)): If assistance will come from the Sub-Saharan Africa DA Account, is it: (a) to be used to help the poor majority in Sub-Saharan Africa through a process of long-term development and economic growth that is equitable, participatory, environmentally sustainable, and self-reliant; (b) to be used to promote sustained economic growth, encourage private sector development, promote individual initiatives, and help to reduce the role of central governments in areas more appropriate for the private sector; (c) being provided in accordance with the policies contained in FAA section 102; (d) being provided in close consultation with African, United States and other N/A

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PVOs that have demonstrated effectiveness in the promotion of local grassroots activities on behalf of long-term development in Sub-Saharan Africa; (e) being used to promote reform of sectoral economic policies, to support the critical sector priorities of agricultural production and natural resources, health, voluntary family planning services, education, and income generating opportunities, to bring about appropriate sectoral restructuring of the Sub-Saharan African economies, to support reform in public administration and finances and to establish a favorable environment for individual enterprises and self-sustaining development, and to take into account, in assisted policy reforms, the need to protect vulnerable groups; (f) being used to increase agricultural production in ways that protect and restore the natural resource base, especially food production, to maintain and improve basic transportation and communication networks, to maintain and restore the renewable natural resource base in ways that increase agricultural production, to improve health conditions with special emphasis on meeting the health needs of mothers and children, including the establishment of self-sustaining primary health care systems that give priority to preventive care, to provide increased access to voluntary family planning services, to improve basic literacy and mathematics especially to those outside the formal educational system and to improve

primary education, and to develop income-generating opportunities for the unemployed and underemployed in urban and rural areas?

16. **Debt-for-Nature Exchange** (FAA Sec. 463): If project will finance a debt-for-nature exchange, describe how the exchange will support protection of: (a) the world's oceans and atmosphere, (b) animal and plant species, and (c) parks and reserves; or describe how the exchange will promote: (d) natural resource management, (e) local conservation programs, (f) conservation training programs, (g) public commitment to conservation, (h) land and ecosystem management, and (i) regenerative approaches in farming, forestry, fishing, and watershed management.

N/A

17. **Deobligation/Reobligation** (FY 1991 Appropriations Act Sec. 515): If deob-reob authority is sought to be exercised in the provision of DA assistance, are the funds being obligated for the same general purpose, and for countries within the same region as originally obligated, and have the House and Senate Appropriations Committees been properly notified?

Yes

18. **Loans**

a. **Repayment capacity** (FAA Sec. 122(b)): Information and conclusion on capacity of the country to repay the Loan at a reasonable rate of interest.

N/A

b. **Long-range plans** (FAA Sec. 122(b)): Does the activity give reasonable promise of assisting long-range

N/A

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plans and programs designed to develop economic resources and increase productive capacities?

c. Interest rate (FAA Sec. 122(b)): If development loan is repayable in dollars, is interest rate at least 2 percent per annum during a grace period which is not to exceed ten years, and at least 3 percent per annum thereafter?

N/A

d. Exports to United States (FAA Sec. 620(d)): If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20 percent of the enterprise's annual production during the life of the loan, or has the requirement to enter into such an agreement been waived by the President because of a national security interest?

N/A

19. Development Objectives (FAA Secs. 102(a), 111, 113, 281(a)): Extent to which activity will: (1) effectively involve the poor in development, by expanding access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (2) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves

See number 6

toward better life, and otherwise encourage democratic private and local governmental institutions; (3) support the self-help efforts of developing countries; (4) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (5) utilize and encourage regional cooperation by developing countries?

**20. Agriculture, Rural Development and Nutrition, and Agricultural Research (FAA Secs. 103 and 103A)**

a. Rural poor and small farmers: If assistance is being made available for agriculture, rural development or nutrition, describe extent to which activity is specifically designed to increase productivity and income of rural poor; or if assistance is being made available for agricultural research, has account been taken of the needs of small farmers, and extensive use of field testing to adapt basic research to local conditions shall be made.

N/A

b. Nutrition: Describe extent to which assistance is used in coordination with efforts carried out under FAA Section 104 (Population and Health) to help improve nutrition of the people of developing countries through encouragement of increased production of crops with greater nutritional value; improvement of planning, research, and education with respect to nutrition, particularly with

N/A

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reference to improvement and expanded use of indigenously produced foodstuffs, and the undertaking of pilot or demonstration programs explicitly addressing the problem of malnutrition of poor and vulnerable people.

c. Food Security: Describe extent to which activity increases national food security by improving food policies and management and by strengthening national food reserves, with particular concern for the needs of the poor, through measures encouraging domestic production, building national food reserves, expanding available storage facilities, reducing post harvest food losses, and improving food distribution.

N/A

21. Population and Health (FAA Secs. 104(b) and (c)): If assistance is being made available for population or health activities, describe extent to which activity emphasizes low-cost, integrated delivery systems for health, nutrition and family planning for the poorest people, with particular attention to the needs of mothers and young children, using paramedical and auxiliary medical personnel, clinics and health posts, commercial distribution systems, and other modes of community outreach.

The project will insure wide participation of the poor in the benefits of development by extending access to affordable maternal and child health and family planning services at the local level. Activities involving national health posts and hospitals as well as private clinics working in family planning and health services will be carried out during the project.

22. Education and Human Resources Development (FAA Sec. 105): If assistance is being made available for education, public administration, or human resource development, describe (a) extent to which

N/A

activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, and strengthens management capability of institutions enabling the poor to participate in development; and (b) extent to which assistance provides advanced education and training of people of developing countries in such disciplines as are required for planning and implementation of public and private development activities.

23. Energy, Private Voluntary Organizations, and Selected Development Activities (FAA Sec. 106): If assistance is being made available for energy, private voluntary organizations, and selected development problems, describe extent to which activity is:

a. concerned with data collection and analysis, the training of skilled personnel, research on and development of suitable energy sources, and pilot projects to test new methods of energy production; and facilitative of research on and development and use of small-scale, decentralized, renewable energy source for rural areas, emphasizing development of energy resources which are environmentally acceptable and require minimum capital investment;

N/A

b. concerned with technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;

N/A

c. research into, and evaluation of, economic development processes and techniques; N/A

d. reconstruction after natural or manmade disaster and programs of disaster preparedness; N/A

e. for special development problems, and to enable proper utilization of infrastructure and related projects funded with earlier U.S. assistance; N/A

f. for urban development, especially small, labor-intensive enterprises, marketing systems for small producers, and financial or other institutions to help urban poor participate in economic and social development. N/A

24. Sahel Development (FAA Secs. 120-121). If assistance is being made available for the Sahelian region, describe: (a) extent to which there is international coordination in planning and implementation; participation and support by African countries and organizations in determining development priorities; and a long-term, multidonor development plan which calls for equitable burden-sharing with other donors; (b) whether a determination has been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of projects funds (dollars or local currency generated therefrom). N/A

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C. CRITERIA APPLICABLE TO  
ECONOMIC SUPPORT FUNDS ONLY

1. Economic and Political Stability (FAA Sec. 531(a)): Will this assistance promote economic and political stability? To the maximum extent feasible, is this assistance consistent with the policy directions, purposes, and programs of Part I of the FAA? N/A
2. Military Purposes (FAA Sec. 531(e)): Will this assistance be used for military or paramilitary purposes? N/A
3. Commodity Grants/Separate Accounts (FAA Sec. 609): If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made? N/A
4. Generation and Use of Local Currencies (FAA Sec. 531(d)): Will ESF funds made available for commodity import programs or other program assistance be used to generate local currencies? If so, will at least 50 percent of such local currencies be available to support activities consistent with the objectives of FAA sections 103 through 106? N/A
5. Cash Transfer Requirements (FY 1991 Appropriations Act, Title II, under heading "Economic Support Fund," and Sec. 575(b)): If assistance is in the form of a cash transfer: N/A

a. **Separate account:** N/A  
Are all such cash payments to be maintained by the country in a separate account and not to be commingled with any other funds?

b. **Local currencies:** N/A  
Will all local currencies that may be generated with funds provided as a cash transfer to such a country also be deposited in a special account, and has A.I.D. entered into an agreement with that government setting forth the amount of the local currencies to be generated, the terms and conditions under which they are to be used, and the responsibilities of A.I.D. and that government to monitor and account for deposits and disbursements?

c. **U.S. Government use of local currencies:** N/A  
Will all such local currencies also be used in accordance with FAA Section 609, which requires such local currencies to be made available to the U.S. government as the U.S. determines necessary for the requirements of the U.S. Government, and which requires the remainder to be used for programs agreed to by the U.S. Government to carry out the purposes for which new funds authorized by the FAA would themselves be available?

d. **Congressional notice:** N/A  
Has Congress received prior notification providing in detail how the funds will be used, including the U.S. interests that will be served by the assistance, and, as appropriate, the economic policy reforms that will be promoted by the cash transfer assistance?

**ANNEX B**

**INITIAL ENVIRONMENTAL EXAM DETERMINATION**

Agency for International Development  
Washington, D.C. 20523

LAC-IEE-91-100

**ENVIRONMENTAL THRESHOLD DECISION**

Project Location : Guatemala

Project Title : Population and Family Health Services

Project Number : 520-0357

Funding : \$37.5 million

Life of Project : 5 Years (FY 92-96)

IEE Prepared by : Alfred Nakatsuma  
USAID/Guatemala

Recommended Threshold Decision : Categorical Exclusion

Bureau Threshold Decision : Concur with Recommendation

Comments : none

Copy to : Terrence J. Brown, Director  
USAID/Guatemala

Copy to : Roberto Figueroa, USAID/Guatemala

Copy to : Alfred Nakatsuma, USAID/Guatemala

Copy to : Wayne Williams, REA/CEN

Copy to : Mark Silverman, LAC/DR/CEN

Copy to : Carl Dutto, LAC/CEN

Copy to : IEE File

John O. Wilson Date SEP 30 1991

John O. Wilson  
Deputy Chief Environmental Officer  
Bureau for Latin America  
and the Caribbean

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INITIAL ENVIRONMENTAL EXAMINATION

PROJECT LOCATION : Guatemala  
PROJECT TITLE : Population and Family Health Services  
FUNDING : \$37.5 million

DESCRIPTION OF THE PROJECT AMENDMENT

The goal of the Population and Family Health Services Project is to reduce the rate of population growth and to improve the quality of life of mothers and children in Guatemala. The purposes are to increase access to reproductive health services by Guatemalan families and to reduce the incidence of high risk births.

The Population and Family Health Services Project is the first phase of a major new ten year program. The project is designed to run five years, beginning in FY 1992 and ending in FY 1996, with an A.I.D. contribution of \$37.5 million. It will have the following three major components.

Component One: An expansion of existing population and family health services to quickly raise national contraceptive prevalence rates. Five or more public and private sector organizations will be supported with contraceptives, training, technical assistance, commodities, and operational costs. Component One will raise the national contraceptive prevalence rate from 23% (1987 prevalence rate) to 34%, mainly by helping meet the backlog of unmet demand for services. Activities will concentrate on meeting the needs of easily-accessible target groups -- largely urban and Spanish-speaking people -- although ongoing services in remote and indigenous areas will also be expanded.

Component Two: A program of operational research designed to develop a "Mayan Strategy" that is culturally appropriate for the Guatemalan indigenous population and technically and economically suited for the special circumstances of the Guatemalan Highlands. The "Mayan Strategy" to be developed under this component will be implemented on a massive scale during the second phase of the program beginning in 1995.

4

Component Three: Policy dialogue. Without a clear, GOG commitment to increasing national contraceptive prevalence rates, there is little hope that present population trends can be reversed. A.I.D. will establish a relationship with a Guatemalan University to provide statistical studies, scholarships, observational travel, and promotional activities to raise awareness of demographic issues among Guatemalan national leadership and promote the development of a progressive and forward-looking national population policy.

ENVIRONMENTAL IMPACT

The proposed Project will not involve physical construction activities such as for health facilities, water supply systems or waste water treatment. The activities which will be carried out qualify for a categorical exclusion according to Section 216.2 (C) (2) (VIII) of 22 CFR as "programs involving nutrition, health care or population and family planning services except to the extent assigned to include activities directly affecting the environment (such as construction of facilities, water supply systems, waste water treatment, etc.)."

RECOMMENDATIONS

Based on the categorical exclusion discussed above, the Mission recommends that Population and Family Health Services Project be given a Categorical exclusion requiring no further environmental review.

Concurrence:

*Terrance J. Brown*  
Terrance J. Brown  
Mission Director

Feb. 8, 1991  
Date

Drafter: ANakatsuna, ORD *Ana*

Clearances:

GStraub, ORD	<u><i>GS</i></u>	Date	<u><i>2/1/91</i></u>
DBoyd, PDSO	<u><i>DB</i></u>	Date	<u><i>2/1/91</i></u>
EMartin, H&EO	<u><i>EM</i></u>	Date	<u><i>2-5-91</i></u>
SWingert, DDIR	<u><i>SW</i></u>	Date	<u><i>2/1/91</i></u>

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APPR: JW (32)  
DRAFT: JW (32)  
CLEAR: ( )  
CLEAR: ( )

UNCLASSIFIED

AID/LAC/DR/E: JWILSON: JW: GUATPFHS.CAB  
10/07/91 647-8070  
AID/LAC/DR/E: JWILSON

LAC/DR/CEN: MSILVERMAN{INFO}      LAC/CEN: JVANDENBOS{INFO}  
LAC/HPN: TPARK{INFO}

ROUTINE      GUATEMALA

AIDAC FOR A. NAKATSUMA, FOR ROCAP FOR W. WILLIAMS  
E.O. 12356: N/A

AGS:

SUBJECT: ENVIRONMENTAL THRESHOLD DECISION FOR  
USAID/GUATEMALA POPULATION AND FAMILY HEALTH SERVICES  
PROJECT (520-0357)

1. LAC DEPUTY CHIEF ENVIRONMENTAL OFFICER, J. WILSON, HAS REVIEWED AND HEREBY APPROVES MISSION REQUEST FOR A CATEGORICAL EXCLUSION FOR SUBJECT PROJECT.
2. IEE NUMBER IS LAC-IEE-91-100. COPY OF ENVIRONMENTAL THRESHOLD DECISION IS BEING POUCHED TO MISSION FOR INCLUSION IN PROJECT FILES. 44

UNCLASSIFIED

**ANNEX C**

**LETTERS OF APPLICATION FROM GRANTEEES**

MINISTERIO DE SALUD PUBLICA Y ASISTENCIA SOCIAL  
Dirección General de Servicios de Salud  
UNIDAD DE PLANIFICACION FAMILIAR  
5a. AVENIDA 13-27, ZONA 9 - TELEFONO 318583  
GUATEMALA, C.A.

**FILE**

Num.	270-92
Ref.	

Al contestar, sírvase mencionar el número y referencia de esta nota

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USAID/GUATEMALA

GUATEMALA,  
9 DE SEPTIEMBRE DE 1992.

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SEÑOR  
TERRENCE BROWN  
DIRECTOR USAID/ GUATEMALA  
PLAZA UNO  
1A. CALLE 7-66 ZONA 9  
GUATEMALA, CIUDAD

FILE	DATE	9/22/92	ASSIGN TAKEN	9/22/92	11:17 AM
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ESTIMADO SEÑOR BROWN:

ME ES GRATO DIRIGIRME A USTED PARA REFERIRME AL CONVENIO 520-0288 EJECUTADO POR LA UNIDAD DE SALUD REPRODUCTIVA DEL MINISTERIO DE SALUD PÚBLICA DE GUATEMALA, CON FONDOS DE DONACION DEL GOBIERNO DE LOS ESTADOS UNIDOS DE NORTE AMÉRICA A TRAVÉS DE USAID DE GUATEMALA, CUYA EJECUCIÓN FINALIZÓ EL 31 DE AGOSTO DEL AÑO QUE CURSA.

A TRAVÉS DEL PROYECTO SE LOGRARON EN LAS 24 ÁREAS DE SALUD DEL PAÍS, RESULTADOS QUE HAN CONTRIBUIDO IMPORTANTEMENTE A MEJORAR LA SALUD REPRODUCTIVA DEL GRUPO MATERNO INFANTIL, LOS CUALES SON NECESARIOS CONTINUAR MEJORANDO Y AUMENTANDO, EN ESPECIAL EN LOS LUGARES DONDE LOS LOGROS NO HAN SIDO DEL TODO SATISFACTORIOS.

SEGURAMENTE EN LOS PRÓXIMOS DÍAS LLEGARÁ A USTED DE PARTE DEL DESPACHO MINISTERIAL, LA ACEPTACIÓN DEL NUEVO PROYECTO "SERVICIOS DE SALUD FAMILIAR Y POBLACIÓN", EL CUAL SERÁ EJECUTADO POR ESTA UNIDAD DURANTE EL PERIODO 1992- 1996. SIN EMBARGO, PARA NO ATRASAR LAS ACTIVIDADES YA PROGRAMADA EN EL TIEMPO QUE RESTA DEL AÑO, SOLICITAMOS A USTED AUTORIZAR PARA EL PRESENTE MES LA EMISIÓN DE FONDOS DEL NUEVO PROYECTO.

SIN OTRO PARTICULAR ME ES GRATO SUSCRIBIRME DE USTED, DEFERENTEMENTE,

DR. JUAN JOSÉ ARROYO HERNÁNDEZ  
JEFE UNIDAD DE SALUD REPRODUCTIVA

C.C. ARCH  
Co.  
LICDA. JAYNE LYONS



SALUD PARA TODOS LOS GUATEMALTECOS

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Collect



**iprofasa**  
IMPORTADORA DE PRODUCTOS FARMACEUTICOS, S.A

5281

GG-99192  
Guatemala, 14 de agosto de 1992

Señor  
Terrence J. Brown  
Director  
MISION AID/GUATEMALA  
Presente

(H+E)	
PDSO	
DIR	
DUE DATE	
8/26/92	
ACTION TAKEN	
None	
9-3-92	

USAID/GUATEMALA

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Estimado señor Director:

Atentamente me dirijo a usted, para enviarle un cordial saludo de parte del Consejo de Administración, y para comunicarle nuestro interés de formar parte del nuevo proyecto de Salud Familiar, y nos sentimos muy complacidos de poder continuar desarrollando el proyecto de Mercadeo Social de anticonceptivos en nuestro país, para los próximos cuatro años.

Como es de su conocimiento, nuestro convenio original fue firmado en agosto de 1982, por lo que han sido 10 años de trabajar juntos y por un mismo objetivo, y nos sentimos muy orgullosos de poder reportarle que los logros alcanzados por el proyecto han sido muy exitosos, por lo que seguimos convencidos de contar con una muy buena organización, realizando nuestras labores una manera eficaz y eficientemente. Esto lo confirmamos en base a que desde junio de 1985, fecha en la que Iprofasa lanzara sus productos y hasta la finalización del convenio original agosto de 1992, hemos aportado 170,000 años protección pareja. También creemos que nuestro logro mas significativo ha sido el cambio de actitud en el ambiente social, ya que hemos contribuido enormemente a romper tabus asociados con el uso de este tipo de productos, y además hemos logrado en dos años penetrar en las comunidades indigenas de Quetzaltenango, Sololá y Totonicapán con un programa creativo y eminentemente comercial.

Con esta nueva oportunidad de participar por cuatro años dentro del programa de salud familiar, para seguir desarrollando el programa de mercadeo social y con la nueva asignación de fondos por parte de la Misión nos permitirá:

- A) Consolidar y ampliar el programa de MSA, ya que podremos llegar a mayor número de usuarios, cubrir más farmacias y puntos de ventas no tradicionales, visitar más médicos, aumentando la prevalencia de uso de anticonceptivos y por lo tanto aumentar los años protección pareja.

1987

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- B) Continuar desarrollando todos los medios a nuestro alcance, en programas de información, educación y comunicación; ampliaremos nuestras actividades promocionales, con el objetivo de que cada día nuestros mensajes lleguen al mayor número posible de usuarios, y muy principalmente las o los nuevos usuarios.
- C) Mantener las operaciones iniciadas en el Area Indígena.
- D) Distribuir otros productos anticonceptivos y para la salud, que contribuyan a generar fondos para alcanzar la autosuficiencia del proyecto.
- E) Fortalecer los sistemas administrativos y financieros para seguir realizando nuestra labor de una manera eficaz manteniendo la política de costo-eficiencia.

Agradeciéndole la atención a la presente, le saluda.

Muy Atentamente,



Ricardo Díaz  
Presidente  
Consejo de Administración

/vc  
c.c. File

Instituto Guatemalteco de Seguridad Social  
Ciudad de Guatemala, C. A.



Dirección Cablegráfica IGSSO  
Dirección Postal: Apartado 349  
Teléfono 26001-9

Of. SHMI-474

₡ 3290

20 de mayo de 1992

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DATE	
6/2/92	
ACCIÓN	
2-8-92	

Señor  
JANE LYONS  
Misión AID  
Guatemala

Estimado Jane:

Atentamente me dirijo a usted, adjuntando El Proyecto de Acuerdo IGSS-AID, para que sea analizado y estudiado por ustedes; una copia del mismo se encuentra con los señores Asesores de Gerencia en nuestra Institución.

Luego de la revisión, procederemos a fijar la fecha de suscripción.

Me suscribo atento servidor,

*Carlo Bonatto Merida*  
Dr. CARLO BONATTO MERIDA  
Coordinador del  
Programa de Salud Reproductiva  
SECCION DE HIGIENE MATERNO INFANTIL

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**ACUERDO DE COOPERACION ENTRE EL  
INSTITUTO GUATEMALTECO DE SEGURIDAD SOCIAL Y  
LA AGENCIA INTERNACIONAL PARA EL DESARROLLO**

El Gerente del Instituto Guatemalteco de Seguridad Social y el Director de la Misión de la Agencia Internacional para el Desarrollo en Guatemala; ambos actuando en representación de dichas instituciones.

**ESTIMANDO**

Que de conformidad con las respectivas leyes y reglamentos del Instituto Guatemalteco de Seguridad Social y la Agencia Internacional para el Desarrollo debe existir una constante cooperación que estimule y desarrolle los servicios de la salud en general, relacionada directamente con las actividades y fines de cada una de la Instituciones.

**ESTIMANDO**

Que el Instituto Guatemalteco de Seguridad Social debe impulsar el desarrollo del país mediante la ejecución de actividades asistenciales, culturales y científicas que propendan al bienestar social y a difundir los principios de cooperación y solidaridad.

**ESTIMANDO**

Que el Capítulo IV, artículo 27 del Acuerdo 473 de Junta Directiva del Instituto Guatemalteco de Seguridad Social, indica que la Sección Materno Infantil tiene por finalidad la protección de la salud en la maternidad de afiliadas y beneficiarias con derecho y la promoción y conservación de la salud de los niños cubiertos por el régimen de Seguridad Social; y en el artículo 29 inciso F, del mismo capítulo y Acuerdo; elaborar instrucciones de promoción y conservación de la salud de la madre y el niño, para su aplicación por los médicos, enfermeras y trabajadoras sociales que intervienen en la atención materno infantil en los servicios externos del Instituto.

**ESTIMANDO**

Que la Agencia Internacional para el Desarrollo tiene entre sus finalidades la de cooperar con las instituciones nacionales para la protección integral de la salud.

**ESTIMANDO**

Que la Agencia Internacional para el Desarrollo ha definido el área materno infantil y de salud reproductiva como prioritarias para colaborar en la implementación y desarrollo de programas que tiendan a mejorar sus condiciones actuales de salud. *de las*

**POR TANTO:**

En uso de las facultades que les confieren sus leyes y reglamentos, convienen en suscribir el presente acuerdo.

**CAPITULO I**  
**OBJETIVOS**

**PRIMERO:** Los principales objetivos de este instrumento son:

- a) Proteger integralmente la salud de la población materno infantil usuaria de los servicios del Instituto Guatemalteco de Seguridad Social, reduciendo sus tasas de mortalidad y morbilidad.
- b) Establecer el Programa de Salud Reproductiva en el Instituto Guatemalteco de Seguridad Social.

## CAPITULO II

### PARTICIPACION DE LAS INSTITUCIONES

SEGUNDO: Ambas Instituciones coordinarán acciones para la planificación, implementación y desarrollo del Programa de Salud Reproductiva.

## CAPITULO III

### APORTES INSTITUCIONALES

TERCERO: La Agencia Internacional para el Desarrollo cooperará en las áreas de asesoría técnica, capacitación, suministros, sistemas de información, equipo, infraestructura e investigaciones para la implementación y desarrollo del Programa de Salud Reproductiva.

CUARTO: El Instituto Guatemalteco de Seguridad Social a través de la Sección de Higiene Materno Infantil, del Departamento de Medicina Preventiva de la Dirección General de Servicios Médico Hospitalarios, implementará el Programa de Salud Reproductiva como una actividad del Programa Materno Infantil Institucional.

## CAPITULO IV

### FUNCIONES

QUINTO: El Programa de Salud Reproductiva será desarrollado por la Sección de Higiene Materno Infantil con la cooperación de la Agencia Internacional para el Desarrollo; elaborándose los instructivos, normas y protocolos necesarios para la implementación del programa en los servicios institucionales.

SEXTO: La Sección Materno Infantil realizará las actividades de adiestramiento, capacitación, promoción, información, sistema de datos, otorgamiento de servicios, supervisión y evaluación del programa con la cooperación de la Agencia Internacional para el Desarrollo.

SEPTIMO: La Sección de Higiene Materno Infantil coordinará actividades administrativas con otras dependencias Institucionales para la aceptación de la cooperación otorgada por la Agencia Internacional para el Desarrollo.

## CAPITULO V

### DURACION Y PRORROGA

OCTAVO: El presente acuerdo tendrá una duración indefinida a partir de la fecha de su suscripción. Podrá modificarse de mutuo acuerdo y terminarse a solicitud de cualquiera de las partes.

NOVENO: Las modificaciones se efectuarán en cualquier momento mediante la suscripción de una ampliación del mismo en la que se detallará los cambios correspondientes. Dichas modificaciones serán suscritas por las autoridades de ambas Instituciones que firmen el presente.

## CAPITULO VI

### VIGENCIA

DECIMO: El presente acuerdo principiará a regir a partir de la presente fecha.

Suscrito en la ciudad de Guatemala a los \_\_\_\_\_ dias  
del mes de \_\_\_\_\_ de mil novecientos noventa y dos.

TERRENCE BROWN  
DIRECTOR DE LA MISION DE  
LA AGENCIA INTERNACIONAL  
PARA EL DESARROLLO EN  
GUATEMALA

LIC. JUAN VIRGILIO ALVARADO HERNADEZ.  
GERENTE DEL INSTITUTO GUATEMALTECO  
DE SEGURIDAD SOCIAL.

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**APROFAM**  
 ASOCIACION POR BIENESTAR  
 DE LA FAMILIA DE GUATEMALA

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USAID/GUATEMALA

Ref. No. 2098-92

*Gayre*

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1992E DATE	<b>7/20/92</b>
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	<b>7-17-92 SJC</b>

Guatemala, 9 de junio de 1992E DATE

Señor Terrance Brown  
 Director  
 MISION INTERNACIONAL AID  
 Presente

Estimado señor Brown:

Como es de su conocimiento, nuestro convenio firmado originalmente el 8 de marzo de 1983, vence el 31 de agosto del año en curso. Nos sentimos orgullosos de poder reportar, que según estimaciones hechas en base a las proyecciones de Future Groups, para 1991 hemos alcanzado y superado todas las metas cuantitativas establecidas en el convenio. El programa de Distribución Comunitaria, ahora cuenta con 3,200 puestos de distribución contribuyendo 50,233 por año al indicador "Años-Protección Pareja". Nuestro programa de Servicios Clínicos el cual ya tortaleció el proceso de integración de servicios de supervivencia infantil y para la madre, iniciado en 1987, ahora tiene 11 clínicas integrales, además de tener convenios con otras 13 clínicas de médicos privados. Este programa contribuye con 180,396 por año al indicador "Años Protección Pareja". Por último, creemos que a pesar de los ataques fuertes, nuestro programa de Información, Educación y Comunicación ha logrado mantener y mejorar la imagen de APROFAM como institución de servicio a la comunidad, al mismo tiempo que ha incrementado la demanda de servicios en APROFAM y otras instituciones.

Por este medio queremos ratificar el interés de Aprofam de recibir la cooperación financiera de la Agencia de los Estados Unidos para el Desarrollo Internacional (AID), por \$17,442,825 . destinados a financiar actividades de salud materno-infantil y planificación familiar, bajo el proyecto de A.I.D. No. 520-0357. Este aporte financiero permitirá lo siguiente:



Guatemala, 9 de junio de 1992  
Página -2-

Ref. 2098-92

- a) Ampliación y fortalecimiento del programa de Distribución Comunitaria, haciendo llegar con mayor intensidad la información y los servicios de planificación familiar y supervivencia infantil a las poblaciones indígenas.
- b) Incrementar los servicios clínicos integrados, tanto de anticoncepción como materno infantiles a través de 13 clínicas distribuidas en todo el país.
- c) Intensificar el programa de información, educación y comunicación para mantener e incrementar la concientización del público sobre planificación familiar, particularmente a parejas en las edades de 25-40 años, que desean espaciar sus nacimientos y líderes de opinión a nivel comunitario y nacional.
- d) Fortalecimiento de los sistemas de apoyo gerencial/administrativos (evaluación, informática, financieros, sustentabilidad, etc.) que asegurarán una ampliación y sostenimiento de nuestro programa en forma ordenada y lógica.

Sin otro particular y agradeciendo su atención a la presente, aprovecho la oportunidad para suscribirme de usted.

Atentamente,

**APROFAM**

Dr. Roberto Santibó Gálvez  
Director Ejecutivo

cc: Lic. Fernández  
File

**ANNEX D**

**LOGICAL FRAMEWORK**



<u>3. PROJECT OUTPUTS</u>	<u>OBJECTIVELY VERIFIABLE</u>	<u>MEANS OF VERIFICATION</u>	<u>ASSUMPTIONS</u>
1. a. Policy oriented publications	1. a. 10 demographic studies conducted and published  Bulletins sent monthly to 5,000 leaders	Document delivered  Bulletins sent	
1. b. Policy dialogue	1. b. 200 leaders visited  20 seminars with 200 participants held	Agency reports  Agency reports	
1. c. Family life and socio-demographic education taught in secondary schools	150 schools	UNFPA and agency Reports	
1. d. MOH norms for VSC standardized and designed to reduce barriers to VSC	26 Hosp. revised norms functioning	Norms received FPU supervision visits	
1. e. MOH norms revised to permit volunteers and auxiliary personnel to provide hormonal contraceptives	1 norm revised and approved	Norms received	
2. a. Facilities offering family planning services	MOH 4000 volunteers promoters 1000 helath centers/posts 3 type A centers 26 hospitals  APROFAM 4,000 CBD distributors 15 APROFAM rural clinics  I PROFASA 1,270 pharmacies 70 non-traditional outlets  IGSS	FPU reports and supervision visits  APROFAM reports  I PROFASA reports	
2. b. CYP provided	APROFAM: 1,252,710 MOH: 720,000 I PROFASA: 243,000 IGSS: 173,990	APROFAM statistics MOH statistics I PROFASA sales data IGSS statistics	
2. c. Personnel Trained	MOH: 84,000 training contacts I PROFASA: 4,000 training contacts APROFAM	FPU Reports I PROFASA Reports APROFAM Reports	
2. d. Twenty year sustainability and institutional development plans	1 per institution	studies received	
3. a. Operations Research	7 new strategies tested 8 operational issues studied	Final reports received Final reports received	

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**4. PROJECT INPUTS****IMPLEMENTATION TARGET:****MEANS OF VERIFICATION****ASSUMPTIONS**

<b>Inputs (\$000)</b>	<b>AID</b>	<b>GOG/OTHER</b>	<b>TOTAL</b>
TA	1,170	293	1,463
Commodities	6,490	1,620	8,110
Training	2,262	565	2,827
Logistics support and operating costs	15,600	3,900	19,500
Policy and special studies	3,588	897	4,485
Evaluation/Audits	390	100	490
<b>TOTAL</b>	<b>29,500</b>	<b>7,375</b>	<b>36,875</b>

Timely AID, GOG and other  
provision of funding

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**ANNEX E**

**TECHNICAL ANALYSIS**

## ANNEX E

### TECHNICAL ANALYSIS

#### A. Introduction

The "Population and Family Health Services Project" is designed to reduce the rate of population growth and thereby improve the health of Guatemalan mothers and children through increasing access and acceptance of effective family planning services. The Project will focus on strengthening the capacity of already existing public and private sector institutions to expand access to family planning services and contraceptives. The specific approaches to be utilized are designed to rely on the proven strength of the existing organizations, e.g. the MOH currently provides family planning services through its present infrastructure. The Project will provide increased funding and technical assistance to expand and strengthen this capability.

The methodologies employed in this Project to accomplish the stated goal of smaller, healthier families will be a mix of traditional and innovative techniques that have proven to be effective, feasible and cost-efficient in Guatemala and other countries with similar conditions. This analysis annex will discuss the proposed technical approaches to be employed by the principal recipient institutions: APROFAM (the IPPF family planning affiliate); the MOH (Ministry of Health); IPROFASA (the Guatemalan social marketing entity created by A.I.D. and the IPROFASA Board) and IGSS (the Social Security Institute).

#### 1. APROFAM

APROFAM is the largest provider of family planning services in Guatemala. Through a combination of integrated health and family planning clinics, community based distributors (CBD), information and education campaigns, APROFAM has provided a quality family planning program for the past 25 years.

The new "Population and Family Health Services" Project will expand APROFAM'S on-going clinic, CBD and IE&C programs, giving special emphasis to expanding access to voluntary surgical sterilization for the sexually active male population and for women in fertile age. In preparation for its present expansion into new regions, APROFAM will refine a system to decentralize and regionalize its operations. Once in place, this model will be expanded to other regions.

The 1987 Demographic Health Survey (DHS) found that almost 30% of Guatemalan women of child-bearing ages wanted no more children, but were not using any form of contraceptive. Permanent methods of family planning i.e. female sterilization, have proven to be a highly desired and cost-effective solution to this large unmet demand. APROFAM currently delivers approximately 12,000 voluntary sterilizations per year. Increasing the number of surgical facilities and trained medical personnel will go a long way toward answering this unmet demand. Voluntary female sterilizations have proven to be the most popular choice of contraceptive methods in many countries throughout the world, including Guatemala, Panama, and Mexico, in this subregion. The prevalence rate of 10.3% for female sterilizations in Guatemala is half of the total modern contraceptive prevalence rate (20%), according to the 1987 DHS.

The Project will expand the community physician program. This program takes carefully chosen unemployed physicians, trains them in family planning and places them in selected communities with populations of 10,000 or more where inadequate medical services exist. They are supplied with basic clinical equipment and family planning and other supplies and paid a declining salary supplement for three years. After three years, the physicians are expected to be financially self-sufficient. Placement within regions will increase the number of referral sites in strategic areas. Evaluation of this activity in the current project recommends continuation and expansion of this approach. The community physician program has proven to be highly successful and cost-effective in the more rural states of Mexico. MEXFAM, the Mexican IPPF affiliate is currently expanding this intervention to additional rural states.

The CBD program of APROFAM which currently provides 30,000 couple years of protection (CYP) through 2,000 community distribution posts will be expanded. Although the long-term sustainability of CBD programs has not been proven, this approach has been highly effective in increasing awareness and acceptance of family planning throughout the entire region of Latin America. Expansion of APROFAM'S CBD program will be closely tied to operations research testing to maximize increased access and cost-effectiveness of services.

The expansion of APROFAM'S family planning services described above is closely linked to the effectiveness of its information, education, and communication unit (IE&C). The Project will increase funding and technical assistance to the IE&C unit with the specific objective of strengthening

APROFAM's service delivery components. APROFAM and many other family planning organizations have demonstrated that information targeted to underserved groups is a proven cost-effective approach to increase access and use-effectiveness of modern contraceptives. Findings of operations research have shown that insufficient information on the part of a first time user of contraceptives is the primary cause of high drop-out rates. Increased knowledge through well-designed and distributed information materials will support the Project's objective of increasing contraceptive prevalence to sustainable levels.

## 2. The Ministry of Health

The Ministry of Health is the largest provider of MCH services and the second largest provider of family planning services in Guatemala. The MOH's current family planning program dates from mid-1986 and is, in large measure funded by A.I.D. With A.I.D. support, the MOH has conducted 668 training courses, established a supervision system providing at least two visits per year to 1,400 functioning health posts, assumed responsibility for contraceptive commodity distribution to its health centers and developed an effective management information system. The average number of contraceptive users per post has risen from one to more than thirty and CYP's have increased dramatically over the last several years.

Under the new project, the MOH will expand training, contraceptive, supply, and supervision activities. Four new efforts will be initiated. A Postpartum and interpartum family planning program will be introduced into 24 national hospitals. The national hospitals currently attend about 60,000 births annually and will be attending approximately 90,000 by the year 2001. At present these hospitals do not routinely offer family planning services to their postpartum clients. The objective is 25% of this population by the end of the project. This intervention has proven to be highly successful in public sector programs of many countries, most notably in this region, The Social Security Institute of Mexico. With properly trained personnel and targeted IE&C materials this is an extremely efficient and cost-effective manner of increasing long-term and permanent methods of contraception. A recent evaluation of the Mexican family planning program attributed the increase of contraceptive prevalence from 38 % to 52 % during the past 10 years, primarily to the postpartum and voluntary surgical contraceptive program of the Mexican Social Security Program.

There are an estimated 20,000 Volunteer Promoters, that work at the community level by assisting in vaccination

campaigns, eliminating mosquito breeding sites, and distributing oral rehydration salts. They are trained and coordinated by the Rural Health Technicians (TSR's). The TSR's have requested support from the MOH to train and utilize the Volunteer

Promoters in the promotion of family planning and possibly distribute barrier method contraceptives. By the end of phase II of the Project, it is anticipated that the Health Volunteer Program will generate about 30,000 CYP's per year. A.I.D. supported family planning projects have with MOH Volunteer Programs for the past twenty years with mixed results. USAID/Guatemala does not intend to make a large investment in this activity. A.I.D.'s strategy is to add family planning to an already existing program at minimal cost, with modest expectations. Since a significant number of these Volunteers are located among the hard to reach indigenous population, the potential of increasing contraceptive prevalence among the population is worth the investment. The research aimed at developing acceptable approaches to the provision of family planning information and services to the indigenous will be disseminated and applied to the MOH Health Volunteer Program.

The fourth and final area of A.I.D. support to the MOH will be in the area of coordinated communication strategies. An inter-institutional coordinating committee will be established to plan and coordinate periodic intensive communication campaigns with carefully defined target populations and messages. Strengthening clinic outreach; developing a postpartum and inter-partum program; and adding family planning to the Health Volunteer's kit; all require a carefully planned and targetted communications strategy. (The messages produced must also be consistent with the messages developed for the other service delivery organizations.) Although there is conclusive evidence supporting mass media (i.e. radio and television) communications, countries such as Guatemala with large pockets of the population resistance to externally imposed family planning programs; lack of knowledge about modern contraceptives; and high discontinuation rates, call out for informed inter-personal communication and print materials with easy to understand messages in the prevalent languages. IE&C is an essential component of successful family planning programs.

3. I PROFASA- (Importadora de Productos Farmaceuticos, S.A.)

Social (subsidized) marketing of contraceptives began in Guatemala ten years ago. It was developed in Guatemala because of the large unmet demand for family planning (discussed previously) and the impressive commercial infrastructure (more than 1,200 pharmacies). The idea of selling contraceptives at

subsidized prices, making them affordable to the lower end of the economic scale consumers, utilizing well-designed mass media promotion, and established commercial sector distribution systems, has been an important element of A.I.D. supported family planning programs since 1974. Some of the mature social marketing programs supported by A.I.D. such as Bangladesh and Jamaica are responsible for roughly 15-20% of the total CYP for those programs.

The initial development of IPROFASA, in spite of political sensitivities, advertising and distribution constraints, and contraceptive costs and supplies, justifies continued A.I.D. support, at least until the end of Phase II (1996), by which time this investment should permit terminating direct project support. The Project proposes continued financial support for this four year period in order to attain a sustainable level of product sales. With the accumulated experience of more than 35 social marketing projects around the world during the past twenty years, it is important to note that only three programs have achieved almost complete financial independence (Costa Rica, Dominican Republic and Barbados) and none have captured more than 25% CYP coverage, however the return on investment for most of these projects (creating new markets; increasing awareness and contraceptive use) has made the social marketing approach one of the key elements of every successful A.I.D. funded family planning programs.

#### 4. Instituto Guatemalteco de Seguridad Social (IGSS)

The IGSS, which has never had a formal family planning program, will become a new beneficiary of A.I.D. population assistance under the Project. Centrally-funded "Options II" Project advisors are presently assisting IGSS to define a new reproductive risk health program for its membership. The Project will provide technical assistance, equipment, and contraceptives to IGSS to initiate postpartum family planning services in the three hospitals where births are attended. Those hospitals currently attend over 22,000 deliveries a year and will be attending approximately 30,000 by the year 2000. It is projected that 25% of women delivering babies in IGSS facilities will be incorporated in the new family planning program by the end of Phase I of the Project.

Because IGSS has the second largest health infrastructure in Guatemala after the MOH, and because social security coverage pays for delivery and postpartum services for its membership, it is obvious that adding family planning services is directly beneficial to the Project and IGSS. It is estimated that half of the Social Security Institutes worldwide provide reproductive

health services. Only a few of these, e.g. Mexico and Peru provide health services. This is largely explained by the curative rather than preventive orientation of these traditional medical institutions. However, with the critical financial crunch faced by all health institutions, inclusion of preventive health measures such as family planning has direct cost benefit.

The combination of an established infrastructure plus the economic benefit of reducing costs by averting births, makes the case for the Project support to IGSS. The successful postpartum program of the Mexican Social Security system is documented earlier in the Technical Analysis. The major role played by the Social Security Institute of Mexico (IMSS) has generated serious consideration for IMSS to direct and control the entire public sector family planning effort in Mexico. No such circumstances currently exist in Guatemala, but with strong leadership from the IGSS and the existing physical infrastructure, the use of project funds to initiate family planning services in the IGSS is a sound and prudent investment.

#### B. Policy Dialogue

Underpinning this project is the critical assumption that key Guatemalan officials accept the principles and objectives of family planning and incorporate them into the economic and social development plan of the country. Without this acceptance, the efforts proposed in this project will have little if any lasting impact.

Although creating a clearly stated national family planning policy supporting easy access to all means of proven and effective contraceptive methods with a concurrent position that links economic and social development with a lowering of population growth would be clearly beneficial to family planning efforts in Guatemala, even a tacit acknowledgment of these relationships would go a long way in establishing an open and conducive environment for family planning in Guatemala. Successful policy dialogue is the cornerstone of this project. The history of successes and failures of family planning efforts is directly attributable to the fluctuations of policy positions of GOG officials, from benign neglect to outright opposition. This opposition to family planning resulted in banning public sector family planning services for varying amounts of time and even closing down private family planning efforts on occasion.

The project's number one priority is to support the development of strong and effective GOG policies and programming in support of reducing population growth. The resources available from A.I.D. and other donors are not sufficient to produce the kind of impact needed to reverse present demographic

trends. The Government of Guatemala must assume moral, policy, and material leadership if population growth rates are to be reversed on a national scale.

APROFAM will continue to be the lead agency in contacting officials and lobbying for favorable policies and legislation. APROFAM's work in this area will be supported by A.I.D. and Embassy officials, who will be more proactive in efforts to encourage the GOG to adopt strong policies and provide resources for family planning. General policy dialogue objectives will include the following:

1. Public recognition by the GOG that population growth is a major national problem.
2. Articulation by the GOG of strong position advocating reduction in the population growth rate, with specific quantified objectives and benchmarks.
3. Allocation by the GOG of sufficient budgetary and personnel resources to provide access to family planning services for all low-income Guatemalans through the public health and social security system.
4. Formation of a high level public-private sector commission or institute to study and formulate population policy.

Accomplishments in the policy component will be ascertained by verifiable measures, e.g. budget increases for family planning; public discussion and statements by GOG officials; reports and findings of the proposed public-private sector population commission, etc.

The experience in Latin America shows that formulation and declaration of a national population policy cannot necessarily be equated with a positive family planning environment. In 1976, Peru became the first country in the western hemisphere to adopt a positive population policy. It was another six years (1982) before the Government of Peru took any visible action to implement the policy. In fact, GOG officials used the Policy in lieu of affirmative action. The designers of this Project understand this and decided against the single narrow objective of producing a national policy.

The approaches proposed in the Policy Dialogue component have been employed in virtually every country in the western hemisphere with a pro-family planning policy. APROFAM has demonstrated considerable success in this area by using a wide variety of tested interventions, e.g. paid observational tours

for GOG officials to countries with successful family planning programs; print and mass media materials on the major economic and social sectors; computer simulations (RAPID); public fora; financing studies by Guatemalan researchers, etc.). Experience from other countries in the region suggests that this is a long and arduous, but necessary process.

C. Research and Development

A.I.D. supported family planning efforts in Guatemala have had difficulty promoting and increasing contraceptive use among the indigenous Guatemalan population. Since approximately half of the Guatemalan population is located in the Highlands and the majority of that is indigenous, the Project will develop and test various service delivery models and evaluate them for their effectiveness in reaching this difficult. A strategy based on research findings will be developed by end of Project in 1996.

The research methodologies proposed have been tested in numerous countries, but because behavioral and cultural characteristics of the target population are distinct from and within, one country to another, considerable time and analysis will be required before service delivery models can be tested and operationalized by the participating institutions. This step requires identification, hiring and training of culturally sensitive and appropriate personnel. The processes, methodologies, and time-line proposed are in conformance with similar operations research activities undertaken elsewhere under A.I.D. auspices, and should prove to be effective in Guatemala.

