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AGENCY FOR INTERNATIONAL DEVELOPMENT

Washington, D. C. 20523

**PROJECT PAPER**

MOROCCO: **Family Planning and  
Child Survival IV  
(608-0198)**

August 18, 1989

UNCLASSIFIED

**FAMILY PLANNING  
AND  
CHILD SURVIVAL IV**

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**(608-0198)**

**PROJECT PAPER**

**USAID/MOROCCO**

**JULY, 1989**

2

AGENCY FOR INTERNATIONAL DEVELOPMENT  
**PROJECT DATA SHEET**

1. TRANSACTION CODE: **A** (Add), C (Change), D (Delete)  
 Amendment Number: \_\_\_\_\_  
 DOCUMENT CODE: **3**

2. COUNTRY/ENTITY: MOROCCO

3. PROJECT NUMBER: 608-0196

4. BUREAU/OFFICE: USAID MOROCCO [03] PROJECT TITLE: FAMILY PLANNING & CHILD SURVIVAL IV

5. PROJECT ASSISTANCE COMPLETION DATE (FACD): MM DD YY [08] [31] [96]

6. ESTIMATED DATE OF OBLIGATION (Under "E" below, enter 1, 2, 3, or 4)  
 A. Initial FY [89] B. Quarter [4] C. Final FY [95]

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

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	3,600	800	4,400	19,000	12,000	31,000
(Grant)	3,600	800	4,400	19,000	12,000	31,000
(Loan)						
Other U.S.						
1.						
2.						
Host Country		1,200	1,200	-	78,000	78,000
Other Donor(s)						
<b>TOTALS</b>	<b>3,600</b>	<b>2,000</b>	<b>5,600</b>	<b>19,000</b>	<b>90,000</b>	<b>109,000</b>

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION PURPOSE	B. PRIMARY 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) HE	530	580		0		3,200		3,200	
(2) POP	400	440		0		22,000		22,000	
(3) CS		510		0		5,800		5,800	
(4)									
<b>TOTALS</b>						<b>31,000</b>		<b>31,000</b>	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)  
 530 550

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)  
 A. Code: BWR  
 B. Amount: 31,000

13. PROJECT PURPOSE (maximum 600 characters)

To improve the impact and sustainability of family planning and maternal child health programs in Morocco.

14. SCHEDULE OF EVALUATIONS  
 Initiation: MM YY [04] [92] | MM YY | Final: MM YY [03] [95]

15. SOURCE/ORIGIN OF GOODS AND SERVICES  
 800  901  Local  Other (Specify) \_\_\_\_\_

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

USAID Morocco Controller approves proposed methods of implementation and financing.

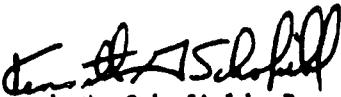
*Richard L. Warin*  
 Richard L. Warin, Controller

17. APPROVED BY: *Charles W. Johnson*  
 Charles W. Johnson  
 Title: Mission Director, USAID/Morocco  
 Date Signed: MM DD YY [08] [18] [89]

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

ACTION MEMORANDUM FOR THE MISSION DIRECTOR

DATE: AUG 18 1989

  
FROM: Kenneth G. Schofield, Program Officer

SUBJECT: Authorization of the Family Planning and Child Survival IV Project  
(608-0198)

ACTION:

Your approval is requested for the Project Paper and the Project Authorization for the Family Planning and Child Survival IV Project (608-0198).

DISCUSSION:

The Family Planning and Child Survival IV Project builds on the experience and success of three earlier projects (-0112, -0155, -0171) in the family planning and mother and child health fields. As such the project will consolidate gains achieved to date and expand access to Family Planning and Maternal Child Health (FP and MCH) services provided through the Ministry of Public Health (MOPH) primary health care delivery system. Under a recently revised program strategy which combines the "Visites a Domicile pour Motivation Systematique" (VDMS) outreach program, originally developed under an AID financed operations research project and the more recent IBRD supported "Soins de Sante de Base" (SSB), a more mobile and comprehensive system will effectively bring family planning and mother and child health care services to the most isolated and underserved households. The project will also stimulate the provision of FP and MCH services through private sector delivery systems, enhance the efficiency of selected MOPH programs, and explore health financing issues in both the public and private sectors.

The project consists of three main components: 1) broadened access to FP and MCH services; 2) increased program efficiency; and 3) health financing. The third component in health financing will explore the means for "creating market opportunities" for health care services. The health financing component represents the direction for future USAID assistance in the population and health sector. It will provide the basis for a new health financing project scheduled for 1991.