**ANNEX F**

**ADMINISTRATIVE ANALYSIS OF INSTITUTIONS**

ANNEX F

ADMINISTRATIVE ANALYSIS OF INSTITUTIONS

MINISTRY OF HEALTH/FAMILY PLANNING UNIT

A. History and Background of Organization

1. Legal Status

The Family Planning Unit of the Guatemalan Ministry of Health (MOH/FPU) is not a legal entity per say. The MOH/FPU does not appear on any government ministry organizational chart, including that of the MOH. Its existence and operation depends on the limited financial support it receives annually from the G/MOH and USAID/Guatemala project funding and technical support.

2. Philosophy of Institution

The MOH/FPU works under the G/MOH philosophy and purpose to provide a range of health services to Guatemalans in their communities at no cost. The MOH/FPU is devoted to expanding and improving that range of services to include reproductive risk, maternal/child health and family planning information, services and products.

3. Mission, Goal and Objectives

The mission of the MOH/FPU is to enhance the number of small, healthy families in Guatemala in rural and urban areas.

The goal of the MOH/FPU is to make a significant contribution to the increase of contraceptive prevalence in Guatemala by providing high quality and easily accessible maternal/child health, family planning and reproductive risk services to Guatemalan families in their communities through the G/MOH health system, including: hospitals, health centers, health posts and health promoters.

In order to achieve this goal and mission, the MOH/FPU has set the following objectives:

- To increase coverage of family planning services in rural and urban areas in terms of number of outlets providing services,

the number of types of outlets included in the system, and in the range of services available at each service point;

- Diversify the social and geographical target groups currently served to include more males, young adults and populations of the rural Highlands;
- Increase access to a wider variety of family planning methods including new hormonal methods and surgical contraception for both men and women;
- To effectively coordinate activities of the MOH/FPU with those of the G/MOH;
- To train G/MOH staff at all levels of the delivery system in the reproductive risk approach to health care;
- To develop IE&C materials which will promote the adoption and continued use of modern contraceptive methods;
- To strengthen the unit's technical, financial legal status so that it achieves an appreciable level of sustainability and autonomy from USAID/Guatemala.

#### 4. History of Organization

Family planning activities under the G/MOH had been at a virtual standstill since 1979 until mid-1985 when the original agreement, Expansion of Family Planning Services Project Agreement, with USAID/Guatemala was signed. During those years, the G/MOH had undergone serious political and administrative problems which led to a destruction and/or closing down of much of the G/MOH infrastructure. Personnel and equipment were lacking at all levels and in the countryside, many of the community workers had fled or been killed as "subversives".

Since mid-1986 when the MOH/FPU actually began its program activities, it has been able to spend the funding that it has received and has established itself as a key provider in Guatemala's family health program. It is the largest provider of maternal/child health services in the nation and the second most important provider of family planning services. The unit supplies 1400 health centers and posts within the G/MOH health care system; trains physicians and graduate nurses in reproductive risk prevention, detection and management and in IUD insertion; trains auxiliary nurses in reproductive risk

prevention, detection and referral as well as in improving their link to traditional birth attendants (TRAs) so as to improve pre- and post-natal/maternal health care. In addition, the MOH/FPU has established a system of supervision to the health centers and has assumed responsibility for contraceptive commodity distribution to its health centers. The MOH/FPU maintains an effective MIS system which allows it to plan and coordinate its activities as well as to document their impact.

Although it is a relative newcomer in the reproductive health field in Guatemala, the MOH/FPU has dramatically increased the number of contraceptive users and has legitimized family planning within the G/MOH and other groups of opinion leaders in Guatemala. Health centers are considered by women to be the most important source of temporary family planning methods in the public sector. The G/MOH hospitals are considered to be the most well-known sites to obtain a voluntary sterilization. This has been achieved largely through a dedication of efforts to improving the interpersonal communication skills of its staff before wide promotion of its reproductive risk program and services. This has allowed staff to move into and among communities gaining significant respect and following among area health workers at all levels of the G/MOH health care system.

## B. Organizational Structure and Programming

### 1. Organizational Structure

The MOH/FPU is an independent subunit within the G/MOH Maternal Health Unit. It is run by a small and dedicated staff who supervise the Reproductive Risk Program in 23 departments nationwide.

The Chief of the MOH/FPU reports to the Director General of Health Services. The departments and staffing of the unit consist of: 1) administration department with an administrator, an assistant, secretary, data processor, accountant, warehouseman, drivers, janitor/guard and messenger; 2) technical department with a supervision/evaluation section including medical supervisors, health workers and secretary and a training section including trainers.

### 2. Coverage of Services and Method Mix

The MOH/FPU provides reproductive health and family planning services to an estimated 4.33 percent of women of reproductive age and in union distributed throughout Guatemala.

The family planning methods utilized were: voluntary surgical contraception, oral contraceptives, IUDs, condoms and vaginal tablets.

The services provided by this unit prevented infant and maternal deaths, allowed for increased safe birthing in homes, and avoided using hospital and physician services required from illegal abortions (see Section for detail).

### 3. Programs and Activities

The three activity areas that the MOH/FPU works in are training, supervision and logistics, and management (MIS) systems so as to deliver high quality reproductive health and family planning services. The unit placed high priority on establishing a sound logistical system and training G/MOH health providers in the basic theories of reproductive risk in order to lay the groundwork for the MOH/FPU reproductive health services. The plan has been that the actual promotion of services would be held off until the staff were prepared to receive increased numbers of users.

The supervision and logistics component functions to assure a steady and ample supply of quality products to the G/MOH hospitals, health centers and posts and to health workers. It also monitors, controls and evaluates program activities via the nine medical supervisors who make regular visits to health service points. Programs and activities are thus examined for ways to increase efficiency and effectiveness as well as for adequacy of product supplies.

The training component trains G/MOH medical staff such as doctors and nurses in IUD insertion and provides them with insertion kits. Training is also conducted in reproductive risk detection, prevention and management among physicians, nurses and auxiliary nurses at different G/MOH hospitals, health centers and posts. In 1990, a training center was established in San Marcos where personnel can be trained in reproductive risk strategy, improving pre- and post-natal and maternal care as well as IUD insertion techniques.

The management and MIS component develops software to deal more effectively with issues of planning, decision-making, programming, contraceptive logistics, supervision, finance and reporting. It focuses on the collection and processing of information on such areas as the prevalence of risk factors of women using the G/MOH health care system as well as tracking contraceptive distribution.

The health centers and posts have been supplied with IE&C materials to support their activities in reproductive health, including child-spacing and increased family planning use.

#### 4. Physical Infrastructure and Equipment

The MOH/FPU operates out of a building in Guatemala City and coordinates activities with the large G/MOH field establishment of 35 hospitals and approximately 1000 health centers and posts.

Staff has been provided with and trained in the use of a micro-computer system with the appropriate software necessary to perform their work. However, there is only one computer terminal which is inadequate for the unit's needs.

The unit currently uses six four-wheel drive pickups to reach the G/MOH service points on a regular basis with product supplies and for supervisory visits.

### C. Organization Management

#### 1. Relationship to USAID and Other Agencies

The MOH/FPU coordinates its activities closely with USAID/Guatemala representatives on a regular basis. It has also joined the inter-institutional coordinating council composed of agencies working in family planning. Included are IPROFASA, APROFAM, AGES and USAID.

In the past, the unit has coordinated closely with particular agencies on specific issues such as with APROFAM and USAID on the control and monitoring of illegitimate commercialization of donated product via the commercial sector.

This coordination and collaboration is expected to increase as the MOH/FPU service deliver expands and as the council of agencies formalizes its interactions.

#### 2. Accounting and MIS Systems

The MIS system currently being utilized by the MOH/FPU focuses on five areas: accounting, inventory system, supervision and logistics, service statistics from all levels of service, and personnel training. Data collection has been done and results have been tabulated manually due to a shortage of computer hardware, software and training in their use. Nevertheless, the MOH/FPU staff has been able to maintain a high

level of accuracy in their numbers and reporting. Data collection on clients and patients from centers and posts has improved due to better supervision, however, this area of program management remains weak. The MIS system that the MOH/FPU has been developing over the last few years should improve the processing and facilitate the effective use of these data.

The accounting system used by the MOH/FPU is a basic cash flow system which registers incoming receipts and costs and outgoing payments. This accounting is not registered by program which makes efficient program monitoring difficult at best.

The MOH/FPU is, however, scheduled to adopt a cost-accounting system which will be linked to an effective MIS system which will allow for very efficient and effective monitoring of program activities from a financial standpoint.

### 3. Relevant Evaluations, A.I.D Reviews and Audit Results

As the unit began program activities a mere five years ago and has been working to establish a viable MIS system to track its progress, no thorough evaluations per say have been conducted to review the impact of programs nor to examine particular components in detail. However, statistics do demonstrate the success of the MOH/FPU in motivating use of modern contraceptive methods and of reproductive health services. Specifically, and as an example, the average of contraceptive use among consumers per post has risen, substantially over the last several years from one to more than 30 CYPs.

The G/MOH has conducted audits of the MOH/FPU which have been prepared by internal auditors. However, in 1989-1990, the Regional Inspector General conducted an audit of the Expansion of Family Planning Services Project (Report No. 1-520-90-05, January 24, 1990) in which it is reported that the required annual external audits of the MOH/FPU had not been performed. As a result, the unit was audited by a commercial firm in June 1991 which uncovered<sup>3</sup>. Regular external audits will be conducted annually during this project to ensure, via independent verification, that A.I.D. funds are properly accounted for and used for approved purposes and that the control techniques in place are adequate.

4. Future Program Plans

a. Planned Expansion Strategy and Mix of Products/Services

The strategy planned for expanding services and products available via the MOH/FPU is based on the goal of increasing coverage and quality of reproductive health services delivered so as to increase the overall contraceptive prevalence and thus the number of small healthy families living in Guatemala.

In order to do this, the MOH/FPU will expand hospital-based and health center/post services by increasing the number of G/MOH personnel trained in reproductive health care and by increasing the type and number of services and products offered at each provider site. In terms of product mix, the range of available methods will be amplified to include different hormonal methods as well as male and female surgical contraception. Voluntary health promoters will include other hormonal methods in the range of temporary methods they distribute to consumers in their communities.

The unit will also expand the number of social and geographical population groups to be reached by the family planning program through health promoters and other outreach groups to include men and rural Highland target audiences.

Expansion of services and products will be based on the linkages and coordination with other family planning agencies in Guatemala so as to ensure economies of scale and avoid duplication of program efforts.

(1) Strengths and Weaknesses of the Family Planning Unit

The overriding weakness of the MOH/FPU is that it is subject to the prevailing political climate which varies with changing administrations and with pressure from conservative lobbying groups.

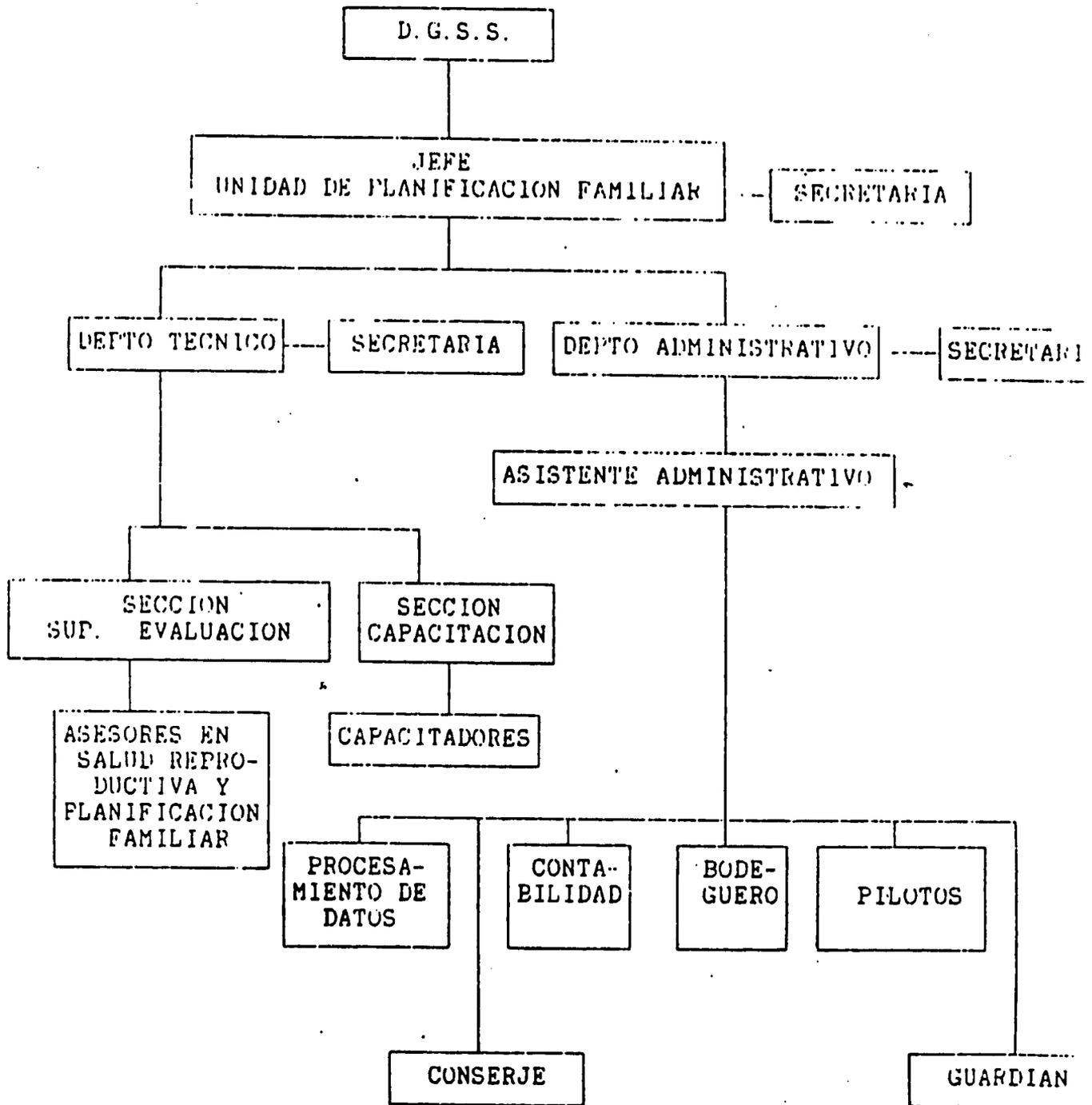
Another significant weakness of the MOH/FPU is that the unit does not legally appear in the organizational structure of the G/MOH which reflects that it is not an integrated program with some assurance of funding levels. This affects its long-range planning although it has not affected its commitment to date.

The MOH/FPU suffers from personnel turnover which is believed to be due to low pay and poor supervision.

The strength of the MOH/FPU lies in that it is a vertical program with autonomy in decision-making and programming. Its long and short-term planning is independent as is its spending policy and behavior.

Despite its weaknesses, the MOH/FPU has survived and grown since it was instated in 1985-1986. This is apparent in the services delivered to consumers in need of information, attention and contraceptive method supplies, the important increase in CYPs produced in health centers and posts, as well as in its acceptance within the Health Ministry and the government in general.

Perhaps the most significant strength related to this proposed project is that it is the only entity within the government structure dedicated to and actually delivering family planning services to a population which has expressed an unmet need for services and products with which to control their reproductive lives and improve the quality of family life.



INSTITUTIONAL ANALYSIS: IPROFASA

A. History and Organization

1. Legal Status

IPROFASA (Importadora de Productos Farmaceuticos, S. A.), is a for-profit company legally established and operating within the private commercial sector in Guatemala as an anonymous society (Sociedad Anonima). As a legal commercial company and as a registered member of the Mercantile Society of Guatemala, IPROFASA is subject to all the laws and regulations for businesses in Guatemala, including national and association taxes, importation and other duties, labor laws, workers' benefits, social securities, etc. The fact that it has signed cooperative agreements with USAID/Guatemala does not exempt IPROFASA from complying with national laws and regulations for commercial S.A. companies.

2. Philosophy of Institution

The philosophy of IPROFASA is to complement the original family planning service and product delivery systems in Guatemala by reaching low-income consumers with quality contraceptive methods in convenient and easily accessible commercial sales points at affordable prices. This market was underserved because low income consumers did not use the traditional family planning association clinic and community based distribution systems.

IPROFASA's philosophy is to use social marketing techniques to complement other family planning providers in Guatemala while operating as an autonomous organization within the commercial sector. To do this, IPROFASA must work with other products besides just contraceptives.

3. Mission Statement, Goals and Objectives

The mission of IPROFASA is to build an autonomous and sustainable commercial company by providing family health to Guatemalans via social marketing of contraceptives and other health products.

The goal of the company is to provide quality contraceptive methods and health products to consumers at affordable prices in convenient commercial sales points while moving to full sustainability in the near future.

I PROFASA's targets, needed to achieve its objectives, are the following:

- Increase brand sales by 10 percent each year in order to produce a total of 243,000 CYPs between FY 1992 and 1996;
- Increase product category sales for condoms, hormonal contraceptives and vaginal products by 1996 by meeting current demand and unmet need among consumers;
- Develop a line of I PROFASA health products;
- Make significant progress toward self-sustainability by 1996, reaching a minimum of 75 percent coverage of operating costs;
- Reach rural populations with affordable contraceptive and health products.

The activities planned in order to meet these objectives are described below under Planned Expansion Strategy.

#### 4. History of the Organization

I PROFASA was legally established in Guatemala on November 24, 1981. On August 31, 1982, I PROFASA signed a Cooperative Agreement with USAID/Guatemala for the development and implementation of a contraceptive social marketing project.

Soon thereafter, the general manager was hired (15 July 1983) and began work. On the first of May, 1984, Juarez and Associates, USAID/Guatemala technical advisor for I PROFASA, installed a resident advisor who was to support the social marketing work.

In July of 1985, I PROFASA launched one brand each of condom, oral contraceptive and vaginal tablet (Scudo, Perla and Lirio, respectively) with distribution to pharmacies in urban areas of Guatemala and selling "social" prices, affordable to I PROFASA's target market.

Since 1985, I PROFASA has introduced Pantera, a condom brand sold in single units rather than boxes of 3 as Scudo was sold. I PROFDAY, a low-dose oral contraceptive was introduced in 1990.

All I PROFASA brands have been widely advertised and promoted to consumers as well as retailers. Because national laws prohibit mass media advertisement of ethical drugs (oral contraceptives), only condom and vaginal tablet brands have appeared on TV and radio.

In 1990, IPROFASA began to reach rural areas with Pantera condoms via their Rural Subproject which is establishing sales outlets for common medicines in rural communities.

#### 6. Organizational Structure

IPROFASA is organized similar to other companies which import, distribute and sell pharmaceutical products. The company operates under a lineal structure which is headed by the Board of Directors composed of four business leaders with varying degrees of experience with family planning.

The company is organized in four departments, the heads of which all report to the General Manager who, in turn, reports to the Board of Directors which meets on a weekly basis. The four departments are: Finance and Administration; Sales and Distribution; Marketing; and, Research and New Projects. Each department is headed by a Director and staffed according to specific tasks (see attached Organizational Chart).

IPROFASA currently employs a total of 50 people including staff in Guatemala City at head office and in the three regions where the Rural Subproject is being implemented.

#### 7. Physical Infrastructure and Equipment

The head office is located in Guatemala City in a building constructed by IPROFASA on land purchased by the company in 1987. The building houses the advertising agency used by IPROFASA as well as the warehouse where products are stored and from which they are distributed.

IPROFASA maintains two regional offices, one in Solola and one in Quetzaltenango, from which the Rural Subproject activities and supplies are managed.

IPROFASA is well-equipped with modern office machines and furniture, an extensive micro-computer system with appropriate software and a fleet of vehicles for product distribution and supervisory visits by sales representatives and medical detailers.

#### 8. Target Groups and Product Mix

IPROFASA works with the traditional definition of target group for social marketing programs which is all women and men of reproductive age not using contraceptive methods who fall within the C and D socioeconomic class (middle and low class earning at least the minimum wage). IPROFASA has extended this definition to include B (upper middle) class couples.

As the company expands its product and brand lines to meet more of the unmet need for contraceptives among Guatemalan consumers, it will necessarily segment its target markets to include a focus on men and on young adults.

Until 1990, when IPROFASA began its Rural Subproject, the target groups were located in urban areas where the commercial sales outlets to which IPROFASA distributes are located. As of 1990, however, IPROFASA has been targeting rural populations as well as urban.

As IPROFASA has a strong sales orientation, much of its activities and promotional materials have been targeted to the trade, namely, doctors, retailers and their salesclerks.

Given its mission to work in social marketing which by definition works through commercial sectors, IPROFASA is limited to distribution and sale of temporary methods of contraception. This should not, however, prevent providing information, promotion and referral for consumers on medical and permanent methods such as IUDs, implants and surgical contraception.

IPROFASA currently carries two condom brands (one sold in boxes of 3 units and another sold in single units), two oral contraceptive brands (one standard and one low-dose) and one vaginal tablet brand. All products have been and are currently supplied and imported by USAID/Guatemala.

#### B. Programs and Activities

Social marketing of contraceptives typically includes activities in advertising and promotion (to consumers as well as to the trade), market research, distribution, public relations, training of different target groups and MIS for strategy design, monitoring and adjustment. IPROFASA has been no exception and has established several ongoing programs since its founding, including distribution to 87 percent of all pharmacies in Guatemala, retailer training in urban and rural areas, public relations materials and activities, mass media advertising and point-of-purchase (POP) materials production and distribution, distribution of condoms to non-traditional outlets (i.e., Super24 stores), micro-pharmacies in rural areas, medical detailing to doctors in urban areas, symposiums and sponsoring of sports events.

IPROFASA has done little market research to date in comparison to other contraceptive social marketing programs in the LAC region. The market research conducted has mostly been qualitative studies to pretest advertising/promotional materials

before production. The activities which consume the majority of staff time are the advertising and promotion and the distribution of product to sales points.

C. Organization Management

1. Relationship to USAID and Other Agencies

I PROFASA's relationship with USAID has been developed largely through the USAID project subcontractor, Juarez and Associates, which had a resident advisor based in Guatemala during the early years of the company's existence and which now coordinates with I PROFASA and USAID from Los Angeles with periodic visits to Guatemala.

I PROFASA representatives hold quarterly meetings with USAID project monitors and submit monthly, quarterly and annual progress reports to the Mission. The Mission retains decision-making powers regarding the expenditure of revenues generated from the sale of donated product as well as project activities and direction.

I PROFASA coordinates with other family planning agencies if and when there is a technical issue to resolve between the organizations, such as duplication of effort in promotion and/or distribution of temporary contraceptive methods or the perception of illegitimate sale of donated product (originating in the public and or PVO sectors) in the commercial sector market which I PROFASA distributes to.

The company has joined the Technical Committee recently formed by the local agencies working in family planning. The Committee is composed of I PROFASA, A PROFAM, MOH/FPU and USAID/Guatemala and meets regularly to discuss technical issues such as demographic targets, strategic plans for reaching distinct target markets, research being conducted, IE&C and promotional materials development and potential areas of collaboration.

2. Accounting and MIS Systems

The accounting system is set up to provide information which complies with Guatemala laws and regulations as well as to provide USAID/Guatemala with financial information it requires in regular progress reports.

The system is basically a computerized cash flow accounting of income and outgo, accounts receivable and accounts payable, and source of funding. It also manages salaries, tracks vendors' commissions as well as the overall budgets both of the company and that of USAID-I PROFASA Cooperative Agreement.

The MIS system currently in place uses Lotus, Wordstar and Cuatro to merge information from accounting/finances, credit and charges, warehouse and sales/distribution.

I PROFASA thus generates important data, although it is not as useful as a cost-accounting system merged with a comprehensive MIS system would be for monitoring effectiveness and progress of particular programs and activities.

### 3. Evaluation and Market Research

As noted in previous sections, I PROFASA has conducted market research to pretest promotional and advertising materials among consumers prior to their production. In 1987 focus groups were conducted to develop concepts and messages for advertising. Post-launch surveys have been conducted periodically to test the recall and impact of advertising campaigns.

I PROFASA contracted a study in 1987 to investigate the acceptance of the concept of family planning and the barriers and opportunities to distribution of information and contraceptive products among indigenous populations in rural areas.

Retail audits have not been a part of I PROFASA's market research nor the MIS information gathering with the exception of an audit contracted by USAID/Guatemala in 1991 to determine the incidence and magnitude of commercialization of donated product in the commercial sector market. This audit estimates the distribution coverage and market shares of I PROFASA products in the context of other contraceptive brands sold commercially.

### 4. Relevant A.I.D. Audits

USAID has contracted for two evaluations of I PROFASA, one in 1987 and the second in 1988. Both concluded that the company has been effective in distributing contraceptive products to accessible sales points where they can be easily found by the target groups. The second evaluation conducted by Kraus International indicated that though I PROFASA had been effective in accumulating CYPs given the youth of the company, an improved focus to the advertising and promotional materials was needed in order to be relevant and appreciated by the target groups.

In 1990, an external audit was conducted by the Regional Inspector General which identified three main problems with the way I PROFASA was implementing the Cooperative Agreement for

contraceptive social marketing. First, several irregularities in the manner in which various financial operations were registered were found. Secondly, the audit pursued the the 1982 local legal opinion that the company was violating Guatemalan law by selling donated contraceptives. The auditors discovered that although A.I.D.'s bilateral agreement with Guatemala allows it to import project commodities duty free, IPROFASA was spending a considerable amount of generated funds on import duties. USAID/Guatemala was not importing the contraceptives for the company because of concerns over the possible administrative burden and the legality of importing contraceptives for IPROFASA. The audit recommended that USAID/Guatemala import donated commodities for IPROFASA so that it could use these funds to cover other operating costs and further IPROFASA's level of self-sustainability. This has been done by USAID/Guatemala and the Mission will import future supplies of commodities for IPROFASA. The other recommendations made by the audit report have been closed.

**D. Future Program Plans**

**1. Planned Expansion Strategy and Change in Product Mix**

Based on a stated commitment to delivering quality product and services via social marketing techniques, IPROFASA's strategy is to expand and refine marketing activities so as to increase the number of satisfied contraceptive users. The geographic focus will be urban and peri-urban areas. This will be done by increasing their coverage by augmenting the number of sales outlets, expanding the range of types of outlets distributed to, broadening the current product line to include other contraceptive products as well as other new health products, establishing pricing by segmenting the market, and improving the relevance and appropriateness of the advertising, promotional, informational and training materials. Part of the new promotional focus will involve focusing on males and young adults as specific and important target markets.

IPROFASA will maintain the majority of its marketing activities in urban areas while continuing operation of the 55 sales points opened under the Rural Subproject in an effort to expand services to rural populations. This program will be evaluated for its effectiveness in reaching rural consumers with family planning products by the operations research component of the "Population and Family Planning Services" Project. Social marketing activities will continue or be amended depending on the research results.

The strategy for expansion also includes plans for replicating the Rural "Micro-pharmacy" Subproject approach among very low- income areas populated by Ladinos along the southern coast of Guatemala. Additionally, IPROFASA plans to investigate the feasibility of replicating the medical caravan approach used in the Rural Subproject to making basic medical attention and consultation available to urban area pharmacies, drugstores and small businesses for a fee.

IPROFASA also plans to pursue economies of scale by entering discussions with other pharmaceutical houses to determine the feasibility and desirability of generic advertising of products related to family health and family planning that can be sold using the social marketing approach.

The expansion plan is based on key market research to define consumer profiles, retail market characteristics (both qualitative and quantitative) as well as impact of programs in meeting their stated goals.

The change in product mix is planned to include other hormonal methods such as the injectable (not purchased by USAID/Guatemala), other types of condoms, and general health products.

#### D. Institutional Strengths and Weaknesses

Perhaps the greatest institutional weakness of IPROFASA at this point one of character definition. The organization is caught between operating as and having the interests and perspective of a commercial for-profit company while having grown accustomed to receiving funding and commodities from a willing and committed donor, namely, USAID/Guatemala. IPROFASA's greatest challenge in the next years will be to move away from depending on donor financing and toward complete autonomy in technical and financial terms. The members of the Board of Directors have expressed their collective and strong commitment to achieving self- sustainability while continuing the social marketing of contraceptives. The role of USAID/Guatemala during this project will be to provide IPROFASA with the marketing management technical assistance and funding required to launch it to autonomous status by 1996.

As mentioned in Section III.C.2.c., it appears that IPROFASA management has approached social marketing from the standpoint of winning market share rather than focusing on expanding the product categories (orals, condoms, vaginals) as well as increasing market share of CSM brands. The latter is

the traditional definition of social marketing which works to increase prevalence at the same time that income is generated from the sale of CSM brands. This commercial rather than social focus in setting sales targets is considered to be an institutional weakness because it does not act to improve the trial and use of temporary family planning methods but rather on stealing share in an already existing market of sales. Hence, the mission and goals of IPROFASA to do contraceptive social marketing successfully cannot be met. A focus on enhancing growth of product category sales should also theoretically generate more sales which contributes to self-sufficiency long-term.

By nature, IPROFASA suffers certain constraints and obstacles as described in detail in Section III.C.2.c.. To reiterate, these are related to the socio-cultural context in which it operates as well as to its political-economic standing as a recipient of USAID donated goods and funding and certain regulations regarding commodities importation and advertising. Furthermore, IPROFASA undoubtedly is at a disadvantage in marketing terms because of the nature of its staffing which is exclusively Ladino male at decision-making levels.

A final weakness of IPROFASA as a family planning agency is that management has not, to date, attended to pursuing policy or regulation changes with authorities which would improve their marketing strategies by presenting new opportunities for operations.

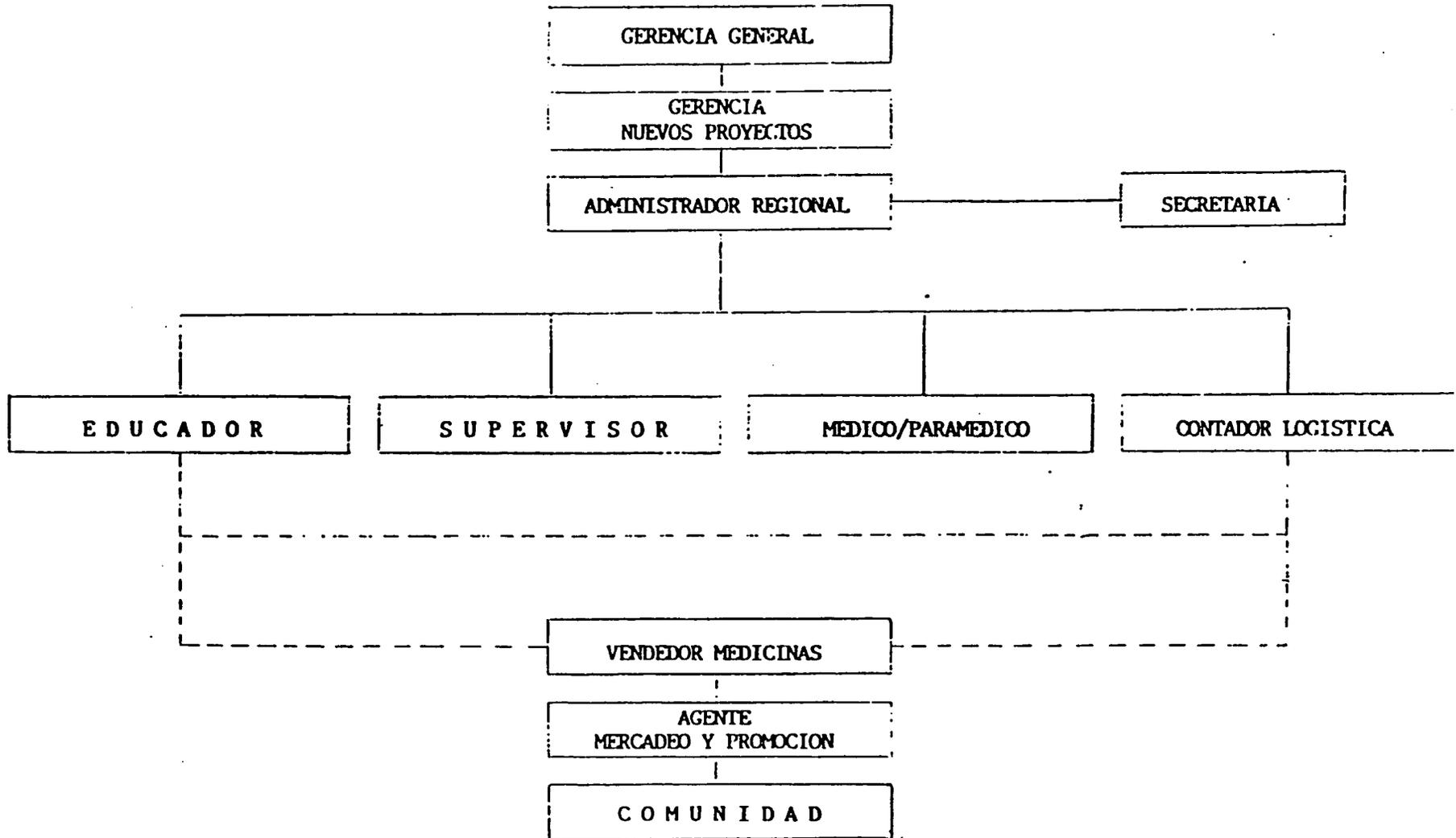
The overriding strength of IPROFASA is that it has become a part of the commercial market infrastructure of Guatemala. It has established a strong reputation in the commercial market as the distributor of quality and low-priced family planning methods. Its distribution network covers a full 87 percent of all pharmacies in Guatemala (the majority are located in urban or semi-urban areas) and IPROFASA is branching out into non-traditional outlets. Therefore, IPROFASA is delivering low-cost temporary contraceptive methods to a broad consumer market in urban areas which is a strong complement to what other family planning agencies are doing in both urban and rural areas.

IPROFASA has also successfully desensitized the public and conservative factions to contraceptive advertising in the mass media which has softened the overall climate for family planning activities in Guatemala. This is of critical importance given the history of negative actions and reactions family planning has confronted in Guatemala. It can be argued that only a commercial sector entity such as IPROFASA with businessmen/opinion leaders on its Board could have done this successfully.

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Another strength of IPROFASA as an organization is that it currently has several key opportunities which if pursued, will increase their success as social marketers of contraceptives and other health products. The opportunities include: 1) a large unmet need for family planning among the target population; 2) a more favorable socio-political climate in which to operate; 3) an established and positive reputation in the commercial market; and, 4) corporate commitment to contraceptive social marketing and to the success of IPROFASA as a viable company.

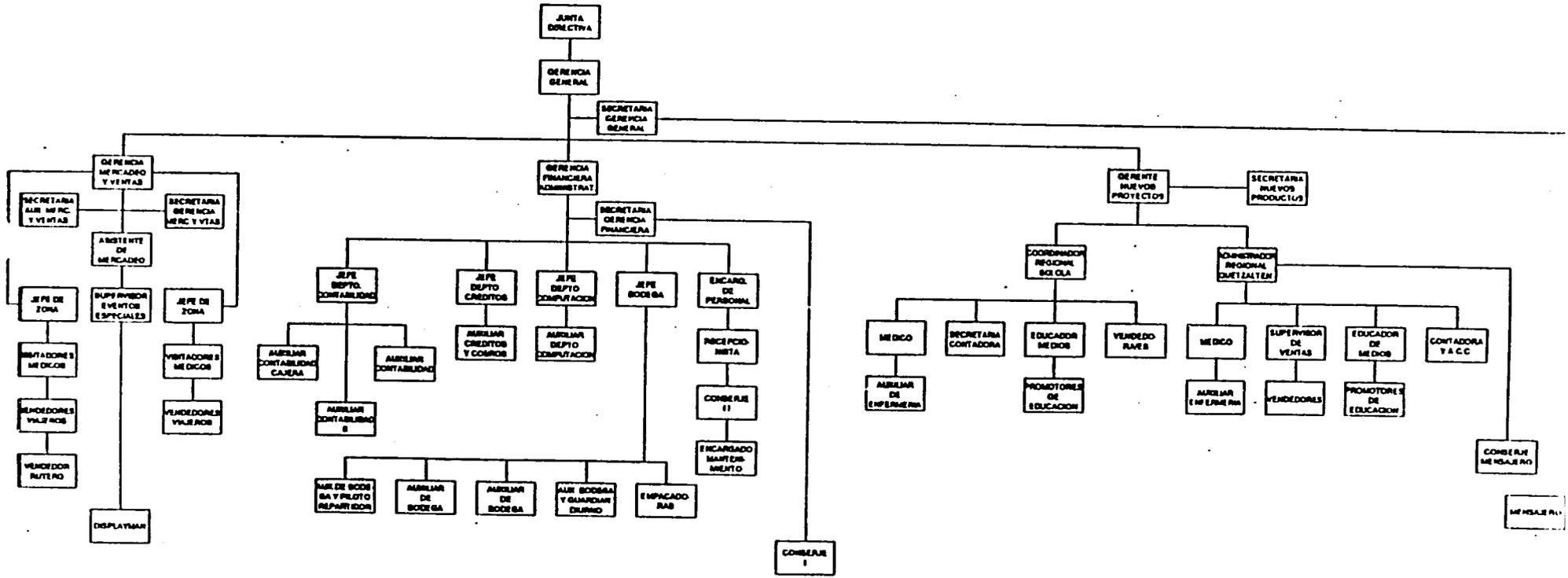
RURAL MICROPHARMACY PROJECT  
ORGANIGRAMA LINEAL REGIONAL  
QUETZALTENANGO  
(I PROFASA)



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# I PROFASA

DEPARTAMENTO DE PERSONAL



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SOCIAL SECURITY INSTITUTE OF GUATEMALA (IGSS)

1. Legal Status

The IGSS is a government agency responsible for providing social securities to workers in the Guatemalan labor force. One of the benefits workers are entitled to is health and medical care from IGSS hospitals and clinics.

2. Organization of Institution

The IGSS is headed by a General Director with a Deputy Director for Services Administration and a Deputy Director for Finance reporting to him. Under the Deputy Director for Services Administration is the Medical-Hospital Services Department with its Director General which is essentially responsible for all health activities undertaken by the institution.

The Medical-Hospital Services Department manages four subdepartments which are: Department of Preventive Medicine under which is the Section of Maternal/Child Health; Department of Central Services under which the Ob/Gyn Hospital operates; Department of Technical Services which supervises the Section of Teaching and Research; and, Department of Services by Political Department.

The IGSS is financed through contributions from employers, employees and by the national government.

3. Institutional Goals and Objectives

The goal of IGSS is to provide quality medical services, financed largely by participating employers, to Guatemalan workers and their families at no cost.

IGSS has recently identified the objective of receiving assistance in addressing what is estimated to be a high demand for family planning services and information, including child spacing information and contraceptive methods for women identified as being at high risk for unwanted pregnancy.

Their stated goal for this project is: "To improve the health of Guatemalan women and children eligible for Social Security services, by decreasing infant and maternal mortality,

morbidity and reproductive risk, through an enhanced and integrated program in reproductive health, family health and child spacing".

#### 4. Services Provided

The IGSS provides services to an estimated 800,000 workers, 300,000 spouses and 500,000 children, widows, invalids, pensioners and others which represents about 30 percent of the "economically active" work force and 17 percent of the total Guatemalan population. The programs are partially financed by 22,370 active and registered employers (as of 1989).

The IGSS delivers preventive and curative health services, and is used by its members primarily for accidental trauma, illness and for maternity.

IGSS operates in 22 of Guatemala's 23 departments where workers are treated for accidents and trauma. Assistance in illness and in maternity cases in 10 of these 22 departments which are principally located closest to the capital city. The majority of services are delivered by two hospital centers based in Guatemala City and in Quetzaltenango.

The IGSS provides condoms, surgical contraception procedures, oral contraceptives and IUDs.

#### 5. Physical Infrastructure, Equipment and Staffing

The two principal ob/gyn hospital centers together attended 90 percent of the total deliveries of the IGSS annually. The remaining 10 percent are attended to by the other IGSS centers distributed around the country.

In terms of maternal/child health, one of the two main ob/gyn hospitals, Hospital Gineco-Obstetricia in Guatemala City is housed in a somewhat precarious structure which was intended to be temporary after the 1976 earthquake but which has since become permanent. Nevertheless, the basic equipment is sufficient and in a good state. The hospital is a clean environment with 215 beds, 30 of which are reserved for ob/gyn. There are four operating rooms and two birthing rooms.

A total of 103 medical personnel attend patients, 45 of which are residents. There are a total of 16 obstetric offices and 8 gynecological offices which attend clients in the morning and afternoon. One of the obstetrical offices attends high risk patients, another infertility cases and one family planning clients.

The other large IGSS center, Hospital Juan Jos Arivalo in Quetzaltenango, is a modern and exceptional for countries in this part of the world. This hospital has sophisticated equipment which is unique in the Guatemala. It provides specialized general medical services as well as surgical and ob/gyn. The hospital boasts 56 hospitalization beds, 15 beds for observation, childbirth and recuperation. There are 6 operating rooms and 2 delivery rooms. The total medical staff is 6 specialists and 16 residents. Outside consultations are attended in 5 medical offices. There is no office specifically designated for family planning. Those clients who express an interest are referred to APROFAM.

#### 6. Accounting and MIS Systems

IGSS has a weak data base and virtually no regular data collection/information on their target group, maternal and infant mortality and morbidity, nor their level of services.

The accounting system of IGSS is currently weak and not very efficient. It is a cash flow system which is maintained in a manner similar to other government offices.

#### 6. Relevant A.I.D. Evaluation and Audit

Because A.I.D. has not yet worked nor funded the IGSS, no evaluations nor audits have been conducted to date. Once USAID/Guatemala funding is received and expended by the IGSS, however, the organization will be subject to external A.I.D. audits as are other beneficiaries.

#### 7. Planned Expansion Strategy

In the medical arena the IGSS plans to introduce the concepts of reproductive health and reproductive risk to all their medical staff and orient their beneficiaries in order to improve maternal/child health. The institution's management also will identify and reduce infant and maternal mortality rates among IGSS eligible users via the establishment of appropriate policies, programs, staffing and developing related institutional capacities.

Under this project, IGSS will also promote health education and training in support of reproductive and family health in general both within IGSS as an institution and among its eligible beneficiaries in Guatemalan communities.

In terms of extra-medical activities, the IGSS plans to expand its operations to include epidemiologic and operations research as a basis for establishing the relevant and useful policies, practices and procedures for reproductive and family health services delivery.

## 8. Institutional Strengths and Weaknesses

The IGSS presents significant weaknesses in terms of family planning service delivery because it has not had a clear policy to guide its infrastructure establishment and maintenance, programming of activities, product supply logistics, staff training, and other factors which are basic to delivering quality health services.

Reproductive health and family planning activities have been developed informally and without regular ongoing assistance. This has grave implications for the seriousness with which staff are able to treat family planning, for the regular supply of contraceptives (IGSS reportedly is short of all but condoms) and for the satisfaction of interested clients for contraceptive information and supplies.

The IGSS currently has virtually no data on the demographics of its target population in general nor does it have specific data on maternal and infant mortality and morbidity.

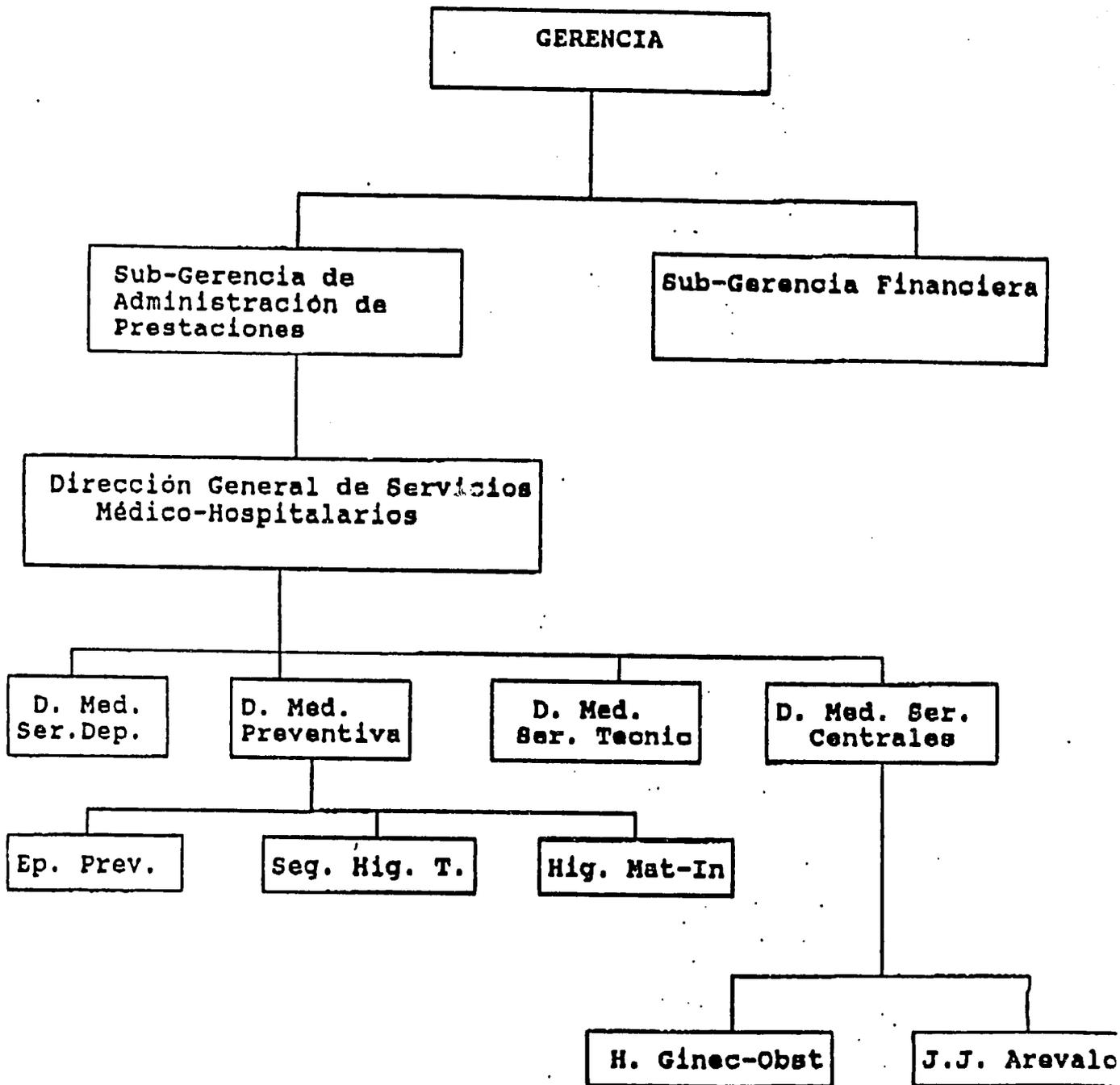
Most of the IGSS medical staff are seriously lacking in up-to-date and appropriate training and information on safe motherhood and reproductive risk, family planning and child spacing. The medical technologies necessary for appropriate methods counseling and service delivery.

The overriding strength of the IGSS is that it has a solid infrastructure and professional staff with which to work to introduce family health services, information and products. The institution management is interested in initiating and preparing for this integration to their current activities. The political climate in Guatemala is more favorable in general towards family planning which allows the IGSS to be more proactive in the area. This has been borne out in the participation of IGSS at international conferences on family planning and recent study tours by senior IGSS staff to observe the reproductive health and family planning programs of other Social Security Institutions in Latin America.

There is also a clear level of interest and demand among consumers to have family planning and reproductive risk services and products available to them at IGSS establishments. This is documented in clients' requests for IUDs, surgical contraceptive procedures and safe motherhood counseling which the IGSS is currently unable to comply with.

Another strength of the IGSS is that it is financed by employers in whose interest (in financial and productivity terms) it is to have their employees in excellent reproductive health. Unwanted and an excess of births are directly related to problems of attrition, low productivity, absenteeism and financial drain on the business.

ORGANIZATIONAL CHART  
I.G.S.S.



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INSTITUTIONAL ANALYSIS: APROFAM

A. History and Organization

1. Legal Status

APROFAM, the Guatemalan Family Welfare Association is a private, not-for-profit association without political or religious affiliation which is dedicated to the promotion of maternal and child health, responsible parenthood and family planning among Guatemala populations. APROFAM was founded in 1964 by a multidisciplinary group of professionals including medical doctors, nurses and social workers. It obtained legal status under the laws of Guatemala in 1965 and became an affiliate of IPPF (International Planned Parenthood Federation) in 1969.

2. Philosophy

As the pioneer in family planning programs in Guatemala, APROFAM is philosophically and actually dedicated to the promulgation the human and constitutional right of Guatemalan couples to a free and conscientious decision as to the number and spacing of their children's births as it is described in Article 47 of the Guatemala Constitution. This is carried out in large measure by family health programs which provide reproductive and maternal/child health services and contraceptive products throughout Guatemala.

APROFAM also pursues those activities which enhance the positive climate for population policy dialogue and for the integration of women to the development process. The association is committed to educating different audiences, and the public in general, to the importance and the benefits of family planning. This is done by dispelling the high degree of misinformation and misunderstanding regarding family planning and population issues that have existed in Guatemala. One particular population group that APROFAM is addressing is young adults, particularly students in medical schools.

The indigenous populations of Guatemala are a special target for APROFAM strategies and programs given the tremendous and immediate need for family health and family planning education, services and products among these cultures. APROFAM management will increase the involvement of Maya personnel in both their regional and central office operations.

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The management of APROFAM is committed to finding ways of increasing the institution's self-sufficiency by developing technical and financial autonomy from external donors.

### 3. Mission Statement, Goals and Objectives

The mission of APROFAM is to contribute to the collaboration and coordination among institutions working to improve the quality of life of Guatemalan women and children by providing them with the necessary tools to freely decide the number and spacing of their children's births.

The goal of APROFAM is to expand family planning information and services to Guatemalans by integrating maternal/child health and other services that contribute to the reduction of health risks to women in reproductive age. These services shall be effective and accessible; they shall be based on the needs and cultural values of the populations to be served.

The main long-term objectives of APROFAM to reach this institutional goal are:

- a. Expand the associations' services in order to lower the total fertility rate from 5.6 to 4.2 children per woman.
- b. Reach financial self-sufficiency via the implementation of projects and activities designed to generate sufficient revenues to finance 70 percent of the overall operating budget 20 years hence.

### 4. History of APROFAM

APROFAM was founded in 1964 by a multidisciplinary group of professionals dedicated to the well-being of the Guatemalan family. In 1965 APROFAM was legalized under the laws of Guatemala and commenced its activities in promoting responsible parenthood as an essential element in securing the well-being of Guatemalan men, women and children. APROFAM administered initial activities from their temporary location in the Hospital Latinoamericano.

In 1969 APROFAM became part of the IPPF world system of family planning association affiliates which provided the organization with financial and technical assistance to become more active in offering family planning services and modern contraceptive methods.

Since 1969, APROFAM has become the leader in family planning in Guatemala and currently provides 40 percent of the total services and products delivered in Guatemala. APROFAM has demonstrated its ability to successfully implement a wide variety of programs including: clinical services, community based distribution and sales, policy dialogue, family life education programs, IE & C activities, working library and resource center, research and evaluation. APROFAM is currently restructuring its organization so as to decentralize and regionalize its management and administration. This is being done so as to increase productivity, efficiency and level of self-sustainability.

#### 5. Organizational Structure

APROFAM recently underwent a thorough management review and analysis which resulted in a restructuring of the association (see Organizational Chart) designed to facilitate the process of decentralization and regionalization as well as to maximize flexibility in the expansion of operations and service delivery. the new structure will maximize flexibility in responding to programmatic problems and opportunities.

The new organizational structure is based on the following levels of management: A) Normative level for decision and policy-making; B) Executive Direction level for implementation of decisions and policy; C) Assistance level for planning and development, information, public relations, human resources and audits; D) Functional level for information and education, administration and finance and evaluation and statistics; E) Executive level for clinical services, community services and regionalization project; F) Operational level composed of geographic departmental chiefs, supervisors and technicians; G) Service level.

#### 6. Target Groups

The overall target audience for APROFAM activities is men and women of reproductive age, in urban and rural areas and of limited economic resources. This audience is segmented qualitatively to respond to consumer need. APROFAM targets young men and women for information and education programs, women and their children for family health programs, women and men for reproductive health clinical services and contraceptive product delivery. APROFAM also targets opinion leaders and the general public for education on population issues and policy dialogue.

These target segments are described in quantitative terms when APROFAM undertakes its regular tegic and operational planning. Both the qualitative and quantitative descriptions are adjusted over time based on research and evaluation results.

#### 7. Services, Programs and Products

APROFAM operates 15 clinics nationwide which offer a range of medical services related to reproductive and maternal/child health and family planning as well as maintaining a group of associated private doctors who are trained to deliver these services. A variety of health products are available at APROFAM medical clinics. APROFAM clinics and associated doctors perform male and female surgical contraception and IUD insertion as well as provide temporary contraceptive methods including: injectables, condoms, pills and vaginals.

The community services program operates in 21 departments of Guatemala providing family planning information at the community level and delivering temporary methods of contraception, oral rehydration salts and anti-parasitic medications to consumers at symbolic prices via over 2050 voluntary promoters/distributors. The program also distributes their products to private clinics throughout the country.

The department of education, information and training plans and conducts activities with a range of target populations including: policy makers, opinion leaders, young men and women, university and medical students, military personnel, rural community leaders, etc. The department develops and produces appropriate materials including: videos, TV and radio spots, print materials, curriculums, RAPID presentations on the relationship between population and development, documentaries on population and the environment, posters, brochures, fliers, calendars, and other promotional/informational materials for family planning. The department also coordinates with other departments to prepare for conferences, presentations and publications.

The research and evaluation department conducts a range of studies that contribute to improving the quality of all the programs and activities APROFAM carries out including: service delivery, training and IE&C activities. The results of these studies are applied to the relevant programs within the departments of: clinical services, community services and information, education and training.

The department of information provides all other APROFAM departments with management information relevant to each respective activity area.

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## 8. Staff and Human Resources

During the 1990 institutional review and analysis the organizational structure and staffing was revamped so as to maximize effectiveness of operations. Each staff position was carefully considered and the responsibilities, reporting relationships and qualifications required detailed in the operations manual.

APROFAM currently employs over 300 personnel as well as over 2050 community volunteers and over 15 associated doctors. The personnel are distributed between the various administrative and program departments described in the section on Organizational Structure as well as among the regional medical clinics and community services distribution posts.

## 9. Physical Infrastructure

APROFAM management and administration currently runs out of the building which houses the central clinic in downtown Guatemala City. In addition, APROFAM maintains 15 clinics which also serve as distribution points for the community service promoters nationwide. The associated doctors under contract with APROFAM to provide reproductive health services and contraceptive products maintain their own medical offices form part of the total infrastructure.

## 10. Equipment

To ensure quality medical services, APROFAM maintains updated surgical and medical equipment in its clinics. It also has use of equipment for condom testing and quality control which it conducts for all product provided to APROFAM units, MOH service delivery points as well as those of the armed forces.

APROFAM is fully computerized with appropriate technology for MIS systems, accounting, statistical analyses of research and evaluation studies and RAPID presentations.

The association maintains a fleet of vehicles used in service delivery both for the clinic and community services departments.

APROFAM also has equipment to mark contraceptive products so as to control leakage of donated product into the commercial sector.

B. Organizational Management

1. Relationship to USAID and Other Agencies

Being an IPPF affiliate, APROFAM receives funding, commodities, equipment and technical assistance from the former organization. In relevant areas as with other donors, the association is subject to IPPF policy and guidelines.

APROFAM has cultivated a close working relationship with USAID/Guatemala. The association has made full use of technical assistance both from Mission representatives as well as from other agencies for specific TAs. APROFAM and USAID/Guatemala work together to monitor program progress according to objectives, budget reviews, and to expand into new program and activity areas.

APROFAM has recently joined with other local family planning agencies in forming a council to review technical issues and areas of common interest. This council is composed of representatives from AGES, MOH/FPU, IPROFASA, Armed Forces and USAID/Guatemala and has committed to regular meetings in the future.

In particular, the association coordinates activities, especially product testing, supply and distribution, with the MOH/FPU and the Armed Forces. It also worked closely with AGES programs in family life education, contraceptive information and product supply, and the educational scholarship program for Mayan girls.

2. Accounting and MIS Systems

Following the management review and analysis, APROFAM is converting from a cash flow to a cost accounting system for tracking its financial operations and status.

The new system is based on structured coding of all financial inputs and outputs that permits a standardized registration of all transactions while maintaining the flexibility necessary to respond to users' needs.

This cost accounting system will be linked to the MIS system currently being instituted in APROFAM which will manage inputs and outputs by program and activity. The combined MIS and cost-accounting system is designed to allow for better planning, monitoring and evaluation.

The new systems together will provide APROFAM with financial data that will improve level of satisfaction of their reporting requirements to donor agencies.

### 3. Evaluation and Market Research

APROFAM has been a traditional family planning association in the sense that there has not been a market focus (focus on the consumer need) guiding the identification, development and implementation of programs. As a result there has been little market research with the exception of material-testing before their production.

However, over the past several years, APROFAM administration has been adopting a management by objectives and quality indicators approach to business which implies the need for focus on the consumer or, a market focus. Management appreciates and has stated the benefits of conducting market research.

Market research will provide APROFAM information on what the consumer need is and how to reach their various target audiences with quality products and services. The plan for regionalization as well as the development of a rural strategy will require solid market research which will provide APROFAM with valuable experience in the area.

The association has conducted extensive evaluations of its activities and programs as well as participated in operations research studies. The results have been effectively applied to improving programming, materials and specific activities.

### 4. Relevant A.I.D. Evaluation and Audit Results

USAID/Guatemala conducts regular financial audits of APROFAM operations and has made adjustments when and where needed. No aberrations in the association's operations have been noted by these audits.

USAID/Guatemala recently financed an extensive institutional review and analysis of APROFAM which was conducted by Price Waterhouse and supervised by an outside consultant. The evaluation resulted in a restructuring of the organization's management so that it is more task-oriented and less hierarchical. The evaluation resulted in an extensive operations manual which includes a plan for decentralization and regionalization as well as for a revamping of the MIS and financial accounting systems.

C. Future Program Plans

1. Planned Expansion Strategy

APROFAM has developed a long-term strategy to reach a greater number of consumers with quality services and products by integrating maternal/child health and other services that contribute to a reduction in women's reproductive risk. The objective of the strategy is to contribute to the overall reduction in the total fertility among Guatemalan women from 5.6 to 5 children per woman by increasing the prevalence rate from 23 percent to 31 percent between 1992 and 1996.

Implementation of the strategy includes the continuation and expansion of current programs and activities and the commencement of those which will improve access and use of family health services and products among Guatemalan women and men in reproductive age. Specific areas of expansion are: 1) information and communication to enhance knowledge and understanding among the general public and opinion leaders of family planning, contraceptive methods, service points, health benefits of family planning and demographic trends; 2) different approaches to clinic services delivery, to community based distribution and promotion, and to reaching rural populations; 3) distribution and provision of new contraceptives such as injectables, implants and vasectomy.

2. Planned Changes in Mix of Services and Products

APROFAM plans to decrease the percentage of sterilizations performed as a total of all methods provided (although the actual number will increase) and to increase the percentage of IUD insertions and injectables delivered (if and when the latter method is readily available to clinics and community services delivery systems).

As approaches to the rural strategy are tested, APROFAM increase the number of pills

3. Institutional Strengths and Weaknesses

The overriding weakness of the association is that it has operated under a formal and somewhat rigid hierarchical management structure with decision-making concentrated at the top. This presents a barrier to flexibility and receptivity in terms of the identification and solution of problems as well as missing potential opportunities.

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The staff of APROFAM, both central and regional is skewed including many more males and Ladinos than females and Mayans. There is no equivalent of an equal opportunity employment policy.

The association has not had a market focus in its processes of program and activities development. Over the years, APROFAM has concentrated on delivering the services and providing the products that it has determined to be important and necessary and in a manner it has determined to be effective for reaching its target populations rather than identifying the consumer need before developing its programs, activities, materials and approaches. A market focus would provide a higher level of quality of care which would theoretically translate into increased and more satisfied use of contraceptive methods and reproductive health services.

In terms of MIS and financial systems, APROFAM has been at a disadvantage in that the data produced cannot be easily utilized for program monitoring and evaluation. This also implies that much of the data collected is obsolete and frustrates the purpose of reporting and record keeping. The cash flow accounting system did not tie inputs to outputs nor costs to programs and activities making it difficult to form a clear idea of the progress, problems and opportunities of APROFAM activities.

APROFAM's greatest strength lies in its vast experience in family planning and reproductive health in Guatemala which has been accumulated over the past 25 years. The association has been successful in expanding its scope and operations despite severe threats to its existence in the conservative climate of Guatemala religious and state policies.

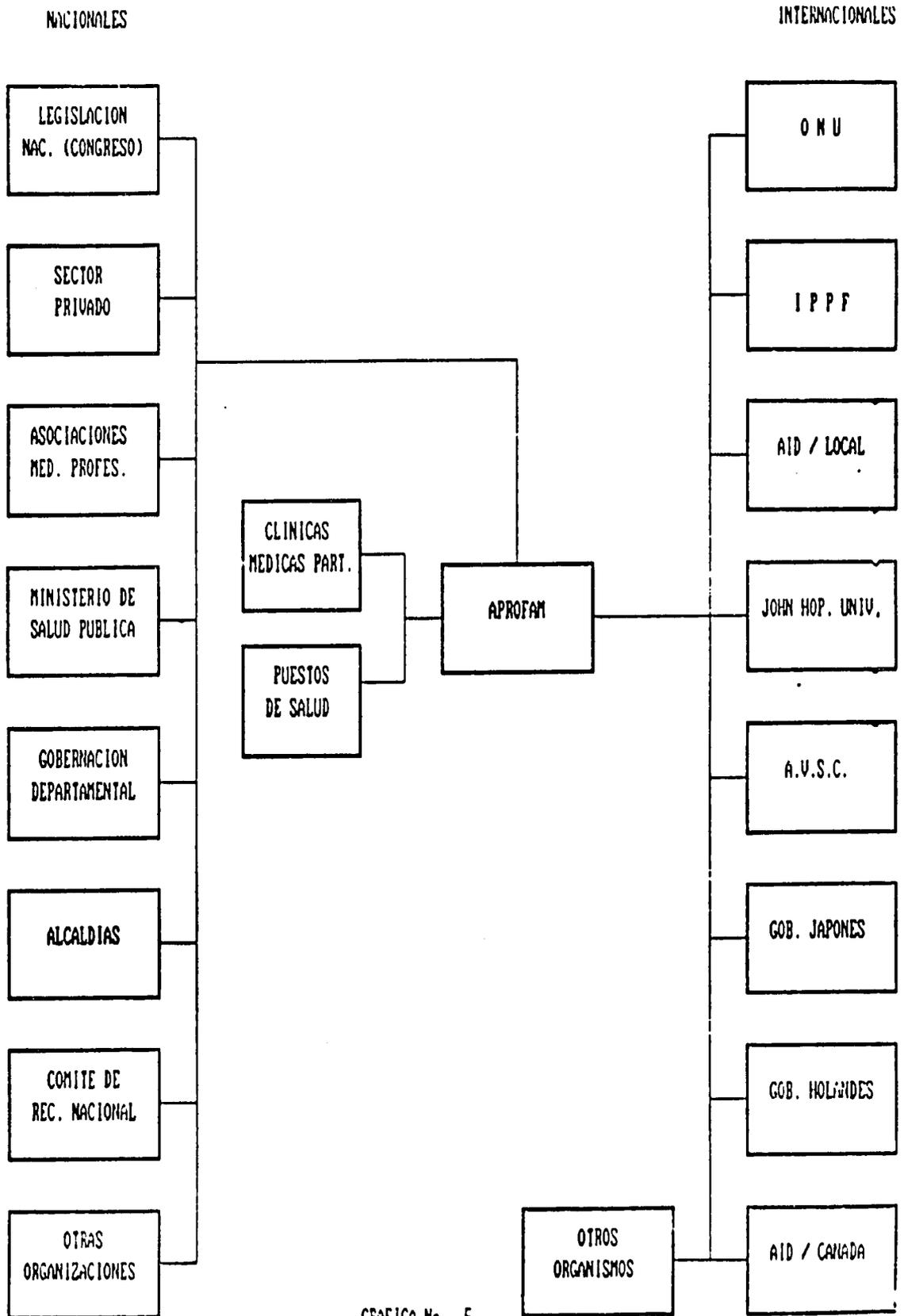
APROFAM also has extensive experience with donor agencies such as IPPF, USAID/Guatemala, CIDA and the Japanese Government. This enhances management's ability to identify and obtain funding from new sources and to successfully administer donations and grants from a variety of different organizations.

The breadth of services and products which APROFAM manages allows programs to be flexible and comprehensive which is a great advantage when trying to reach different a range of target populations of varying cultural and linguistic backgrounds in very different geographical locations.

Finally, APROFAM has just undergone a thorough institutional review and analysis which resulted in a long-term strategy and plan for restructuring which if carried out, should further strengthen and expand the association's activities, programs and services.

# APROFAM

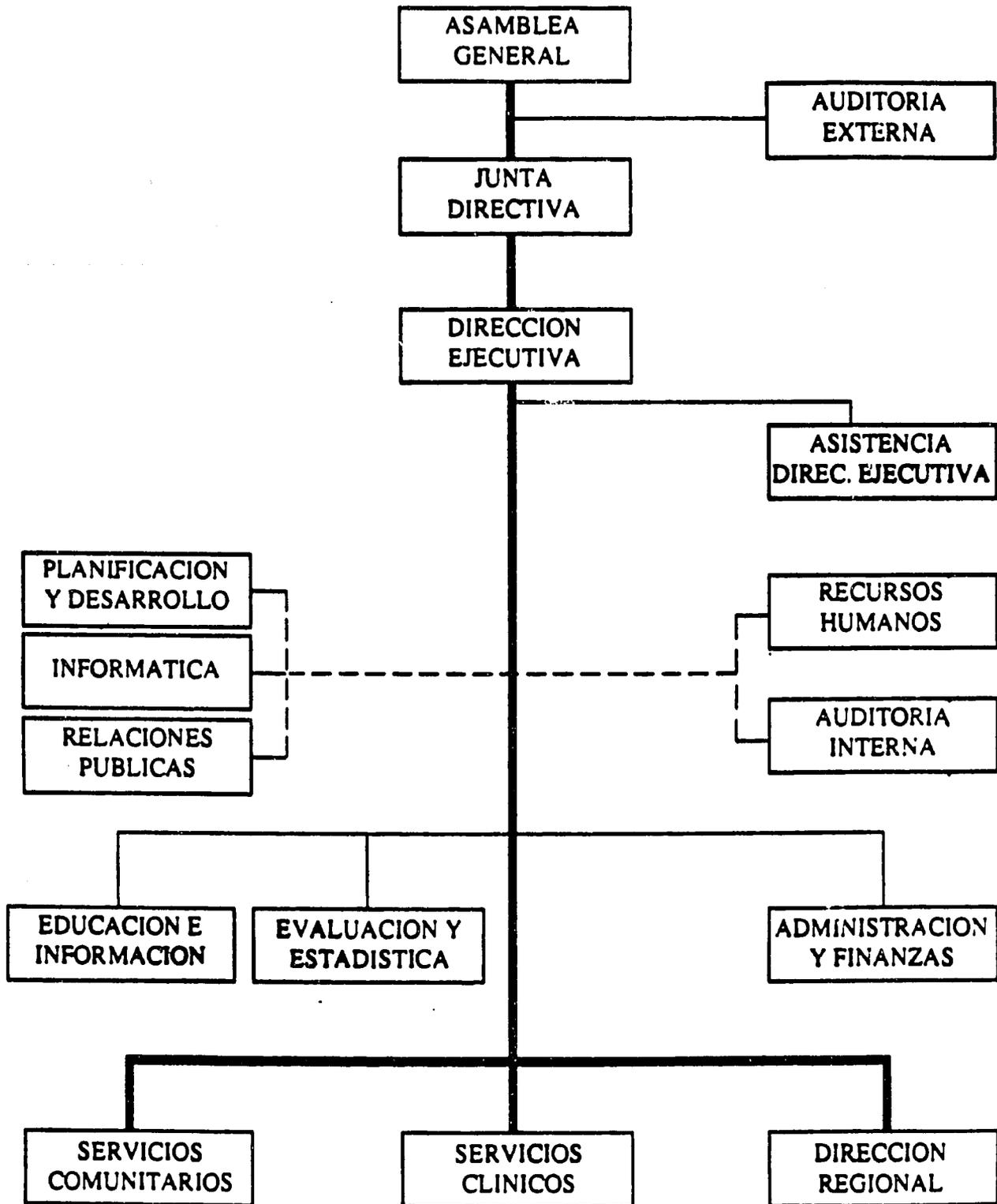
## RELACIONES ORGANIZACIONALES EXTERNAS



GRAFICA No. 5

256+

### ORGANIGRAMA DE APROFAM



**ANNEX G**

**SOCIAL SOUNDNESS ANALYSIS** .

## ANNEX G

### SOCIAL SOUNDNESS ANALYSIS

#### A. Introduction

Guatemalan health status is among the worst in Latin America. According to the 1987 National Maternal/Child Health Survey, maternal mortality in Guatemala was 110 per 100,000 live births, the highest in the region (Demographic and Health Surveys, DHS, 1987). The infant mortality rate was also high, 79.1 per 1000 live births, with a child death rate of 120.8 per 1000 (DHS, 1987). These key health indicators are worse among rural Mayan speakers where the quality of life, in general, is very poor.

The low health status of the Guatemalan population is closely related to the fact that Guatemala is one of the poorest countries in Latin America with a per capita GNP of U.S. \$900 and a minimum daily wage of two dollars (United Nations Development Program, 1991). According to the National Institute of Statistics, 75 percent of the Guatemalan population could not satisfy its basic necessities in 1989, the highest poverty level in Central America (INE, 1991). The situation is much worse in rural areas where 83 percent of the households live in poverty and 64 percent in indigency in comparison with 62 percent and 34 percent in urban areas. Children, the most vulnerable group in any society, are most affected. Approximately 85 percent of Guatemalan children live in poverty and 66 percent do not have their minimum necessities met. The Mayan population is also disproportionately affected, 89.5 percent of Mayans are poor in comparison with 74.2 percent of Ladinos (INE, 1991).

The skewed distribution of wealth in Guatemala exacerbates the poverty in which most of the country's population lives. The wealthiest 20 percent of the Guatemalan population received 64.1 percent of the national income in 1980 (UNDP, 1991). Land distribution in Guatemala is the most unequal of Central America and is considered to be one of the main causes of the Guatemalan population's impoverishment (Ascher, 1989). In Guatemala, three percent of the farms control 66 percent of the land. Furthermore, 83 percent of the farms have an area of less than 3.5 hectares, but their total area represents only 10.5 percent of the total for all farms (Ascher, 1989).

The minfundia/latifundia land distribution system that has evolved in Guatemala places large extensions of land in the hands of relatively few where production is for the agro-export sector: coffee, sugar, cotton and cattle. Basic grains are grown on small plots of land primarily in the Highlands. A study conducted by USAID in 1980 found this agrarian structure to be one of the most unequal in the hemisphere. The 1980 study concluded that "nine out of ten people were living on plots of land too small" to provide for their needs. Some studies estimate that almost 80 percent of rural families are landless or near landless (CMRADR/FAO, 1989). These families provide inexpensive labor for the agro- export sector.

#### **B. Project Beneficiaries**

The "Population and Family Health Services" Project is designed to have a national impact, operating through a variety of public and private institutions. This project will benefit all members of the poor population who desire to either limit or space the births of their children. It will particularly benefit the most disadvantaged groups of society, women of reproductive age and pre-school age children. Men will also be included as project beneficiaries under the activity because of the determining role they play in family planning use. The greatest number of beneficiaries will be poor, rural women since these are least served by present family planning and health care programs. However, increased resources will be provided to serve urban recipients currently unable to benefit from family planning services due to insufficient supply of services. The Research and Development component will develop strategies to provide services to the Mayan population, a group which shares a disproportionate portion of the country's poverty and has traditionally been marginalized from development activities in Guatemala.

#### **C. Socio-Cultural Context**

Guatemala is composed of two largely distinct worlds: the rural areas and Guatemala City. The country's population is composed of two distinct ethnic groups: Ladinos and Mayans. Ladinos are of mixed Spanish and Mayan origin and speak Spanish. Estimates of the percent of the population which is Mayan vary from 34 percent (DHS, 1987) to 42 percent (INE, 1990). A person is considered Mayan when s/he continues to observe cultural traditions, continues to speak her/his native language, and in the case of women, continues to wear traditional clothing. The vast majority (81.5%) of the Mayan population resides in rural areas and most are concentrated in the Western and Central Highland regions of the country (INE, 1990).

Certain groups such as men and women living in rural areas, Mayan speakers, men and youth require specially-designed outreach strategies. Implicit in this project design is recognition of the particular needs of beneficiary groups --males and females, urban and rural dwellers and Mayans and Ladinos. Likewise, the political context in which family planning activities operate in Guatemala poses a number of problems which are addressed by the project design. The particular needs of each target population and the way in which the design of this Project responds these needs are discussed below.

### 1. The Mayan Population

The Mayans of Guatemala comprise a substantial proportion of the population and have long been neglected by government programs. They are poorer, less literate and more likely to die in infancy and childbirth than Ladinos, the dominant sociocultural group in Guatemala. They also suffer higher levels of malnutrition and more illnesses than Ladinos. Despite a more pressing need for health services, statistics on the pattern of health service utilization show that Mayans use maternal/child health services much less frequently than do their Ladino counterparts.

#### a. Socioeconomic Status

Information related to the socioeconomic status of the Mayan population is limited, in part because the principal sources of economic data do not disaggregate information by ethnicity. Nonetheless, large and statistically significant differences were found between Mayans and Ladinos in all of the socioeconomic variables in the 1987 DHS (Ward et al., 1990). According to INE, in 1989 the majority of economically active Mayan men (71.5%) were "invisibly underemployed" (1991). Their main source of income is derived from agriculture as either day laborers, subsistence farmers, or low to medium market-oriented growers, with supplemental income from producing and marketing handicrafts.

Lack of education for the Mayan population, in particular women, compounds their situation by limiting their exposure to new ideas and technologies and their ability to participate in the mainstream economic life of the country. Almost 70 percent of Mayan women have had no education, and 80 percent are illiterate (Newman, 1991). The low level of education among the Mayan population is of great concern, in part because it is closely associated with differences in health indicators and service utilization (Development Associates, 1987; Ward et al., 1991b, Newman and Bezmalinovic, 1991).

Internationally, as well as in Guatemala, a consistent relationship has been found between low levels of education and age at first marriage, age at first birth, and knowledge and use of contraceptive methods.

b. Social Structure

Since its conquest in the 16th century, Guatemala has been a society dominated by a Spanish speaking minority. This minority has controlled the commercial, political, religious and economic life of the country. Throughout history, the Mayan population has been exploited by the Spanish speaking Ladino. Repeatedly, the resources of the Mayan population, particularly land and labor, have been taken by force or poorly remunerated. In the 1980's, Mayan communities were caught in a violent struggle between the Guatemalan military and the armed left.

Perhaps in response to this history of exploitation, communal life in Mayan villages is largely closed and Mayans often view the world beyond the village with fear and mistrust. Social rank in Mayan communities is a product of age and prestige, the latter often is acquired through contributions of both time and money to the cofradia system (religious brotherhood) or from performing valued community roles such as shaman or midwife. The cofradia is the authority within the village. This "closed corporate" life has protected Mayan individuals and communities from extreme forms of exploitation throughout history. Today, many Mayans view Ladinos as well as their technologies and ideas with mistrust.

For centuries, the Mayan culture has survived and adapted to extreme conditions. Today, even though thousands of people have died in violence and entire villages have been destroyed, Mayan people are beginning to gain a political voice in their country. The dominant Ladino culture, which holds political control of the country, has come to realize that the Mayan population must be recognized as an important political force and it must be fully incorporated into the national life of the country. PRONEBI, the national bilingual education program is a clear example of government efforts to bring Mayans into the mainstream. The official recognition of distinct Indian languages and the allocation of national budget resources for hiring and training of bilingual teachers are major steps towards enfranchisement of this important population group. These are important forms of empowerment that previously would have been impossible.

c. Contraceptive Knowledge and Use

Survey data show contraceptive prevalence to be extremely low among the Mayan population, with only 5.5 percent

using contraceptive methods, in comparison with 34 percent of currently married Ladino women (DHS, 1987). The Total Fertility Rate (TFR) of 6.8 living children per woman in this group is very high and takes a great toll on their health as well as the health of their children.

Knowledge of family planning methods is extremely low among Mayan women; a recent survey of women of reproductive age showed that 59 percent of the women did not know of a single modern contraceptive method (Ward et al, 1990). The mean number of methods known (both prompted and unprompted) was only 1.3 for Mayans. Not surprisingly, access to knowledge was also low, 65.7 percent of Mayan women had never heard or seen a family planning message (CDC, 1991).

The factors explaining the low levels of contraceptive knowledge and use among the Mayan population are multiple. These can be divided into three major areas: 1) limited access to culturally appropriate health services and information; 2) cultural attitudes towards family size and family planning; and 3) the control men and community leaders exercise over women's reproductive lives.

d. Limited Access

The reason for the low use of contraception among the Mayan population has to do both with availability of services and the nature of the services offered. Services for this population have traditionally received a very low priority in the national budget. Thus, many areas are severely underserved. Where services are available, underutilization results from the general mistrust Mayans have of Ladinos caused by centuries of exploitation.

Factors related to health programs such as physical access, the cost of services, the shortage of human and material resources of the health services (Annis, 1981; Bossert et al., 1987), and the absence of Mayan personnel in maternal/child health programs (Ward et al, 1991b; Lundgren, 1991) may represent barriers to utilization.

Communication problems between Mayans and Ladino service providers represent an important barrier to health service utilization. Modern Mayans speak one of twenty three languages; over half (67.9%) belong to one of four principal language groups; Mam, Kakchikel, Quichí or Kekch. Only half of the Mayan women respondents in the recent DHS survey could speak Spanish, yet virtually all service providers speak only Spanish (1987). This results in a lack of understanding between health providers and patients and additionally, may cause a lack of

confidence in the motives of non-Mayan personnel. Furthermore, prevailing attitudes of Ladino superiority often lead to indifference, arrogance and impatience of Ladino providers for their Mayan clients.

e. Cultural Attitudes

(1) Reticence Towards Discussing Reproductive Health Topics

The Mayan population has tended to be very reserved about discussing issues related to human reproduction in public. For example, 42.4 percent of Mayan women living in rural areas disapproved of family planning announcements (CDC, 1991). Similarly, early anthropological studies suggested that discussion of sexuality and reproductive health was virtually unknown in Mayan communities. Nevertheless, program experience on the part of APROFAM and AGES has suggested that there is less resistance to discussion of sexuality and family planning than would be supposed by these studies. While these topics are not openly discussed, participants in both research and educational activities have not objected to discussing such issues in both single and mixed sex groups (Rosenhouse, 1989).

(2) Attitudes Towards Family Planning Use

Religious beliefs are frequently cited as a reason for not using family planning methods by both Catholic and Protestant Mayans (Ward et al, 1991b). Many Mayans, regardless of their religious preferences, believe that the use of modern contraceptive methods is a sin (Development Associates, 1987; Ward et al. 1991a). Furthermore, having children is believed by Mayans to be the will of God and interfering with this process is considered to be sinful and dangerous. While religious preference (Catholicism or Protestantism) does not seem to affect family planning use, people who considered themselves to be "very religious" were more likely to be opposed to family planning than were those who were "somewhat" religious.

Qualitative studies have shown that there are a number of misconceptions concerning family planning methods. Contraceptive methods are believed to cause weight gains and/or losses, cancer and even death. Research has shown that the only methods currently widely accepted among Mayans are natural family planning methods, in particular the calendar method. In a study conducted in a Kakchikel community by a Mayan researcher, natural methods (54%) and sterilization (2%) were the only methods chosen by women who intended to space or limit their fertility. The other women who desired to space their

pregnancies stated that they wanted to receive orientation, did not know what method to use or did not find any of the available methods acceptable (Cumes, 1990). The remaining women did not know what method they would use. However, qualitative studies as well as the results of the DHS show that few Mayan women know when their fertile period is, and many understand it exactly backwards, thus the time when they are most fertile is the time they believe they can safely have intercourse without becoming pregnant. It is interesting to note that the results of an Operations Research study carried out in Kekchi communities suggest that Mayan women are quite capable of learning and remembering what they are taught regarding their menstrual cycle.

### (3) Control over the Reproductive Lives of Women

In Mayan communities, decision-making is concentrated in the hands of the men. Studies among a variety of Mayan groups have shown that men make most decisions in the family and play an important role in the decision-making process with respect to health service utilization (Hurtado and Esquivel, 1987; Ward et al, 1991b). Frequently, men are the ones who decide if women will use a family planning method. (Ward et al., 1991a). Men often suspect women of infidelity and cite that as a principal reason for not allowing women to use a family planning method. Family planning distributors mentioned "husband's disapproval" as one of the principal reasons Mayan women did not accept family planning. In general, Mayan women are less opposed to family planning than are men (Ward, 1991b).

While decision-making is centralized in the nuclear family unit, studies in several areas have shown that community approval is considered very important. This was found to be true with respect to sexual education of adolescents (Rosenhouse, 1989) and family planning (Ward et al, 1990b). Several studies have shown that fear of disapproval of the community, and above all, of its leaders, serves as a barrier to utilization of family planning services (Development Associations, 1987; Mondloch, 1981; Ward et al. 1991a).

### (4) Demand for Family Planning Services

Large families have traditionally been considered desirable among the Mayan population, both for economic reasons and because of community approval of couples who care for many children. While many children are considered an economic hardship, they are also valued as "insurance for old age". Furthermore, children give young women status in the eyes of her family and the community (Lyons, 1979). In addition, infant mortality rates are so high that Mayan couples may feel compelled to have many children to ensure that some will live

into adulthood. Research among the Quiché indicates that men are likely to desire large families, while women frequently express the opinion that too many children are a burden and an economic hardship (Ward et al, 1991a).

Several studies have indicated that while limiting family size is not widely approved of in this population; birthspacing is considered beneficial to the health of women and children (Ward, 1991a; Lundgren, 1991; Cumes, 1990). It is also believed that women's health suffers if they do not have time to recuperate from one childbirth before becoming pregnant again. Birth spacing is also considered beneficial because pregnancy is felt to have a negative effect on lactation.

Despite cultural inhibitions and reservations about family planning use among the Mayan population, recent studies indicate that the concept of planning one's family is becoming more widespread in this group. At the same time, attitudes towards use of modern methods of spacing births and limiting family size are changing. There appears to be an increasing interest in controlling family size among Mayan couples. Mayan families may be feeling social and economic pressures which lead to the recognition of the growing burden of large families, particularly in areas of decreasing quality and quantity of productive land. Between 1983 and 1987, unplanned pregnancies among rural Mayan women increased by 71.7 percent, rising from only 6 percent in 1983 to 21.2 percent in 1987 (CDC, 1991). This may indicate that fertility desires have changed without a corresponding increase in contraceptive use. This is supported by analysis of data from the 1987 DHS by the Centers for Disease Control which estimates that approximately 27 percent of Mayan women "need" (the definition of in need of family planning services include those women who are fecund, sexually active, not currently pregnant, do not currently desire pregnancy, and yet who do not currently use any contraceptive method) family planning services (1991).

## 2. Rural Population

Ladinos possess cultural norms and values which are distinct from those of Mayans: the nuclear opposed to the extended family as the basic social unit; a class consciousness and quest for upward mobility; determination of social status on the basis of acquired wealth; a secular brand of Roman Catholicism in which the overt practice of religion is much more expected of women than of men; and an ideology which emphasizes the welfare of the individual over that of the group.

While educational levels among rural Ladino women are still

quite low, they are significantly higher than those of Mayan women. Almost 41.2 percent of rural Ladino women have no education (Newman, 1991). The higher educational level of the Ladino population has resulted in greater exposure to mass media and new technology. For example, family planning knowledge among Ladinos is relatively high compared to that of Mayans living in rural areas; approximately 80 percent of rural Ladinos knew of at least one contraceptive method. While rural Ladino women experience some of the same access problems as Mayan women, they tend not to live in such remote communities nor must they contend with the same cultural and linguistic barriers. Thus, in general, access to contraceptive methods is somewhat better among rural Ladinos. For example, approximately 75 percent of rural Ladino women knew of a source for at least one method of contraception (CDC, 1991).

Socio-cultural attitudes towards family planning are also much more positive among the rural Ladino population than among the Mayan population. An illustration of this is the fact that only fifteen percent of rural Ladino women did not approve of family planning announcements in the media. Unlike the Mayan population, reasons given by rural Ladinos for not using contraception were not principally socio-cultural in nature, twenty percent stated that non-usage was because of fear of side effects, while rejection for religious reasons was mentioned by only eleven percent of respondents. Knowledge of where to obtain family planning services was cited as a major barrier to usage; although one quarter of the non-users indicated that they intend to use a method, seven percent did not know where services could be obtained.

Better access to family planning services, accompanied by greater knowledge of contraceptive methods and more favorable attitudes towards contraceptive use and technologies have resulted in higher contraceptive prevalence among rural Ladino women. The total fertility rate for Ladinos living in rural areas is 5.0 (CDC, 1991). According to the DHS, 27 percent of married Ladino women were using a contraceptive method at the time of the survey (CDC, 1991).

About one quarter (24.7%) of rural Ladino women are in need of family planning according to analysis conducted by CDC of the data from the 1987 DHS. This conclusion is supported by the fact that almost one third (28.8%) of Ladino women living in the interior stated that their last pregnancy was either mistimed or unwanted and almost half (44.7%) stated that they want no more children. Preferred methods among Ladino women are female sterilization, followed by orals and injection (CDC, 1991).

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### 3. Urban Population: Guatemala City

The total fertility rate among women living in Guatemala City is four (DHS, 1987). In urban areas the number of eligible couples currently using contraception was 45 percent (CDC, 1991). This figure bears out the premise that availability of services combined with better education results in increased usage. Knowledge and exposure to family planning messages was highest in this population, with 86.3 percent having heard at least one message concerning family planning (CDC, 1991). Only five percent of urban women did not know of a single method. According to further analysis of data from the DHS, approximately forty percent of women living in the Department of Guatemala stated that their last pregnancy was either mistimed or unwanted and approximately 18 percent are in need of family planning services (CDC, 1991).

#### D. Soundness of Project Strategy

##### 1. Mayan Speakers

While it is evident that Mayan women desire more control over their reproductive lives, strategies used in the past have not been successful in reaching them. The strategies which will be used in this project to reach the Mayan population are designed to provide culturally appropriate information and services which recognize the unique needs of this population. The strategies developed by each family planning agency meet the following criteria for the design of IE&C strategies and the provision of family planning services to this target group.

- o Materials targeting Mayan women should be designed for a very low educational level.
- o Information and services should be provided by Mayan personnel in the client's own language.
- o The desire of the Mayan population to space rather than limit their births as well as their preference for natural family planning methods should be respected.

In addition, several of the institutions will target males and community leaders due to the determining role they play in contraceptive use.

#### Research and Development Component

One of the key questions confronting this project is how to deliver family planning services to the Mayan population. The

Research Component will develop and test new and better methodologies for reaching the Mayan population with culturally, economically and technically appropriate reproductive health services. This component will be responsible for developing strategies which respond to the needs of the Mayan population discussed above. Among the strategies to be tested are: 1) provision of educational scholarships to girls; 2) special efforts to reach Mayan men and leaders; 3) utilization of Mayan personnel; 4) provision of more acceptable contraceptive technologies such as injectables and natural family planning methods; and 5) the provision of cultural sensitivity training to service providers.

#### **APROFAM**

Based on their research conducted among the Quichí, Kekch and Mam populations, APROFAM will pilot integrated service delivery strategies in each language areas. These strategies will be revised and expanded based on the results of pilot-testing.

In addition, APROFAM will strengthen their clinical and community based distribution service delivery to Mayans in rural areas by hiring bilingual staff in areas where Mayan populations are concentrated. Every APROFAM clinic serving the Mayan population will have a bilingual staff member who can provide family planning information and counseling to Mayan speaking clients. This will ensure informed consent and sensitivity to the needs of the client.

A new initiative designed to reach Mayan youth is also planned by APROFAM. A youth center based on the El Camino model will be established in Quetzaltenango. Outreach activities for Mayan youth and organizations will be operated out of this center.

APROFAM's IE&C department will develop special materials for Mayan speakers. These materials will be for both mass media, especially radio, as well as to be used in clinics and community distribution posts. The provision of education to community and religious leaders is already underway, and promises to address the barrier these leaders currently present to family planning use.

#### **I PROFASA**

I PROFASA's Rural Strategy to reach communities in isolated areas will be investigated by operations research techniques to determine its demographic impact, as well as its cost efficiency. These research results will determine whether or not I PROFASA continues the Rural Strategy.

## **Ministry of Health**

The Ministry of Health has not devised a separate strategy for Mayan speakers. Their overall strategy will be discussed below.

### **2. Strategy for Spanish Speakers (Ladinos)**

While fewer socio-cultural obstacles exist to providing family planning services to Ladinos, expanding high quality services to meet the demand still presents a challenge to the family planning agencies. All of the agencies are planning to significantly expand services for this population. A new emphasis on providing information and services to men and to youth is an integral part of the plans of several of the institutions. In addition, the agencies plan to expand their contraceptive menu to include new, potentially more acceptable methods, such as injectables.

#### **APROFAM**

APROFAM plans on significantly expanding coverage of the Ladino population. In preparation for expansion into new regions, APROFAM is currently decentralizing and regionalizing its operations. This will enable the agency to improve the quality of its services while at the same time increasing consumer's access to them.

APROFAM operates a network of fifteen full service maternal and child health clinics in Guatemala City and in ten departmental urban centers. These clinics offer a wide range of temporary family planning methods and voluntary surgical sterilization. APROFAM will expand their ongoing clinic, community based distribution and IE&C programs, placing special emphasis on expanding access to voluntary surgical sterilization for the sexually active males and for women in fertile age. The addition of maternal/child health care to the services the agency offers has increased APROFAM's legitimacy in the eyes of the public and will be continued.

APROFAM will expand its mass media campaigns to inform the public about their services and to educate them about reproductive risk and the benefits of birth spacing. Their communication strategy will focus on birthspacing, reproductive health and providing accurate information on contraceptive methods to counter negative rumors. These themes address particular areas where the Guatemalan population needs information and should be well accepted. One focus of new IE&C

activities will be on sexually active males, a largely ignored but determining factor in contraceptive use.

APROFAM will expand two of its existing educational programs, Education for Military Personnel and "Learning to Live" in order to provide information and services to two critical population sectors, men and young people.

#### **I PROFASA**

I PROFASA will play a pivotal role in providing affordable contraceptives to men and women through pharmacies in urban areas. In addition, their marketing efforts will contribute to increasing knowledge and acceptability of contraceptive methods. Expansion of its coverage and marketing efforts on the part of I PROFASA during the next four years will increase access to contraceptive methods.

#### **Ministry of Health**

Under this new project, the Ministry of Health will expand its training, contraceptive supply and supervision activities. The Ministry will continue with its reproductive risk focus, a sound strategy to sensitively integrate reproductive health services into Ministry of Health activities. The Ministry will expand its coverage through a new emphasis on the male population and the rural Highlands. Furthermore, the integration of new methods, such as hormonals, IUDs and implants, into their contraceptive menu, will provide couples with a wider choice of more acceptable methods.