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For each of the components, the project will finance technical assistance, U.S. and in-country training, commodities, and local costs. Under the first component, for broadened access FP and MCH services, the project will also finance the repair, renovation, or construction of clinical facilities. On the basis of the Mission Review Committee's examination of the GOM's ability to construct, utilize and maintain the proposed facilities, you sent a 611 (e) certification included as Annex I to the Project Paper, to the Assistant Administrator for the ANE Bureau. The certification was acknowledged by cable, also included in Annex I.

The project will contribute to the sector goal of reducing rapid population growth and early child death in Morocco. The purpose of the project is to improve the impact and sustainability of family planning and maternal child health programs. The project has a life-of-project AID funding level of \$31.0 million and a PACD of August 31, 1996.

USAID prepared and submitted the Project Identification Document (PID) for AID/W approval in January 1989. Upon review, AID/W requested that additional information be added to address sustainability issues raised during the PRC. USAID provided the requested information in Rabat 2496, dated March 14, 1989. AID/W approved the revised PID on March 30, 1989 and authorized you to exercise your AID Redlegation of Authority 654 to approve the project in the field in State 120849, dated April 19, 1989. The ANPAC cable raised several design issues and concerns. They have been appropriately addressed during project design, and responses are summarized in the Summary and Recommendations Section of the Project Paper. The ANPAC cable also concurred in our recommended negative environmental threshold decision.

On July 21, 26 and 28 and August 10, 1989 the Mission Review Committee reviewed the Project Paper and recommended revisions. The Mission's final review of the Project Paper was held on August 17, 1989, at which time approval was recommended subject to certain changes in the Project Paper. These have now been made.

Two source and origin waivers for vehicle procurement were sought from the Assistant Administrator of the ANE Bureau at the time of PID submission. The first waiver for the procurement of motorbikes and approximately 40 all-terrain vehicles and spare parts for an approximate value of \$1,500,000 was signed by the Deputy Assistant Administrator for ANE on May 13, 1989. The motorbike component of this waiver was superseded by a second waiver which permits the procurement of 400 motorbikes and spare parts of Japanese source and origin for an approximate value of \$450,000. The second waiver was signed by the Assistant Administrator for ANE on June 28, 1989. Copies of both waivers are included as Annex J. to the Project Paper.

The Congressional Notification for this project was submitted to Congress on July 27, 1989 and expired without objection on August 11, 1989.

RECOMMENDATION:

That, according to the authority granted to you in AID Redlegation of Authority 654, you sign the Project Paper Data Sheet and the attached Project Authorization, thereby approving the Family Planning and Child Survival IV Project with a life-of-project funding of \$31.0 million and a PACD of August 31, 1996.

APPROVED: Charles W. Johnson Date: 9/18/89 DISAPPROVED: \_\_\_\_\_  
Charles W. Johnson  
Director

Attachments:

1. Project Authorization
2. Project Paper

Drafting Officer: PROC:ABraginski:ug:8/3/89 AB

Clearances: PHR: CRahman CR  
PHR: DGibb DG  
OFM: RWarin RW  
RIA: BBarrington BB  
DDI: LMorse LM

PROJECT AUTHORIZATION

Name of Country: Morocco

Name of Project: Family Planning and Child Survival IV

Number of Project: 608-0198

1. Pursuant to Section 104 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Family Planning and Child Survival IV Project for Morocco (the "Cooperating Country") involving planned obligations of not to exceed \$31,000,000 in grant funds over a six year period from date of authorization, subject to the availability of funds in accordance with the 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 seven years from the date of initial obligation.

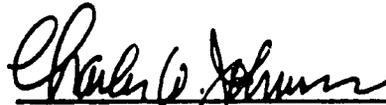
2. The project consists of assistance to the Government of Morocco to improve the impact and sustainability of family planning and maternal child health programs and to reduce rapid population growth and early child death.

3. The Project Agreement which may be negotiated and executed by the officer(s) to whom such authority is delegated in accordance with AID regulations and delegations of authority shall be subject to the following essential terms, together with other terms and conditions as A.I.D. may deem appropriate.

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 Cooperating Country or in the United States except as A.I.D. may otherwise agree in writing. Except for ocean shipping, the suppliers of commodities or services financed by grant funds shall have the Cooperating Country or the United States as their place of nationality, except as A.I.D. may otherwise agree in writing.

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.



Charles W. Johnson, Mission Director

Date August 18, 1989

Drafting Officer:RLA:BBarrington:ub:8/16/89 BKB

Clearances:

PROG:RSchofield KCS

PHR:DGibb AG

CONT:RWarid RLA

PHR:Crahaan CW

DDIR:LMorse JA

**LIST OF PROJECT DESIGN AND MISSION REVIEW COMMITTEE MEMBERS**

Project Design Committee

Carl Abdou Rahman	Population Development Officer
James Smith	Program Economist
Don Masters	Project Development Officer
Aleksandra Braginski	Project Development Officer
Kay Freeman	Budget and Accounting Officer
Eric Loken	Environmental Officer
Michael Huffman	Project Officer

Mission Review Committee

Charles W. Johnson	Mission Director
Linda Morse	Deputy Director
Kenneth G. Schofield	Program Officer
Dale C. Gibb	Chief, Population and Human Resources Office
Belinda Barrington	Regional Legal Advisor
Richard Warin	Controller
Christine Faschini	Regional Contracting Officer
Stephen Klein	Energy Officer
Rollo Ehrich	Agricultural Development Officer
Robert Dodson	Private Enterprise Officer

ACRONYMS AND ABBREVIATIONS

A&E	Architecture and Engineering
AED	Academy for Educational Development
ACLS	Association de Lutte Contre le SIDA "Association for the Control of AIDS"
AIDS	Acquired Immune Deficiency Syndrome
AMPF	Association Marocaine de la Planification Familiale "Moroccan Association for Family Planning"
AVSC	Association for Voluntary Surgical Contraception
CGEM	Confederation Generale Economique Marocaine "Moroccan Private Employers Confederation"
CHU	Centre Hospitalier et Universitaire "University Teaching Hospitals"
CNLS	Comite National de Lutte Contre le SIDA "National Committee for the Control of AIDS"
CNOPS	Caisse Nationale Des Oeuvres de Prevoyances Sociales "National Social Security Fund for Public Sector Employees"
CNSS	Caisse Nationale de la Securite Sociale "National Center for Social Security"
CSM	Contraceptive Social Marketing
DHS	Demographic and Health Survey
FHI	Family Health International
FMSAA	Federation Marocaine des Societies d'Assurances et des Assureures "Moroccan Federation of Private Insurance Companies"
FMSP	Federation Marocaine de Syndicats des Pharmaciens "Moroccan Pharmacists Syndicate"
FP	Family Planning
GOM	Government of Morocco

HIV	Human Immunodeficiency Virus
HMO	Health Maintenance Organization
IBRD IEC	International Bank for Reconstruction and Development? Information, Education and Communication
IPPF	International Planned Parenthood Federation
IQC	Indefinite Quantity Contract
IRD	Westinghouse Institute for Resource Development
IUD	Intra-Uterine Device
JH/PCS	Johns Hopkins University/Center for Population Communications
JHPIEGO	Johns Hopkins Program in International Education for Gynecology and Obstetrics
KAP	Knowledge, Attitudes and Practices
LOP	Life of Project
MCH	Maternal and Child Health
MIS	Management Information Systems
MOPH	Ministry of Public Health
MWA	Married Women of Reproductive Age
NIRTFH	National Institute for Research and Training in Public Health
NTCRH	National Training Center for Reproductive Health
OC	Oral Contraceptives
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
PHR	Population and Human Resources
PID	Project Implementation Document
PMU	Project Management Unit, MOPH

PVO	Private Voluntary Organization
RFFLMTC	Regional Family Planning Logistics and Management Training Center
SSB	Soins de Sante de Base "Basic Health Services"
STD	Sexually Transmitted Disease
TA	Technical Assistance
TACS	Technical Advisor in Child Survival
TBA	Traditional Birth Attendant
TFG	The Futures Group
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Fund
VDMS	Visite a Domicile pour Motivation Systematique "Household Visits for Systematic Motivation"
VSC	Voluntary Surgical Contraception
WHO	World Health Organization

## I. SUMMARY AND RECOMMENDATIONS

### A. Summary Background

Over the past decade, Morocco with AID assistance has substantially reduced population growth rates and early child death by improving the access to and use of family planning and maternal and child health services. Under the Population and Family Planning Support III Project (608-0171) substantial progress was made in developing operational methodologies, e.g. "Visite à Domicile pour Motivation Systématique" (VDMS), for providing these services at the local level. At present, the VDMS component of the GOM Family Planning and Maternal and Child Health Care (FP and MCH) program is operating in 30 of 45 provinces nationwide. The program has successfully promoted modern methods of family planning, as indicated by the increase in overall contraceptive prevalence from approximately 12.5 percent in 1978, to 35.6 percent in 1987. Moreover, vaccination coverage for children has increased from 50 percent to 87 percent, and infant mortality has decreased from 130 per 1000 live births in 1980 to 73 in 1987.