Expansion of voluntary surgical contraception in hospitals will help to meet the current demand for permanent contraceptive methods. A postpartum and interpartum family planning program will be introduced into twenty six national hospitals which at present do not routinely offer family planning services to their clients. The catchment areas of the hospitals are geographically large and will cover both Mayan and Ladino clients, even though the hospitals are generally located in the departmental capitals.

At the community level, reversible methods will be provided throughout the country at health centers and posts. New efforts will be made to train rural health technicians and volunteers to promote family planning and refer clients to the health centers. Temporary methods will be offered through community-based health promoters, a strategy which promises to greatly increase access to culturally sensitive services, due to the fact that promoters work in their own communities.

## IGSS

The IGSS, which has never had a formal family planning program, will become a new beneficiary of A.I.D. population assistance under this project. The IGSS will incorporate the concept of reproductive risk into its services and provide postpartum contraceptive services. The incorporation of the reproductive risk focus will be an acceptable way to increase access to services in urban areas, given that approximately thirty percent of the economically active work force is eligible for IGSS' services.

### E. Community Participation

Based on the recognition that community participation is essential in order to ensure acceptable services, expand coverage and empower poor and disenfranchised groups; strategies to involve community members in service delivery are a key feature of project activities. APROFAM, the Ministry of Health and IPROFASA will all use community level promoters as the cornerstone of their rural strategies. Family Planning institutions will also offer reproductive health education to community leaders and attempt to incorporate them into project activities. Under the "Rural Strategy" component, village couples will be trained to provide basic family health care and counseling.

### F. Socio-Cultural Feasibility

One constraint to the successful implementation of this project is the lack of commitment of the part of the Guatemalan Government to family planning efforts. Over the past ten years, public policy toward family planning in Guatemala has moved slowly from active opposition to neutrality. Although the Constitution explicitly permits family planning practices, there has been no concerted effort by the Guatemalan Government to facilitate or encourage access to contraceptive methods. The Government has not provided funding specifically for family planning activities in the national budget. This situation is exacerbated by an uncertain political environment resulting from frequent turnover of key government positions.

Furthermore, the hierarchy of the Catholic Church and some fundamentalist Protestant groups have vigorously attacked family planning. This has caused family planning agencies to keep a low profile and has been a constraining factor to the expansion of promotional, educational, and service delivery activities. Another obstacle which must be overcome is that medical and public health services in Guatemala, in particular in rural

areas, are severely inadequate. The administrative structure of the health sector should be viewed in the context of a traditionally weak, centralized but fragmented public sector. Government spending on health represents a small amount of the national budget and far less than the amount spent on defense and security. Compared to other countries in the region, the percentage Guatemala spends on public services is low. According to the United Nations, 7 percent of Guatemala's GNP is spent on health as compared to an average of two percent among other countries in Latin America and the Caribbean (1991).

The Ministry of Health covers an estimated 30 percent of the population, the Social Security System (IGGS) covers 8 percent and the private sector 10 percent. This leaves almost one half of the population with no access to some form of modern health care (Bossert, 1987). The low coverage of the Ministry of Health may reflect lack of physical access and inadequate sector financing and management. Specific problems in the public sector also include an over reliance on urban hospital-based care and inadequate resource allocations for essential materials and supplies (World Bank, 1989).

Furthermore, the Ministry of Health has a poor record of service in rural areas. Health centers and posts frequently lack minimum levels of staff and medicine or are closed and inoperative for months at a time. Long delays for services, lack of respect and lack of Mayan speaking personnel have lowered the credibility of the Ministry of Health in the community.

Both private and government family planning programs have had limited success in providing services and products to the Mayan population, in part due to the considerable obstacles presented by the geographic isolation and dispersion of much of the Mayan population throughout the Highlands. The difficulty of reaching the rural population is illustrated by the fact that over 34 percent of Guatemalans live in communities of less than 500 people. It is costly and difficult to provide services to the many thousands of remote, tiny communities in which much of the Mayan population resides. Another constraining factor is language. The many languages spoken by the Mayan population makes the job of social marketing, educating, and counseling extremely difficult, requiring separate materials and bilingual staff for every different linguistic group.

Another obstacle which must be overcome in the expansion of family planning services is the low acceptance of available contraceptive technology in Guatemala, in particular among the Mayan population. Secondary effects (discomfort, headaches, swelling) caused by oral contraceptives, as well as cultural and

religious barriers limit family planning utilization, particularly in Mayan areas. According to further analysis of data from the 1987 DHS survey by the Centers for Disease Control, the largest proportion of women reporting a problem with their contraceptive method were oral contraceptive users, almost one quarter of whom expressed health concerns (1991). One half of condom users and all withdrawal users reported inconvenience and ineffectiveness as problems. It is interesting to note that only two percent of rhythm users reported a problem with that method, and none were concerned about its low effectiveness rate. It is worth noting that 15.6 percent of the women surveyed in the DHS expressed interest in using an injectable contraceptive. Religious beliefs also play a role in the acceptability of particular contraceptive methods, six percent of women in the Department of Guatemala and twelve percent of women in the interior stated that they do not use contraception for religious reasons.

Although discussions on the acceptability of contraceptive technologies usually focus on women, it is equally important to consider the attitudes of men. The fact that men have largely been ignored in family planning and maternal/child health projects is unfortunate, and must be remedied given the fact that males in Guatemala are important participants in decision-making concerning family size and reproduction.

Fortunately, a number of facilitating factors exist which help to offset the constraints to the expansion of family planning services discussed above. In the first place, family planning agencies in Guatemala have a long history of service provision. For example, APROFAM has twenty-five years of experience in the field. Secondly, these providers have proved themselves to be increasingly concerned with the quality of their services and responsive to the needs of their users, particularly in Mayan areas. Thirdly, results of both qualitative and quantitative research demonstrate an increasing demand for and acceptance of contraceptive services. Furthermore, political and public opinion towards family planning has significantly improved in Guatemala. The recent agreement between APROFAM and the National University would have been unheard of only a few years ago. A related factor is that decision makers have become much more concerned about the impact of population growth on the country's development than ever before.

The design of this project has carefully taken into account the constraining and enabling factors discussed above. Two components of the project, Policy Initiatives and Research and Development, are specifically designed to address the constraints discussed above. The Policy Development and

Analysis component will work to build a national consensus among the government, the private sector and the general public for the mobilization of resources for health and family planning services. In addition, all of the institutions, as well as the Research and Development component, have paid special attention to the challenge of involving men in family planning programs. Similarly, an emphasis on increasing cost-effectiveness and self-sustainability is included in every agency's plan and will play an important role in evaluating pilot rural service delivery strategies.

#### G. Impact

The beneficial impact of family planning on social and economic well-being at both the national and individual level is well known. At the national level, if successful, the project will significantly lessen society's burden of providing increased social services such as education and health care, jobs, housing, water and electricity. Furthermore, a lower fertility rate will help reduce pressure on the environment. If contraceptive prevalence increases, it can be expected that in the long run, population growth at the national level will slow and a reduction in maternal and infant mortality will occur. At the individual level, the project will significantly improve the health of women and their children. The project's activities will also contribute to a reduction of the marginalization of the Mayan population, in particular Mayan women.

Women suffer the consequences of unwanted births and ill children more directly than men. However, women's status is low with respect to men and society in general, and women have little power to make decisions concerning their own reproductive lives and the health of their children. Traditionally, women have been excluded from decision-making in many important aspects of daily and national life. The role of women can be expected to change if effective and appropriate family planning services and information are made available to them. By providing the means to control their own fertility, women can make decisions regarding childbearing. This control over their reproductive lives will enable women to complete their education, participate in economic activities, space their children and avoid high risk pregnancies. Women's health will significantly improve as a result of childspacing. The ability of women to work outside of their home will increase, thus improving the economic situation of their family and productivity on a national basis. New opportunities for women will emerge once they are able to take control of their reproductive lives.

Mayan men and women will become better informed about family planning and maternal/child health services and able to make decisions about family health, a key step in empowering this population.

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**ANNEX H**

**DEMOGRAPHIC ANALYSIS AND HEALTH STATUS**

## ANNEX H

### DEMOGRAPHIC ANALYSIS AND HEALTH STATUS

#### A. Demographic Analysis

##### 1. Objectives of Analysis

This analysis is designed to provide a brief overview of the current demographic situation in Guatemala. Emphasis is placed on population growth and fertility, and factors related to these demographic phenomena. Efforts to deal with population growth and fertility through population policy and fertility intervention programs are discussed. The conclusion is that rapid population growth and high fertility are detrimental to Guatemala's social and economic development, and strong efforts to control these trends are called for.

#### B. Data Sources and Methodology

##### 1. Data Sources

An analysis of the demographic situation in a country requires, at the very least, information regarding the size and growth of the population, its geographic distribution and socioeconomic composition, and the behavior of demographic processes that influence these structural characteristics. Such information is typically available from three major sources: the population census, registers of vital events (e.g., fertility and mortality), and sample surveys.

Since 1950 Guatemala has produced three population censuses, in 1964, 1973, and 1981. Thus estimates of current demographic characteristics must be based on extrapolation of data that are at least a decade old, or other sources. The country has begun preparing for a 1993 population census, and it is important that every effort be made to see this project through to completion. As in many developing nations, the vital registration system leaves much to be desired. It is assumed that vital events are considerably under-registered, thus making it difficult to monitor demographic processes. A number of sample surveys have been conducted that provide useful information for planning and sociodemographic analysis, including the National Fertility Survey of 1983, the Demographic and Health Survey of 1987, and the National Sociodemographic Surveys of 1986-87 and 1989. Given the lack of adequate census and vital registration systems, these surveys take on added

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importance for development planning and socioeconomic analysis in the country.

This analysis draws on available census and on vital statistics information, and on results from the surveys mentioned above. It also uses information provided by the United Nations Population Division and the Latin American Demographic Center (CELADE).

## 2. Methodology

### a. Estimates and Projections of Population Conditions and Trends

Most of the data used in this analysis are drawn from published sources, both national and international. Population projections carried out by CELADE for the period 1980-2000 and 1950-2025 provided basic information on population size and growth. In addition, projections specifically for this project were developed using the DEMPROJ model and, in connection with the family planning component, the TARGET model.

## C. Population Structure

### 1. Population Size and Growth

The Guatemalan population increased by approximately 210 percent between 1950 and 1990. The adjusted mid-century figure is 2,968,976 (Arias de Blois, n.d., Cuadro 1), while most estimates for 1990 put the population at around 9.2 million (United Nations, 1990, Table 31). Projections of future population size depend, of course, on assumptions about levels and trends in the components of population growth, particularly fertility. Medium variant projections, which assume a gradual reduction in the total fertility rate from the 1990 level of about 5.6 children per woman to one of just over 4 children by the year 2010, suggest a total population in the year 2000 of 12.2-12.7 million, around 17 million a decade later, and close to 20 million by 2020. Alternatively, the number of Guatemalans could be as high as 28 million and as low as 18 million by 2020 (cf., Arias de Blois, n.d., Cuadro 2; The Futures Group, 1991; and United Nations, 1990, Table 31). Whichever projection one decides to accept, it appears that the country's population will at least double over the next three decades.

The rate of population growth increased sharply in the 1950s, reaching a peak of nearly 3 percent annually in the period 1964-73. Since then the rate has declined only a little, and is estimated at 2.9 percent for the period 1985-90 (United

Nations, 1990, Table 31). Substantial reductions in the rate of growth are anticipated during the next several decades, but this optimism is based on the assumption that fertility will decline much more rapidly than it has in the past (see below). For example, the United Nations medium variant projections assume an annual rate of population growth of 2.8 percent for the period 1995-2000 and but 1.9 percent only 20 years later (United Nations, 1990, Table 31). At its peak period of growth, Guatemala would have doubled its population in 24 years, and appears to be on course to reach that mark. Even at the lower rate of growth assumed for 2015-2020, the population would double in the next 37 years, reaching perhaps 40 million by the middle of the next century. It is highly likely that a population of this size would result in a severe decline in the level of social and economic well-being in the nation.

## 2. Population Distribution

### a. Regional Variations

For administrative purposes, Guatemala is divided into eight geopolitical regions. Their absolute and relative population distributions, by urban and rural residence in 1989, are shown in Table \_ , below. It is apparent that the population is concentrated in several regions, primarily the Guatemala City metropolitan area and the Southwest highlands containing the departments of Solola, Totonicapan, Quetzaltenango, Suchitepequez, Retalhuleu, and San Marcos. The latter region is home to a large proportion of the country's indigenous population.

### b. Urban/Rural Distribution

Approximately two-thirds of the Guatemalan population lives in localities designated as rural. However, because of the relatively loose definition of "urban" employed, an even larger proportion of the population lives in localities of less than 20,000 inhabitants. Because of the rough terrain in many highland areas, large segments are relatively isolated from the mainstream of Guatemalan life. This isolation, in conjunction with the cultural isolation of the indigenous component of the population, serves as a significant barrier to many development projects, including those focused on family planning.

Urbanization has proceeded slowly in spite of the continuing pattern of migration from rural areas to Guatemala City and a few smaller urban places.

DISTRIBUTION OF POPULATION BY REGION  
AND RESIDENTIAL STATUS, 1989

<u>Region and Department</u>	<u>Number of Inhabitants</u>	<u>Percent of Total</u>	
<b>TOTAL COUNTRY</b>	<b>8,663,859</b>	<b>100.0</b>	
Urban	3,013,697		34.8
Rural	5,650,162		65.2
<b>METROPOLITAN</b>	<b>1,787,396</b>	<b>20.6</b>	
Urban	1,338,216		74.9
Rural	449,180		25.1
<b>CENTRAL</b>	<b>933,140</b>	<b>10.8</b>	
Urban	415,732		44.6
Rural	517,406		55.4
<b>NORTH</b>	<b>655,196</b>	<b>7.6</b>	
Urban	120,472		18.4
Rural	534,724		81.6
<b>NORTHWEST</b>	<b>1,153,965</b>	<b>13.3</b>	
Urban	178,125		15.4
Rural	975,840		84.6
<b>SOUTHWEST</b>	<b>2,279,952</b>	<b>26.3</b>	
Urban	551,883		24.2
Rural	1,728,069		75.8
<b>SOUTHEAST</b>	<b>837,648</b>	<b>9.7</b>	
Urban	179,172		21.4
Rural	658,476		78.6
<b>NORTHEAST</b>	<b>823,446</b>	<b>9.5</b>	
Urban	174,294		21.2
Rural	649,152		78.8
<b>PETEN</b>	<b>193,116</b>	<b>2.2</b>	
Urban	55,803		28.9
Rural	137,313		71.1

Source: Instituto Nacional de Estadística, Encuesta Nacional Socio-demográfica, 1989, Vol. I: Demografía Total República Guatemala, 1990, Cuadro V.3, P. 117.

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### 3. Population Composition

#### a. Age and Sex Structure

The Guatemalan population is relatively young, largely as a result of high fertility for a number of decades. The 1989 Sociodemographic Survey showed 46 percent of the population to be under 15 years of age, the same figure reported in the 1986-87 survey. Only 3.5 percent of the population is over age 65, though as mortality continues to decrease the number of elderly Guatemalans will increase. The median age of the population in 1989 was 22.4 years.

The sex ratio at birth is approximately 105 males to every 100 females, though by age 15 women outnumber men in nearly every age category.

#### b. Ethnic Composition

Although Guatemala is known for its indigenous population, the proportion identified as Indian has declined steadily. While only a couple of decades ago the majority of Guatemalans were Mayan Indians, the 1989 Sociodemographic survey shows that figure to have declined to 37 percent. Just over 80 percent of the Indian population resides in rural areas, and until recently many who moved to urban areas underwent a process of Ladinoization, involving a shift in outward cultural identity.

#### c. Marital Status

Guatemalans tend to form conjugal unions relatively early, with the average age at first union around 19 years. Of those in unions, approximately one-third are in informal, consensual arrangements. This pattern of early marriage has important implications for reproductive behavior, as it extends the period during which a woman is at risk of pregnancy and childbearing. Rural women tend to marry earlier than those in urban localities, particularly Guatemala City.

### D. Population Processes

#### 1. Fertility

##### a. Age-Specific and Total Fertility Rates

Recent information on fertility is available from the 1987 Demographic and Health Survey and the two Sociodemographic Surveys. Age-specific rates show a concentration of births in the 20-24 and 25-29 year categories, The total fertility rate (TFR) is high, though figures vary according to source. The 1987 DHS indicates a rate of 5.6 children per woman, while an indirect estimate derived

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from the 1989 Sociodemographic Survey reveals a TFR of 5.9. In short, there is no evidence of a substantial decline in the birth rate in Guatemala.

E. Health Status

1. Health Trends and Projections

Health problems in Guatemala follow a pattern which is typical of developing countries worldwide but Guatemala's health indicators rank at the bottom of the list along with Haiti and Bolivia for the Latin American Region. Table I below presents selected indicators.

TABLE I  
Health and Demographic Indicators for Guatemala

Crude Birth Rate (1987)	41/100 population	1/
Infant Mortality Rate (1982-87)	73.4/1000 live births	1/
Child Mortality Rate (1982-87)	109.8/1000 live births	1/
Crude Mortality Rate (1987)	9/1000 population	1/
Life expectancy (1991)	63	2/
Maternal Mortality Rate (1991)	200-220/100,000 live births	3/
Total Fertility Rate (1987)	5.6	1/
Rate of Natural Increase (1987)	3.2	1/

2. Infant and Child Health Indicators

Infant and child health indicators remain poor in Guatemala although improvement in mortality since 1972 has been steady. Table II below presents this data.

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1/ DHS 1987  
2/ Population Reference Bureau 1991  
3/ Mothercare: INCAP: Medina

Table II

Changes in Infant and Child Mortality Over Time

	IMR	1-4	CHILD MORTALITY
1972-1976	92	64	150
1977-1981	86	55	136
1982-1987	73	39	110

The main causes of death for children under five are enteritis, upper respiratory infections, and malnutrition.

Infant mortality is higher for children born to women less than 20 years old, older than 40 years old, first born children, children born to high parity mothers (7 or more) and for children where the birth interval is less than two years.

Malnutrition is a contributing factor to both, child and maternal mortality. The DHS data show an elevated level of malnutrition for children under 36 months of age. For children under 1 year of age, malnutrition as evidenced through, anthropomorphic measurement is present in 40-45% of the population. For Mayan children the percentage is 72.

These statistics show that even though the infant and child mortality rate is declining, the quality of life for the majority of Guatemalan children remains poor.

3. Mortality Rates

The Guatemalan mortality rate has declined steadily from 48 per 1,000 in 1950 to the current level of 9 per 1,000 population. Infant and child mortality contributes 46% to this rate compared to Switzerland where child mortality contributes only 1% to overall mortality.

4. Total Fertility Rates (TFR)

Total Fertility Rates (TFR) for Guatemala have declined slowly since 1978. Table III shows this decline.

Table III

Total Fertility Rates Over Time in Guatemala 1/

<u>Year</u>	<u>TFR</u>
1978	6.1
1983	5.8
1987	5.6

B. Use of Health and Family Planning Services

1. Maternal Health

Use of western health services for prenatal, delivery and postnatal care is low in Guatemala. Approximately 80% of all births nationwide occur in the home, the majority attended by a traditional birth attendant. The public health hospital system is overcrowded and underfunded and unable to provide adequate care for labor, delivery and neonatal care. With the actual numbers of births rising each year and little expansion of the national health system projected, it may be expected that this problem will not be adequately addressed by the MOH in the near future.

During pregnancy, only 35% of this population receives professional prenatal care. Low birth weight, an important risk factor for infants is common, occurring in 18% of all births. Table IV below summarizes this information.

Table IV

Utilization of Prenatal Care and Delivery by a Trained Attendant 1/

	<u>Received Prenatal Care</u>	<u>Delivery by a Trained Attendant</u>
Urban	56%	58%
Rural	26%	19%
Ladino	48%	44%
Mayan	17%	10%

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1/ DHS - 1987  
-

## 2. Child Health

Using immunization coverage rates as a proxy for use of services, Guatemala ranks low compared to other countries in the region for child health services.

Table V

### Comparisson of Percent of Children Receiving Completed Immunization, 1989 2/

<u>Immunization</u>	<u>Guatemala</u>	<u>Central America</u>	<u>Latin America</u>
OPU 3	58	71	86
DPT 3	50	65	62
MEASLES	54	69	66
BCG	21	59	73

## 3. Contraceptive Prevalence Rate

In Central America, Guatemala has the lowest rate of use of modern methods of family planning. Use of family planning methods among urban couples is 43% while among rural Mayan speakers, the rate drops to 5% (DHS, 1987). Use of methods is positively related to educational attainment as illustrated in the table below.

Table VI

### Use of Family Planning Methods by Educational Level

<u>Level of School Attainment</u>	<u>Use of Method (%)</u>
No formal education	9.8
Some primary	24.3
Primary Complete	47.4
Secondary or Higher	60

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1/ 1987 DHS

2/ PAHO, Accelerated Immunization Project, Phase II, 1991-1995.  
6-28-91

4. Demographic Trends

a. Current Population

The Guatemalan population is growing by approximately 3.0 percent a year. This rate means that the population will double over the next 20-22 years. The current population is estimated to be 9.6 million. Historically the population began to grow at an accelerated rate beginning in the 1950's when mortality rates began to decline sharply but birth rates remained relatively stable. The current crude birth rate is 41/1,000 (DHS). Table VII summarizes this data.

Table VII

Population Growth in Guatemala

<u>Year</u>	<u>Population Size</u>
1964	4.3 million
1973	5.2 million
1981	6.1 million
1991	9.6 million (estimated)

b. Women in Reproduction Age

This rapid growth has produced a population that is relatively young, 50 percent is under 19 years of age and this means the population will continue to grow in absolute numbers as this young population matures and begins to produce children. The number of women of reproductive age (WRA) is projected to grow as outlined in the following table.

Table VIII

<u>Year</u>	<u>No. of WRA (in 000's)</u>
1985	1,766.4
1990	2,114.2
1995	2,552.4
2000	2,944.1
2005	3,475.7
2010	4,076.2

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1/ DHS, 1987

This growth means that in order to maintain the current contraceptive prevalence of 23 percent by the year 2010, the number of family planning users must double and in order to have a demographic impact, users must triple.

c. Use of Family Planning

Table IX presents data that show how many couples have used methods, 1988-1990, and how many couples need to use methods in the future in order to lower the current fertility rate of 5.6 per women to 4.2 by the year 2010.

Table IX

<u>Year</u>	<u>No. of couples using modern methods</u>
1988	249,801*
1989	266,879*
1990	311,774*
1991	392,800**
<u>(projected)</u>	
1992	419,200**
1993	447,100**
1994	476,500**
1995	507,300**
1996	539,600**

5. Unmet Family Planning Needs

a. Demand for Services

According to the CDC FURTHER ANALYSIS OF THE 1987 DHS, 41.0 percent of married woman (MWFA) in Guatemala do not want another child. Yet only, 18 percent of MWFA who state they do not wish to have another child are using family planning methods.

It appears that interest in surgical contraception is high for currently married women who want no more children both for residents of the Department of Guatemala and for ladinas living in the interior of the country (43.9 percent and 41.0 percent respectively).

\* Based on USAID and APROFAM data

\*\* TFG projections

C. Risk of Unintended Pregnancy

From 1983 to 1987 the overall proportion of unplanned pregnancies increased from 11.9 percent to 28.1. It increased by 71.7 percent among Mayan women in the interior, 62 percent in the Department of Guatemala and by 47.5 percent for ladinas in the interior. (CDC, 1991).

This data implies that fertility desires, especially an increased interest in spacing children, have changed without a corresponding increase in contraceptive use. Also, the 1987 DHS showed that young women (20 to 25) expressed a desired family size of only 3.5 children.

The challenge for the current project is to provide family planning services for older women who desire no more children and to increase services for younger women who wish to space their pregnancies. This will be difficult not only because the absolute number of women in reproductive age is increasing but also because getting services to rural Mayan women is compounded by their geographical and linguistic isolation, low levels of educational attainment, and lack of services providers that offer family planning methods through culturally appropriate programs.

**ANNEX I**

**POPULATION POLICY FACTORS**

## ANNEX I

### POPULATION POLICY FACTORS

#### A. Current Government Position

The GOG has not formulated an official population policy, although discussions about the need for such a statement have been held intermittently since the late 1970s. The Guatemalan response to the United Nations' Sixth Inquiry of Governments, conducted in 1988, showed little concern over the rate of population growth, but indicated that fertility was problematic (United Nations, 1990, Tables 30 and 34). The rate of population growth was believed to be satisfactory with no direct intervention to change it. The fertility rate was judged to be too high and interventions to lower it were deemed appropriate.

#### B. Prospects for Policy Formulation

##### 1. The 1989 Multisectoral Committee

In October 1989, with funding from the UNFPA, a committee representing a variety of GOG agencies met to consider the need for a national population policy. A report was drafted (Comite Multisectorial, 1989), though it was never accepted formally by the government and, consequently, has not been acted upon.

The diagnosis presented in this document recognizes that Guatemala has been characterized by high rates of fertility and population growth for several decades, but suggests that these patterns are associated strongly with prevailing social and economic conditions. There is a clear implication that current demographic problems are the result of social and economic conditions, trends, and differentials.

The document reviews levels of fertility, mortality, migration, and urbanization. Based on the 1987 DHS findings, high fertility is found to be associated with agricultural employment, rural residence, illiteracy, and general poverty. While life expectancy and overall mortality indicators have improved substantially, the high level of infant mortality is viewed as problematic. Considerable attention is given to rural-to-urban migration and urban primacy (of Guatemala City).

The lack of employment opportunities in rural areas is cited as a major factor underlying these aspects of population distribution. The report states explicitly that "...it is important to emphasize that in the country the reduction of family size, especially in the rural and urban-marginal areas, does not constitute a solution in itself." However, it goes on to state that greater access to infant and maternal health services and their family planning component, in conjunction with socioeconomic improvements, can contribute directly to a reduction in fertility and the rate of population growth and help women to reach their desired level of family size (3.8 as compared to the total fertility rate of 5.6 derived from the 1987 DHS). Thus, while hinting strongly that a development-oriented solution to population problems may be preferable, this document nonetheless recognizes a legitimate role for family planning programs.

Four development sectors --- education, health, employment, and the natural environment --- are discussed in conjunction with population issues. While rapid population growth and increased size are not seen as primary causes of problems encountered in these sectors, they are recognized as exacerbating factors.

Population policy is understood to be a basic, integrated component of the national development plan. It is viewed as a reflection of the political will to (a) improve the quality of life of the Guatemalan population, (b) promote just and equitable participation in the benefits of economic and social development, and (c) arrive at an harmonious equilibrium between population and development and the use and preservation of the country's natural resources.

The document states three fundamental objectives for a population policy: (a) reduce the rate of population growth and fertility levels and differentials while respecting the right of individuals to decide freely their family size; (2) reduce mortality levels, particularly infant mortality, as well as socioeconomic differentials in morbidity and mortality, and (c) rationalize population distribution in accord with regional development planning, human preferences, and the country's natural resources.

Six elements of population policy are discussed, each containing several specific lines of intervention.

- (a) **Strengthening the Family.** Recognizing the family as the basic unit of society, the goals of this element are to preserve the rights of all family members and to promote their social and psychological development.

The actions proposed include: (1) Education regarding basic social and cultural values; (2) Promotion of responsible parenthood, including the right of couples to decide freely and responsibly the number and spacing of their children and to have access to methods of achieving this goal effectively. Also mentioned is the responsibility of both parents to share household activities, including childcare, with the objective of improving the health and socialization of children and reducing the frequency of abandonment of mothers and children. (3) Improvement of household living conditions, including environmental sanitation, access to potable water, sewer systems, and electricity which contribute to better household health and reduced morbidity and mortality; and (4) Improvement of the situation of the elderly, whether or not they reside with their children.

- (b) Improving the Status of Women. This element is designed to improve women's opportunities for participation in the social and economic institutions of Guatemalan society. The result should be not only greater access to the social and material benefits of development, but also increased respect for women as individuals.

The principal actions for policy implementation include: (1) Increasing women's educational attainment, which is expected to have positive effects on their employment, age at marriage, and capacity to decide, jointly with the spouse, the number and spacing of offspring; (2) Facilitating greater access to the labor market and the training and skills required; (3) Helping women to delay childbearing until they have reached an appropriate level of biological, psychological, and social maturity, with the minimum legal age of marriage set at 18; and (4) Assuring women's knowledge of and access to maternal/child health and family planning programs.

- (c) Expanding and Improving the System of Formal Education, This element is based on recognition that a person's education determines his/her life chances, and therefore education is a basic human right. The demographic impacts of this action, particularly for women, include improvement of opportunities for paid employment, which will increase access to information and services, resulting in a decrease in desired and actual fertility; expansion of women's interests beyond those related to childbearing; increased understanding and use of contraception, thus permitting fertility that is within the desired range; extended duration of school attendance by youth, which should result

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in a higher level of labor force participation and delayed marriage and childbearing; reduced infant mortality via greater understanding of the importance of child health and nutrition as well as the use of health services and medicines; and, finally, a more efficient geographic distribution of the labor force, due to improved access to information about employment, which will ultimately have positive effects on patterns of internal migration.

Improvements in the educational system are to be achieved through the following actions: (1) Making accelerated expansion of the educational system a principal national priority, with particular attention to primary and secondary levels, especially in rural, small urban, and marginal urban areas. This strategy is in accord with the Ministry of Education's National Action Plan for 1989-95; (2) Reduce the gender gap in educational attainment, literacy, and school attendance through increased national awareness that male and female education are equally important for the country. Special attention should be given to programs in population education and those bearing on the status of women; and (3) Promote information, education, and communication in health and population for the entire population, but especially for school age children. The topics to be covered would include human biology, health and nutrition, and Guatemalan demographic issues.

- (d) Strengthening the System of Health Care (including maternal/child health and family planning). The principal objective of this intervention is to improve the level of health of the population, which is a fundamental aspect of human welfare. Priority is to be given to lowering rates of infant and maternal mortality and childhood illness. Family planning is recognized as an important factor because of its beneficial effect on the health of mothers and children as well as its role in making it possible for the couple to determine the number and spacing of children (as guaranteed by the Guatemalan Constitution of 1985, Article No. 47).

The actions proposed to implement this element of population policy include: (1) Extending coverage of health services, medical care and provision of medicines, with priority for rural areas; (2) promoting community participation in health activities and health education. It is recognized that health education programs, including environmental and sanitary education must be strengthened, particularly for those segments of the population at higher

risk and with fewer resources; (3) Promoting improvement of the nutritional status of the population, particularly among mothers and children, through education and information regarding requirements for and use of nutritional supplements by mothers and children under 10 years of age; (4) Stimulating programs oriented toward reduction of childhood mortality, emphasizing prevention of illness through vaccination, oral rehydration, and basic sanitation; (5) Promoting breastfeeding through information and education about nutritional, immunological, and psychological benefits for the child as well as the positive effects on birth spacing; (6) Elaboration of a national plan for information, education, and communication about family planning, with participation of both public and private sectors; (7) Emphasize the responsibility of public and private institutions to provide integrated family planning services; and (8) Assure access to population information and education programs as well as to services and methods of fertility control. This would involve increasing availability of both modern and traditional methods of contraception, especially in rural and marginal urban areas, thus allowing couples to make informed decisions about contraceptive use in accord with their individual needs and circumstances.

- (e) Achieving a More Appropriate Spatial Distribution of Population and Reducing Pressures on the Natural Environment. This element is designed to achieve a rational distribution of population and flow of migration within the country, in accord with the National Development Plan, including regional, urban, and rural development. Important related objectives are to permit optimal use of human resources and to preserve the natural environment for future generations.

The actions suggested are: (1) Strengthening the process of decentralization of public decision-making through increasing the responsibility and capacity of subnational Development Councils to participate in determining the implementation of development programs within their corresponding geographic area; (2) Identifying the most promising zones for economic development (of primary, secondary, and tertiary sectors) with the aim of utilizing fixed investments, credit, and State and private services to arrive at a more advantageous orientation of migratory flows; (3) Stimulating rural development in order to provide a disincentive for migration to the Capital, other urban areas, and ecologically fragile rural areas. This process should be initiated in the most socially and economically deprived rural areas, resulting in a reduction

of rural poverty and a more balanced distribution of population in the future. The decrease of regional socioeconomic differentials will serve to reduce artificial pressures for rural-to-urban migration; (4) Implement agricultural or economic policies to optimize the use of land that is not currently used in productive ways. This, in turn, would reduce pressures underlying out-migration and increase agricultural production and exports, in accord with the objectives of the national development plan; (5) Strengthen State mechanisms for controlling access to and use of fragile and marginal lands, such as found in the Peten, the Southeast, and the mountainous hillsides of the highlands. This could be accomplished in several ways, including technical assistance to agriculturalists to increase use of technologies appropriate for the achievement of a sustainable system of agricultural production; (6) Development and implementation of concrete policies for the improvement of the natural environment, in both urban and rural areas, an integral part of development plans.

- (f) **Expanding Opportunities for Employment.** While the severe increases in unemployment and underemployment experienced during the 1980s were due primarily to the economic crisis resulting from the structural socioeconomic context of the society, they are also related to the sizeable increase of population and, therefore, the labor force. Rapid labor force growth hinders the ability of the economy to absorb manual labor.

Actions proposed include: (1) Giving high priority to expansion of the educational system and programs of technical and job training, in both rural and urban areas, in order to increase the quality of human capital, the economic conditions of paid employment, and the distribution of the benefits of development; (2) Facilitate the absorption of manual labor in the labor market through the redirection of public investment and incentives and subsidies for the private sector. This would stimulate expansion of the urban informal sector and those rural sectors (e.g., fruits and horticulture) most likely to absorb manual labor through providing them greater access to credit from the State; (3) Taking into account the effects on employment of international migration to some areas of the country, mechanisms and increased funding should be sought for the purpose of improving their absorption into the labor market or their voluntary transfer to a third country as long as serious employment problems persist in Guatemala; and (4) Emphasize the

integration of population policy and demographic variables into future national development plans, in accord with the recommendations of the 1984 International Population Conference.

C. Barriers to Policy Formulation and Implementation

The population policy proposed by the Multisectoral Committee provides an excellent basis for governmental action. In comparison to the policies of other countries in the region, it is reasonably detailed and addresses the most salient issues facing a country at this stage of demographic evolution. Nonetheless, Guatemala has yet to adopt any population policy, and it is important to consider the principal barriers standing in the way of such action.

One factor that cannot be overlooked is that any policy is a political statement, and thus is associated with the administration under which it is formulated. That the proposed policy described above was developed under the previous administration may explain why it has not been acted upon by the current government.

One must also recognize that public issues do not become salient items for governmental action until they are placed on the public agenda. That is, an issue must be defined as requiring official response by one or more legitimate public representatives, e.g., the congress or the chief executive, and there are a variety of mechanisms through which issues can be leveraged onto the public agenda. The fact is, though, that no current representative of the Guatemalan government has chosen to promote forcefully and effectively the need for a population policy.

Beyond the essential step of getting an issue onto the public agenda, there must also be created one or more official bodies responsible for defining the dimensions of policy issues, evaluating and selecting among alternative policy responses, procuring the human, institutional, and financial resources, and, ultimately, addressing policy objectives through focused program activities (which include design, implementation, monitoring and evaluation). At present, there is no official Guatemalan institution that has taken on any of these tasks with regard to population issues.

Finally, like many public issues, population policy is a controversial topic. In Guatemala it has been opposed, at one time or another, by the Catholic Church, indigenous groups, and political factions of both the left and right. Any viable attempt to promote a population policy must recognize these

sources of opposition and come to terms with them. This requires public education regarding the dimensions and severity of the problem as well as open debate regarding the acceptability and effectiveness of alternative solutions.

D. Complementary Strategies for Policy Development

Given Guatemala's current stage in the policy development process, the principal actions called for should be concentrated on raising the level of awareness of the need for a population policy. Activities should be initiated that generate an open dialogue regarding the nature of population policy, its advantages and disadvantages, and institutional and resource requirements. Activities that could be undertaken include RAPID presentations to members of the Executive Branch of government, Parliamentarians, health care and social service professionals, the mass media, and the Church as well as seminars or workshops organized for these same audiences. In addition, the population education curriculum in the schools should be enhanced so as to provide an objective analysis of current demographic issues and their bearing on social and economic development. The broad objective of these activities would be to develop a diverse constituency through which population issues, generally, and those related to population policy, in particular, could be raised to the level of the public agenda. In this way, it may be possible to generate support for population policy that will transcend the transition from one political administration to another.

As support for a national population policy grows, it will be necessary to begin consideration of administrative, technical, and financial requirements. At present, the administrative issue is of primary importance. A fundamental requisite for the design and implementation of any public policy is coordination of planning activities and decision-making. Responsibility for such coordination must be lodged in some institutional structure, although the cooperation and collaboration of various government agencies will be required. If, as it appears, the population policy interests of the Guatemalan government extend beyond regulation of fertility and population growth (with strong emphasis on population distribution, migration, and the preservation of natural resources and environmental quality), then it makes good sense to locate the population policy coordinating unit in the Ministry of Planning. An alternative would be to link it directly to the Office of the Presidency. USAID and other international donors (e.g., the UNFPA) should pursue opportunities to work with the GOG toward the formation of a population policy coordinating unit.

**ANNEX J**

**POPULATION AND ECONOMIC DEVELOPMENT IN GUATEMALA**

## ANNEX J

### POPULATION AND ECONOMIC DEVELOPMENT IN GUATEMALA

Research has demonstrated clearly that levels and trends of population growth and fertility are influenced by two broad and related sets of influences on demographic behavior. One is the complex array of societal transformations associated with the process of modernization, including the erosion of traditional values, the global reach of information through the mass media, improvements in the status of women, the rise of mass education, declining social and economic inequality, economic growth, the nucleation of family structure, and urbanization (Davis, 1963; Micklin, 1969; Caldwell, 1976, 1978, 1980, 1982; Freedman, 1979, McNicoll, 1980, 1989; Cleland, 1985; Susheela and Casterline, 1985; United Nations, 1990). The other set of influences comprises purposive interventions intended specifically to alter demographic variables, including both broad population policies and programs designed to affect specific demographic behaviors, e.g., fertility and child mortality (Davis, 1963; Berelson, 1969, 1975; McCoy, 1974; Warwick, 1982; Gerard, 1984; Freedman, 1987; United Nations, 1989).

Over the past decade and a half researchers have estimated and debated the relative contribution of family planning program effort and changes in the socioeconomic context to fertility decline in the developing countries (Srikantan, 1975; Mauldin and Berelson, 1978; Rodriguez, 1979; Simmons, 1979; Cutright and Kelly, 1981; Hernandez, 1981a, 1981b, 1984; Mauldin, 1982; Cutright, 1983; Kelly and Cutright, 1983; Lapham and Mauldin, 1984, 1985, 1987; Tien, 1984; Tolnay and Christenson, 1984; Jejeebhoy, 1990; Kelley, 1990). While results vary somewhat according to the countries examined and methodology employed, the overall conclusion is that both factors show moderate to strong effects on fertility decline. Stated otherwise, the greater the modernization of social and economic institutions and the stronger the effort to provide family planning information and contraceptive services, the larger the fertility decline. Of greatest significance, however, is the finding that the effect on fertility is strongest when both variables are favorable. In other words, there is a clear interaction effect between modernization and program effort.

Any effort to alter demographic levels and trends in Guatemala should be based on an assessment of the country's recent experience in the areas of modernization and strategic

demographic interventions. If one or the other set of influences is not favorable to declining fertility and population growth, then actions to alter the situation are called for.

#### A. Modernization and Development

As for the majority of Latin American and Caribbean countries, the 1980's was a period of economic stagnation in Guatemala. While the gross domestic product (GDP) had increased by an average of 5.6 percent over the preceding two decades, between 1981 and 1990 it grew by an average annual rate of only 0.6 percent. In per capita terms, the annual average growth of GDP for the period 1961-80 was 2.7 percent, while it was -2.2 percent for 1981-90 (Inter-American Development Bank, 1990, Tables B-1 and B-2). The real GDP per capita, based on local purchasing power, for 1985-88 averaged 2,430 \$US (United Nations Development Programme, 1990, Table 1). Data for gross national product (GNP) show a similar picture. The Guatemalan per capita GNP declined by 15.7 percent from 1980 to 1989, from 1,080 to 910 \$US (World Bank, 1982 and 1991, Table 1).

At the same time, the country's external debt increased substantially. From 1.2 billion \$US in 1980, it grew to a level of 2.7 billion \$US by 1989. These figures represent 14.8 percent and 32.1 percent of the nation's GDP, respectively (World Bank, 1990). In short, the Guatemalan economy has performed at a relatively low and declining level during the past decade, while its external debt has more than doubled (absolutely as well as relatively). It is important to note that comparison of raw and per capita figures suggests that population growth has had a negative effect on the overall economic situation.

Indicators of social development are only slightly more encouraging. By 1985 the level of adult (population age 15 years and over) literacy was estimated to be but 52 percent [60% for males and 44% for females] (United Nations Development Programme, 1991, Table 5). Lower levels of literacy are found only for Haiti among countries in the Latin America and Caribbean region (Micklin, 1991). Results from the 1989 National Sociodemographic Survey show the level of adult literacy to have increased to 60 percent [70% for males and 52% for females]. The highest level of literacy is found among urban males [87%] and the lowest among rural females [38%] (Instituto Nacional de Estadística, 1990, Vol. I, Cuadro 7).

School enrollment ratios for Guatemala are also among the lowest in the LAC region. In 1988 it was estimated that only 77 percent of the eligible age group was enrolled at the primary level, and for females the figure was 70 percent. At the

secondary level of schooling, the enrollment ratio is a mere 21 percent (World Bank, 1991, Table 29). Not surprisingly, average levels of educational attainment are also low. Data for 1980 show the mean number of years of schooling completed for the population 25 years of age and over to be 4.1 [4.3 for males and 3.7 for females] (United Nations Development Programme, 1991, Table 5). Results from the 1989 Sociodemographic Survey indicate that 50 percent of the population aged 25 or more had not completed at least one year of formal schooling; 22 percent had completed 1-3 years of primary instruction and 16 percent 4-6 years of primary instruction; only 12 percent had completed at least one year of secondary education (Instituto Nacional de Estadística, 1990, Vol. I, Cuadro 8). As expected, educational attainment is considerably higher among residents of urban areas. A major factor underlying these low levels of school completion is the high dropout rate. It has been estimated that for the period 1985-87, 64 percent of Guatemalan children entering the first grade of primary school will not successfully complete that level (United Nations Development Programme, 1991, Table 15).

An increasingly important aspect of social development in LDCs is the status of women, of which one key indicator is the female labor force participation rate. Estimates and projections for the Guatemalan population 10 years of age and over prepared by the International Labour Office (1986, Table 2) show rates of 8.0, 9.0, and 9.4 percent for the years 1970, 1980, and 1990, respectively. These rates are among the lowest found in the LAC region. More accurate data on this dimension of women's status (because of better reporting on women in agriculture and the informal sector) are found in the 1989 National Sociodemographic Survey, which shows a female participation rate of 24 percent (Instituto Nacional de Estadística, 1990, Vol. II, Cuadro 1). It is interesting to note that this rate is the same as reported in the 1986-87 survey. Data reported by the United Nations Development Programme (1991, Table 10) indicate that, relative to Guatemalan men, women are considerably disadvantaged in terms of literacy, mean years of schooling, enrollment at all levels of education, and labor force participation. The only indicator on which women show a comparative advantage is life expectancy at birth. Overall, the gender discrepancies for Guatemalan women are larger than for any other country in the Latin American and Caribbean region (Micklin, 1991).

Because there are a number of socioeconomic indicators that reflect important dimensions of societal development, social scientists have experimented with a variety of multivariate indices in order to simplify the measurement of development. One such measure is the Human Development Index

(HDI) created by the United Nations Development Program (1991). It contains three components: life expectancy, education (literacy and mean years of schooling), and income (real GDP adjusted to the poverty line). The HDI has a theoretical range from .000 to 1.000, and an actual (1990) range from .048 (Sierra Leone) to .993 (Japan). The mean 1990 HDI for the 24 largest countries in the Latin America and Caribbean region is .716 (Micklin, 1991).

The Guatemala HDI for 1990 is .488, which is more than one standard deviation below the mean for the LAC region and ranks the country 23rd among its 24 largest nations. Only Haiti showed a lower level of social and economic well-being according to this measure. HDI scores for Guatemala for 1970 and 1985 were .416 and .515, respectively, reflecting a 24 percent improvement over the period 1970-1985 and a five percent decline during the following five years.

In summary, there is little evidence of economic and social progress in Guatemala over the past decade or so, and current indicators are at very low levels, both absolutely and in comparison with other countries in the LAC region. This conclusion is of considerable significance for persons concerned with achieving lower rates of fertility and population growth for the country. While there is clearly a demographic response to the modernization of social and economic structures, change on those indicators known to be of greatest importance has been minimal in this country. The already poor economic situation has worsened, educational levels are very low and rising only slowly, and opportunities for women to widen their interests and aspirations beyond marriage and childbearing through education and paid employment are still extremely limited. In short, based on current conditions and recent trends, it would appear that modernization is unlikely to produce much in the way of lower fertility and reduced population growth in the foreseeable future. It is thus reasonable to infer that any significant change in these demographic indicators over the next few decades can be accomplished only through human interventions designed to bring about that result.

**ANNEX K**

**ECONOMIC ANALYSIS**

A N N E X K

ECONOMIC ANALYSIS

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## ANNEX K

### ECONOMIC ANALYSIS

#### EXECUTIVE SUMMARY

The economic analysis of the proposed project consists of two components. The first component addresses the issue of operational efficiency, that is, the identification of the most cost-effective combination of organizations to implement family planning programs. The second component of the analysis consists of a cost-benefit analysis of the proposed project.

#### A. Operational Efficiency of the Proposed Project

The proposed project includes a variety of activities to be carried out by four agencies; two public sector organizations, the Ministry of Health (MOH) and the Social Security Agency (IGSS) and two private sector groups, APROFAM and IPROFASA. In the case of the two private sector groups, A.I.D. funding is used to pay for all or major portions of the organizations' personnel, rent, equipment, training and supplies. In contrast, since the MOH and IGSS are already providing government health care services, A.I.D. only needs to fund some training and supplies to add family planning to these organizations' delivery of services.

The MOH and the IGSS provide the most cost-effective ways for A.I.D. to maximize the impact of its expenditures in terms of expanding the contraceptive coverage rate. Since most fixed costs are already being borne by both organizations, both will incur relatively minor marginal costs as they expand access to, and production of, family planning services. For example, investments in training and equipment will generate considerable returns for years after the proposed project has ended.

Given this situation, the remaining cost-effectiveness issues which might impact on the project's design concern the relative levels of support for IPROFASA and APROFAM. IPROFASA will assume all financial responsibility for recurrent costs by the end of this Project and use AID resources only for the purchase of contraceptive products. The question remains, what is the best mix of APROFAM's different programmatic interventions? These programs are the community-based distribution program, the Other Agencies Program and the clinic based program.

## 1. The Community-Based Distribution (CBD) Program

Analysis of the evolution of the CBD Program over the past 6 years reveals that:

- o the number of CYPs generated by the Program has increased by a factor of 2.6;
- o the mix of services provided by the Program has changed to more volunteer and barrier-specific, and less characterized by associated physicians providing oral contraceptives;
- o this change in the mix of services of the Program has meant greater efficiency in and lower unit costs of producing a CYP; and
- o the number of CYPs generated by a CBD volunteer in 1991 is 77 percent greater than it was in 1986, implying there has been an increase in the efficiency of producing a CYP (i.e., a reduction in the unit costs of a CYP).

In light of its recent evolution, the proposed project's plans to finance an expansion in the CBD Program appear to be well-founded.

## 2. Other Agencies Programs

APROFAM's Other Agencies Program consists of supplying training and contraceptive commodities to AGROSALUD, the Independent Small Farmers Movement, and other community based organizations, to enable them to provide family planning education and services. Under the auspices of this program, APROFAM provides training free of charge and sells contraceptives to participating agencies at prices that are significantly below prevailing market prices.

While the CBD Program has evolved in terms of its provision of CYPs since 1986, the Other Agencies Program experience has been just the opposite. More specifically:

- o total CYPs provided by the Other Agencies Program fell by nearly 70 percent in absolute value;
- o in terms of total APROFAM CYPs, the Other Agencies Program went from providing about 1 in every 5, to about 1 in every 20; and,

- o the mix of methods provided by the Other Agencies Program also changed, with orals falling each year after 1987 to reach a mere 14 percent of their 1986 level in 1991. Barrier methods, also experienced a massive reduction, falling in 1991 to about one-third their 1986 level.

The causes of these major reductions are unknown, but warrant investigating. Perhaps there are fewer associations in the program or organizations are buying contraceptives from other sources. In order to make a recommendation for the relative funding level for this program, an analysis of actual costs needs to be conducted.

Since these organizations receive subsidized commodities and may be able to pay market rates, it appears that there may be an untapped potential for generating revenues, or at a minimum, for reducing APROFAM's net operating costs. Prices for the goods and services for the Other Agencies Program could be raised to offset some of APROFAM's costs of operation.

### 3. Clinics Programs

The most important and dynamic component of APROFAM's three programs is the Clinics Program, which consists of APROFAM's eleven clinics and eight associated clinics. APROFAM provides its associated clinics with family planning training and supplies free of charge, and pays each participating private physician a fixed fee for each surgical sterilization it performs. While voluntary sterilization generates fifty-five percent of APROFAM's total CYPs, it accounts for ninety percent of the associated clinics CYPs.

The other portion of the Clinics Program is comprised of APROFAM clinics. The proposed project calls for decreasing APROFAM's financing from 43 percent of A.I.D.'s total project financing in 1992 to 38 percent in 1996. This declining share, and the expanding share of the associated clinics and associated physicians component of the Clinics Program is a more cost-effective re-ordering of A.I.D.'s funding of APROFAM activities. It appears that the clinics program at APROFAM should be expanded more, and at a quicker pace, than is currently programmed. This is difficult to gauge because of the current financial tracking system. Additional detailed analysis will be needed.

## **B. Cost-Benefit Analysis of the Project**

The second component of the economic report consists of a cost-benefit analysis of the proposed project. In this section, the analysis focuses on measuring macroeconomic benefits which will accrue to Guatemala (primarily its central Government) as a direct result of averting births through project activities.

The three principal categories of benefits which are assessed in this component of the analysis are:

- o reduced recurrent and capital expenditures of the Ministry of Health;
- o reduced recurrent and capital expenditures of the Ministry of Education; and,
- o reduced food requirements, and their implications for domestic agricultural production and the importation of foodstuffs.

These are by no means all of the benefits which will be generated by the proposed project if it is implemented. Many additional and important benefits--such as improved maternal and child health and increased per capita consumption made possible by slower population growth--are not included in the analysis because of the inherent difficulties in quantifying them. Only the immediate and direct impact of the project is taken into account, despite the fact that these activities are certain to have a more enduring impact on couples' knowledge, attitude and practice of contraceptives.

The economic analysis presented here makes conservative assumptions and focuses on only a subset of the total benefits to provide a moderate estimate of the value of the proposed program.

### **1. Savings as a Result of the Project**

#### **a. Ministry of Health Savings**

The Ministry of Health will realize savings through reduced recurrent expenditures due to a reduction in health care services for the averted birth cohorts. Specific savings which will accrue are in the areas of: averted deliveries; prenatal and post-partum care; hospitalizations for complications due to spontaneous and induced abortions;

hospital, health center and health post outpatient consultations; and all other hospitalizations. In addition, averted capital expenditures for health centers and posts are estimated. The total present value of these savings is Q152.4 million.

**b. Ministry of Education Savings**

Ministry of Education savings which will be generated by implementing the proposed project include reduced recurrent outlays for teaching pre-primary, primary and middle school students and reduced capital expenditures for constructing additional school buildings. The total present value of these savings is Q744.8 million.

**c. Agricultural Production and Food Savings**

The sum of the total value of additional domestic production of the food requirements for the averted birth cohorts through the year 2016 is Q1.9 billion, which has a present value of Q437.7 million.

Assuming that the same proportion of per capita consumption for imported food will continue, the proposed project will enable averting Q200.4 million (with a present value of Q46.4 million) in food imports through the year 2016. Thus the total value of averted food requirements--both domestically produced and imported--is Q2.1 billion, which has a present value of Q484 million.

**2. The Benefit-Cost Ratio of the Proposed Project**

The present value of the savings attributable to the proposed project due to reductions in public health and public education expenditures and to reduced food requirements through the year 2016 is Q1,381 million. This is the present value of the benefits that will accrue to Guatemala if the proposed project is implemented.

Assuming that the total cost in the cost benefit equation is equal to A.I.D.'s costs of funding the additional family planning services provided through the project, gives us a total present value cost of the project of Q98.6 million. (This assumes a year-end 1991 exchange rate of Q5.2 to US\$1.00). This compares with the benefits that the project would generate, estimated to be the present value of Q1,381.3 million. The benefit-cost ratio, therefore, is about 14 (= 1,381.3 / 98.6). That is, for every quetzal (or US dollar) spent on this project, it generates 14 quetzales (or US dollars) worth of benefits. Alternatively viewed, the present

value of the project's costs constitute about 7 percent of the present value of its associative benefits.

Even with the many conservative assumptions used to derive the benefit values and the fact that all of the economic benefits are not considered here, it is still evident that the proposed project is a wise investment for Guatemala and A.I.D.

## FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

- Finding:** The Ministry of Health will realize savings through reduced recurrent expenditures due to a reduction in health care services for the averted birth cohorts. The total present value of these savings is Q152.4 million.
- Finding:** Ministry of Education savings include reduced recurrent outlays for teaching pre-primary, primary and middle school and reduced capital expenditures for constructing additional school buildings. The total present value of these savings is Q744.8 million.
- Finding:** The sum of the total value of additional domestic production of the food requirements for the averted birth cohorts through the year 2016 is Q1.9 billion, which has a present value of Q437.7 million. The proposed project will enable averting Q200.4 million (with a present value of Q46.4 million) in food imports through the year 2016. Thus the total value of averted food requirements--both domestically produced and imported--is Q2.1 billion, which has a present value of Q484 million.
- Finding:** Assuming that the total cost in the cost benefit analysis is equal to A.I.D.'s costs of funding the additional family planning services provided through the project, gives us a total present value cost of the project of Q98.6 million. (This assumes an exchange rate of Q5.2 to US\$1.00). This compares with the benefits that the project would generate, estimated to be the present value of Q1,381.3 million.
- Finding:** The benefit-cost ratio is about 14 (= 1,381.3 / 98.6). That is, for every quetzal (or US dollar) spent on this project, it generates 14 quetzales (or US dollars) worth of benefits. Alternatively viewed, the present value of the project's costs constitute about 7 percent of the present value of its associative benefits.

**Conclusion:** The MOH and IGSS are more cost-effective investments for A.I.D. than the private sector organizations for increasing access to and utilization of family planning services since there are negligible fixed cost investments.

**Recommendation:** Even with the many conservative assumptions used to derive the benefit values, and the fact that all of the economic benefits are not considered here, it is still evident that the proposed project is a wise investment for Guatemala and A.I.D. and should be funded.

## ECONOMIC ANALYSIS

The following economic analysis of the A.I.D. Population and Health Services Project argues that the constellation of activities programmed for the proposed Project is critical to the overall progress of development in Guatemala. This section presents an economic analysis of the technical efficiency of each organization to implement Project activities as well as the macro-level cost-benefit of the Project in the context of development in Guatemala.

A careful review makes it clear that the Project is one that should be given high priority by A.I.D., given the impact that it will have in various other sectors including but not limited to health, education, natural resource management and agriculture over the next 25 years. Few development sectors can claim to have such a profound impact on other key sectors as can family health and population efforts as noted in the body of this analysis.

### 1. INTRODUCTION

Demographic activities by nature require adopting a long term perspective in order to fairly and accurately register and measure program impact. This is even more critical for the proposed Project given that the two major goals of the Project: 1) increasing contraceptive prevalence and of 2) moving the two key family planning organizations, IPROFASA and APROFAM, toward self-sufficiency in the next four years cannot and should not be attained in the short run. (For the purposes of this Project and its analyses, sustainability is defined as operating autonomously, both independent of A.I.D. financing as well as other external funding.)

To date, USAID/Guatemala has been largely responsible for the institutional development of the two largest local private sector entities working in family planning. IPROFASA and APROFAM have accounted for the bulk of family planning activities in Guatemala to date. In addition, USAID/Guatemala has been the major donor for the Ministry of Health's (MOH) Family Planning Unit since its inception in 1982. The majority of funding for each implementing agency currently comes from USAID/Guatemala.

The Mission has made tremendous contributions to the establishment and development of family planning programs over the past 20 years. In addition to steadily increasing both the supply and demand for family planning services and contraceptive products, IPROFASA and APROFAM's Mission-funded activities over the years have played a pivotal role in reaching a critical level of visibility and momentum recently exhibited in the growing public interest as well as the official implicit acceptance of family planning in Guatemala. These are prerequisites for achieving a sustained increase in the contraceptive prevalence rate in the country. This increase also creates a strong consumer demand for services, allowing some private sector development.

The proposed Project is designed for USAID/Guatemala to be able to capitalize on its long term investment by continuing to build on the fundamental successes achieved in the sector over the last 20 years and to ensure that the institutions concerned become autonomous technically and financially from external funding to the maximum degree possible given market realities in Guatemala.

It is also an opportune time for USAID/Guatemala to help move APROFAM and IPROFASA toward resource generation and self-financing because, internally their management capacity will have been improved based on restructuring over the last couple of years and, externally, the political climate is more accepting of family planning than it has been for many years. Both institutions have demonstrated that they can provide services effectively while generating their own revenues. They have also shown the organizational commitment and capability over time to devise new programmatic approaches designed to expand their coverage and improve the quality of those services.

The analysis concentrates on APROFAM because the institution provides by far, the greatest coverage of the population and has the widest range of types of activities, services and products. APROFAM has also received the greatest level of investment over a longer period of time than any other local organization involved in family health. APROFAM has an impressive record of expanding service provision and responsiveness to the Guatemalan family planning environment as is testified by its restructuring of management and financial accounting systems; the growth of its infrastructure; the persistent growth of the APROFAM Community Base Distribution program's corps of voluntary distributors, despite problems of high turnover; and, the clinics from a concentration on a limited number of methods to a more diversified mix of contraceptive methods and maternal child health services.

In sum, the following analysis argues that the most effective and sure means of achieving the two important goals of the Project is for the institutions concerned to maintain the primacy of the first goal to expand coverage of family planning services in the short run (which is consistent with the LAC Bureau Draft Population Strategy) while making significant and clear progress towards the second goal of reaching self-sufficiency in technical and financial terms. Rather than simply requiring both of these organizations to become sustainable very quickly by suddenly terminating USAID funding, the more prudent approach is to systematically phase-out USAID support as the CPR increases and the resource base expands. The pace at which this is possible differs by organization and will necessarily be longer for APROFAM than for IPROFASA.

The goal of achieving a certain agreed to level of sustainability can be reached by both organizations if they each have a longer, realistic period of time with which to pursue the options available to them to increase the number of couples using modern contraceptive methods throughout Guatemala while generating revenues for each institution. Without the long term view, neither goal will reach satisfactory levels of success.

By adopting the long term approach, USAID/Guatemala will maximize the groundwork it has helped to lay over the years without jeopardizing its important and long term investment in Guatemala. The analysis makes extensive suggestions for how this may be done.

## 2. AN ECONOMIC ANALYSIS OF THE PROPOSED PROJECT

### A. Overview and Limitations of the Study

This economic analysis of the proposed Project consists of two components. The first component addresses the issue of the technical efficiency of the proposed project. It addresses the issues involved in identifying the most cost-effective combination of activities and strategies by which to achieve the Project's stated goals. Generally this portion of an economic analysis usually consists primarily of quantitative analysis. However, owing to inavailability of available cost data, the very different and often non-comparable nature of the principal activities to be carried under the Project, as well as by the different organizations involved a greater proportion of this section is descriptive than is usual in such an analysis.

The second component of the economic analysis consists of a cost-benefit examination of the Project. In this section, the analysis focuses on quantitative macroeconomic measures of the three principal categories of benefits which will accrue to Guatemala as a direct result of averting the birth of children to couples who are contracepting due to Project activities.

The three principal categories of benefits which are assessed in this component of the analysis are:

- o reduced recurrent and capital expenditures of the Ministry of Health,
- o reduced recurrent and capital expenditures of the Ministry of Education, and
- o reduced food requirements, and their implications for domestic agricultural production and the importation of foodstuffs.

These are by no means all of the benefits which will be generated by the proposed Project if it is implemented. Many additional and important benefits such as improved maternal and child health status and increased per capita consumption made possible by slower population growth are not included in the analysis because of the inherent difficulties in quantifying them. Moreover, even within the three identified categories, the analysis here focuses on only a subset of the total benefits. In the case of health and education savings, for instance, this investigation is limited to a portion of the public sector's health and education efforts. Specifically in the health sector, only the Ministry of Health's reduced service and infrastructural requirements and their attendant savings are examined. No analysis of the benefits accruing to the Guatemalan Social Security Institute is undertaken for instance. Also, no analysis of any other-than-service provision-derived benefits are examined.

Analogously, in the education sector, only the Ministry of Education's reduced service and infrastructural requirements and their attendant savings are quantified. No analysis of any departmentally- or municipally-sponsored or jointly-sponsored education systems is undertaken.

Analyzing the impact of reduced population growth on public sector expenditures aids in clarifying important issues which must be addressed in Guatemala's current national population policy debate. More specifically, it aids in understanding--in quantitative, monetary terms, how increased public sector expenditures on family planning efforts are, in

the longer term, cost-effective; they result in reductions of relatively greater magnitude in other categories of public expenditures. It is hoped that the results of this analysis will be useful stimulating policy dialogue which is one of three components of this Project.

This analysis should be regarded as conservative, underestimating the full value of the proposed Population Project to Guatemala. It deals primarily with financial costs and financial savings, as distinct from more comprehensive, economic costs and savings. By virtue of the various in-kind assistance received by especially the public health sector, it can be assumed that the financial savings associated with the proposed Project will be less than the economic savings. That is to say, that the assessed monetary value of the benefits of the project derived from the present financial analysis will be less than the true economic value of those benefits.

In the cost-benefit analysis it is assumed that the benefits of the project are the reduction in public health and education expenditures and the reduction in food requirements resulting from having a smaller population than would have been the case absent the Project. In quantifying these benefits, we employ the conservative assumption that the additional food requirements can be estimated as being equal to the presently existing per capita average consumption in the case of goods and services and average population-to-facility ratios in the case of infrastructure. It should be recognized that this (too) is a conservative approach; it results in quantifying the minimal level of benefits which the project will generate. (To the extent that additional data concerning trends in service provision, service coverage, and per capita food consumption are available, and are such as to have a discernable impact on the findings, analyses incorporating this information is conducted.)

Finally, only the immediate and direct impact of the project is taken into account. Only the births averted during the lifespan of the project are included in the analysis here, despite the fact that these activities will have an extended impact on the perceived ideal family size and couples' use of contraceptives. The economic analysis presented here consistently makes assumptions so as to minimize the value and importance of this project, and thus estimates the minimum value of this proposed Project.

Regarding the first component of the economic analysis, by far, the largest proportion of USAID support under the proposed Project is earmarked for APROFAM. Therefore, the analysis of the costs and effectiveness of APROFAM services will be the focus of this section. Unfortunately, however, there

exists no systematic assessment of the cost efficiency of its services and little recent information on the cost of APROFAM-provided services. The organization's cash flow- (as distinct from a cost-) accounting system precludes being able to develop reliable cost estimates. Though this data is not available, a qualitative evaluation and analysis of APROFAM can be done by systematically reviewing evolution of APROFAM services. This approach will provide us with some objective information about the optimal configuration of APROFAM, about ways in which its services could be made more effective, and about the relative magnitude of the costs of its different programs.

The MOH and the IGSS provide the most cost-effective ways for USAID to maximize the impact of its expenditures in terms of expanding the contraceptive coverage rate, as is readily seen from Table. Both of these institutions will increase their level of activities in the area of family planning in the proposed project as part of their more general health care services. Since the fixed costs of this more general health care service provision are already being borne by both organizations, both will incur relatively minor marginal costs as they expand access to, and the production of, family planning services. Hence, their relatively greater cost-effectiveness to USAID for increasing access to and utilization of family planning services. Furthermore, sustainability is far less of a potentially compromising consideration in comparison to the private sector entities, IPROFASA and APROFAM, further underscoring the conclusion that these two public sector entities are more cost-effective for USAID in the short term, but the MOH and IGSS currently provide less than 1/3 of the CPR.

With USAID's financial assistance, both institutions will pursue the development and implementation of a programmatic effort that they believe will improve their provision of family planning services, while simultaneously expanding their institution's capacity to provide family planning services throughout and beyond the life of the Project. Moreover, most of the monies USAID is allocating to both of these institutions during the proposed Project are of a longer term nature (e.g., training health care providers, and the one-time purchase of equipment); that is, they are investments which can be expected to generate returns for many years beyond the life of the Project. In short, not only are the MOH and the IGSS components of this project its most cost-effective elements during the lifetime of the project (through mid-1996), but they are expected to generate considerable returns for years after the proposed Project has ended.

The remaining cost-effectiveness issues which affect the Project's design concern the relative levels of support for IPROFASA and APROFAM. IPROFASA is going to be moved from its dependence on USAID over the course of this project toward self-sufficiency. The pace of this phase-out will be determined by the organization's capacity and its current financial and technical status.

The largest project design issues deal with the optional mix of APROFAM's different programmatic interventions. That the mix of APROFAM's programs is the priority project design issue is further reinforced by the paramount position that organization plays vis-a-vis the other three involved in the project in terms of (1) CYPs to be produced in the next 5 years, and (2) in terms of the distribution of USAID funding--both in absolute terms, and in relative terms. The following is an analytic review of APROFAM's service provision record.

1. Towards identifying the Cost-Efficient Configuration of APROFAM's programmatic activities: A Longitudinal Analysis of APROFAM

Based on a linear extrapolation of its service provision record in the first 6 months of the current year, 1991, APROFAM, will provide an all-time record number of CYPs, 230,891. APROFAM's production of CYPs, however, has not increased uniformly over the years largely due to the adverse political family planning climate of the 1980s. Although malicious attacks against family planning in general, and specifically APROFAM, peaked in 1985-1986, it took the organization several years to rebound, as the total number of CYPs provided by APROFAM stagnated for 4 years between 1986 and 1989. Last year, however, APROFAM posted a 9 percent gain, and this year it appears that it will record another 12 percent increase in CYPs.

The overall performance of the APROFAM over the course of the 6 years since 1986 was produced by the different performances of APROFAM's three service delivery programs (clinic, CBD and Other Agencies) during this period. Since the method mix of each of the 3 different programs is different, one would expect their highly variable performances to have generated changes in the total APROFAM contraceptive method mix since 1986.

The CYPs generated by the CBD Program, for instance, which provides only oral and barrier method contraceptives, grew two-fold between 1986 and 1991, while the Other Agencies, which provides primarily oral contraceptives,

IUDs, and to a lesser extent barrier methods, experienced a drop in their number of CYPs. Another source of change in the mix of services provided was that the method mix provided by each of the 3 Programs also changed over this same period. Even though the relative shares of APROFAM CYPs generated by the 3 Programs changed substantially as did each program's method mix, on an organization-wide basis, these changes produced countervailing tendencies, leaving APROFAM's mix of methods virtually unchanged over this 6 year period, as may be seen in the following table:

The Changing Mix of APROFAM's Contraceptive Methods  
(Percentages)

METHOD	1986	1991
Orals	21	21
IUDs	12	13
Injections	2	2
Sterilization	59	57
Barrier Methods	6	7
TOTAL	100	100

a. Evolution of the CBD PROGRAM

The number of CYPs provided by the CBD Program increased nearly every year between 1986 and 1991. The absolute number of CYPs provided reached an all time high of 43,202 in 1991, slightly more than twice the 1986 level. The CBD program is comprised of both associated, private physicians and local voluntary distributors. The associated physicians dispense virtually exclusively oral contraceptives, while the volunteers distribute orals, condoms and spermicidal tablets. CYPs derived from the CBD distribution of barrier contraceptives increased 160 percent from 1986 through 1991. That derived from orals distributed by associated physicians grew by 109 percent.

In April of 1991, The Futures Group estimated that the provision of a couple year of protection (CYP) by APROFAM's CBD Program costs 2.7 times as much as its Clinic-Based Program \$38 versus \$14. According to these figures then, growth in the the CBD share of APROFAM-provided CYPs, has meant that the average cost of an APROFAM CYP has increased since 1986. Although we have no method-specific cost-estimates for APROFAM, studies throughout the world have found that the per-CYP cost of voluntary sterilization is less expensive than temporary methods, due to the permanence of the

method versus recurrent costs associated with temporary methods. In short, the difference between the CBD and the Clinic-Based program is in large part attributable to difference in methods.

The relatively higher cost of the CBD Program, does not justify cutting or eliminating the program, and reallocating resources to one of the other APROFAM programs, for several reasons. First, the difference in cost is attributable in large part to the differences in the method mix, which, is believed to reflect consumer preference for temporary methods. Second, the total impact of the CBD Program on APROFAM costs is substantially more complex than the simple analysis presented here suggests. According to APROFAM, most of its new users are brought in through referrals from the distributors. Also, the distributors are reported to be responsible for referring about half of all persons presenting at APROFAM clinics for voluntary sterilizations. These observations suggest that the CBD Program constitutes an integral part of the APROFAM system, and that isolating and quantifying its total costs and benefits, or its cost-effectiveness in generating a CYP, requires a more comprehensive analysis and output measure.

One of the factors accounting for the increase in the number of CYPs generated by the CBD Program was that the number of CBD distributors also increased throughout most of this 6-year period. The number of CBD volunteer distributors, however, increased by only about one-third the proportionate change in the number of CYPs they provided. Hence, the average number of CYPs provided per distributor increased between 1986 and 1991, by 77 percent. In economic terms, an increase in productivity is associated with a reduction in costs so an increase in the CBD program's production of CYPs, is associated with a decrease in the unit costs of producing a CYP; that is, it is associated with an increase in the CBD program's efficiency in producing a CYP.

The number of CYPs generated by volunteers distributing orals and barrier methods increased 160 percent between 1986 and 1991, while the number generated by associated physicians grew by 109. The resulting change in the mix of methods probably resulted in an improvement in the efficiency with which the APROFAM produces CYPs. Although there is no data on the relative costs of generating a CYP using voluntary distributors as compared with associated, private physicians there is little doubt but that the latter programs are significantly more expensive than the former. In terms of only their contraceptive costs, a condom-produced CYP costs 29 percent more than one generated using orals using 1990 prices. Also, the supervision and logistic costs of the volunteer-based

program are likely to be somewhat higher than relatively more CYP-concentrated and relatively smaller number of distribution points in the associated physician component of the Program. More than offsetting the relative cost differentials of the two CBD Program's components based on these considerations is the payment which APROFAM makes to the associated physician for a prorated portion of his time and office space used in delivering the services. Thus, as the CBD Program has become more volunteer intensive it has probably become more efficient by virtue of lowering its per CYP cost.

Finally, the rate of increase in the absolute number of CYPs accounted for by the CBD Program exceeded that of the entire APROFAM organization. As a result, the proportion of all APROFAM CYPs provided by the CBD Program increased. Whereas in 1986, distributors accounted for about 12 percent of all APROFAM CYPs, by 1991 they were generating 17 percent of the total.

In summarizing this brief analysis of the evolution of the CBD Program over the past 6 years:

- o the number of CYPs generated by the Program has increased by a factor of 2.6;
- o the mix of services provided by program has changed with volunteers producing more users annually than other APROFAM service delivery mechanisms;
- o this change in the mix of service delivery in the program has meant greater efficiency in lower unit costs of producing a CYP;
- o the number of CYPs generated by a CBD volunteer in 1991 is 77 percent greater than it was in 1986, implying there has been an increase in the efficiency of producing a CYP (i.e., a reduction in the unit costs of a CYP).
- o the relative importance of the CBD Program as a contributor to APROFAM-generated CYPs and new users, has increased since 1986.

In light of its recent evolution, the proposed project's plans to finance an expansion in the CBD Program appears to be well-founded.

b) Other Agencies Program

The Other Agencies Program consists of APROFAM's provision of family planning supplies and training to enable other agencies, including AGROSALUD, the Independent Small

Farmers Movement, and the Armed Forces, to provide family planning education and services. Under the auspices of this program, APROFAM provides training free of charge and sells contraceptives to participating agencies at well below market prices. Oral contraceptives, for example, are sold at about 10 percent of their private market price.

Given the type of consumers served by the Other Agencies program, it would appear that this program has considerable untapped potential for generating revenues, or at a minimum, for reducing its costs and net drain on the financial standing of APROFAM. This is an area which merits closer study under the proposed Project. It may be that this program warrants a greater allocation of USAID resources than is presently planned.

While the CBD Program has grown both absolutely and relatively in terms of its provision of CYPs since 1986, the Other Agencies Program experience has been just the opposite. Total CYPs provided by Other Agencies fell by nearly 70 percent in absolute value. In terms of their share of total APROFAM CYPs, the Other Agencies Program went from providing about 1 in every 5, to about 1 in every 20. The mix of methods provided by Other Agencies also changed, with orals falling each year after 1987 to reach a mere 14 percent of their 1986 level in 1991. Barrier methods, also experienced a significant reduction, falling this year to about one-third their 1986 level. The causes of these sharp reductions are unknown and warrant investigating.

#### c. The Clinics Program

The most important and dynamic component of APROFAM's three programs has been its Clinic Program. This program includes APROFAM's own clinics, as well as their Associated Clinics. APROFAM provides its Associated Clinics with training in family planning and family planning supplies, free of charge. In addition, APROFAM pays each participating private clinic a fixed fee for each voluntary sterilization it performs. Ninety percent of the CYPs produced by the Associated Clinics are from voluntary sterilizations.

The Clinics Program provides contraceptives other than voluntary sterilization: orals, injectables, barrier contraceptives and IUDs. Since 1986, the Clinics Program has posted impressive growth in both absolute and relative numbers for each of the five contraceptive methods. The biggest gains have been realized in barrier methods and IUDs which grew by roughly 300 percent with the IUD, being the most significant. The Clinics Programs' IUD provision has gone from accounting for

less than 5 percent of all APROFAM CYPs in 1986, to 23,502 CYPs in 1991 or 10 percent of total APROFAM CYPs.

Since 1986, APROFAM has had a stable network of eight Associated Clinics, which together have made a significant contribution to the organization's total generation of CYPs. As may be seen in Table, from 1986 through 1990, the Associated Clinics performed an annual average of 19 percent of all of APROFAM's voluntary sterilizations. Since the Clinic Program's sterilizations are the single most important method and program producer of CYPs in APROFAM, accounting for an annual average of 55 percent of the total during 1986-1991 era, the Associated Clinics are obviously an important generator of CYPs for the organization as a whole. From 1986 to 1990, the eight Associated Clinics accounted for 10 percent of APROFAM's total CYPs.

As previously discussed, APROFAM's current financial accounting system does not lend itself to quantifying the total cost associated with the Associated Clinic Program. Judged simply on the basis of its proportionately high level of outputs, measured by CYPs, it might well be that this system is more cost-effective in producing a CYP than APROFAM's own clinics. A 1985 cost-effectiveness analysis of APROFAM's Clinical Services and Voluntary Sterilizations Program found that this was indeed the case. The study, "Evaluation of the APROFAM Program for Voluntary Sterilization in Guatemala," by Jane Bertrand and Mark McBride, concluded that the unit cost of a surgical contraceptive procedure was 25 percent less in Associated Clinics than in APROFAM's own clinics. Bertrand and McBride also found that the private associated physician arrangement, while the most expensive of the three other voluntary sterilization producing arrangements of APROFAM, has the lowest marginal cost. Moreover, since they identified that the marginal cost of the existing program was less than its average cost, it may be inferred that expansion of the program in terms of the number of service units per existing associated physician, would lower the average cost of the program. However, it was also shown that the APROFAM clinics reported fewer complications and higher quality counseling services to potential users.

The Project proposed calls for expanding the associated physician program and provides for an increase in the funding of the program by nearly 20 percent. The program is to expand CYP production by increasing both the number of service units per existing associated physician, as well as by increasing the number of participating physicians by 50 percent. If Bertrand and McBride's 1985 findings are pertinent to APROFAM's present cost structure, the former strategy of

increasing the number of units of service per existing associated physician would be the cost-effective method for APROFAM to expand its production of CYPs. \* There is no existing information, however, on how the latter strategy of increasing the number of participating associated physicians might affect the costs of providing voluntary sterilizations.

Whether or not expanding the output level of associated physicians remains the cost-effective approach to increasing CYPs and what the cost structure and organizational-wide cost implications of increasing the number associated physicians are present two important research questions. It might be wise strategically to maintain the option of re-programming more monies into this component of the Clinics Program, after a more rigorous cost analysis and cost-effectiveness analysis can be performed.

The other portion of the Clinics Program is comprised of APROFAM's own clinics' operations. The proposed project calls for holding the level of USAID funding to this portion of the Clinics Program almost constant in absolute terms and for it to decline in relative terms throughout the life of the project (going from 43 percent of USAID's total APROFAM financing in 1992 to 38 percent in 1996). This declining share and the expanding share of the Associated Clinics and associated physicians component of the Clinics Program is also consistent with the findings of the Bertrand-McBride Study, in terms of a more cost-effective re-ordering of USAID's funding of APROFAM activities. It may be, however, that the pace at which these changes are presently programmed to occur is too slow. This, too, is difficult to gauge without additional, more detailed analysis and is suggested by the much higher absolute level of funding of APROFAM's own clinics' vis-a-vis the associated physicians components of the Clinics program.

While recognizing the lack of some fundamental cost information, and based on a combination of:

- (1) older (1985), VSC-only cost data,
- (2) recent, but overly aggregative program-specific cost data,
- (3) analytic reasoning about programs' capacity levels and

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\*Whether or not the 1985 findings would still hold true would seem to be more dependent on the excess capacity within the program, since it is unlikely that the other principal factor that might have altered this situation--the changing relative cost structure of the different APROFAM Programs--has not had much impact.

- (4) their fixed and variable costs, and socio-politico-economic considerations about the mix of APROFAM's contraceptive methods (viz., making them less sterilization intensive) so as to make the organization less vulnerable politically, the mix of methods and programs to be adopted under the proposed Project are considered appropriate and evolving satisfactorily over the course of the Project.

In addition to the already mentioned declining share of the Clinics program going to APROFAM's own clinics and its concurrent increase in the associated physicians and Associated Clinics subprogram occurring over the course of the Project, a larger proportion of APROFAM's expenditures are annually devoted to IE&C as opposed to clinical services activities. More specifically, over the life of the project a larger share of total USAID-provided financial resources will be dedicated (a) to policy dialogue-related activities (viz., education of leaders and seminars), (b) to producing more and higher quality IE&C materials for various target groups, and (c) to training more health professionals in family planning and modern methods. This will require that a larger portion of the Clinic Program be financed by APROFAM itself by cross-subsidizing from APROFAM's own clinics' net revenue generating maternal-child health care services to its own clinics' family planning activities. These are desirable developments from both sustainability and efficiency perspectives.

### 3. A THE COST-BENEFIT ANALYSIS OF THE PROPOSED PROJECT

The cost-benefit analysis in this third section focuses on quantitative macroeconomic measures of the benefits which will accrue to Guatemala as a direct result of implementing the proposed Project and averting an estimated 385,469 births.

#### A. Quantifying Averted Births

USAID/Guatemala and the four Guatemalan institutions participating in this project anticipate producing 2,350,420 couple years of protection together during the course of this Project. Women of child bearing age make up 22.3 percent of the Guatemalan population. According to the Ministry of Health's vital statistics registration system, in 1990, Guatemalan women gave birth to 335,825 children, generating a general fertility rate of 165 births per 1,000 women of child bearing age. If it is assumed that this would be the general fertility rate of the couples who are protected by the Project were the Project not implemented, we can compute the number of averted births as the

simple product of the general fertility rate and the number of couple years of protection. Applying this technique, and assuming that the births which are averted are spaced evenly throughout the year and that all births require precisely a 9-month gestation period, it is estimated that the number of averted births attributable to the Project and their timing are as presented below:

Averted Births Directly Attributable to the Proposed Project

1993	39,028
1994	80,194
1995	95,101
1996	125,360
1997	45,786
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PROJECT TOTAL	385,469

B. General Methodological Considerations

There are two additional aspects of the methodological approach which warrant explanation before moving to the analysis. First, the analysis is based on, and the results are presented, using an approach which tracks the each of the six different, averted, annual cohorts individually. This approach is adopted because:

- (1) the size of the averted cohorts varies,
- (2) each of the cohorts will generate benefits at different moments in time, and
- (3) the evaluation (monetization) of the benefits entails discounting future benefit streams in order to assess the present value of the benefits.

The methodological approach based on cohort analysis explicitly recognizes the important implication that different sized cohorts producing different quantities of benefits in different years throughout the lifetime of the Project and beyond has for assessing the magnitude of the present value of the benefits produced by the Project. The temporal aspects of the costs and benefits of the project are consistently discussed and taken into account.

A second methodological consideration is our approach to

the quantification of the health and education benefits of the project. Rather than simply equating the benefit per averted birth with the average number of consultations per person per year, or the saving per averted birth as the average public health expenditures per year, we adopt a more refined approach which recognizes and adjusts for the service mix of the Ministry of Health.

The MOH does not deliver and even (provide anything approaching the same) level of health care services to all Guatemalans. Its service mix is skewed in favor of maternal and child health; i.e., in favor of women of child-bearing age and children. If this bias in the Ministry of Health's service mix were ignored, we would systematically underestimate the reduction in health care service requirements which the Project would produce, particularly early-on in the Project and shortly after its completion when the averted cohorts would have been using a disproportionately larger share of MOH services. While it is true that this systematic underestimation of the benefits of the Project during this more immediate period would be partially offset by a systematic overestimation of benefits which would be realized as the averted cohorts aged, it should be recognized that the overestimation would only completely offset this bias if we computed all of the benefits realized over the entire lifespan of the cohort (which involves considerably more work than the 25 year horizon we will analyze). It is more important--indeed imperative--to note, however, that even if we did analyze the full lifespan of the cohorts, that the present value of the two benefit streams (that of the accurately measured utilization rate and that of the at-first under-estimated and later, over-estimated benefit levels) would not be the same, regardless of the time frame of the analysis. The underestimated maternal and child care benefits will have a significantly higher present value relative to the overestimated "adult/later life" benefits because the latter will be subject to being discounted by significantly more in order to obtain their present value. To avoid this systematic underestimation of benefits, therefore, we opted to analyze cohorts and to disaggregate MOH service provision savings by specific types of service.

Guatemala's MOH has not compiled or reported annual service statistics since 1987. While such data is still maintained by individual MOH facilities, and they continue to send the official reporting forms on which they record such data to the MOH's Unidad Informatica, the data on these forms have not been compiled into an annual MOH total since 1987. In light of the fact that the MOH's total service production level had suffered a marked secular decline in the mid-1980s, falling 32 percent from its 1984 level of 3.78 million consultations to 2.56

million in 1987, it was deemed necessary to compile the 1,040 MOH facilities' data to obtain a national total, rather than to rely on 1987 data and the assumption that the MOH had been able to stem the tide of the substantial erosion in its service provision record starting in 1987.

This work revealed that the MOH had indeed stemmed the previous erosion of its service provision performance. In 1990, the MOH provided a total of 2.83 million consultations. This constituted an increase of 9.5 percent from the 1987 total. But while the MOH had turned the deteriorating situation of the mid-1980s around, its 1990 service provision total was still nearly one million consultations (25 percent) below its 1984 record number consultations.

The Ministry of Education (MOE) also has compiled few of its service delivery statistics. The most recent data available are for 1988. It was decided that rather than use 1988 data, projections prepared as part of the mid-1989 USAID Basic Education Strengthening Project Paper would be relied upon as accurate.

With regard to the mix of services provided, the MOE's activities are much less complex and the analysis greatly simplified, compared to the MOH. In the public education sector the service mix breaks into only two different categories, which are sequentially ordered as opposed to the simultaneous consumption of different types of health services within each given year.

### C. Ministry of Health-Related Savings

There are two principal types of savings which the aversion of the 385,469 births will generate for the Ministry of Health:

- (1) savings in recurrent costs stemming from the reduced number of medical care services which would otherwise have been provided by the Ministry of Health, and
- (2) savings in capital costs resulting from the reduced number of facilities which would otherwise have to have been constructed in order to maintain a constant population-to-facility ratio.

The discussion turns first to the analysis of the recurrent cost savings.

The 1987 MOH ambulatory and inpatient service provision rates per person (of the general population) are presented in Table 1. The same Table also contains the 1990 equivalent rates

which assume the same percentage distribution by type of service, but is adjusted to so as to take into account the growth in population and the changing level of MOH service provision. As is shown in the Table 1, in 1990, the MOH provided 0.64 prenatal care visits per birth, 0.08 post-partum visits per birth, and 0.25 pediatric care visits per child less than 15 years of age, and 0.12 consultations per person older than 15. The last three lines of Table 1 show that there were 8 hospital admissions per 1000 children less than 15 years of age in 1990; while among all other Guatemalans, there were 33 hospital admissions per 1,000 persons; and that there were 102 hospital outpatient department consultations per 1,000 Guatemalans. These were the rates which were used to estimate the amount of savings attributable to the project due to averted MOH service provision.

1. Savings Attributable to Averted MOH Provision of Delivery Services

In 1990, 20.3 percent of all births took place in MOH hospitals. It was assumed that this proportion would remain constant throughout the project's lifespan which is a conservative assumption, since this percentage is likely to edge upward. The middle column of Table 2 presents the number of MOH attended births which would be averted by adopting the proposed Project. Then, assuming that these averted births would be distributed throughout Guatemala in the same pattern characterizing all births in 1990, the value of the averted MOH maternity services is multiplied by the MOH's weighted national average cost of a maternity admission in 1990, Q196.39 (as reported in the Unidad Informatica's hospital cost accounting system). The righthand column of Table 2 contains the present value of these savings. The 1991 rate of inflation is expected to be 31.0 percent. Thus, to obtain the value of these savings at the end of 1991, the present value totals should be multiplied by 1.31, yielding a total present value of savings at the beginning of 1992 of MOH averted institutional births of Q13.6 million.

2. Savings Attributable to Averted MOH Provision of Prenatal and Post-Partum Care Services

Table 3 contains the analysis of savings due to averted MOH provision of prenatal and post-partum care services. According to a study conducted by a team lead by Ricardo Meerhoff of the USAID centrally-funded Latin American Health and Nutrition Sustainability Project, the average MOH outpatient consultation in health centers and posts cost Q16.30 to produce in 1990. (This same estimated average outpatient consultation cost is used throughout this analysis of MOH cost savings.)

Assuming the same composition of MOH services as existed in 1987 (the most recent such data available), and given the 1990 rate of MOH service production, it is estimated that the first averted births attributable to the Project would entail 24,978 prenatal care consultations and 3,122 post-partum visits. These services would have cost the MOH 458,033 to produce in 1990 quetzales, the present value of which is

TABLE 1

1990 MOH SERVICE DELIVERY:  
CONSULTATIONS PER PERSON IN THE GENERAL POPULATION

	POPULATION-BASED	
	1987 MOH SERVICE PROV. RATES	1990 MOH SERVICE PROV. RATES
PRENATAL CARE--CENTROS + PUESTOS ONLY	0.85	0.64
POST-PARTUM CARE--CENTROS + PUESTOS ONLY	0.10	0.08
PEDIATRIC CARE--CENTROS + PUESTOS ONLY	0.33	0.25
ALL OTHER MORBIDITY OUTPATIENT--CENTROS+PUESTOS	0.16	0.12
PEDIATRIC HOSPITALIZATION		0.008
ALL OTHER HOSPITALIZATION		0.033
HOSPITAL OPD CONSULTATIONS		0.102

**TABLE 2**  
**SAVINGS DUE TO**  
**AVERTED INSTITUTIONAL BIRTHS**  
**(1990 Quetzales)**

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	NO. WITH INSTITUTIONAL BIRTHS	SAVINGS FROM AVERTED HOSPITAL MATERNITY SERVICES	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	39,028	7923	1,555,936	1,285,897
3	80,194	16279	3,197,108	2,402,034
4	95,101	19306	3,791,408	2,589,582
5	125,360	25448	4,997,748	3,103,228
6	45,786	9295	1,825,358	1,030,112
			<b>TOTAL:</b>	<b>10,410,854</b>
In Year-End 1991 Quetzales:				13.6 million

The MOH's weighted national average cost of a maternity admission in 1990 was Q196.39.

336+

TABLE 3

AVERTED MOH SERVICE DELIVERY:  
AVERTED PRENATAL AND POSTPARTUM CARE  
IN MOH HEALTH CENTERS AND HEALTH POSTS\*

(1990 Quetzales)

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED MOH VISITS:		TOTAL AVERTED VISITS	SAVINGS <sup>XX</sup> DUE TO	PRESENT VALUE OF SAVINGS
		PRENATAL CARE	POSTPARTUM CARE		AVERTED PNC & PPC VISITS	
1	0	0	0	0	0	0
2	39,028	24,978	3,122	28,100	458,033	378,539
3	80,194	51,324	6,416	57,740	941,157	707,105
4	95,101	60,865	7,608	68,473	1,116,105	762,315
5	125,360	80,230	10,029	90,259	1,471,225	913,521
6	45,786	29,303	3,663	32,966	537,344	303,242
TOTALS:				277,538	4,523,864	3,064,722

In Year-End 1991 Quetzales: 4.0 million

\* In calculating the MOH services provided for specific-types of care, the 1987 percentage distribution of MOH services was applied to the 1990 total service provision data.

XX MOH consultation costs average US\$4.13 in 1989 according to a study conducted by a team lead by Ricardo Meerhoff of the AID Centrally-funded Latin American Health and Nutrition Sustainability Project. This is the equivalent of Q11.56 in 1989, or using the GDP deflator to adjust for inflation, Q16.30 in 1990.

Q378,539. The total savings attributable to this averted cohort and the four subsequent ones would be Q4.5 million in 1990 quetzales, which has a present value of Q3.1 million. In estimated, year-end 1991 quetzales, the present value of all averted MOH prenatal and post-partum services is Q4.0 million.

3. Savings Attributable to Averted MOH Hospitalization for Complications due to Spontaneous and Induced Abortions.

According to MOH publications, for every four births, there is one induced or spontaneous abortion. Table 4 contains the number of averted abortions associated with the estimated number of births attributable to the proposed project. The Table quantifies the value of these maternity services assuming that half of these abortions would have required hospitalization, and using the MOH weighted national average cost of a maternity admission to value the hospitalization for abortion. The total savings in 1990 quetzales for the resulting averted hospitalizations for abortion amount to Q18.9 million with a present value of Q12.8 million. In estimated, year-end 1991 quetzales, the present value of all averted MOH hospitalizations for abortion is Q16.8 million.

4. Savings Attributable to Averted MOH Health Center and Health Post Consultations

Tables 5-9 present the averted MOH health center and health post consultations provided to one of the five cohorts from the first year of the project through the year 2016. Table sums the individual cohorts' tables to provide a year-by-year summary. All six of these Tables contain two different assumed population-utilization rates, one for children less than 15 (i.e., the so-called pediatric rate) and one for all persons 15 years old and older.