Despite impressive progress over the last decade, a number of problems persist which are exacerbated by recent fiscal austerity measures and systemic biases in the public health care system. This can be seen more clearly when national statistics are disaggregated along urban-rural lines, showing wide disparities between urban and rural conditions. Accordingly, the GOM has made an increase in accessibility for rural population groups to FP and MCH services a major objective of the 1988-92 development plan. To that end, the MOPH has developed a national coverage strategy that involves a combination of fixed facilities, mobile teams and outreach services to provide basic health care at low cost.

Historically, AID has played a key donor role in the health sector, particularly in assistance for population programs. This role is strongly complemented by activities and programs of the multilateral donors. The United Nations Fund for Population Activities (UNFPA) and the World Health Organization (WHO) support Ministry activities in health sector planning and management. WHO also supports AIDS prevention and control activities. The United Nations Children's Fund (UNICEF) assists in the implementation of child survival programs. A seven-year World Bank sector loan is helping the MOPH to expand low cost primary health care infrastructure, strengthen pharmaceutical management, and complete analyses of health sector organization and financing. A new World Bank loan is expected to provide follow-on support in these areas. In addition, the World Bank is addressing the MOPH budget constraints, by requiring that the GOM increase budget allocations to the MOPH as part of the recently negotiated Structural Adjustment Loan.

### B. Summary Project Description

The project will contribute to the CDSS sector goal of reducing rapid population growth and early child death in Morocco. The purpose of the project is to improve impact and sustainability of family planning and maternal child health programs.

The project builds on the experience and success of three earlier projects (-0112, -0155, -0171) in the family planning and maternal and child health field. As such, the project will consolidate gains achieved to date and expand access to family planning and maternal and child health (FP and MCH) services provided through the Ministry of Public Health (MOPH) primary health care delivery system. It will also stimulate the provision of FP and MCH services through private sector delivery systems, enhance the efficiency of selected MOPH programs, and explore health financing issues in both the public and private sectors.

The main components and activities of the project consist of:

1. Broadened Access to FP and MCH Services - This will be accomplished through the implementation of a more mobile and flexible outreach referral program, the expansion of clinical services, as well as social marketing and employee service activities. The project will finance the technical assistance, commodities, training and local costs to further the following objectives:

- Expansion of public sector outreach through the upgrading of health worker skills, provision of heavy duty motorbikes for itinerant health workers, creation of community service sites, and equipment of MOPH mobile teams.
- Improved access to fixed clinical facilities, including the 1) construction, renovation, or repair of 34 rural facilities, 2) construction of 12 new family planning reference centers, and 3) equipping of voluntary surgical contraception (VSC) centers in 15 provincial centers and five rural service facilities.
- Transfer of a portion of MOPH recurrent operating costs to the private sector through the phased design and implementation of social marketing sales programs intended to increase the percentage of contraceptives and MCH products procured and distributed through the private sector.
- Employee FP and MCH services provided as part of employee health services at the plant level.

2. Improved Program Efficiency - The project will strengthen skills; upgrade management systems; improve data collection and analysis; and develop a control and public awareness program for AIDS through the following activities:

- Technical and management training for MOPH professional staff, including strengthening both pre-service and in-service training in reproductive health and family planning and steps to decentralize training in family planning to regional physician and nurse training centers.
- Improved data collection and analysis, including the development of microcomputer applications and automation of the MOPH management information system.

- Production of information, education and communication materials, particularly for illiterate and semi-literate women. Materials will be designed to help improve the credibility and effectiveness of health workers. Printed materials will be complemented with high quality FP and MCH radio programming.
- In AIDS control, sero-epidemiological studies aimed at determining the prevalence of the disease; the provision of laboratory equipment and supplies; information campaigns and materials; and technical training for medical staff and the staffs of the Ministries of Tourism, Justice and Interior.

3. Health Financing - Finally, the project will analyse sustainability issues within the health care system and explore the means for "creating market opportunities" for health care services and products. This will involve an analysis of respective public and private sector roles in the provision and financing of health care as well as developing more "consumer responsive" health care systems and appropriate funding mechanisms, e.g., cost recovery, insurance and group health plans. Specific activities include:

- Policy studies, seminars and analyses of constraints to expanded private health care and insurance coverage;
- Establishment of cost accounting systems in large public health facilities to enhance cost recovery efforts;
- A feasibility study of the expansion of health insurance, possibly through establishment of KMO's or other alternative delivery systems.
- Mobilization of local resources to upgrade local health care coverage.