As Table 10 shows, averting the birth of these 5 cohorts would mean 1.7 million fewer MOH visits during the next quarter of a century. The savings due to not having to provide these services is Q27.9 million in 1990 quetzales, the present value of which is Q9.4 million. In year-end 1991 quetzales, the present value of averted MOH health center and health post pediatric and general morbidity consultations is Q12.3 million.

5. Savings Attributable to Averted MOH Provision of All Other (Non-delivery) Hospital Care Through the Year 2016

Tables 11-15 contain the averted MOH hospitalizations provided to each of the five cohorts from the first year of the

3387

TABLE 4

NUMBER OF AVERTED ABORTIONS

(1990 Quetzales)

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	NO. OF AVERTED ABORTIONS	SAVINGS FROM AVERTED HOSPITAL MATERNITY SERVICES	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	39,028	9757	1,916,177	1,583,618
3	80,194	20049	3,937,325	2,958,170
4	95,101	23775	4,669,221	3,189,141
5	125,360	31340	6,154,863	3,821,709
6	45,786	11447	2,247,978	1,268,611
		TOTAL: 96,368	18,925,564	12,821,249

In Year-End 1991 Quetzales: 16.8 million

According to MOH publications, for every four births, there is one induced or spontaneous abortion.

Assumes half of abortions would have required hospitalization.

The MOH's weighted national average cost of a maternity admission was Q196.39

TABLE 5

AVERTED MOH HEALTH CENTER AND HEALTH POST CONSULTATIONS

COHORT #1

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED MOH OUTPATIENT VISITS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	39,028	9,757	159,039	131,437
3	39,028	9,757	159,039	119,488
4	39,028	9,757	159,039	108,626
5	39,028	9,757	159,039	98,751
6	39,028	9,757	159,039	89,751
7	39,028	9,757	159,039	81,600
8	39,028	9,757	159,039	74,179
9	39,028	9,757	159,039	67,447
10	39,028	9,757	159,039	61,310
11	39,028	9,757	159,039	55,745
12	39,028	9,757	159,039	50,682
13	39,028	9,757	159,039	46,072
14	39,028	9,757	159,039	41,885
15	39,028	9,757	159,039	38,075
16	39,028	4,683	76,339	16,613
17	39,028	4,683	76,339	15,117
18	39,028	4,683	76,339	13,730
19	39,028	4,683	76,339	12,482
20	39,028	4,683	76,339	11,348
21	39,028	4,683	76,339	10,316
22	39,028	4,683	76,339	9,378
23	39,028	4,683	76,339	8,526
24	39,028	4,683	76,339	7,750
25	39,028	4,683	76,339	7,046
TOTALS:		183,432	2,989,935	1,177,354

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TABLE 6

AVERTED MOH HEALTH CENTER AND HEALTH POST CONSULTATIONS

COHORT #2

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED MOH OUTPATIENT VISITS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	0	0	0	0
3	80,194	20,049	326,791	245,523
4	80,194	20,049	326,791	223,202
5	80,194	20,049	326,791	202,912
6	80,194	20,049	326,791	184,419
7	80,194	20,049	326,791	167,671
8	80,194	20,049	326,791	152,421
9	80,194	20,049	326,791	138,588
10	80,194	20,049	326,791	125,979
11	80,194	20,049	326,791	114,543
12	80,194	20,049	326,791	104,140
13	80,194	20,049	326,791	94,667
14	80,194	20,049	326,791	86,065
15	80,194	20,049	326,791	78,236
16	80,194	20,049	326,791	71,119
17	80,194	9,623	156,859	31,061
18	80,194	9,623	156,859	28,212
19	80,194	9,623	156,859	25,647
20	80,194	9,623	156,859	23,318
21	80,194	9,623	156,859	21,197
22	80,194	9,623	156,859	19,270
23	80,194	9,623	156,859	17,518
24	80,194	9,623	156,859	15,925
25	80,194	9,623	156,859	14,477
TOTALS:		367,289	5,986,803	2,186,112

TABLE 7

AVERTED MOH HEALTH CENTER AND HEALTH POST CONSULTATIONS

COHORT #3

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED MOH OUTPATIENT VISITS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	95,101	23,775	387,537	264,693
5	95,101	23,775	387,537	240,631
6	95,101	23,775	387,537	218,700
7	95,101	23,775	387,537	198,839
8	95,101	23,775	387,537	180,754
9	95,101	23,775	387,537	164,350
10	95,101	23,775	387,537	149,397
11	95,101	23,775	387,537	135,835
12	95,101	23,775	387,537	123,498
13	95,101	23,775	387,537	112,264
14	95,101	23,775	387,537	102,064
15	95,101	23,775	387,537	92,779
16	95,101	23,775	387,537	84,339
17	95,101	23,775	387,537	76,740
18	95,101	11,412	186,018	33,456
19	95,101	11,412	186,018	30,415
20	95,101	11,412	186,018	27,652
21	95,101	11,412	186,018	25,138
22	95,101	11,412	186,018	22,852
23	95,101	11,412	186,018	20,775
24	95,101	11,412	186,018	18,885
25	95,101	11,412	186,018	17,168
TOTALS:		424,150	6,913,652	2,341,223

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TABLE 8  
AVERTED MOH HEALTH CENTER AND HEALTH POST CONSULTATIONS

COHORT #4

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED MOH OUTPATIENT VISITS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	125,360	31,340	510,842	317,195
6	125,360	31,340	510,842	288,286
7	125,360	31,340	510,842	262,105
8	125,360	31,340	510,842	238,266
9	125,360	31,340	510,842	216,642
10	125,360	31,340	510,842	196,932
11	125,360	31,340	510,842	179,054
12	125,360	31,340	510,842	162,792
13	125,360	31,340	510,842	147,984
14	125,360	31,340	510,842	134,538
15	125,360	31,340	510,842	122,299
16	125,360	31,340	510,842	111,173
17	125,360	31,340	510,842	101,157
18	125,360	31,340	510,842	91,878
19	125,360	15,043	245,204	40,092
20	125,360	15,043	245,204	36,451
21	125,360	15,043	245,204	33,136
22	125,360	15,043	245,204	30,123
23	125,360	15,043	245,204	27,385
24	125,360	15,043	245,204	24,894
25	125,360	15,043	245,204	22,631
TOTALS:		544,062	8,868,217	2,785,013

TABLE 9

AVERTED MOH HEALTH CENTER AND HEALTH POST CONSULTATIONS

COHORT #5

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED MOH OUTPATIENT VISITS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	45,786	11,447	186,578	105,292
7	45,786	11,447	186,578	95,730
8	45,786	11,447	186,578	87,023
9	45,786	11,447	186,578	79,126
10	45,786	11,447	186,578	71,927
11	45,786	11,447	186,578	65,397
12	45,786	11,447	186,578	59,458
13	45,786	11,447	186,578	54,049
14	45,786	11,447	186,578	49,138
15	45,786	11,447	186,578	44,668
16	45,786	11,447	186,578	40,605
17	45,786	11,447	186,578	36,946
18	45,786	11,447	186,578	33,557
19	45,786	11,447	186,578	30,507
20	45,786	5,494	89,557	13,313
21	45,786	5,494	89,557	12,102
22	45,786	5,494	89,557	11,002
23	45,786	5,494	89,557	10,002
24	45,786	5,494	89,557	9,092
25	45,786	5,494	89,557	8,266
TOTALS:		193,217	3,149,436	917,200

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TABLE 10

AVERTED MOH HEALTH CENTER AND HEALTH POST CONSULTATIONS

ALL 5 COHORTS

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED MOH OUTPATIENT VISITS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	39,028	9,757	159,039	131,437
3	119,222	29,806	485,830	365,011
4	214,323	53,581	873,366	596,521
5	339,683	84,921	1,384,208	859,490
6	385,469	96,367	1,570,786	886,448
7	385,469	96,367	1,570,786	805,945
8	385,469	96,367	1,570,786	732,643
9	385,469	96,367	1,570,786	666,152
10	385,469	96,367	1,570,786	605,546
11	385,469	96,367	1,570,786	550,573
12	385,469	96,367	1,570,786	500,569
13	385,469	96,367	1,570,786	455,037
14	385,469	96,367	1,570,786	413,691
15	385,469	96,367	1,570,786	376,056
16	385,469	91,294	1,488,086	323,849
17	385,469	80,868	1,318,155	261,021
18	385,469	68,505	1,116,636	200,834
19	385,469	52,208	850,998	139,143
20	385,469	46,256	753,977	112,082
21	385,469	46,256	753,977	101,889
22	385,469	46,256	753,977	92,626
23	385,469	46,256	753,977	84,206
24	385,469	46,256	753,977	76,546
25	385,469	46,256	753,977	69,587
<b>TOTALS:</b>				<b>1,712,150 27,908,043 9,406,902</b>

Year-End 1991 Quetzales: 12.3 million

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project through the year 2016. Table 16 annually sums the individual cohorts' Tables to provide a year-by-year summary. All six of these Tables assumes a population-hospitalization rates for children less than 15 (i.e., the so-called pediatric rate) and a second rate for all persons 15 years old and older.

As Table 16 shows, averting the birth of these 5 cohorts would result in 143,000 fewer MOH hospitalizations during the next 25 years. The present value of the savings associated with averting these hospitalizations is Q14.5 million.

6. Savings Attributable to Averted MOH Hospital Outpatient Consultations

Tables 17-20 present the MOH savings due to averting each cohort's hospital outpatient consultations through the next quarter century. As may be seen in Table 22, which annually sums the individual cohort savings, the proposed project would avert 859,007 outpatient visits in the next 25 years, generating Q15.6 million in savings of 1990 quetzles, with a present value of Q4.7 million. In year-end 1991 quetzales, the present value of averting these MOH consultations would be Q6.1 million.

7. Savings in MOH Capital Requirements

Table 23 presents the 1990 MOH health resources to population ratios. In light of the generally low level of utilization of MOH hospitals, roughly 60-65 percent, it was thought more reasonable to assume that there would be no need to increase the number of hospitals in order to maintain a constant level of access to MOH care in the presence of increasing numbers of Guatemalans.

Table 24 contains estimates of the different additional types of facilities which would be required to maintain a constant MOH health resource: population ratio in the absence of the proposed Project. Table 25 presents cost estimates prepared by the Unidad Ejecutora de Proyectos de Servicios de Salud, UNEPSA, of the Ministry of Communications, Transportation and Public Works. Table 26 quantifies the present value of the averted MOH health infrastructure expansion requirements attributable to the proposed project. The sum of averted health post and both types of health center costs comes to Q73.7 million in mid-1991 quetzales. In year-end 1991 quetzales this is the equivalent of Q85.1 million.

TABLE 11

AVERTED MOH HOSPITALIZATIONS

COHORT #1

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED HOSPITALIZATIONS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	39,028	312	117,584	97,176
3	39,028	312	117,584	88,342
4	39,028	312	117,584	80,311
5	39,028	312	117,584	73,011
6	39,028	312	117,584	65,356
7	39,028	312	117,584	60,330
8	39,028	312	117,584	54,843
9	39,028	312	117,584	49,866
10	39,028	312	117,584	45,329
11	39,028	312	117,584	41,214
12	39,028	312	117,584	37,471
13	39,028	312	117,584	34,062
14	39,028	312	117,584	30,967
15	39,028	312	117,584	28,150
16	39,028	1,288	457,110	99,480
17	39,028	1,288	457,110	90,517
18	39,028	1,288	457,110	82,214
19	39,028	1,288	457,110	74,740
20	39,028	1,288	457,110	67,952
21	39,028	1,288	457,110	61,772
22	39,028	1,288	457,110	56,155
23	39,028	1,288	457,110	51,051
24	39,028	1,288	457,110	46,407
25	39,028	1,288	457,110	42,188
TOTALS:		17,250	6,217,270	1,459,906

TABLE 12

AVERTED MOH HOSPITALIZATIONS

COHORT #2

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED HOSPITALIZATIONS	DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	0	0	0	0
3	80,194	642	241,608	181,524
4	80,194	642	241,608	165,022
5	80,194	642	241,608	150,021
6	80,194	642	241,608	136,348
7	80,194	642	241,608	123,965
8	80,194	642	241,608	112,691
9	80,194	642	241,608	102,463
10	80,194	642	241,608	93,141
11	80,194	642	241,608	84,686
12	80,194	642	241,608	76,994
13	80,194	642	241,608	69,991
14	80,194	642	241,608	63,631
15	80,194	642	241,608	57,843
16	80,194	642	241,608	52,581
17	80,194	2,646	939,261	185,992
18	80,194	2,646	939,261	168,932
19	80,194	2,646	939,261	153,574
20	80,194	2,646	939,261	139,626
21	80,194	2,646	939,261	126,927
22	80,194	2,646	939,261	115,388
23	80,194	2,646	939,261	104,898
24	80,194	2,646	939,261	95,356
25	80,194	2,646	939,261	86,688
TOTALS:		32,799	11,835,868	2,648,283

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TABLE 13

AVERTED MOH HOSPITALIZATIONS

COHORT #3

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED HOSPITALIZATIONS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	95,101	761	286,520	195,697
5	95,101	761	286,520	177,908
6	95,101	761	286,520	161,693
7	95,101	761	286,520	147,009
8	95,101	761	286,520	133,636
9	95,101	761	286,520	121,510
10	95,101	761	286,520	110,455
11	95,101	761	286,520	100,428
12	95,101	761	286,520	91,307
13	95,101	761	286,520	83,001
14	95,101	761	286,520	75,460
15	95,101	761	286,520	68,595
16	95,101	761	286,520	62,355
17	95,101	761	286,520	56,737
18	95,101	3,138	1,113,857	200,334
19	95,101	3,138	1,113,857	182,122
20	95,101	3,138	1,113,857	165,580
21	95,101	3,138	1,113,857	150,521
22	95,101	3,138	1,113,857	136,837
23	95,101	3,138	1,113,857	124,398
24	95,101	3,138	1,113,857	113,082
25	95,101	3,138	1,113,857	102,802
TOTALS:		35,758	12,922,141	2,761,468

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TABLE 14  
AVERTED MOH HOSPITALIZATIONS

COHORT #4

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED HOSPITALI- ZATIONS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	125,360	1,003	377,685	234,514
6	125,360	1,003	377,685	213,140
7	125,360	1,003	377,685	193,784
8	125,360	1,003	377,685	176,159
9	125,360	1,003	377,685	160,172
10	125,360	1,003	377,685	145,599
11	125,360	1,003	377,685	132,382
12	125,360	1,003	377,685	120,358
13	125,360	1,003	377,685	109,410
14	125,360	1,003	377,685	99,469
15	125,360	1,003	377,685	90,420
16	125,360	1,003	377,685	82,195
17	125,360	1,003	377,685	74,789
18	125,360	1,003	377,685	67,929
19	125,360	4,137	1,468,261	240,069
20	125,360	4,137	1,468,261	218,264
21	125,360	4,137	1,468,261	198,414
22	125,360	4,137	1,468,261	180,376
23	125,360	4,137	1,468,261	163,978
24	125,360	4,137	1,468,261	149,062
25	125,360	4,137	1,468,261	135,511
TOTALS:		42,998	15,565,415	3,185,994

3507

TABLE 15

AVERTED MOH HOSPITALIZATIONS

COHORT #5

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED HOSPITALIZATIONS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	45,786	366	137,944	77,847
7	45,786	366	137,944	70,777
8	45,786	366	137,944	64,340
9	45,786	366	137,944	58,500
10	45,786	366	137,944	53,178
11	45,786	366	137,944	48,351
12	45,786	366	137,944	43,959
13	45,786	366	137,944	39,961
14	45,786	366	137,944	36,330
15	45,786	366	137,944	33,025
16	45,786	356	137,944	30,020
17	45,786	366	137,944	27,316
18	45,786	366	137,944	24,810
19	45,786	366	137,944	22,555
20	45,786	1,511	536,262	79,718
21	45,786	1,511	536,262	72,468
22	45,786	1,511	536,262	65,880
23	45,786	1,511	536,262	59,891
24	45,786	1,511	536,262	54,443
25	45,786	1,511	536,262	49,494
TOTALS:		14,194	5,148,790	1,012,860

TABLE 16

AVERTED MOH HOSPITALIZATIONS

ALL 5 COHORTS

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED HOSPITALIZATIONS	DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	39,028	312	117,584	97,176
3	119,222	954	359,192	269,866
4	214,323	1,715	645,712	441,030
5	339,683	2,717	1,023,397	635,453
6	385,469	3,084	1,161,341	655,384
7	385,469	3,084	1,161,341	595,865
8	385,469	3,084	1,161,341	541,670
9	385,469	3,084	1,161,341	492,511
10	385,469	3,084	1,161,341	447,703
11	385,469	3,084	1,161,341	407,060
12	385,469	3,084	1,161,341	370,090
13	385,469	3,084	1,161,341	336,426
14	385,469	3,084	1,161,341	305,858
15	385,469	3,084	1,161,341	278,032
16	385,469	4,059	1,500,867	326,631
17	385,469	6,064	2,198,520	435,350
18	385,469	8,442	3,025,857	544,219
19	385,469	11,576	4,116,434	673,060
20	385,469	12,720	4,514,752	671,139
21	385,469	12,720	4,514,752	610,102
22	385,469	12,720	4,514,752	554,638
23	385,469	12,720	4,514,752	504,216
24	385,469	12,720	4,514,752	458,350
25	385,469	12,720	4,514,752	416,682
TOTALS:		143,000	51,689,483	11,062,511

Year-End 1991 Quetzales: 14.5 million

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TABLE 17

AVERTED MOH HOSPITAL OUTPATIENT CONSULTATIONS

COHORT #1

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED HOSPITAL OPD CONSLTNS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	39,028	3,981	72,531	59,943
3	39,028	3,981	72,531	54,494
4	39,028	3,981	72,531	49,540
5	39,028	3,981	72,531	45,036
6	39,028	3,981	72,531	40,932
7	39,028	3,981	72,531	37,215
8	39,028	3,981	72,531	33,830
9	39,028	3,981	72,531	30,760
10	39,028	3,981	72,531	27,961
11	39,028	3,981	72,531	25,423
12	39,028	3,981	72,531	23,114
13	39,028	3,981	72,531	21,011
14	39,028	3,981	72,531	19,102
15	39,028	3,981	72,531	17,364
16	39,028	3,981	72,531	15,785
17	39,028	3,981	72,531	14,363
18	39,028	3,981	72,531	13,045
19	39,028	3,981	72,531	11,859
20	39,028	3,981	72,531	10,782
21	39,028	3,981	72,531	9,802
22	39,028	3,981	72,531	8,910
23	39,028	3,981	72,531	8,100
24	39,028	3,981	72,531	7,364
25	39,028	3,981	72,531	6,694
TOTALS:		95,541	1,740,749	592,429

TABLE 18

AVERTED MOH HOSPITAL OUTPATIENT CONSULTATIONS

COHORT #2

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED HOSPITAL OPD CONSLTNS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	0	0	0	0
3	80,194	8,180	149,036	111,973
4	80,194	8,180	149,036	101,793
5	80,194	8,180	149,036	92,540
6	80,194	8,180	149,036	84,106
7	80,194	8,180	149,036	76,468
8	80,194	8,180	149,036	69,513
9	80,194	8,180	149,036	63,204
10	80,194	8,180	149,036	57,454
11	80,194	8,180	149,036	52,238
12	80,194	8,180	149,036	47,494
13	80,194	8,180	149,036	43,174
14	80,194	8,180	149,036	39,251
15	80,194	8,180	149,036	35,680
16	80,194	8,180	149,036	32,434
17	80,194	8,180	149,036	29,512
18	80,194	8,180	149,036	26,805
19	80,194	8,180	149,036	24,368
20	80,194	8,180	149,036	22,155
21	80,194	8,180	149,036	20,140
22	80,194	8,180	149,036	18,309
23	80,194	8,180	149,036	16,645
24	80,194	8,180	149,036	15,131
25	80,194	8,180	149,036	13,755
TOTALS:		188,135	3,427,822	1,094,142

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TABLE 19

AVERTED MOH HOSPITAL OUTPATIENT CONSULTATIONS

COHORT #3

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED HOSPITAL OPD CONSLTNS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	95,101	9,700	176,740	120,715
5	95,101	9,700	176,740	109,742
6	95,101	9,700	176,740	99,740
7	95,101	9,700	176,740	90,682
8	95,101	9,700	176,740	82,434
9	95,101	9,700	176,740	74,953
10	95,101	9,700	176,740	68,134
11	95,101	9,700	176,740	61,949
12	95,101	9,700	176,740	56,322
13	95,101	9,700	176,740	51,199
14	95,101	9,700	176,740	46,547
15	95,101	9,700	176,740	42,313
16	95,101	9,700	176,740	38,463
17	95,101	9,700	176,740	34,998
18	95,101	9,700	176,740	31,788
19	95,101	9,700	176,740	28,898
20	95,101	9,700	176,740	26,273
21	95,101	9,700	176,740	23,884
22	95,101	9,700	176,740	21,712
23	95,101	9,700	176,740	19,739
24	95,101	9,700	176,740	17,943
25	95,101	9,700	176,740	16,312
TOTALS:		213,407	3,888,269	1,164,741

TABLE 20

AVERTED MOH HOSPITAL OUTPATIENT CONSULTATIONS

COHORT #4

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED HOSPITAL OPD CONSLTNS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	125,360	12,787	232,974	144,659
6	125,360	12,787	232,974	131,475
7	125,360	12,787	232,974	119,535
8	125,360	12,787	232,974	108,663
9	125,360	12,787	232,974	98,802
10	125,360	12,787	232,974	89,813
11	125,360	12,787	232,974	81,659
12	125,360	12,787	232,974	74,243
13	125,360	12,787	232,974	67,490
14	125,360	12,787	232,974	61,357
15	125,360	12,787	232,974	55,775
16	125,360	12,787	232,974	50,702
17	125,360	12,787	232,974	46,133
18	125,360	12,787	232,974	41,902
19	125,360	12,787	232,974	38,093
20	125,360	12,787	232,974	34,633
21	125,360	12,787	232,974	31,483
22	125,360	12,787	232,974	28,621
23	125,360	12,787	232,974	26,019
24	125,360	12,787	232,974	23,652
25	125,360	12,787	232,974	21,502
TOTALS:		268,521	4,892,455	1,376,211

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TABLE 21

AVERTED MOH HOSPITAL OUTPATIENT CONSULTATIONS

COHORT #5

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED HOSPITAL OPD CONSLTMS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	45,786	4,670	35,091	48,019
7	45,786	4,670	85,091	43,659
8	45,786	4,670	85,091	39,688
9	45,786	4,670	85,091	36,086
10	45,786	4,670	85,091	32,803
11	45,786	4,670	85,091	29,825
12	45,786	4,670	85,091	27,116
13	45,786	4,670	85,091	24,650
14	45,786	4,670	85,091	22,410
15	45,786	4,670	85,091	20,371
16	45,786	4,670	85,091	18,518
17	45,786	4,670	85,091	16,850
18	45,786	4,670	85,091	15,304
19	45,786	4,670	85,091	13,913
20	45,786	4,670	85,091	12,649
21	45,786	4,670	85,091	11,499
22	45,786	4,670	85,091	10,453
23	45,786	4,670	85,091	9,503
24	45,786	4,670	85,091	8,639
25	45,786	4,670	85,091	7,853
TOTALS:		93,403	1,701,811	449,807

TABLE 22

AVERTED MOH HOSPITAL OUTPATIENT CONSULTATIONS

ALL 5 COHORTS

YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED HOSPITAL OPD CONSLTNS	SAVINGS DUE TO AVERTED SERVICE PROVISION	PRESENT VALUE OF SAVINGS
1	0	0	0	0
2	39,028	3,981	72,531	59,943
3	119,222	12,161	221,567	166,467
4	214,323	21,861	398,306	272,049
5	339,683	34,648	631,280	391,978
6	385,469	39,318	716,371	404,273
7	385,469	39,318	716,371	367,558
8	385,469	39,318	716,371	334,128
9	385,469	39,318	716,371	303,804
10	385,469	39,318	716,371	276,165
11	385,469	39,318	716,371	251,094
12	385,469	39,318	716,371	228,289
13	385,469	39,318	716,371	207,523
14	385,469	39,318	716,371	188,668
15	385,469	39,318	716,371	171,504
16	385,469	39,318	716,371	155,902
17	385,469	39,318	716,371	141,856
18	385,469	39,318	716,371	128,844
19	385,469	39,318	716,371	117,131
20	385,469	39,318	716,371	106,492
21	385,469	39,318	716,371	96,807
22	385,469	39,318	716,371	88,006
23	385,469	39,318	716,371	80,006
24	385,469	39,318	716,371	72,728
25	385,469	39,318	716,371	66,116
<b>TOTALS:</b>	<b>859,007</b>	<b>859,007</b>	<b>15,651,105</b>	<b>4,677,330</b>

Year-End 1991 Quetzales: 6.1 million

358

TABLE 23

CURRENT POPULATION: MOH HEALTH FACILITY RATIOS

	NO. OF FACILITIES	PERSONS PER FACILITY
-----		
HEALTH CENTERS		
TYPE A:	32	287,500
TYPE B:	188	48,936
HEALTH POSTS:	785	11,720
-----		
TOTAL:	1,040	

TABLE 24

AVERTED MOH HEALTH FACILITY CONSTRUCTION

(Includes Equipment Costs)

(Assumes current MOH health facility:  
population ratio would be maintained)

YEAR	YEAR OF PROJECT	NO. OF AVERTED BIRTHS	AVERTED MOH HEALTH FACILITY CONSTRUCTION		
			CENTER-A	CENTER-B	POST
1992	1	0	0	0	0
1993	2	39,028	1	1	3
1994	3	119,222	0	2	7
1995	4	214,323	0	2	8
1996	5	339,683	1	2	11
1997	6	385,469	0	1	4
		TOTALS:	2	8	33

3607

TABLE 25

1991 ESTIMATED CONSTRUCTION COSTS OF MOH FACILITIES

(Includes Furniture and Equipment)

(In Mid-1991 Quetzales)

COST	MOH FACILITY TYPE	UNIT
	-----	
	HEALTH POST:	527,053
	HEALTH CENTER-TYPE A:	32,473,696
	HEALTH CENTER-TYPE B:	2,714,027

SOURCE: "Protocolo Italiano/Guatemalteco Sobre Cooperacion Financiera Resumen General de Precios," Departamento de Operaciones Unidad Ejecutora de Proyectos de Servicios de Salud (UNEPSA) Ministerio de Comunicaciones, Transporte y Obras Publicas.

TABLE 26

SAVINGS FROM AVERTED MOH HEALTH FACILITY CONSTRUCTION

(Mid 1991 Quetzales)

YEAR	YEAR OF PROJECT	NO. OF AVERTED BIRTHS	HEALTH FACILITY CONSTRUCTION:		
			CENTER-A	CENTER-B	POST
1992	1	0	0	0	0
1993	2	39,028	32,473,696	2,714,027	1,581,159
1994	3	119,222	0	5,428,054	3,689,371
1995	4	214,323	0	5,428,054	4,216,424
1996	5	339,683	32,473,696	5,428,054	5,797,583
1997	6	385,469	0	2,714,027	2,108,212
TOTALS:			64,947,392	21,712,216	17,392,749

YEAR	YEAR OF PROJECT	TOTAL SAVINGS	PRESENT VALUE OF SAVINGS
1992	1	0	0
1993	2	36,768,882	30,387,506
1994	3	9,117,425	6,850,056
1995	4	9,644,478	6,587,758
1996	5	43,699,333	27,134,016
1997	6	4,822,239	2,721,354
TOTALS:		104,052,357	73,680,690

362+

8. The total present value of Ministry of Health savings through the year 2016 attributable to the proposed project is Q152.4 million.

D. Ministry of Education-Related Savings

1. Developing an Estimate of the Ministry of Education's Average Cost per Student

There are no recent estimates available of the amount of money Guatemala's Ministry of Education annually spends to educate a child. It was necessary, to develop such a measure in order to estimate the amount of reduced recurrent MOE outlays which would be attributable to the proposed project.

A review was made of the Central Government's financing of the Ministry of Education over the last four years. The initial budgeted appropriations, final budget appropriations and actual expenditures, and the breakdown of these totals by their operations versus capital accounts compositions, were examined. In each of the last four years, the MOE spent 99.8 percent of its operations appropriations. Thus, it was determined that MOE operations appropriations constituted a very good proxy for actual expenditures.

The most recent data on actual expenditures available in the Ministry of Public Finance was for 1989. Since more recent information on Central Government MOE expenditures was needed, it was decided that the 1991 initial budget for MOE operating appropriations would serve well as the base with which to develop our average per student expenditure estimate.

Table 27 presents the 1991 MOE initial appropriated operating, capital and total expenditures. The lower portion of the Table disaggregates the operating expenditures into its six major budget rubric categories. Based on this information it was decided that separate estimates could be made (a) for pre-primary and primary school education and (b) for middle school education and that higher education savings would not be considered due to the lack of information on numbers of higher education students, matriculation, desertion, repetition and promotion rates.

Recognizing that the Ministry's administrative expenses are an indirect cost incurred in the course of providing all of the five other categories of MOE services, it was decided to apportion these costs over the other five categories of services in direct proportion to each of the five categories' share of total MOE expenditures, exclusive of administration. Table 28 Section I presents the breakdown of these percentage shares. Section II of the same Table presents

the pre-primary and primary school and the middle school totals of MOE expenditures, including their prorated shares of MOE administration expenses. Finally, Section III of Table 28, contains the 1991 MOE average expenditures per student, the quotient of the Section II totals divided by the 1991 Primary Education Tracking System (PETS)/BEST estimated number of MOE students in each school category. The estimated 1991 average annual MOE expenditure per pre-primary and primary school student is Q240, and for a middle school student it is Q287.

## 2. Estimating the Value of Reduced Recurrent Cost-Related Education Benefits

As already noted, the most recent data available from the MOE on most education indicators is for 1987 or 1988. From an interview with USIPE (Unidad Sectorial de Investigacion y Planificacion Educativo) personnel, it was learned that the latest available data on promotion, repetition and desertion rates was 1985. Rather than use these old data, it was decided in discussions with USAID personnel that it would be preferable to incorporate the past and projected data of the Primary Education Tracking System (PETS) Model that was used to prepare part of the BEST (Basic Education Strengthening) Project Paper. Those projections, however, cover only up until the year 2000, whereas we needed to go 16 years beyond. The methodological approach applied here, therefore, combined relying on PETS/BEST PP-estimated measures along with additional extrapolations based on multiple regression.

The PETS/BEST PP-estimated measures for 1997, which is the first year in which one of the averted cohorts attains school age, were adopted. Growth in the matriculation rate and the promotion and repetition rates, thereafter, were derived from regressions based on the PP data and projections. The regressions were based on a combination of the actual Ministry of Education data from 1980 through 1988, and BEST projections covering from 1989 through 2000. The repetition rates for each of these 21 years was regressed against time (the year) and the coefficient of the year variable was used to calculate annual changes in the repetition rate.

The estimated equations fit the data very closely; the coefficient of determination for the repetition equations was 0.91 and that of the promotion equation was 0.898. The estimated coefficient of the year variable in the repetition rate equation was (-0.81). Thus it was assumed that the repetition rate fell each year by 0.81 percent. The estimated coefficient of the year variable in the promotion rate equation was (0.934); the promotion rate increase by just less than one percent per year.

364 x

TABLE 27  
MINISTRY OF EDUCATION 1991 APPROPRIATED BUDGET

OPERATING EXPENDITURES	592,796,190
CAPITAL EXPENDITURES	18,562,762
-----	
TOTAL	611,358,952

DISAGGREGATED 1991 OPERATING EXPENDITURES BUDGET

	ABSOLUTE LEVEL	PERCENT OF TOTAL
-----		
1. ADMINISTRATION	209,535,124	35
2. PRE-PRIMARY AND PRIMARY EDUCATION	192,422,185	32
3. BASIC EDUCATION	50,038,894	8
4. HIGHER EDUCATION	109,692,550	19
5. EXTRACURRICULAR EDUCATION	24,362,556	4
6. OTHERS	6,483,815	1
-----		
TOTAL	592,535,124	100

TABLE 28

ESTIMATING THE ANNUAL MINISTRY OF EDUCATION COST PER STUDENT

I. DISTRIBUTING ADMINISTRATIVE COSTS TO EACH TYPE OF MOE ACTIVITY

	TOTAL NET OF ADMIN.	PERCENT OF TOTAL NET OF ADMIN.
Pre-Primary and Primary Education	192,422,185	50
Middle School Education	50,038,894	13
Higher Education	109,692,550	29
Extracurricular Education	24,362,556	6
Others	6,483,815	2
	-----	-----
	383,000,000	100

II. TOTAL MOE EXPENDITURES ON PRE-PRIMARY, PRIMARY AND MIDDLE SCHOOL EDUCATION, INCLUDING PRORATED SHARES OF ADMINISTRATION

1. PRE-PRIMARY AND PRIMARY SCHOOL EDUCATION	Q 297,608,817
2. MIDDLE SCHOOL EDUCATION	Q 77,487,995

III. ESTIMATED PER STUDENT OPERATING EXPENDITURES OF THE MOE IN 1991

1. PRE-PRIMARY AND PRIMARY SCHOOL EDUCATION	Q 240/STUDENT
2. MIDDLE SCHOOL EDUCATION	Q 287/STUDENT

366+

The first averted cohort generated by the proposed project would not reach pre-primary school age until 1997. It was assumed that for the pre-primary and primary levels of schooling that the matriculation rate would increase after 1988 at a rate of one percentage point per year thereafter. Thus the pre-primary matriculation rate in the year when the first averted cohort would reach pre-primary school age, 1997, would be 35.4 percent, and would increase to 36.4 percent in 1998, 37.4 percent in 1989, and so on. The primary school matriculation rate in the year when the first averted cohort would reach primary school age, 1999, would be 76.4 percent, and would increase to 77.4 percent in 2000, to 78.4 percent in 2001, and so on. The middle school matriculation rate was assumed to increase at a rate one half that of the pre-primary and primary school rates; i.e., it was assumed to increase by 0.5 percent a year. Thus in the year in which the first averted cohort would reach middle school age, 2005, the matriculation rate was assumed to be 24.9 percent, and would increase to 25.4 percent in 2006, to 25.9 percent in 2007, and so on.

Tables 29-33 through present the year-by-year number of enrolled students, including the number of initial entries and the number repeaters, as well as the estimated savings from averted Ministry of Education recurrent costs and the present value of those savings, for each of the five averted birth cohorts. Table 34 aggregates the cohorts' year-by-year number of MOE averted students by grade level. Table 35 combines data on the unit cost of schooling from Table 28 with the number of averted students from Table 34 to estimate the MOE's averted recurrent costs of schooling. The righthand column of Table 35 contains the present value of those savings which amount to Q156.3 million.

### 3. Estimating the Total Capital Expenditures-Related Education Benefits

In order to estimate the Ministry of Education cost of averted capital expenditures it is necessary to combine information about the number of averted students and the average number of students per school with information about the cost of constructing a school.

The UCEE of the Ministry of Communication, Transportation and Public Works reports that the vast majority of schools presently being constructed in Guatemala are one room structures. The Planning Office of the Unit also reports that a significant proportion of the cost of constructing schools consists of transportation costs which are substantially more for rural compared with urban schools. In the calculations here

TABLE 29

AVERTED MINISTRY OF EDUCATION RECURRENT COSTS OF SCHOOLING

COHORT #1 = 39,028

YEAR	YEAR OF PROJECT	GRADE	INITIAL ENTRIES	NO. OF REPEATERS	TOTAL STUDENTS	SAVINGS FROM AVERTED ED. SERVICES	PRESENT VALUE OF SAVINGS	
1992	1		0					
1993	2		0					
1994	3		0					
1995	4		0					
1996	5		0					
1997	6	PREPRIM	13,816		13,816	3,315,819	1,871,230	
1998	7	PREPRIM	14,206		14,206	3,409,486	1,749,352	
1999	8	PRIM'Y 1	29,817	5,307	29,817	7,156,174	3,337,768	
2000	9	2	18,308	3,039	23,615	5,667,690	2,403,600	
2001	10	3	14,646	2,314	17,685	4,244,499	1,636,275	
2002	11	4	12,348	1,852	14,662	3,518,812	1,233,373	
2003	12	5	11,113	1,578	12,965	3,111,596	991,586	
2004	13	6	10,835	1,452	12,413	2,979,131	863,016	
2005	14	MIDDLE 7	9,718	1,224	11,170	3,205,751	844,285	
2006	15	8	9,524	1,114	10,748	3,084,698	738,496	
2007	16	9	9,428	1,028	10,543	3,025,737	658,485	
2008	17	10	9,428	952	10,456	3,000,892	594,236	
2009	18	11	9,428	877	10,381	2,979,244	535,835	
2010	19	12	9,428	801	10,305	2,957,597	483,584	
2011	20	12			801	230,005	34,191	
2012	21							
2013	22							
2014	23							
2015	24							
2016	25							
			<b>TOTALS:</b>	<b>182,044</b>	<b>21,540</b>	<b>203,584</b>	<b>51,887,131</b>	<b>17,975,311</b>

368+

TABLE 30

AVERTED MINISTRY OF EDUCATION RECURRENT COSTS OF SCHOOLING

COHORT #2 = 80194

YEAR	YEAR OF PROJECT	GRADE	INITIAL ENTRIES	NO. OF REPEATERS	TOTAL STUDENTS	SAVINGS FROM AVERTED ED. SERVICES	PRESENT VALUE OF SAVINGS
1992	1		0	0	0		
1993	2		0	0	0		
1994	3		0	0	0		
1995	4		0	0	0		
1996	5		0	0	0		
1997	6		0	0	0		
1998	7	PREPRIM	29,191		29,191	7,005,748	3,594,535
1999	8	PREPRIM	29,993		29,993	7,198,213	3,357,376
2000	9	PRIM'Y 1	62,627	10,396	62,627	15,030,585	6,374,294
2001	10	2	39,352	6,218	49,749	11,939,672	4,602,803
2002	11	3	32,269	4,840	38,487	9,236,814	3,237,579
2003	12	4	27,850	3,955	32,690	7,845,644	2,500,205
2004	13	5	25,622	3,433	29,577	7,098,364	2,056,305
2005	14	6	25,238	3,180	28,671	6,881,002	1,812,221
2006	15	MIDDLE 7	20,369	2,383	23,549	6,758,621	1,618,056
2007	16	8	19,962	2,176	22,345	6,413,042	1,395,657
2008	17	9	19,762	1,996	21,938	6,296,240	1,246,780
2009	18	10	19,762	1,838	21,758	6,244,621	1,123,133
2010	19	11	19,762	1,680	21,600	6,199,247	1,013,611
2011	20	12	19,762	1,522	21,442	6,153,873	914,802
2012	21	12			1,522	436,726	59,017
2013	22						
2014	23						
2015	24						
2016	25						
	<b>TOTALS:</b>		<b>391,522</b>	<b>43,617</b>	<b>435,138</b>	<b>110,738,412</b>	<b>34,906,374</b>

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TABLE 31

AVERTED MINISTRY OF EDUCATION RECURRENT COSTS OF SCHOOLING

COHORT #3 = 95,101

YEAR	YEAR OF PROJECT	GRADE	INITIAL ENTRIES	NO. OF REPEATERS	TOTAL STUDENTS	SAVINGS FROM AVERTED ED. SERVICES	PRESENT VALUE OF SAVINGS
1992	1		0	0	0		
1993	2		0	0	0		
1994	3		0	0	0		
1995	4		0	0	0		
1996	5		0	0	0		
1997	6		0	0	0		
1998	7		0	0	0		
1999	8	PREPRIM	35,568		35,568	8,536,266	3,981,467
2000	9	PREPRIM	36,519		36,519	8,764,508	3,716,925
2001	10	PRIM'Y 1	74,559	12,377	74,559	17,894,204	6,898,305
2002	11	2	48,016	7,587	60,393	14,494,305	5,080,373
2003	12	3	39,853	5,978	47,440	11,385,581	3,628,292
2004	13	4	34,794	4,941	40,772	9,785,285	2,834,671
2005	14	5	32,358	4,336	37,299	8,951,804	2,357,599
2006	15	6	32,326	4,073	36,662	8,798,905	2,106,513
2007	16	MIDDLE 7	24,631	2,882	28,704	8,238,118	1,792,844
2008	17	8	24,139	2,631	27,020	7,754,849	1,535,614
2009	18	9	23,897	2,414	26,528	7,613,608	1,369,354
2010	19	10	23,897	2,222	26,311	7,551,189	1,234,661
2011	20	11	23,897	2,031	26,120	7,496,321	1,114,363
2012	21	12	23,897	1,840	25,928	7,441,453	1,005,602
2013	22	12			1,840	528,103	71,365
2014	23						
2015	24						
2016	25						
	<b>TOTALS:</b>		<b>478,352</b>	<b>53,312</b>	<b>531,664</b>	<b>135,234,500</b>	<b>38,727,949</b>

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TABLE 32

AVERTED MINISTRY OF EDUCATION RECURRENT COSTS OF SCHOOLING

COHORT #4 = 125360

YEAR	YEAR OF PROJECT	GRADE	INITIAL ENTRIES	NO. OF REPEATERS	TOTAL STUDENTS	SAVINGS FROM AVERTED ED.SERVICES	PRESENT VALUE OF SAVINGS
1992	1		0	0	0		
1993	2		0	0	0		
1994	3		0	0	0		
1995	4		0	0	0		
1996	5		0	0	0		
1997	6		0	0	0		
1998	7		0	0	0		
1999	8		0	0	0		
2000	9	PREPRIM	48,138		48,138	11,553,178	4,899,566
2001	10	PREPRIM	49,392		49,392	11,854,042	4,569,792
2002	11	PRIM'Y 1	99,536	14,134	99,536	23,888,602	8,373,152
2003	12	2	65,096	8,723	79,231	19,015,327	6,059,696
2004	13	3	54,681	6,890	63,404	15,216,944	4,408,153
2005	14	4	48,286	5,649	55,176	13,242,209	3,487,545
2006	15	5	45,389	4,947	51,038	12,249,209	2,932,537
2007	16	6	45,344	4,580	50,291	12,069,817	2,626,728
2008	17	MIDDLE 7	33,095	3,078	37,675	10,812,649	2,141,119
2009	18	8	32,433	2,757	35,511	10,191,651	1,833,031
2010	19	9	32,109	2,472	34,866	10,006,434	1,636,108
2011	20	10	32,109	2,216	34,581	9,924,800	1,475,368
2012	21	11	32,109	1,959	34,324	9,851,079	1,331,227
2013	22	12	32,109	1,702	34,067	9,777,357	1,201,149
2014	23	12			1,702	488,407	60,001
2015	24						
2016	25						
	<b>TOTALS:</b>		<b>552,295</b>	<b>59,106</b>	<b>611,401</b>	<b>156,734,484</b>	<b>37,565,814</b>

TABLE 33

AVERTED MINISTRY OF EDUCATION RECURRENT COSTS OF SCHOOLING

COHORT #5 = 45786

YEAR	YEAR OF PROJECT	GRADE	INITIAL ENTRIES	NO. OF REPEATERS	TOTAL STUDENTS	SAVINGS FROM AVERTED ED. SERVICES	PRESENT VALUE OF SAVINGS
1992	1		0	0	0		
1993	2		0	0	0		
1994	3		0	0	0		
1995	4		0	0	0		
1996	5		0	0	0		
1997	6		0	0	0		
1998	7		0	0	0		
1999	8		0	0	0		
2000	9		0	0	0		
2001	10	PREPRIM	18,040		18,040	4,329,524	1,669,053
2002	11	PREPRIM	18,498		18,498	4,439,411	1,556,050
2003	12	PRIM'Y 1	36,812	5,227	36,812	8,834,867	2,815,445
2004	13	2	24,443	3,275	29,670	7,120,902	2,062,834
2005	14	3	20,777	2,618	24,052	5,772,490	1,520,276
2006	15	4	18,555	2,171	21,172	5,081,387	1,216,516
2007	16	5	17,627	1,921	19,798	4,751,458	1,034,050
2008	17	6	17,609	1,779	19,531	4,687,333	928,185
2009	18	MIDDLE 7	12,316	1,145	14,095	4,045,255	727,564
2010	19	8	12,070	1,026	13,216	3,792,858	620,153
2011	20	9	11,949	920	12,975	3,723,929	553,579
2012	21	10	11,949	825	12,870	3,693,549	499,128
2013	22	11	11,949	729	12,774	3,666,113	450,382
2014	23	12	11,949	633	12,678	3,638,677	406,374
2015	24	12			633	181,762	20,300
2016	25						
	<b>TOTALS:</b>		<b>244,544</b>	<b>22,270</b>	<b>266,813</b>	<b>67,759,516</b>	<b>16,079,890</b>

3704

TABLE 34

AVERTED STUDENTS OF THE MINISTRY OF EDUCATION

YEAR	TOTAL PRIMARY STUDENTS	TOTAL PRE- PRIMARY STUDENTS	TOTAL MIDDLE STUDENTS	TOTAL
1997	0	13,816	0	13,816
1998	0	43,397	0	43,397
1999	35,125	65,560	0	100,685
2000	94,371	84,657	0	179,028
2001	149,467	67,432	0	216,898
2002	220,582	18,498	0	239,079
2003	206,185	0	0	206,185
2004	170,366	0	0	170,366
2005	142,442	0	10,942	153,384
2006	110,517	0	33,390	143,908
2007	70,825	0	60,107	130,932
2008	20,227	0	95,081	115,309
2009	0	0	105,723	105,723
2010	0	0	104,443	104,443
2011	0	0	94,288	94,288
2012	0	0	74,421	74,421
2013	0	0	48,626	48,626
2014	0	0	14,571	14,571
2015	0	0	633	633
2016	0	0	0	0
<b>TOTAL</b>	<b>1,220,107</b>	<b>293,359</b>	<b>642,226</b>	<b>2,155,692</b>

TABLE 35

AVERTED MINISTRY OF EDUCATION RECURRENT COSTS OF SCHOOLING

YEAR	TOTAL PRIMARY STUDENTS	TOTAL PRE- PRIMARY STUDENTS	TOTAL MIDDLE STUDENTS	TOTAL	TOTAL RECURRENT COST SAVINGS DUE TO AVERTED SCHOOLING	PRESENT VALUE OF SAVINGS
1997	0	13,816	0	13,816	3,315,819	1,871,230
1998	0	43,397	0	43,397	10,415,234	5,343,886
1999	35,125	65,560	0	100,685	24,164,452	11,270,733
2000	94,371	84,657	0	179,028	42,966,624	18,221,639
2001	149,467	67,432	0	216,898	52,055,549	20,067,675
2002	220,582	18,498	0	239,079	57,379,023	20,111,820
2003	206,185	0	0	206,185	49,484,485	15,769,434
2004	170,366	0	0	170,366	40,887,881	11,844,693
2005	142,442	0	10,942	153,384	37,326,549	9,830,537
2006	110,517	0	33,390	143,908	36,207,192	8,644,288
2007	70,825	0	60,107	130,932	34,248,761	7,453,484
2008	20,227	0	95,081	115,309	32,142,868	6,364,924
2009	0	0	105,723	105,723	30,342,366	5,457,260
2010	0	0	104,443	104,443	29,975,063	4,901,090
2011	0	0	94,288	94,288	27,060,514	4,022,672
2012	0	0	74,421	74,421	21,358,885	2,886,336
2013	0	0	48,626	48,626	13,955,667	1,714,455
2014	0	0	14,571	14,571	4,181,956	467,049
2015	0	0	633	633	181,762	18,450
2016	0	0	0	0	0	0
<b>TOTAL</b>	<b>1,220,107</b>	<b>293,359</b>	<b>642,226</b>	<b>2,155,692</b>	<b>547,550,653</b>	<b>156,261,660</b>

374+

it was assumed that three-quarters of the schools that would be constructed to accommodate the averted births, would be located in urban areas, and that of the urban-based schools one-third would be 1-room structures, one-third would be 2-room structures, and one-third would be 3-room structures. The weighted average cost of this combination of school sizes and locations is Q 1,947 per student, and the average sized school contains 88 students, giving us an average cost per school of Q.171,336.

It should be recognized that this approach provides an estimate of the number of additional schools. This approach, which divides the number of new students by the present average number of students per school, implicitly assumes that the spatial distribution of the birth cohorts would be such that it would enable utilizing the full student capacity of each new school before finding it necessary to construct another. In addition, it assumes that those student slots made available as the earlier cohorts move through the grade are so located as to allow the students newly entering the grade in question to enter the slot just freed up. This too assumes that the spatial distribution of the cohorts is such as to minimize the number of student slots and the number of school buildings required to accommodate the averted cohorts.

Clearly this scenario cannot account for the more complex process by which the additional, local condition-specific, educational institution needs of the vast number of locales throughout Guatemala are identified and addressed. Obviously, the children in the birth cohorts would not simply be channeled to a new school until it was filled, then another built and children channeled to it until it was at capacity, and so on. That, however, is the process implicit in this simplified analysis. It ignores the facts that the cohorts would be born in a variety of locales with different population growth rates, and in which the present educational facilities may be at, above or below the national average in terms of size and capacity, and that they may be at varying levels of capacity-utilization. The aggregative, national average approach greatly simplifies the arithmetic, and the number of assumptions which need to be made, but does so at the cost of underestimating the need for additional educational buildings which is important to bear this in mind.

Table 36 contains estimates of the additional required schools over the 25-year period following the start of the proposed Project. It is estimated that 1,455 additional pre-primary, 4,441 additional primary, and 2,010 additional middle school buildings would need to be built to accommodate the

births which would occur absent this Project. The averted cost of constructing these additional 2,010 schools is Q1.35 billion, the present value of which (in year-end 1991 quetzales) is Q588.5 million.

The total recurrent plus capital education cost savings attributable to the proposed project is Q1.9 billion. The present value of the total education benefits of the proposed project is Q744.8 million.

TABLE 36

AVERTED MINISTRY OF EDUCATION CAPITAL EXPENDITURES ON SCHOOL BUILDINGS

(Mid-1991 Quetzales)

-----  
 AVERTED CAPITAL EXPENDITURES ON SCHOOLS  
 -----

YEAR	TOTAL PRIMARY SCHOOLS	TOTAL PRE- PRIMARY SCHOOLS	TOTAL MIDDLE SCHOOLS	TOTAL	1991 CONSTRUC- TION COSTS AVERTED	PRESENT VALUE OF SAVINGS
1997	0	157	0	157	26,899,581	15,180,350
1998	0	336	0	336	57,593,833	29,550,453
1999	399	409	0	808	138,465,223	64,582,660
2000	673	553	0	1,226	210,127,251	89,112,490
2001	1,025	0	0	1,025	175,702,338	67,734,132
2002	1,482	0	0	1,482	253,853,209	88,977,641
2003	861	0	0	861	147,522,930	83,252,218
2004	0	0	0	0	0	0
2005	0	0	124	124	21,304,924	5,610,989
2006	0	0	255	255	43,765,360	10,477,702
2007	0	0	428	428	73,337,280	15,960,235
2008	0	0	652	652	111,791,714	22,136,973
2009	0	0	549	549	94,063,464	16,917,889
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
<b>TOTALS:</b>	<b>4,441</b>	<b>1,455</b>	<b>2,010</b>	<b>7,905</b>	<b>1,354,427,107</b>	<b>509,493,731</b>

Year-End 1991 Quetzales: 588.5 million

E. Agricultural Production and Food Consumption-Related Savings

1. The Concept of Apparent Consumption and its Limitations

Food which is "officially" produced and not "officially" exported is, along with food imports, apparently consumed by Guatemalans. This concept of "apparent consumption" is adopted in the following analysis. An important observation and caveat concerning the concept is in order before proceeding with the analysis.

In a country like Guatemala, where a significant proportion of the population engages in subsistence agriculture, much food production and consumption is never accounted for in official records, and thus is not included in our measure of "apparent consumption". As a result, the analysis will necessarily underestimate the total food savings attributable to the project.

Generally, the apparent consumption methodology exaggerates what is, in fact, available for human consumption because it does not take into account any wastage of the produced crop. The result is to exaggerate the actual average per capita consumption level. This, however, is not the case in this analysis because our source of data, the Office of the Agricultural Attache of the Commercial Section of the U.S. Embassy in Guatemala, adjusts its estimates to take wastage, as well as changes in stocks, into account.

2. Food Crop Production in Recent Years in Guatemala

The major foods consumed in Guatemala and that will be included in this analysis are beans, corn, wheat, rice, cottonseed oil and poultry. The domestic production levels of each of these goods is presented in Table 37. Since July of this year, 1991, Guatemala has suffered a severe drought which has left the country's major water reservoir at Chixoy, 50 meters below its normal level. Corn production is expected to be 20-25 percent less than had been expected, and other crops are expected to suffer similar declines. The prices of all food crops in Guatemala have increased markedly as a result of the drought, though no estimates are as yet available. Since this year is an aberration, and food consumption levels are projected for the next quarter century, this year's data was not used to calculate either the quantities of food produced and apparently consumed in Guatemala, nor the prices of food products. Instead, the average of the two previous years, 1989 and 1990 was used.

Table 38 contains Guatemalans' apparent average per capita consumption of each of these crops from 1986 through the 1990 and the pre-drought estimated level for 1991. Agricultural production levels are notorious for commonly fluctuating markedly from one year to the next. This is apparent in reviewing the year-by-year output totals in Table 37. These wide fluctuations are due to the vagaries of weather and the highly competitive and volatile international market characterizing most agricultural products. In light of this volatility, it was thought best to develop and use an average of two years, rather than a single year, as the basis for the estimation of food production and consumption benefits of the proposed project. The two righthand-most columns of Table 38, labeled 1989/90 and 1990/91, were used to develop the annual average that was used in the following calculations.

Table 39 presents total imports of wheat, corn, rice, beans and cottonseed oil. The righthand-most column of the Table contains the pre-drought 1990/91 estimates for each of the crops contained in the Table. Domestic production, apparent consumption levels as well as imports will be based on this two-year period for the above reasons.

Table 40 presents the 1989/90 - 1990/91 average apparent per capita consumption of major agricultural products in Guatemala.

### 3. Adjusting for Children's Smaller Food Requirements

In quantifying the savings in food requirements attributable to the proposed project it is important to take into consideration the fact that children consume less than adults. A 1979 study by the American Public Health Association estimated that children less than 5 years old, on average, consume one-quarter the amount that an average adult does; children 5 to 9 years of age consume about half of what an average adult does; those from 10 to 14 consume three-quarters of the amount the typical adult does; and children 15 or older have roughly the same level of consumptions as adults. Table 41 maps the evolution of the four averted birth cohorts' food consumption requirements adjusting for this distribution of average children vis-a-vis average adult consumptions levels. Table 41 presents standardized, adult equivalent consumption units. 1

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1 There still remains an over simplification that will not be addressed analytically, but that is important to underscore. The approach taken here implicitly assumes that everyone (at least everyone of a given age) eats the same amount of food. Obviously this is not true. Derivative of Guatemala's inequitable distribution of income and wealth is an analogous inequitable distribution of the ability to purchase food. These very important aspects of distribution are ignored in the approach adopted here.

4. Food Production and Import Savings Attributable to the Proposed Project

Table 42 combines information about the number of adult-equivalent consumption units (from Table 41) and the average per capita apparent consumption of domestically produced food crops (from Table 38) to estimate the additional domestic food production requirements absent the successful implementation of this project. The calculations in this Table are based on the assumption that the same proportion of the total apparent domestic consumption needs of beans, corn, wheat, rice, eggs, and poultry will be supplied by domestic production, and the same proportion of the present domestic consumption of wheat, corn, rice and beans which is supplied by imports will continue to be imported in the future. The absolute quantities of both those domestically produced and those imported will obviously increase. Whether or not the agricultural sector of Guatemala is capable of producing these increased quantities, as is implicitly assumed, is not addressed here. If, it is not, however, it will mean increasing levels of imported foodstuffs, an increasing incidence of malnutrition, or, more likely, some combination of these two trends.

It is noteworthy that averted import requirements result in another type of savings; that of averted foreign exchange requirements. The scarcity of foreign exchange has constituted a major throttle on Guatemalan economic growth throughout most of the past decade. Should all of the additional wheat, corn, rice and beans requirements need to be imported, the drain on foreign exchange reserves would be substantial. The opportunity cost of using limited foreign exchange to purchase additional food requirements is factored as the other imported goods and services which would have to be foregone to enable purchasing basic foods. These foregone imported goods and services include intermediate and capital goods for industry, without which the rate of growth in employment and output in the industrial sector (and more generally, gross national product) will be reduced.

Table 43 presents prices of the domestically-produced and imported food crops. Table 44 uses the price information from Table 43 to monetize the averted production quantities presented in Table 44; i.e., it contains the estimated savings and the present value of averted domestic production of basic food requirements. The sum of the total value of additional domestic production of the food requirements for the averted birth cohorts through the year 2016 is Q1.9 billion, which has a present value of Q437.7 million.

In Table 45, (to reiterate) it is analogously assumed that the same proportion of apparent per capita consumption requirements which are presently obtained from this source of food, in this case from imports, will continue to be forthcoming from the same source in order to maintain current per capita apparent consumption levels while addressing the food needs of the averted birth cohorts. Using price data contained, Table 45 monetizes the value of the averted import requirements. As may be seen in the second column from the right of Table 45, the total value of these imports that will be required through the year 2016, valued at their respective average 1989/90 - 1990/91 prices is Q200.4 million. Their present value is Q46.4 million. Thus the total value of value of averted food requirements--both domestically produced and imported--is Q2.1 billion, which has a present value of Q484 million.

F. The Cost-Benefit Ratio of the Proposed Project

The present value of the savings attributable to the proposed Project due to reductions in public health and public education expenditures and to reduced food requirements through the year 2016 are Q1,381 million. This is the present value of the benefits that will accrue to Guatemala if the proposed Project is implemented. Indeed, in light of the various very conservative assumptions made in the course of this analysis, this should be regarded as the minimum present value of the benefits that will accrue to Guatemala if the project is implemented.

Not all of the costs of the Project are to be borne by USAID. A portion of the total costs are to be paid by the MOH, the IGSS, IPROFASA and APROFAM. Data do not exist on the anticipated marginal costs that any of the four organizations will incur providing the anticipated level of family planning services throughout the life of the proposed Project. So no precise cost estimate of the Project was developed, and so a precise cost-benefit ratio for the Project can not be determined.

However, the following estimate is offered. In developing our estimate, it is important to be cognizant of the fact that a substantial portion of USAID's planned expenditures during the course of the project are long term investments, and as such constitute costs which should be depreciated over the productive lifespan of each such investment, which is a period of time considerably longer than the project's five year lifespan. Some, for example, the training of health care provider personnel, may have a useful

TABLE 37

PRODUCTION OF MAJOR AGRICULTURAL FOOD PRODUCTS

(All data are in Thousands of Metric Tons, Unless Noted  
Otherwise)

CROP	1986/87	1987/88	1988/89	1989/90	1990/91
WHEAT	46	46	51	34	32
CORN	1,076	1,217	1,270	1,150	1,200
RICE	26	35	40	27	25
BEANS	123	86	92	39	118
COTTONSEED OIL			61	59	59

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TABLE 38

APPARENT CONSUMPTION OF MAJOR AGRICULTURAL FOOD PRODUCTS:  
DOMESTIC PRODUCTION PLUS IMPORTS MINUS EXPORTS PLUS  
CHANGES IN STOCKS

(All Data are in Thousands of Metric Tons)

	1986/87	1987/88	1988/89	1989/90	1990/91
WHEAT	193	198	208	212	215
CORN	1,203	1,256	1,295	1,330	1,370
RICE	36	37	40	36	37
BEANS	100	100	97	90	119
COTTONSEED OIL			61	59	59
POPULATION (Millions)					9.2

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TABLE 39  
GUATEMALAN IMPORTS OF MAJOR FOOD CROPS  
(All Data are in Thousands of Metric Tons)

	1986/87	1987/88	1988/89	1989/90	1990/91
WHEAT	152	129	178	214	150
CORN	54	37	2	148	175
RICE	11	1	6	2	15
BEANS	0	10	5	1	1
COTTONSEED OIL	0	0	0	0	0

TABLE 40  
APPARENT PER CAPITA CONSUMPTION OF MAJOR AGRICULTURAL FOOD  
PRODUCTS  
(1989/90 - 1990/91 Average)

	DOMESTICALLY PRODUCED	IMPORTED	TOTAL
WHEAT	22.37	16.30	39.67
CORN	148.91	19.02	167.93
RICE	4.02	1.63	5.65
BEANS	12.93	0.11	13.04
COTTONSEED OIL	6.41	0.00	6.41
POULTRY	10.30	0.00	10.30

**TABLE 41  
AVERTED ADULT EQUIVALENT CONSUMPTION UNITS**

<b>YEAR</b>	<b>YEAR OF PROJECT</b>	<b>COHORT #1</b>	<b>COHORT #2</b>	<b>COHORT #3</b>	<b>COHORT #4</b>	<b>COHORT #5</b>	<b>TOTAL AVERTED ADULT EQUIVALENTS</b>
1992	1						0
1993	2	9,757					9,757
1994	3	9,757	20,049				29,806
1995	4	9,757	20,049	23,775			53,581
1996	5	9,757	20,049	23,775	31,340		84,921
1997	6	19,514	20,049	23,775	31,340	11,447	106,124
1998	7	19,514	40,097	23,775	31,340	11,447	126,173
1999	8	19,514	40,097	47,551	31,340	11,447	149,948
2000	9	19,514	40,097	47,551	62,680	11,447	181,288
2001	10	19,514	40,097	47,551	62,680	22,893	192,735
2002	11	29,271	40,097	47,551	62,680	22,893	202,492
2003	12	29,271	60,146	47,551	62,680	22,893	222,540
2004	13	29,271	60,146	71,326	62,680	22,893	246,315
2005	14	29,271	60,146	71,326	94,020	22,893	277,655
2006	15	29,271	60,146	71,326	94,020	34,340	289,102
2007	16	39,028	60,146	71,326	94,020	34,340	298,859
2008	17	39,028	80,194	71,326	94,020	34,340	318,907
2009	18	39,028	80,194	95,101	94,020	34,340	342,683
2010	19	39,028	80,194	95,101	125,360	34,340	374,023
2011	20	39,028	80,194	95,101	125,360	45,786	385,469
2012	21	39,028	80,194	95,101	125,360	45,786	385,469
2013	22	39,028	80,194	95,101	125,360	45,786	385,469
2014	23	39,028	80,194	95,101	125,360	45,786	385,469
2015	24	39,028	80,194	95,101	125,360	45,786	385,469
2016	25	39,028	80,194	95,101	125,360	45,786	385,469
<b>TOTALS:</b>		<b>673,233</b>	<b>1,303,153</b>	<b>1,450,290</b>	<b>1,786,380</b>	<b>606,665</b>	<b>5,819,720</b>

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TABLE 42

**AVERTED ADDITIONAL DOMESTICALLY PRODUCED FOOD REQUIREMENTS**

(In Kilograms)

YEAR	YEAR OF PROJECT	TOTAL AVERTED ADULT EQUIVS.	WHEAT	CORN	RICE	BEANS	OIL	POULTRY
1992	1	0	0	0	0	0	0	0
1993	2	9,757	228,021	1,452,915	39,223	126,158	62,542	100,497
1994	3	29,806	696,555	4,438,337	119,818	385,385	191,053	306,997
1995	4	53,581	1,252,182	7,978,709	215,395	692,799	343,453	551,882
1996	5	84,921	1,984,598	12,645,549	341,381	1,098,025	544,342	874,684
1997	6	106,124	2,480,124	15,802,962	426,619	1,372,187	680,256	1,093,080
1998	7	126,173	2,948,657	18,788,384	507,214	1,631,414	808,767	1,299,579
1999	8	149,948	3,504,285	22,328,757	602,791	1,938,828	961,167	1,544,464
2000	9	181,288	4,238,701	26,995,596	728,778	2,344,054	1,162,056	1,867,266
2001	10	192,735	4,504,205	28,700,094	774,793	2,492,057	1,235,428	1,985,165
2002	11	202,492	4,732,226	30,153,009	814,016	2,618,215	1,297,971	2,085,662
2003	12	222,540	5,200,760	33,138,431	894,611	2,877,442	1,426,481	2,292,162
2004	13	246,315	5,756,387	36,678,804	990,187	3,184,856	1,578,881	2,537,047
2005	14	277,655	6,488,803	41,345,643	1,116,174	3,590,082	1,779,770	2,859,849
2006	15	289,102	6,756,308	43,050,142	1,162,189	3,738,086	1,853,142	2,977,748
2007	16	298,859	6,984,329	44,503,056	1,201,412	3,864,244	1,915,685	3,078,245
2008	17	318,907	7,452,862	47,488,479	1,282,007	4,123,471	2,044,195	3,284,745
2009	18	342,683	8,008,490	51,028,851	1,377,584	4,436,885	2,196,595	3,529,630
2010	19	374,023	8,740,906	55,695,690	1,503,570	4,836,111	2,397,484	3,852,432
2011	20	385,469	9,008,411	57,400,189	1,549,585	4,984,114	2,470,856	3,970,331
2012	21	385,469	9,008,411	57,400,189	1,549,585	4,984,114	2,470,856	3,970,331
2013	22	385,469	9,008,411	57,400,189	1,549,585	4,984,114	2,470,856	3,970,331
2014	23	385,469	9,008,411	57,400,189	1,549,585	4,984,114	2,470,856	3,970,331
2015	24	385,469	9,008,411	57,400,189	1,549,585	4,984,114	2,470,856	3,970,331
2016	25	385,469	9,008,411	57,400,189	1,549,585	4,984,114	2,470,856	3,970,331
<b>TOTALS:</b>		<b>5,819,720</b>	<b>126,006,862</b>	<b>866,614,542</b>	<b>23,395,275</b>	<b>75,248,983</b>	<b>37,304,407</b>	<b>59,943,119</b>

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TABLE 43

PRICES USED IN CALCULATING THE ESTIMATED SAVINGS OF AVERTED  
DOMESTIC FOOD PRODUCTION REQUIREMENTS:  
PRICES OF MAJOR FOOD CROPS IN JANUARY 1991

(Quetzales per metric ton)

CROP	PRICE
WHEAT	926
CORN	926
RICE	721
BEANS	4,974
COTTONSEED OIL	33
POULTRY	9,520

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TABLE 44

**ESTIMATED SAVINGS AND PRESENT VALUE OF AVERTED DOMESTICALLY PRODUCED FOOD REQUIREMENTS**

(In Quetzales, January 1991)

YEAR	WHEAT	CORN	RICE	BEANS	COTTONSEED OIL	POULTRY	TOTAL SAVINGS PRESENT AVERTED FOOD REQUIREMENTS	VALUE OF SAVINGS
1992	0	0	0	0	0	0	0	0
1993	211,148	1,345,399	28,280	627,510	2,064	956,732	3,171,133	2,620,771
1994	645,009	4,109,900	86,389	1,916,906	6,305	2,922,608	9,687,117	7,278,074
1995	1,159,521	7,388,285	155,300	3,445,983	11,334	5,253,914	17,414,336	11,894,226
1996	1,837,738	11,709,778	246,136	5,461,578	17,963	8,326,989	27,600,182	17,137,648
1997	2,296,595	14,633,543	307,593	6,825,256	22,448	10,406,119	34,491,554	19,464,760
1998	2,730,457	17,398,044	365,702	8,114,652	26,689	12,371,995	41,007,538	21,040,297
1999	3,244,968	20,676,429	434,612	9,643,729	31,719	14,703,301	48,734,757	22,730,763
2000	3,923,185	24,997,922	525,449	11,659,324	38,348	17,776,376	58,920,603	24,987,533
2001	4,170,894	26,576,287	558,626	12,395,492	40,769	18,898,774	62,640,842	24,148,359
2002	4,382,042	27,921,687	586,905	13,023,002	42,833	19,855,507	65,811,975	23,067,639
2003	4,815,904	30,686,187	645,014	14,312,398	47,074	21,821,382	72,327,959	23,049,063
2004	5,330,415	33,964,572	713,925	15,841,475	52,103	24,152,688	80,055,178	23,190,955
2005	6,008,632	38,286,066	804,762	17,857,070	58,732	27,225,763	90,241,024	23,766,401
2006	6,256,341	39,864,431	837,938	18,593,238	61,154	28,348,161	93,961,263	22,494,916
2007	6,467,489	41,209,830	866,218	19,220,748	63,218	29,304,894	97,132,396	21,138,715
2008	6,901,351	43,974,331	924,327	20,510,143	67,458	31,270,769	103,648,380	20,524,432
2009	7,415,862	47,252,716	993,238	22,039,221	72,488	33,602,075	111,375,599	20,031,583
2010	8,094,079	51,574,209	1,084,074	24,054,816	79,117	36,675,150	121,561,445	19,875,972
2011	8,341,788	53,152,575	1,117,251	24,790,984	81,538	37,797,548	125,281,684	18,623,708
2012	8,341,788	53,152,575	1,117,251	24,790,984	81,538	37,797,548	125,281,684	16,929,957
2013	8,341,788	53,152,575	1,117,251	24,790,984	81,538	37,797,548	125,281,684	15,390,870
2014	8,341,788	53,152,575	1,117,251	24,790,984	81,538	37,797,548	125,281,684	13,991,700
2015	8,341,788	53,152,575	1,117,251	24,790,984	81,538	37,797,548	125,281,684	12,718,953
2016	8,341,788	53,152,575	1,117,251	24,790,984	81,538	37,797,548	125,281,684	11,562,684
<b>TOTALS:</b>	<b>125,942,354</b>	<b>802,485,066</b>	<b>16,867,994</b>	<b>374,288,441</b>	<b>1,231,045</b>	<b>570,658,489</b>	<b>1,891,473,389</b>	<b>437,659,979</b>

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**TABLE 45**  
**SAVINGS FROM AVERTED FOOD IMPORT REQUIREMENTS**

(Assuming the same proportion of foods presently imported  
continue to be imported throughout the year 2016)

YEAR	YEAR OF PROJECT	ADULT EQUIVS.	WHEAT	CORN	RICE	BEANS	TOTAL SAVINGS FROM AVERTED FOOD REQUIREMENTS	PRESENT VALUE OF SAVINGS
1992	1	0	0	0	0	0	0	0
1993	2	9,757	147,270	171,845	11,467	5,338	335,921	277,620
1994	3	29,806	449,878	524,950	35,028	16,308	1,026,164	770,972
1995	4	53,581	808,737	943,692	62,970	29,316	1,844,715	1,259,965
1996	5	84,921	1,281,777	1,495,668	99,801	46,464	2,923,710	1,815,405
1997	6	106,124	1,601,818	1,869,115	124,720	58,065	3,653,719	2,061,918
1998	7	126,173	1,904,426	2,222,220	148,282	69,034	4,343,962	2,228,816
1999	8	149,948	2,263,285	2,640,962	176,223	82,043	5,162,513	2,407,889
2000	9	181,288	2,736,325	3,192,939	213,055	99,190	6,241,508	2,646,950
2001	10	192,735	2,909,096	3,394,540	226,507	105,453	6,635,596	2,558,056
2002	11	202,492	3,056,366	3,566,366	237,974	110,791	6,971,517	2,443,574
2003	12	222,540	3,358,974	3,919,490	261,536	121,761	7,661,761	2,441,606
2004	13	246,315	3,717,833	4,338,232	289,477	134,769	8,480,311	2,456,637
2005	14	277,655	4,190,873	4,890,209	326,309	151,916	9,559,307	2,517,595
2006	15	289,102	4,363,644	5,091,810	339,761	158,179	9,953,395	2,382,905
2007	16	298,859	4,510,914	5,263,656	351,228	163,518	10,289,315	2,239,242
2008	17	318,907	4,813,522	5,616,760	374,789	174,487	10,979,559	2,174,170
2009	18	342,683	5,172,381	6,035,502	402,731	187,495	11,798,110	2,121,962
2010	19	374,023	5,645,421	6,587,479	439,562	204,643	12,877,105	2,105,478
2011	20	385,469	5,818,192	6,789,080	453,015	210,906	13,271,193	1,972,825
2012	21	385,469	5,818,192	6,789,080	453,015	210,906	13,271,193	1,793,404
2013	22	385,469	5,818,192	6,789,080	453,015	210,906	13,271,193	1,630,368
2014	23	385,469	5,818,192	6,789,080	453,015	210,906	13,271,193	1,482,152
2015	24	385,469	5,818,192	6,789,080	453,015	210,906	13,271,193	1,347,329
2016	25	385,469	5,818,192	6,789,080	453,015	210,906	13,271,193	1,224,845
<b>TOTALS:</b>		<b>5,819,720</b>	<b>87,841,694</b>	<b>102,499,939</b>	<b>6,839,510</b>	<b>3,184,202</b>	<b>200,365,344</b>	<b>46,361,684</b>

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productive life of as long as 30 or 40 years. Thus, the cost of the Project over the next 5 years (i.e., through mid-1996) is substantially less than the USAID contribution. This is particularly evident in the case of the IGSS component of the project, but is also true of the other three organizations. Hence, even though there is no data on the cost of any of the four organizations providing their anticipated levels of family planning services throughout the life of the proposed Project, it is assumed that the total USAID cost of the Project constitutes the cost of the additional family planning services which it will be necessary to deliver to avert the 385,469 births assumed in calculating the benefits of the Project. In light of the heavy investment component of the Project across all four of the participating organizations, it is likely that this estimate actually overstates the cost of the services. Again, a conservative estimation has been adopted.

On the basis of this conservative basis, and assuming the costs incurred by the four participating institutions chronologically mirror USAID's outlays, the cost profile of the Project is:

YEAR	TOTAL COST PER YEAR (US\$ Millions)	PRESENT VALUE OF THE COST (US\$ Millions)
1992	2.6	2.36
1993	6.3	5.21
1994	5.9	4.43
1995	6.1	4.17
1996	4.5	2.79
TOTAL	25.4	18.96

Converting the cost of the Project to year-end 1991 Quetzales gives us a total present value cost of the Project of Q98.6 million (assuming the exchange rate on January 1, 1992 is Q5.2 to US\$1.00). This compares with the quantified minimal amount of benefits that the Project would generate which has been estimated the present value of at Q1,381.3 million (in year-end 1991 Quetzales). The benefit-cost ratio, therefore, is about 14 (= 1,381.3 / 98.6). That is, for every Quetzal (or US dollar) spent on this Project, it generates 14 quetzales (or US dollars) worth of benefits. Alternatively viewed, the present value of the Project's costs constitute about 7 percent of the present value of its associative benefits.

When it is recalled that the methodology by which the benefit values were derived embody a number of conservative assumptions which undoubtedly understate their true value, and that not all benefits have been considered, it becomes evident that this Project is a wise investment.

ANNEX L

SUSTAINABILITY ANALYSIS

SUSTAINABILITY ANALYSIS

EXECUTIVE SUMMARY

This first section addresses the sustainability of the proposed Guatemalan family planning project and the institutions that will deliver services in the future.

This section considers several different goals and elements of the proposed project's sustainability. One aspect of sustainability examines the transformation of APROFAM and IPROFASA into more efficient, proactive, entrepreneurial entities. A second aspect of sustainability, is self-financing for the organizations. This aspect is considered with the recognition that institutional development (most importantly managerial performance and capacity) must be in place. These goals are also considered within the overall goal of continuing and increasing the contraceptive prevalence rate in Guatemala.

A. Background

The present structures of APROFAM and IPROFASA have evolved over a number of years during which the two organizations have shared the primary objective of increasing the contraceptive prevalence rate (CPR) in Guatemala. This task has been particularly difficult because of factors restricting demand and supply. Factors restricting demand are:

- o the high proportion of culturally distinct, diverse, and geographically dispersed Indians who are suspicious of ladino efforts encouraging them to limit their family size; and
- o the severely limited ability of the overwhelming majority of Guatemalans to purchase modern contraceptives due to high poverty levels. Seventy-two percent of Guatemalan families live in extreme poverty (i.e., have an income less than that necessary to purchase minimal food requirements, SEGEPLAN 1989).

Factors restricting the supply of family planning services in Guatemala include:

- o the small proportion of the Gross Domestic Product which is spent on public health in general, and public family planning services in particular;
- o a politically powerful and vociferous conservative faction which has strenuously opposed family planning. In the mid-1980s, an anti-family planning campaign resulted in the temporary suspension of public and private sector provision of family planning services; and,
- o Guatemala's very conservative Catholic Church which stridently opposes family planning and has negatively influenced both the demand and the supply sides of the family planning service market.

In terms of direct contributions to improving the contraceptive prevalence rate, both organizations have increased the supply of family planning services in Guatemala. APROFAM is the single most important provider of family planning services in the country, and IPROFASA is the principle wholesaler, or in some cases the sole source, of several of the most popular contraceptive products in Guatemala.

Under the previous project, structural reform to improve the managerial capacity of each of these two organizations was designed and initiated. The proposed project continues to build on this work and goes beyond structural reorganization. The proposed project will extend reform to the financial domain to provide greater motivation for adopting, internalizing and exploiting the structural organizational reforms.

#### **B. USAID Funding of Private Organizations**

IPROFASA and APROFAM have accounted for the bulk of the progress which has been made in improving the contraceptive prevalence rate of Guatemala. There are reasons for being optimistic about the ability of both organizations to achieve financial sustainability in the future. For example, both organizations have posted increasing levels of sales revenues through user fees in the past few years.

A.I.D. funding has enabled APROFAM and IPROFASA to undertake substantial IE&C activities designed to educate and raise public awareness about family planning. These activities

played a pivotal role in developing higher visibility and momentum to increase the general public's growing interest and acceptance of family planning. If A.I.D. terminated or severely cut its support of interventions to improve consumer understanding of family planning the expansion in family planning service provision would be slowed considerably.

Simply maintaining the A.I.D. funding status quo is not the preferred course of action. Considerable progress has been made in increasing both the supply and the demand for modern contraceptives in Guatemala, and as modern family planning techniques continue to become more widely understood, available, accepted and practiced, it becomes increasingly practicable to begin to reduce the degree of dependence of APROFAM, and especially IPROFASA, on A.I.D.

Given the tenuous nature of future A.I.D. assistance, both APROFAM and IPROFASA, need to assume greater responsibility for their financial status in the near future. The organizations will need to create an incentive structure to ultimately make them manage and use family planning resources more efficiently.

### C. Goals of Sustainability

It is essential to note that the proposed project's two major goals of increasing the contraceptive prevalence rate and making APROFAM and IPROFASA more sustainable are compatible based on the Mission's 40 year population strategy. One of the necessary conditions for APROFAM and IPROFASA to become more sustainable is for them to achieve a higher degree of self-financing. To generate these revenues, they will need to increase prices of their goods and services. This increase in prices may cause a decrease in the demand for these goods and services from the private sector, thereby increasing the role of the GOG and IGSS in the provision of family planning methods. Clearly coordination among the implementing agencies must be carried out to meet the goals of institutional development, self-financing, and increasing the contraceptive prevalence rate needs to be struck.

The implementation of the self-financing goal should be seen as long term to give APROFAM and IPROFASA more options to achieve greater self-financing. For example, given adequate time they can diversify their product lines to enable cross-subsidizing contraceptives; segment the market more effectively; and develop strategies and mechanisms for practicing price discrimination. Aided by organizational restructuring and other managerial and systems reforms, they may be able to improve their efficiency in providing family planning-related services. With this greater efficiency, they can provide more services for the same (or lower) cost.

Full implementation of these changes is a time extensive process, as is the subsequent fine-tuning and adjustment period. It makes little sense for A.I.D. to underwrite the development and introduction of these reforms if it is not also willing to assume the incremental costs required to ensure that the changes will in fact be achieved.

Further justification for the go-slow approach is that the basic groundwork has already been laid. Both organizations are already generating their own revenues. This year, APROFAM generated 26 percent of its total revenue and IPROFASA generated 39 percent of its total revenue. Both organizations have demonstrated that they can provide services effectively. They have also demonstrated the organizational commitment and capability to both increase their provision of services and to devise new programmatic approaches designed to better address specific types of problems or situations.

In the last three to four years, the family planning market in Guatemala has changed dramatically. APROFAM is no longer the only family planning provider in Guatemala. The changing family planning environment in Guatemala, coupled with the increasingly tenuous nature of A.I.D. assistance, indicates that APROFAM can now begin to move into charging a fee for service that will be high enough to cover institutional costs for the provision of that service. To ensure its sustainability, APROFAM requires organizational reform and an incentive structure that allows it to become less dependent on A.I.D. and more geared to the now rapidly changing Guatemalan family planning market.

#### D. Financial Systems Reform

APROFAM expects that its maternal child care services will be 70 percent self-financed by 1993. This expectation should be adopted as a benchmark for the proposed family planning project. However, there is a problem with tracking these and other financial benchmarks because of the current cash flow accounting system. This system prevents APROFAM from being able to ascertain the costs of specific activities or programs. As the new cost accounting system presently being implemented comes on-line, financial benchmarks should be devised and introduced into the project.

As part of the financial system reforms, consideration should be given to developing each of the individual APROFAM clinics as a separate cost center. This would provide a basis for decentralization by delegating greater authority and

responsibility directly to each clinic. Each individual clinic could work together with APROFAM central office staff to program annual goals, while developing individual revenue targets, service delivery goals and prices.

Consideration should also be given to altering the hierarchical structure of APROFAM's service delivery programs. Rather than having the CBD program controlled from the central office, a strong case can be made for developing local area systems with each APROFAM clinic as the hub of the CBD network.

Institutional goals, restructuring and provision of individual employee incentives will be crucial to moving APROFAM down the road to greater self-financing and sustainability. While it is difficult to project with precision, it does not seem unreasonable to anticipate continued assistance to APROFAM through the year 2000, and perhaps beyond. In the case of IPROFASA, it is intended that it will be independent of A.I.D. financing of recurrent costs by the end of the proposed project.

## FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

### I. SUSTAINABILITY ISSUES

**Finding:** IPROFASA and APROFAM account for 10% and 64% respectively of the Couple Year Protection (CYP) provided through the project in 1991.

**Finding:** APROFAM generated 26 percent of its total revenue in 1990 and IPROFASA generated 39 percent of its total revenue in 1990. Both have demonstrated that they can provide services effectively; increase their provision of services; and devise new programmatic approaches to better address specific types of problems or situations.

**Finding:** The current cash flow accounting system prevents APROFAM from being able to ascertain the costs of specific activities or programs and therefore is unable to establish targets.

**Conclusion:** A.I.D. funding has enabled APROFAM and IPROFASA to undertake substantial IEC activities designed to educate and raise public awareness about family planning. If A.I.D. severely cut or terminated its support of interventions to improve consumer awareness, the expansion in family planning service provision would be slowed considerably.

**Conclusion:** To ensure its sustainability, APROFAM requires organizational reform and an incentive structure that encourages it to become less dependent on A.I.D. and more geared to the changing public and private sector Guatemalan family planning markets.

**Recommendation:** The implementation of the self-financing goal should be long term enough to give APROFAM and IPROFASA more options to achieve greater self-financing. It makes little sense for A.I.D. to underwrite the development and introduction of reforms if it is not willing to assume the incremental costs required to ensure that the changes will in fact be achieved.

**Recommendation:**

Institutional goals, restructuring and provision of individual employee incentives need to be determined. They will be crucial to moving APROFAM down the road to greater self-financing and sustainability. While it is difficult to project with precision, it is not unreasonable to continue assistance to APROFAM through the year 2000, and perhaps beyond. In the case of IPROFASA, they should be independent of A.I.D. financing for recurrent costs by the end of the proposed project.

## SUSTAINABILITY ISSUES

### A. Government Commitment: A Necessary Condition

The population growth rate in Guatemala, has been a concern of USAID/Guatemala since the late 1960's. Current USAID/Guatemala investment in population support is 55 U.S. cents per capita. This per capita expenditure is comparable to that of Bolivia and Haiti, the two countries in the LAC region that are similar to Guatemala in their social and public health indicators as well as their relatively low levels of use of modern contraceptive prevalence.

USAID/Guatemala has made this investment in the health sector for social and economic reasons. It is certainly reasonable to ask what has resulted from this investment. On the health and social indicator side, impressive declines in infant and maternal mortality have been produced and contraceptive prevalence rates for the Spanish speaking population have reached 40 percent MWRA. Social marketing has been used to involve the private sector in the delivery of products and services for a social benefit. On the economic side, the increase in contraceptive coverage has averted more than one million unwanted births during the past 23 years. With a dependent population (ages 15 and under) that today exceeds 45 percent of the total population, the financial burden to Guatemala of providing basic services to this additional million persons would have been considerable.

In short, the achievements have been very impressive, but is continued investment at these levels justified in terms of results to date? The answer is yes. The Government of Guatemala has accepted the importance of family planning in the social and economic development of the nation. This Governmental Commitment has significantly increased the potential impact, as well as the institutionalization of AID/Guatemala-funded family planning programs to date. This fundamental acceptance by the GOG, at both the policy and operational levels, was secured during the previous Project. It is critical that policy dialogue with the GOG continue during this phase to consolidate and protect the great gains that have been made. Also, since the administration will change before the LOP, policy dialogue will be used to assure continued GOG support to this sector through this transition.

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**B. A.I.D. Regional Population Policy: The Place of Guatemala**

The LAC Bureau is currently reviewing a population strategy that is intended to be responsive to congressional, Administration, Agency, and Mission needs. Congress has earmarked an additional \$50m for A.I.D.'s population account for FY 92, bringing the total to \$400m, including a soft earmark of \$100m for the Africa DFA account. The House and Senate Appropriations Committees have agreed in principle to another \$50m increase in FY 93. Concurrently, proposed funding levels for the DA and ESF are stagnating, or in the case of LAC, funding cuts are predicted. Conflicting signals are also apparent in the LAC Bureau for FY 92. The Bureau budget shows an increase from 23m in 91 to almost 39m in 92, and budget amounts for population are increasing, reflecting mission requests for current and proposed family planning activities. At the same time, however, Bureau management is insisting on programming focus, proposing staff reductions, and emphasizing new program initiatives.

The Latin America Caribbean Bureau recently completed a comprehensive analysis of the 24 largest countries in the region, which reviewed each country's status with regard to: population size; index of fertility transition; the total family planning effort; ranking on the Human Development Index; modern contraceptive prevalence rates; access to/and affordability of effective and safe contraceptive methods, and A.I.D.'s past and current investment in family planning. This analysis addressed the two overriding issues confronting family planning programs in the region; 1) increasing access to safe, affordable, and effective methods of contraception for approximately 1/4 of the population at risk throughout the region; and 2) establishing sustainable family planning services to reduce dependence on external donor support. With these two objectives, and the analysis of the indicators referenced above, the countries were classified into four priority categories; high; medium; low; and eliminated. Within each category, the countries were ranked in descending order by their mean average for the eight indicators, exclusive of the A.I.D. financing indicators.

The proposed strategy recommends increased funding to all countries in the high priority category, and programming emphasis on increasing access to family planning services and methods. Guatemala ranks third in the high priority category, behind Bolivia and Haiti. Although all countries in the high priority category already emphasize increasing access, the proposed LAC Bureau Strategy urges each Mission to include funding sustainability objectives in all applicable components of their respective programs. The Bureau analysis of the

Guatemala family planning program places Guatemala in the lowest percentile in reference to; the Human Development Index; Modern Contraceptive Prevalence Rates; access to affordable contraceptives; and the Index on Fertility Transition. In terms of the family planning effort and general access to modern contraceptives, Guatemala has a middle level ranking. In reference to the total amount of past and current funding for family planning, Guatemala ranks in the second highest percentile.

C. Defining Sustainability

Sustainability for the purpose of the proposed Project is defined in two ways. The first is "the ability of Project-supported services and agencies to function effectively without A.I.D. money." In light of the previous discussion, this is an more important consideration for USA.I.D./Guatemala management. The second definition, "development of capabilities and resources to effectively function independently of external assistance," is of primary importance to the design and implementation of each component of the proposed project. The goals implied by both definitions are not attainable during the next four year Project phase. In the following analysis of the recipient institutions, specific quantifiable measures toward achieving financial and program sustainability will be documented to the greatest extent possible.

D. Progress to Date

The present structures of APROFAM and IPROFASA have evolved over a number of years during which these two organizations have shared the primary objective of increasing the contraceptive prevalence rate (CPR). Doing so in Guatemala, however, has not been easy. The task has been particularly difficult in this country because of the convergence of a number of negatively conditioning factors, none of which in and of itself is particularly uncommon or insuperable, but which together have slowed progress in increasing the CPR to a pace less than that of other Latin American Countries at a similar stage of development. These include factors which have restricted both the demand for, and the supply of, family planning services in Guatemala. Factors limiting demand include:

- o the high proportion (roughly one-half) of the total population which is comprised of culturally distinct and diverse, and geographically dispersed Mayan speakers who historically have suffered from discrimination and marginalization, resulting in their poor access to and use of health services controlled by Spanish speaking population; and

- o the severely limited ability of the overwhelming majority of Guatemalans to purchase (i.e., effectively demand) modern contraceptives due to the high incidence of absolute poverty. Eighty-five percent of the Guatemalan families are classified poor and 72 percent live in extreme poverty (i.e., have an income less than that necessary to purchase minimal food requirements, SEGEPLAN 1989);

Factors which have restricted the supply of family planning services in Guatemala include:

- o the small proportion of the Gross Domestic Product which is spent on public health in general (about half the percentage spent by countries at similar levels of development), and which is spent by public family planning services in particular; and
- o a politically powerful and vociferous conservative faction which has strenuously opposed family planning, and which, in the mid-1980s, waged a campaign that resulted in the temporary suspension of public and even private sector provision of family planning services.

In addition, Guatemala's very conservative Catholic Church, which stridently opposes family planning, has negatively influenced both the demand and the supply sides of the family planning services market.

This rare constellation of factors has made family planning progress slow in Guatemala; but, considerable progress has been made. There remains much to be done, as is evidenced by Guatemala's low contraceptive prevalence rate of 23 percent in 1987.

#### E. Sustainability and the Private Sector

The two major private sector entities with which A.I.D. has been working for nearly a decade have accounted, both directly and indirectly, for much of the progress which has been recorded. In terms of direct contributions to improving the CPR, both organizations have increased the supply of family planning services in Guatemala. APROFAM is the single most important provider of family planning services in the country, and IPROFASA is the principle, or in some cases the sole source, wholesaler of several of the most popular contraceptive products in Guatemala. Both are currently dependent upon A.I.D. financing to maintain and expand their programs.

As is shown in Table 1, between 1982 and 1991, IPROFASA received nearly US\$6 million from the A.I.D./Guatemala. Throughout the last five years, A.I.D.'s allocation to IPROFASA has increased an average of 43 percent each year. During this same period their annual CYP production has grown from 4.1 thousand to over 36 thousand. The 1990 A.I.D. appropriation was more than 5 times its 1985 (nominal) level. At the same time, however, the proportion of total IPROFASA financing which has come from A.I.D. has declined. Almost all (92 percent) of IPROFASA's non-A.I.D. revenues have come from its sale of contraceptives. Sales revenues annually increased an average of 77 percent between 1985 and 1990, climbing from 20 percent of total revenues in 1985 to nearly double that proportion (39 percent) in 1990. In addition, in 3 of its 5 years since beginning operations, IPROFASA has generated an operating surplus (i.e., profits). Although the cumulative total of these profits, is approximately a US\$0.5 million, the last two years IPROFASA posted large and growing negative surplus (see Table 2).

In contrast to IPROFASA which is a for-profit entity, APROFAM is a non-profit organization. As is shown in Tables 3 and 4, since 1985, A.I.D./Guatemala has provided a generally increasing absolute and relative level of APROFAM's total revenues. A.I.D./Guatemala's appropriation to APROFAM has increased on average 41 percent each year since 1985, though the rate of increase has generally been declining in, as may be seen in Table 5. From 1985 through the end of 1991, APROFAM will have received a total of US\$22.6 million from A.I.D./Guatemala.

The lower portion of Table 5 presents the annual rates of growth in revenues generated from APROFAM service delivery-related activities, that is, user fees, since 1985. About one-quarter of these revenues are generated from consultation fees, 40 percent from the sale of contraceptives, another 5-10 percent from the sale of medicines, 10-15 percent from laboratory examinations, and the remaining 10 percent from voluntary contributions for surgical sterilization. As the Table shows, APROFAM's user fee performance has been somewhat erratic in the past 7 years, especially during the first years of the period, when the family planning sector was under attack and CYP actually fell. In 1986 when A.I.D. financial assistance grew by 83 percent to include MCH services, APROFAM's user fee revenues fell by 14 percent. Since bottoming out the following year (1987), however, the record has been one of rapid and substantial growth.

Still, between 1985 and 1990, since the rate of growth in A.I.D. funding has been greater than that of user fee revenues, the ratio of APROFAM's user fee revenues to its A.I.D.-financed

revenues and user fee revenues as a proportion of total APROFAM financing have both followed a downward trajectories. Last year the ratio of user fees to A.I.D. appropriations reached about one-quarter of its 1985 level (see Table 6). Based on the linear extrapolation of the first 6 months experience of this year, it appears as though both of these ratios have started to recover; APROFAM appears to be on the road to becoming increasingly self-reliant, at least from a financial perspective. That is, using the second definition of the concept--functioning independent of external assistance--it appears as though APROFAM is becoming more sustainable.

Referring back to Tables 3 and 4, it might seem as though there is considerable opportunity for furthering APOFAM's sustainability, as defined by the first definition of that term, independent of A.I.D. assistance. The list of the 19 different institutional sources of APROFAM's revenues appears lengthy. Upon closer examination, however, we see that the majority of these organizational entities (10 of the 19) receive A.I.D./Washington funds, as distinct from A.I.D. Guatemala. This means that APROFAM's degree of dependence on A.I.D. is considerably greater than the review presented in this analysis, which was based on only A.I.D./Guatemala financing.

The revenues APROFAM has received from these various other A.I.D. sources (other than A.I.D./Guatemala) are qualitatively different. In contrast to the A.I.D./Guatemala assistance, which is general support financing, the other A.I.D. funds are received for the rendering of specific, time-limited services. These other than A.I.D./Guatemala funds are payments received by APROFAM for providing consulting services to other A.I.D.-funded projects. Conceptually, these revenues are more like user fee revenues than they are A.I.D./Guatemala's general support monies. The organizational philosophy, the types of managerial decisions which need to be made, and the skills required to identify and develop these sources of revenues, A.I.D. funded or otherwise, are the very ones which are required if APROFAM is to become more financially self-reliant. Every effort should be made to encourage APROFAM's operating in this type of consulting capacity.

By way of summarizing this brief review of the financing of APROFAM and IPROFASA, it can be concluded that the current level of dependence of both of these organizations on USA.I.D. financing is high. At the same time there are reasons for being optimistic about the ability of both organizations over a period of years, to achieve sustainability, by both definitions of the word (i.e., operating independent of A.I.D.-financing, as well as independent of external funding in general). The critical issue is how quickly can they become self-sustaining without

negatively affecting the progress to date in lowering the total fertility rate and ultimately the rapid population growth rate.

In part, the progress which has been made in improving access to family planning services in the difficult circumstances characterizing Guatemala, has been made because USA.I.D. has provided continuing support to these organizations, which has enabled them to provide goods and services below market prices, increasing effective demand for family planning services.

Another important, but impossible to quantify, effect of USA.I.D.'s financial support of these two private sector entities has been what may be termed their indirect impact on family planning service provision via their promotion of a more receptive environment in Guatemala. This indirect effect has consisted of altering consumers' knowledge about, and thereby their preferences for, family planning services so as to increase their demand for contraceptives. There exist constraints on both the demand and the supply sides of the family planning market in the Guatemalan context, so this two-pronged approach has been warranted.

USA.I.D. funding has enabled APROFAM and IPROFASA to undertake substantially more activities designed to raise public awareness and educate the public about family planning than would otherwise have occurred. These activities, in turn, have played a pivotal role in developing a critical minimal level of visibility and momentum in the general public's growing interest and acceptance of family planning, a prerequisite to achieving a sustained increase in the contraceptive prevalence rate. Continued A.I.D. financial and technical assistance is essential to ensuring continued accelerated progress in this area. Radio and television broadcasts are examples of what economists refer to as public goods. Public goods are defined as goods and service concurrently having three distinguishing characteristics: once they are provided, (1) the marginal cost of additional consumers enjoying the good/service is zero, (2) other consumers cannot be excluded from enjoying it, and (3) the provision of the good/service to additional consumers does not deplete the good/service. By virtue of these characteristics, if left to the private market, a public good will be underproduced, from a social perspective. That is, less than the socially optimal amount of advertising on family planning will be provided. In essence, if USA.I.D. terminated its support of these demand-side interventions to improve consumer understanding of family planning (and thereby increase the demand for family planning services), it would be left with only a supply side approach, and expansion in family planning service provision would be considerably slower than has been the case to date.

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At the same time, however, simply maintaining the status quo is not the preferred course of action. Considerable progress has been made in increasing both the supply and the demand for modern contraceptives in Guatemala, and as modern family planning techniques continue to become more widely understood, available, accepted and practiced, it becomes increasingly practicable to begin to reduce the degree of dependence of APROFAM, and especially IPROFASA, on A.I.D.. In addition to being more practicable, making both organizations less dependent upon A.I.D. is desirable for at least two reasons.

First, A.I.D. has financed both of these organizations for many years now, and both have now passed through the early, difficult phases of institutional development. Changes in the world situation, particularly those engulfing Eastern Europe, are creating new demands and pressures for A.I.D. to reprogram assistance and redirect resources to this troubled region. Concurrently, other regions, especially Central America, for a variety of reasons have waned in terms of the relative urgency of their situations and in terms of their relative geo-political significance. There have already been reductions in the allocation of A.I.D. resources to the Central American region and additional cutbacks specifically for Guatemala appear imminent. It is imperative, therefore, that the proposed project take concrete steps to continue the process of assisting both APROFAM and IPROFASA to develop resource generation activities. Should changing circumstances in the dynamic situation of Eastern Europe (or other regions) require rapid and significant reallocations of resources away from these two organizations in the near future it would be very damaging to the program. Taking explicit measures to increase APROFAM's and IPROFASA's ability to generate resources, is a necessary first-step to assuring that these organizations will be sustainable in the long run.

In addition to now being practicable, it is also desirable to help both organizations become less dependent on A.I.D.. The second reason for doing so, is to ensure that resources devoted to family planning in Guatemala are used as efficiently and effectively as possible. When both organizations assume greater responsibility for their financial status that provides an incentive structure which is conducive to the more efficient use of family planning resources in Guatemala, both those provided by A.I.D. and those generated by the organizations.

The introduction or increased significance of such an incentive structure does not always result in the improved efficiency and effectiveness of a given organization. Whether

or not it does depends on a number of factors, perhaps most important, the nature and structure of the organization. Recognizing this, the proposed project will introduce structural and procedural reforms in both APROFAM and IPROFASA to facilitate both organizations responding positively to their new environments, which will, at once, make them more independent and more sustainable organizations.

Under the previous project, programs of structural reform to improve the managerial capacity of each of these two organizations, were designed and initiated. The goal of these programs is to transform APROFAM and IPROFASA into more efficient, proactive, entrepreneurial entities. The proposed project continues to build on this work and goes the next step beyond structural reorganization by extending reform to the financial domain in order to provide greater motivation for adopting, internalizing and exploiting the structural reorganizational reforms.

It is essential to note that the project's two major goals of increasing the contraceptive prevalence rate and making APROFAM and IPROFASA more sustainable are entirely consistent, when viewed over the long term. As has already noted, for APROFAM and IPROFASA to become more sustainable they need to achieve a higher degree of self-financing. If they are to become more independent financially, particularly in the short run, they will need to increase the prices of some of their goods and services.

The goal of achieving a given level of sustainability (i.e., self-financing) can be reached over a longer period of time, APROFAM and IPROFASA will have more options available to them by which to achieve greater self-financing, including some which are not necessarily inconsistent with maintaining or even increasing the number of couples using modern contraceptives. Given more time, they can, for instance, diversify their product lines to enable cross-subsidizing contraceptives or to enable segmenting the market, or they may be able to develop strategies and mechanisms for practicing price discrimination, or, aided by the organizational restructuring and other managerial and systems reforms both organizations have recently embarked upon, they may be able to improve the efficiency with which they provide family planning-related services; providing more services for the same level or expenditure, or the same level of services at lower costs.

Full implementation of these changes is a time extensive process, however, as is the subsequent fine-tuning and adjustment period. It makes little sense for A.I.D. to underwrite the development and introduction of these reforms, if

it is not also willing to assume the incremental costs required to better ensure that the changes will, in fact, be effectuated.

That these longer term strategies either consist of, or require greater managerial capacity which is another, and probably the single most important, aspect of institutional development and sustainability, suggests that the prudent strategy, the one which minimizes the probability of either of these organizations failing, would be to adopt the longer term approach. This means that, for the time being, A.I.D., APROFAM and, to a lesser extent and for a shorter period of time, IPROFASA, can maintain the primacy of the goal of extending access to family planning services as the work towards greater resource generation, which is consistent with the LAC Bureau Draft Population Strategy.

Further justification for the go-slow approach is that the basic groundwork has already been laid. As has been demonstrated, both agencies are already generating their own revenues; this year, 26 and 39 percent of their total revenues for APROFAM and IPROFASA, respectively. Both of these organizations have demonstrated that they can provide services effectively. They have also demonstrated the organizational commitment and capability to both increase their provision of services and to devise new programmatic approaches designed to better address specific types of problems or situations as they have evolved, or simply to expand their coverage. IPROFASA has developed its market both vertically and horizontally. In terms of its vertical expansion, IPROFASA now distributes its products to 87 percent of all pharmacies in Guatemala, and has developed a number of innovative, non-traditional sales outlets, including convenience stores and "micropharmacies" in rural areas. In terms of the horizontal expansion of its market, IPROFASA has developed and successfully marketed a number of new products.

APROFAM also has an impressive record of expanding service provision and responsiveness to the Guatemalan family planning environment. The growth of its infrastructure--both its own clinics as well as its associated clinics documented in Table 7, is one of the most prominent examples. Another example, is the persistent growth of the APROFAM CBD Program's corps of voluntary distributors, despite problems of high turnover. Another example, is the gradual evolution of the types of services provided in APROFAM's clinics. Prior to 1987, only contraceptive methods were available in APROFAM clinics. In 1988 APROFAM began offering maternal child services. This diversification has helped to stabilize the activity levels of APROFAM, has provided important sources of revenues, and has helped to defuse and insulate the organization from the

malicious attacks of anti-family planning and anti-sterilization forces.

In addition, both IPROFASA and APROFAM have shown that organizationally they are willing and able to change structurally in order to enhance their administrative flexibility so as to be better able to better plan, monitor and manage their activities, and they are both already making considerable progress toward self-financing. Rather than simply requiring both of these organizations to become sustainable very quickly, by suddenly terminating USA.I.D. funding, especially since it appears that CYP is finally growing quickly enough to increase the CPR.

As a for-profit organization with more circumscribed and less ambiguous objectives, IPROFASA can be more readily moved toward greater self-financing. The proposed project timetable calls for annual reductions of 25 percent in the level of A.I.D. support (exclusive of the cost of contraceptives), starting in the second year of the project. By the end of the project, in mid-1996, IPROFASA will be expected to be completely self-financed, with the exception of the cost of contraceptives which A.I.D. will continue to supply in-kind.

The very different nature and historical role of APROFAM, makes it a more complex case. The self-financing goals which have been developed for APROFAM are considerably more modest. In effect, although the long term goal with respect to APROFAM is the same, the road to getting there will be a much longer one.

F. Why the APROFAM Road to Sustainability Will Necessarily be and Should be Allowed to be Longer

In the last 15 years there have been five major evaluations of APROFAM. Each of the first four of these evaluations, conducted in 1976, 1979, 1983 and 1988, concluded that APROFAM has demonstrated good administrative practices and that it has a high level of managerial capacity. The recommendations made in each of these evaluations, were recognized by APROFAM management as legitimate and reflective of shortcomings of the organization, including: the development of a finance unit; restructuring various aspects of the CBD Program; and expanding the size and coverage of the CBD Program; implementation of a system of regularly scheduled personnel evaluations; and the development of more formal and documented administrative and managerial subsystems. Virtually every one of the changes suggested in these evaluations was subsequently implemented.

Most recently, a 1990 Price Waterhouse evaluation identified a number of administrative shortcomings and developed

a detailed program for addressing them and transforming APROFAM into an administratively more flexible organization with a more formalized, better documented set of administrative rules and regulations, and with improved capabilities for assessing and responding to the changing family planning market in Guatemala, including improved planning, monitoring and evaluation skills; in short, for transforming APROFAM from the traditional, public health agency with a public service mentality that it had long been, into a more proactive and entrepreneurial entity which changing circumstances in Guatemala's family planning market now dictated it needed to become.

APROFAM's reactions to these evaluations has consistently demonstrated its commitment to improving its administrative structure and practices, and its receptivity to constructive criticism. The changing findings of the evaluations reflect, in fact, the changing realities of family planning in Guatemala and the changing nature and role of APROFAM within this dynamic setting. For much of its history, APROFAM has been the undisputed preminent family planning organization of Guatemala, annually distributing most of the contraceptives in the country. It has adopted the role and the philosophy of a national public health agency, when (as throughout much of the past quarter of a century) the MOH has been unable or unwilling to adequately fulfill this role. Since its founding in 1966, APROFAM has been the backbone of the sustained, organized family planning effort in Guatemala. This is manifested not only by its provision of CYPs (and its market share as measured by this indicator, as may be seen in the following table) and by the fact that the 1987 DHS survey found that APROFAM was the source of contraceptive supplies or procedures for 48 percent of Guatemalans using modern contraceptive methods, but also by the nature and extent of several of its other, traditional activities. For instance, its IE&C-related activities, and its

TOTAL CYPs PROVIDED (in 000's)

	1987	1988	1989	1990
APROFAM	142	167	170	178
I PROFASA	12.9	16.2	24.4	32.4
MOH/FPU	NA	44.8	52	75

provision of contraceptives at nominal prices to a variety of public and public agencies, including, up until 1985, the MOH, itself. As the CYP provision record demonstrates, Guatemalans have long regarded, and in general continue to regard, APROFAM as the public sector-like, organizational entity to which to turn to when in need of contraceptives.

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But as the table above also shows, in the past three to four years or so, as the MOH has begun to enter back into family planning in earnest, and as it has become evident that the position of IPROFASA in the family planning market is established and that its market share will grow, the role of APROFAM has begun to change again. By virtue of its pricing strategy and philosophy, APROFAM is probably most accurately regarded from the consumer's perspective as a substitute for MOH-provided services, although, without question, physical proximity plays an important role in determining the degree of perceived substitutability. As the MOH, with its 1,040 facilities nationwide, expands its family planning service provision, it can be expected that APROFAM will lose some of its clientele to the Ministry.

How much of its clientele APROFAM will lose is difficult to determine without conducting a more detailed market analysis. What the impact of APROFAM's loss of clientele to the MOH will be on the organization, also requires further analysis such as might be provided by a market analysis. While no quantitative assessments of this impact can be made on an a priori basis, it is clear that the size of the impact will depend on APROFAM's response to these changing circumstances. With Guatemala's relatively low modern contraceptive prevalence rates there is great potential for expanding the number of family planning users and services provided by both APROFAM and the MOH. Thus, even though there will be some contraceptive users who substitute MOH- for APROFAM-provided services, there is still great potential for both to significantly increase their number of clientele. How likely this will be and how minimal will be the competition for any particular group of persons, will depend on how well APROFAM is able to monitor the changing nature of its market, and how well it is able to both shape and response to the evolving market structure.

Recent evaluations of APROFAM have not examined issues of cost-recuperation or generation of funds. The common theme the APROFAM external evaluations' recommendations has been organizational weaknesses regarding the monitoring and/or responding to changes in the family planning environment (market conditions). This is especially evident in the Price Waterhouse recommendations since this area was included in their Scope of Work. The new Guatemalan family planning environment is altering the fundamental role of APROFAM. As family planning has become something which is politically acceptable (or at least will be tolerated) in Guatemala, APROFAM's CYP has grown annually. It is clear that APROFAM can now look to segmenting the market and no longer has to serve the sectors that should be reached by the MOH. To

ensure its sustainability, APROFAM requires organizational structuring and an incentive structure that allows it to become less dependent on A.I.D. and more self-sufficient and more geared to the now rapidly changing Guatemalan family planning market.

The specifics as to how APROFAM is to do so will be the subject of much of the technical assistance it receives in the first year of the proposed Project. There are, however, a number of possibilities which should be considered.

First, the regionalization pilot project must continued to be viewed as just that, an experiment. Regionalization may simply add another administrative layer to APROFAM, and thereby render the organization less flexible and more costly.

As part of the financial system reforms, consideration should be given to developing each of the individual APROFAM clinics as a separate cost center. This would provide a basis for delegating greater authority and responsibility directly to each clinic, and thereby decentralize the system. Under such a schema, each individual clinic would be more capable of responding to the specific conditions and needs of its locale. Each individual clinic could work together with APROFAM Central Office staff to program its own annual goals and objectives. Using information from its past service provision experience each clinic could identify the inputs (personnel types and quantities, contraceptive and medical supplies, medicines, etc.) it would require to achieve its specific service delivery goals. Information about the required level of inputs could be combined with cost data which would be provided by the new cost accounting system and together would provide a financial plan for the individual clinic. The Central Office would then earmark the identified level of funding for that specific clinic.

In addition, each individual clinic would develop annual user fee revenue generation targets, based on the combination of its already-quantified service delivery goals and its price schedule. Each clinic, therefore, will annually program specific service delivery goals, which will form the basis for its annual financial plan, which will identify the specific budgetary constraint within which it will be required to operate for the next 12 months. The types of organizational restructuring and administrative systems strengthening which APROFAM is currently embarking upon can provide the information necessary to devise, implement and monitor such a decentralized system. Tying this enhanced managerial capability to the individual clinic via the combination of this delegation of authority and a fixed clinic budget, provides the necessary

linchpin to translate this enhanced managerial capability into improved managerial performance.

This incentive structure could be further reinforced by financial incentives for the employees of the clinic to work together to expand coverage and service delivery. Rather than simply ensure all of the employees of a given clinic an increase in his/her salary each year throughout the next phase of the project, wage increases could be tied to increasing productivity. Employees of a clinic would be guaranteed they would make at least the same nominal income they made last year. In addition, They could earn more money if the number of services they delivered and/or the user fees they generated increased from last year's level. Any monies generated by providing more services and garnering more revenues than last year could be put into a separate account. A portion of these monies--perhaps half-- could go to APROFAM, with the remaining going to the employees of the clinic that generated it. The money could be divided up among the clinic's employees in direct proportion to their salaries. Since all employees would stand to gain from increasing service provision, there would be an incentive for them to work as a team to do so.

This type of approach would provide an incentive structure which is consistent with the twin goals of APROFAM to increase family planning service delivery and coverage and to become more self-financing/sustainable. Such a schema might at first to be a radical departure from APROFAM's current operating procedures. This is only partially true; the associated physicians and associated clinics program are based on similar incentive systems. Why should not the rest of APROFAM's clinics operate with the same motivation to provide and to expand services? At present, the only motivating force for APROFAM's clinics to expand service delivery is professional commitment. This source of motivation can be strengthened by adding properly structured, positive, financial incentives. Developing each individual clinic as a separate cost center with its own annually developed service delivery goals, including the required inputs and funding to produce them, is a crucial first step to opening the door to decentralization, improved coverage and improved efficiency.

Consideration should also be given to altering the hierarchical structure of APROFAM's service delivery Programs. Rather than having the CBD Program controlled from the Central Office, a strong case can be made for developing local area systems in which each APROFAM clinic constitutes the hub of a CBD-based network. Such a system would be more amenable to developing more closely integrated levels of family planning service delivery, as well as a greater knowledge and

understanding of the changing nature of the many local-specific, family planning markets, and thereby, of the national market. Clinic physicians could go out to CBD sites once a month (just as the associated physicians presently do) to enable and to increase the utilization of other methods. This series of individual-clinic-based subsystems would enable cross subsidizing from the urban-based clinics to the rural areas.

Finally, it should be noted that APROFAM expects that its maternal child care services will be 70 percent self-financed by 1993. This expectation should be adopted as a benchmark for the proposed Project. The nature of the current cash flow accounting system of APROFAM prevents it from being able to ascertain the costs of specific APROFAM activities or programs. This precludes the development of other, similar self-financing benchmarks. As the new cost accounting system, presently being implemented, is completed and comes on-line similar such benchmarks should be devised and introduced into the project for subsequent years. For instance, once cost data is available, A.I.D. might want to consider funding only IE&C activities at 100 percent and requiring all service delivery activities (family planning in addition to MCH) to become increasingly self-financed.

These benchmarks, together with the provision of individual employee incentives, will be crucial to moving APROFAM down the road to greater self-financing and sustainability. Still, the goal of APROFAM becoming self-sufficient can only be regarded as realistic over a significantly longer period of time relative to that developed for IPROFASA. While it is exceedingly difficult to say specifically when, given the plight of Guatemala and the Mission and historical evolution of family planning services, it does not seem unreasonable to anticipate continued assistance through the year 2010.

## G. Sustainability and the Public Sector

### 1. The Ministry of Health

It is proposed that the Ministry of Health (MOH) will receive \$4,564,482 through this Project (including commodities) in order to deliver 720,000 Couple Years of Protection (CYP). According to the Family Planning Unit of the MOH, the proposed CYP level will be attained primarily through increased accessibility to male and female sterilization, and rapid expansion of the Volunteer Health Promoters Program.

The Ministry of Health is the largest provider of maternal child health care services in Guatemala, and the second largest provider of family planning services. However, for comparisson,

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in 1991 APROFAM produced 232,417 CYP and the MOH produced 93,268, so, eventhough they are the second largest provider, they have a very low usage rate that is targeted for rapid growth under this Project. The MOH has facilities and staff in each of the 23 departments of the country. It is necessary to the sustainability of family planning as an essential component of basic health services for all Guatemalans, that the MOH strengthens it's role to become a major provider of reproductive health services.

In order to increase the CYP level from 70,000 in 1990, to approximately 180,000 CYP annually over the next four years, strong commitment of support is required from the highest policy and operational levels of the Ministry of Health. The current CYP level was reached through heavy reliance on voluntary surgical contraception (68%), with the remaining balance on orals (20%), with IUD's, condoms, and vaginal tablets accounting for (10%); all of which were provided through standing MOH facilities. The proposed increase to 180,000 CYP annually, relies on tripling the rate of volunteer surgical contraception; adding a male vasectomy component; major increases of other modern methods through standing facilities; and permitting the Voluntary Health Promoters to distribute hormonal methods. To meet these targets requires a major commitment from the MOH, to provide the human resources, the facilities, and the political will to change, the regulatory policies to permit this ambitious, but necessary expansion.

The Project proposes a two-pronged approach to achieving sustainability of the MOH component. The first is to provide all necessary budgetary and technical assistance support establishing the MOH as a major provider of quality family planning services. The proposed financial and technical support is focused on creating ownership of family planning by the MOH, and promoting a demand for these services by the Guatemalan public. Secondly, the Project will encourage the MOH to assume an ever-increasing share of the costs of family planning, through budgetary increases, seeking other donor support, and establishing a meaningful system of user fees. At present, user fees are not under control of the MOH. This important task needs to be undertaken as part of the policy dialogue between Mission management and senior GOG officials, including the Minister of Finance. The present system of MOH user fees represents less than one percent of the direct costs of the family planning program. Restructuring user fees would not significantly increase revenues. But more important than revenue generation, is the positive signal to the beneficiaries and providers alike, by introducing a rational, practical, user fee system.

At present, the Family Planning Unit (FPU), is an implementing unit of the MOH. Ten professionals that carry out

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the administrative and supervisory functions of the FPU receive their salaries from the current USA.I.D. family planning project. This structure has been beneficial in initiating and supporting the current level of family planning service delivery within the MOH. However, in order to expand contraceptive prevalence to projected levels, and build program sustainability through ownership, it is necessary for the MOH to assume more financial responsibility for the FPU. Accomplishment of this proposed restructuring will facilitate an important aspect of increasing program and financial sustainability.

By strengthening the capacity of the MOH to provide needed quality family planning services, and by maintaining a constant high level of dialogue on critical policy issues, the Project anticipates greatly increased fiscal and management responsibility for family planning by the Ministry of Health. The Project has no expectation that the MOH will achieve financial or managerial sustainability in the coming four year period. However, the proposed level of funding and technical assistance is intended to make a measurable movement in this direction. Increasing access to quality family planning services and increasing GOG managerial and financial support are inseparable.

## 2. Instituto Guatemalteco de Seguridad Social (IGSS)

The Guatemalan Social Security Administration delivers preventive and curative health services (primarily for accidental trauma, illness, and maternity) financed through contributions from employers, employees, and the national government. IGSS provides health services to approximately 1,500,000 people in 22 of the 23 departments of the country. Because of a curative focus and structure, the IGSS has until presently, provided little in the way of family planning services. A more positive climate towards family planning, coupled with rapidly increasing costs for maternal and infant care, has prompted IGSS to request assistance from USA.I.D./Guatemala to expand and strengthen their family planning efforts.

Based on the current institutional capacity of IGSS and the high level of unmet demand, IGSS officials have set a target of 173,990 CYP for the next four year period. The proposed budget of \$520,768 will be used to train IGSS personnel; provide contraceptive commodities; and reduce infant and maternal mortality and morbidity through the establishment of appropriate policies, practices, and procedures.

USAID/Guatemala through a buy-in to the Futures Group is currently providing technical assistance to IGSS for studies on

factors influencing reproductive health; contraceptive use among IGSS beneficiaries; and rates of maternal and perinatal mortality among IGSS's target population. It is expected that the results of these studies plus sponsored study tours to other Social Security systems with large and successful family planning programs, will further improve the climate for the development of IGSS family planning policies and programs.

This Project is not proposing to pay any operational costs for the IGSS. Project funds will be used to add family planning services to the IGSS health system, by training of personnel; provision of commodities; and improving the policies for service delivery. As with the Ministry of Health, the approach proposed to increase fiscal and managerial sustainability is to strengthen the capacity of the Social Security Institute to provide an ever-increasing amount of quality family planning services to IGSS subscribers. Creating and meeting the demand for contraception within IGSS, hastens the shift from an externally driven impetus for family planning services (i.e. A.I.D.) to client driven demand. As future planned studies show the cost benefit of providing preventive health measures, and IGSS personnel take ownership of the family planning component, program sustainability is enhanced.

TABLE 1

I PROFASA: SOURCES OF FUNDING

(CURRENT QUETZALES)

	1985	1986	1987	1988
AID FUNDING	447,777	602,697	1,302,665	1,396,517
SALE OF CONTRACEPTIVES	109,400	292,864	380,838	511,434
RESERVES	0	0	0	0
INTEREST	0	13,461	50,807	53,466
TOTAL	557,177	909,022	1,734,310	1,961,417

	1989	1990	TOTAL
AID FUNDING	1,729,340	2,321,167	7,913,626
SALE OF CONTRACEPTIVES	692,097	1,503,538	3,490,171
RESERVES	0	0	0
INTEREST	111,818	53,833	283,385
TOTAL	2,533,255	3,878,538	11,687,182

(PERCENTAGES)

	1985	1986	1987	1988
AID FUNDING	80	66	75	71
SALE OF CONTRACEPTIVES	20	32	22	26
RESERVES	0	0	0	0
INTEREST	0	1	3	3
TOTAL	100	100	100	100

	1989	1990	TOTAL
AID FUNDING	68	60	68
SALE OF CONTRACEPTIVES	27	39	30
RESERVES	0	0	0
INTEREST	4	1	2
TOTAL	100	100	100

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TABLE 2

I PROFASA'S ANNUAL AND CUMULATIVE OPERATING SURPLUSES  
(IN QUETZALES)

	1984	1985	1986	1987	1988
ANNUAL SURPLUS	(8,762)	215,421	39,955	58,622	399,860
CUMMULATIVE SURPLUS	(8,762)	206,659	246,614	305,237	705,097

	1989	1990	TOTAL
ANNUAL SURPLUS	(72,974)	(173,984)	
CUMMULATIVE SURPLUS	632,123	458,138	458,138

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TABLE 3

APROFAM REVENUE SOURCES  
(CURRENT QUETZALES)

FUNDING SOURCES	1985	1986	1987	1988
IPPF RHO		10,000	41,250	100,170
IPPF	442,000		1,187,038	1,429,774
AID	1,518,387	2,784,033	3,341,018	5,135,202
AVS	868,003	1,141,163	1,084,628	129,158
PATHFINDER	52,810	59,449	32,537	
J.H. PIEGO	13,600	22,002	51,459	
MATCHING GRANT			177,672	145,775
JOHNS HOPKINS			42,636	
COMPRA MEDICINAS, IPPF			11,354	
GOBIERNO HOLANDES				
FAMILY HEALTH STUDIOS				
ADIEST. INTERNACIONAL				52,001
POPULATION COUNCIL				60,339
JOICFP				38,430
PRODUCCION VIDEO				107,220
FUTURES GROUP		2,000		
DEVELOPMENT				
VECINOS MUNDIALES	9,896			
OEA FIN.PROY. CLUB				
MADRE	3,000			
FINC. APROFAM GTS				
AVS	28,254			
INGRESOS LOCALES	1,764,926	1,510,947	1,378,981	1,750,454
TOTAL	4,700,875	5,529,594	7,348,573	8,948,523

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TABLE 3 (Continued)

APROFAM REVENUE SOURCES  
(CURRENT QUETZALES)

FUNDING SOURCES	1989	1990	JAN-JUNE 1991	ANNUALIZED 1991
IPPF RHO				
IPPF	1,331,725	2,068,590	729,088	1,458,176
AID	7,634,090	10,788,207	5,428,450	10,856,900
AVS	87,998	98,000		
PATHFINDER				
J.H. PIEGO	14,054	72,645	25,682	51,364
MATCHING GRANT	158,664	145,855	51,255	102,510
JOHNS HOPKINS	77,337			
COMPRA MEDICINAS, IPPF				
GOBIERNO HOLANDES		103,697	228,675	457,350
FAMILY HEALTH STUDIOS			5,909	11,818
ADIEST. INTERNACIONAL				
POPULATION COUNCIL	25,269			
JOICFP	58,708	111,207	158,605	317,210
PRODUCCION VIDEO				
FUTURES GROUP	27,220			
DEVELOPMENT				
VECINOS MUNDIALES				
OEA FIN. PROY CLUB MADRE				
FINC. APROFAM GTS. AVS				
INGRESOS LOCALES	2,400,979	3,445,685	2,345,937	4,691,874
TOTAL	11,816,044	16,833,886	8,973,601	17,947,202

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TABLE 4

APROFAM REVENUE SOURCES  
(Percentajes of Annual Total)

FUNDING SOURCES	1985	1986	1987	1988
IPPF RHO	0	0	1	1
IPPF	9	0	16	16
AID	32	50	45	57
AVS	18	21	15	1
PATHFINDER	1	1	0	0
J.H.PIEGO	0	0	1	0
MATCHING GRANT	0	0	2	2
JOHNS HOPKINS	0	0	1	0
COMPRA MEDICINAS, IPPF	0	0	0	0
GOBIERNO HOLANDES	0	0	0	0
FAMILY HEALTH STUDIOS	0	0	0	0
ADIEST.INTERNACIONAL	0	0	0	1
POPULATION COUNCIL	0	0	0	1
JOICFP	0	0	0	0
PRODUCCION VIDEO	0	0	0	1
FUTURES GROUP	0	0	0	0
DEVELOPMENT	0	0	0	0
VECINOS MUNDIALES	0	0	0	0
OEA FIN.PROY CLUB MADRE	0	0	0	0
FINC.APROFAM GTS. AVS	1	0	0	0
INGRESOS LOCALES	38	27	19	20
TOTAL	100	100	100	100

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TABLE 4 (Continued)

APROFAM REVENUE SOURCES  
(Percentages of Annual Total)

FUNDING SOURCES	1989	1990	JAN-JUNE 1991
IPPF RHO	0	0	0
IPPF	11	12	8
AID	65	64	60
AVS	1	1	0
PATHFINDER	0	0	0
J.H.PIEGO	0	0	0
MATCHING GRANT	1	1	1
JOHN HOPKINS	1	0	0
COMPRA MEDICINAS, IPPF	0	0	0
GOBIERNO HOLANDES	0	1	3
FAMILY HEALTH ESTUDIOS	0	0	0
ADIEST. INTERNACIONAL	0	0	0
POPULATION COUNCIL	0	0	0
JOICFP	0	1	2
PRODUCCION VIDEO	0	0	0
FUTURES GROUP	0	0	0
DEVELOPMENT	0	0	.
VECINOS MUNDIALES	0	0	J
OEA FIN.PROY.CLUB MADRE	0	0	J
INGRESOS LOCALES	20	20	26
TOTAL	100	100	100

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TABLE 5

ANNUAL RATES OF GROWTH IN AID FUNDING OF APROFAM

1985	--
1986	83.4
1987	20.0
1988	53.7
1989	48.7
1990	41.3
1991	0.6

ANNUAL RATES OF GROWTH IN APROFAM'S REVENUE GENERATION

1985	--
1986	-14.4
1987	-8.7
1988	26.9
1989	37.2
1990	43.5
1991	36.2

TABLE 6

**APROFAM GENERATED REVENUES AS A PROPORTION  
OF ITS AID FINANCING**

1985	116.2
1986	54.3
1987	41.3
1988	34.1
1989	31.5
1990	31.9
1991	43.2

**NUMBER OF DIFFERENT INSTITUTIONAL SOURCES  
OF APROFAM'S REVENUES**

YEAR	TOTAL	NUMBER MORE THAN Q100,000
1985	7	3
1986	6	2
1987	9	4
1988	9	6
1989	9	3
1990	7	5
1991	7	4

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TABLE 7

NUMBER OF CLINICS OPERATING BY YEAR - APROFAM

YEAR	No. OF FACILITIES	FACILITY LOCATION	OWN CLINIC	ASSOCIATE CLINIC
1973	1	CENTRO QUIRURGICO	1	
1978	6	ESCUINTLA	2	
		ZACAPA	3	
		CHIMALTENANGO	4	
		COATEPEQUE	5	
		MAZATENANGO		1
		SAN MARCOS		2
1980	2	PUERTO BARRIOS	5	
		BARBERENA		3
1981	1	RETALHULEU		4
1982	1	QUETZALTENANGO	6	
1983	3	JUTIAPA	7	
		CHIQUIMULA		5
		TIQUISATE		6
1984	1	ANTIGUA	8	7
1985	2	EL QUICHE	9	
		SOLOLA	10	
1986	2	HUEHUETENANGO	11	
		COBAN	12	

TABLE 8  
MINISTRY OF HEALTH/FAMILY PLANNING UNIT

CYP BY METHOD

	1987	1988	1989	1990
CONDOMS	NA	5,552	6,011	8,547
VAG. TAB.	NA	2,097	991	1,141
PILLS	NA	27,423	14,658	16,926
IUD	NA	9,730	30,355	48,386
VSC	NA	NA	35,376	47,592
TOTAL	NA	44,802	87,391	122,592

MOH FAMILY PLANNING UNIT:  
CHANGES IN METHODS MIX, 1989-1990

	ABSOLUTE CHANGE	RELATIVE CHANGE
CONDOMS	2,536	42%
VAG. TAB.	150	15%
PILLS	2,268	15%
IUD	18,031	59%
VSC	12,216	35%
TOTAL	35,201	40%

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ANNEX M

POLICY MATRIX

POLICY AGENDA	ACTIVITIES	EXPECTED RESULTS	ATS LEVERAGE	DNHCR COORDINATION
Inter sectorial consensus on the need to slow the rapid rate of population growth and improved MCH health through family planning services.	-APROPAM-IGSS-IPROFASA MCH Coordination. - Leader education through meetings. - Observational trips. - National level seminars. - Publication of materials for leaders.	-Better coop. among implementing agencies. -Coordinated IEAC campaigns. -Inclusion of demographic goals in national planning documents. -Creation of a favorable national climate towards slowing the rapid population growth rate. -Creation of high quality reference material.	Good	UNICEF, UNFPA, PAHO, EEC
Development of national plans to extend family planning services.	-DHS survey -Dissemination activ. to implementing and planning agencies.	Inclusion of family planning issues and goals in work plans and planning documents.	Good	UNFPA, PAHO UNICEF
Increase public sector resources designated for family planning.	-Dialog with GOG offic. -Observational travel for key congress representatives.	-Sustainability of FP services through the MCH.	Significant	UNFPA
Reform of laws & regulations that impede access to information about family planning services.	-Study laws and sanitary code. -Recommend changes. -Disseminate information. -Dialog with GOG-MOH.	-Removal of significant barriers.	Fair	UNFPA
Increase Private Sector resources designated for family planning services.	-TA to APROPAM in fund raising. - Dissemination activ. to private sector designed to encourage provision of PP serv.	-Increase other donor participation APROPAM portfolio. -Provision of PP services by other PVO's and other commercial entities. -Provision of PP services through IGSS nationwide.	Fair	National and International PVOs.

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PUBLIC AGENDA	ACTIVITIES	EXPECTED RESULTS	AID LEVERAGE	COORDINATION
Increased VCU resources for reproductive health	-Policy component of PUVU BRU Project	Improved serv. delivery (access and use)	Fair	UNFPA
Favorable public sector policy position	-Parliamentarians -Legal barriers	Visible private sector acceptance.	Significant	UNFPA
Increased sustainability for CA's	-Other donors -support	Lower AID dependence.	Fair	Bilaterals
Removal of operational barriers to increased services	-Operations Research -Community based dist. -Provider training	Increased access and use.	Significant	
Increased popular and professional participation in demographic and reproductive health issues	-UN/URN society -Reverse medical and nursing curricula -Increase school-based education programs -Women's groups	Increase acceptance of use of methods, increase professional knowledge about positive impact of family planning on maternal-child health	Fair	UNFPA, National and Internat. PVU's, PAUO

ANNEX N

Methods of Implementation, Financing and Procurement

	Method of Implementation	Method of Financing	Procurement
<b>COMPONENT I: Policy Dialogue</b>			
a. MOH-IGSS	Buy-In, AVSC	Federal Reserve Letter of Credit	None
b. APROFAM	OPG	Direct reimbursement with USAID advances	None
<b>COMPONENT II: Research and Development</b>			
	Buy-In Population Council	Federal Reserve Letter of Credit	All procurement will be done by Pop. Council
<b>COMPONENT III: Expansion of Services</b>			
a. APROFAM	OPG	Direct reimbursement with USAID advances	1. All local procurement will be done by APROFAM 2. Contraceptives will be procured by AID
b. MOH-IGSS	Handbook 3	Direct reimbursement	1. Local procurement by MOH 2. Hospital equipment by AVSC 3. Vehicles, contraceptives and clinical equipment will be procured by AID
c. IPROFASA	OPG	Direct reimbursement with USAID advances	1. Local procurement will be done by IPROFASA 2. TA will be contracted by IPROFASA with AID participation and approval 3. Contraceptives will be procured by AID

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PROJECT 520-0357  
ILLUSTRATIVE PROCUREMENT PLAN  
 (Cost in US Dollars by Year)

	1,992	1,993	1,994	1,995	1,996	TOTAL
<u>Component I:</u>						
<u>Policy Dialogue</u>						
Output:						
1. 5,000 Policy Bulletins (a)						
2. 20 seminars (b)						
Item:						
1. Tech. Assist. (c)	10,000	20,000	20,000	20,000	20,000	90,000
<u>Component II:</u>						
<u>Research and Development</u>						
Output:						
1. 7 new rural strategies designed (d)						
2. 8 operations research studies conducted (d)						
Item:						
1. Techn. Assist. (d)		246,399	246,399	246,399	164,246	903,443
2. Office Equipment: (d)		100,000				100,000
-5 desks, chairs						
-4 PC computers						
-4 printers						
-1 telephone plant						
3. Two 4WD vehicles (d)		40,000				40,000
<u>Component III:</u>						
<u>Expansion of Services</u>						
Output:						
2,387,700 CYP						
Item:						
1. Techn. Assist. (e)	41,600	184,100	124,100	124,100	124,100	598,000
2. Hospital and (e)						
Clinical Equipment						
		125,390	64,731	88,747	60,000	338,868
3. Construction Material						
(10 clinics, APROFAM)						
		75,000	75,000	75,000	75,000	300,000
4. Vehicles						
4 pick ups (MOH) (f)						
		30,000		30,000		60,000
100 motorcycles (a)						
		75,000	75,000	75,000	75,000	300,000
5. Contraceptives (g)	497,041	570,992	624,231	681,323	742,505	3,116,092
(Direct USAID Purchases)						
TOTAL	548,641	1,466,881	1,229,461	1,340,569	1,260,851	5,846,403

- (a) Handbook 13, APROFAM
- (b) APROFAM, MOH and IGSS
- (c) IGSS
- (d) Population Council (Centrally Funded Cooperative Agreement)
- (e) Handbook 13, APROFAM and IPROFASA and/or buy-in to Handbook 13 Centrally Funded Cooperative Agreement
- (f) MOH
- (g) APROFAM, IPROFASA, MOH and IGSS

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BUDGET ESTIMATE WORKSHEET: Summary  
 Training Cost Analysis (TCA)

\*\* SBE "Instructions: Budget Estimate Worksheet - Summary" \*\*

( ) ACADEMIC  
 (X) TECHNICAL

PROJECT TITLE: SMALLER, HEALTHIER FAMILIES      PROJECT NUMBER: 520-0357      TOTAL PROJECT: 5.0 YEARS  
 PROJECT WRITER: JELEMMANN      PARTICIPANT MONTHS PROJECTED: (THIS YEAR) 171      DATE BUDGET PREPARED: 06/16/1992

COMMENTS:

I. PARTICIPANT COST - SUMMARY

PROGRAM CATEGORIES/TRAINING ACTIVITIES	ACADEMIC Number of Participants	TRAINING Item Cost	TECHNICAL Number of Participants	TRAINING Item Cost	LINE TOTAL
A. Education/Training Cost			171	\$ 182,035.9	\$ 182,035.9
1. Tutition/Fees					
2. Training Costs			171	\$ 182,035.9	\$ 182,035.9
3. Package Program Costs					
4. Other (Mission Option)					
B. ALLOWANCES			171	\$ 170,283.6	\$ 170,283.6
1. Maintenance Advance					
2. Living/Maintenance					
3. Per Diem			171	\$ 156,802.2	\$ 156,802.2
4. Books & Equipment			171	\$ 13,481.3	\$ 13,481.3
5. Book Shipment					
6. Typing (papers) - Academic Only					
7. Thesis - Academic Only					
8. Doctoral Dissertation - Academic					
9. Professional Membership					
10. Other (Mission Option)					

\* Units are standard measures for the cost element (e.g., participants, participant weeks, etc.)

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BUDGET ESTIMATE WORKSHEET: Summary  
 Training Cost Analysis (TCA)  
 \*\* SEE "Instructions: Budget Estimate Worksheet - Summary" \*\*

ACADEMIC  
 TECHNICAL

PROJECT NUMBER  
 520-0357.

COMMENTS

I. PARTICIPANT COST - SUMMARY

PROGRAM CATEGORIES/TRAINING ACTIVITIES	ACADEMIC	TRAINING	TECHNICAL	TRAINING	LINE TOTAL
	Number of Participants	Item Cost	Number of Participants	Item Cost	
C. Travel			171	\$ 155,379.8	\$ 155,379.8
1. International			171	\$ 135,323.0	\$ 135,323.0
2. Local			171	\$ 20,056.8	\$ 20,056.8
3. Other (Mission Option)					
D. Insurances			171	\$ 14,806.0	\$ 14,806.0
1. HAC for U.S.			60	\$ 4,370.3	\$ 4,370.3
2. Required by Institution			111	\$ 9,935.7	\$ 9,935.7
3. Other (Mission Option)					
E. Supplemental Activities			48	\$ 5,313.8	\$ 5,313.8
1. ELT, In-Country					
2. ELT, U.S.					
3. Academic Up-Grade					
4. Reception Services					
5. WIC Orientation					
6. Other Orientation					
7. Interpreters/Escorts					
8. Internship/Cooperative					
9. Enrichment Program					

\* Units are standard measures for the cost element (e.g., participants, participant weeks, etc.).

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BUDGET ESTIMATE WORKSHEET: Summary  
 Training Cost Analysis (TCA)  
 \*\* SEE "Instructions: Budget Estimate Worksheet - Summary" \*\*

ACADEMIC  
 TECHNICAL

PROJECT NUMBER	COMMENTS
520-0357.	

I. PARTICIPANT COST - SUMMARY

PROGRAM CATEGORIES/TRAINING ACTIVITIES	ACADEMIC	TRAINING	TECHNICAL	TRAINING	LINE TOTAL
	Number of Participants	Item Cost	Number of Participants	Item Cost	
10. Mid-Winter Community Seminars					
11. Follow-Up/Career Development			48	\$ 5,313.8	\$ 5,313.8
12. Other (Mission Option)					

TOTAL PARTICIPANT COSTS (A + B + C + D + E) = \$ 527,819.3

\* Units are standard measures for the cost element (e.g., participants, participant weeks, etc.)

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