C. ANPAC Concerns and Design Guidelines

1. Recurrent Costs - The ANPAC raised the concern that expanding coverage to more difficult or remote areas would represent higher than average costs, and therefore the increased cost burden of the project should be fully analyzed in the PP within the context of the likely resource availabilities.

Annex C of the PP, Sector Financial Analysis, examines the recurrent costs of the project within the context of expected future MOPH resources availabilities. Although the projected cost figures are somewhat higher than initially estimated in USAID's first analysis provided in Rabat 2496, the analysis indicates that they are well within the expected growth of the Health Ministry's total budget. The cost analysis was based on average costs of providing services in similar areas which include remote rural populations. In addition, this project includes activities to increase cost recovery in public facilities and increased reliance on the commercial distribution of contraceptives, both of which will ease pressure on the MOPH budget.

The GOM is aware, if not reconciled to the fact, that AID assistance in expansion of government health services stops with completion of this project. To that end, the GOM contribution to overall project costs increases

progressively to 100 percent over the life of the project. In addition, the GOM 1995 budget will include spending authority for the purchase of approximately \$2.4 million in contraceptive commodities. As the disbursement of these funds will not occur until the later part of CY 1996 and run through early CY 1997, these funds are not included in the GOM contribution for this project.

2. Health Care Financing - While the ANPAC noted that health care financing is a complicated field and will require considerable analysis to develop, it urged the Mission to be creative and aggressive in this area. ANPAC guidance for the PP was to develop both a technical and tactical strategy for the studies, analysis, and pilot testing needed to advance the health financing decisions. Several areas for Mission consideration were identified.

A three person team composed of an AID/W representative and two outside consultants helped the Mission identify health financing interventions for this project. We have reached agreement with the MOPH on a series of areas in which to focus our efforts, under the overall context of creating health sector market opportunities by removing barriers to market entry, including administratively set prices.

To that end, we will be exploring policy barriers to cost recovery in public and private facilities; the expansion of insurance, including the development of prepaid health delivery systems; and mobilization of community financing for health services. A phased plan of technical assistance, seminars, training and operations research has been developed in these areas. The operations research and the feasibility study in expansion of insurance will be designed to lead to the testing of alternative mechanisms to GOM financed health care as early interventions in the FY 91 Health Financing Project.

3. Policy Dialogue Agenda - The ANPAC noted that a number of important health sector studies are currently underway funded by other donors and it is important to capitalize on the results of those studies to formulate an appropriate sector policy agenda for the 1990's. The ANPAC stated that the PP should begin to define this agenda, defining the substantive areas for analysis, and developing a tactical approach for pursuing policy change with the GOM. The ANPAC also stated that in discussing policy considerations the PP should also make clear that consistent with AID policy of "informed free choice," the project anticipates changes in contraceptive use based on increased access to the contraceptive methods and improvements in family planning outreach services.

Both the health financing and hospital management studies financed under the IBRD primary health care loan are providing increasing amounts of data and information on the current situation and thus input for Mission plans with respect to health financing issues. Major gaps remain, however, in information on the private sector, regulatory and legal barriers, and insurance practices and policies. Assistance in each area is programmed soon after project launch. The project will assist the MOPH as well in holding a seminar in October 1989 to present the findings of the Health Financing Study to major institutional actors in the public and private sectors as a basis for drawing up a Moroccan agenda for sector reform. This agenda will provide a

basis for our own policy dialogue agenda and later assistance in health financing.

As the GOM moves into its sector reform, we will be working to focus the reform around what the Moroccan health system should look like in the year 2000, and the GOM's goals regarding coverage and quality of care within that system. The 1989 Action Plan Population and Health Policy Agenda has been updated and is attached as Annex L.

With regard to "informed free choice," USAID emphasizes in the Project Paper that the thrust of our effort in this area is to widen the choice of contraceptive methods available. This we will do by increasing access to methods, especially clinical ones, that may be more appropriate and acceptable to women at certain stages of their reproductive life.

4. Lessons Learned - The PP should contain a "lessons learned" section on the Morocco health projects experience and specifically the design approaches that have been developed to better cope with health sector problems.

A Lessons Learned section has been included in Section II of the Project Paper, discussing both the successes and some of the less effective aspects of the USAID-Morocco experience over the past decade in providing and promoting family planning and MCH care.

5. Construction - The cable queried whether a 611 (e) certification was needed and whether a FAR method was inappropriate.

A 611 (e) certification has been provided (see Annex I). It has been determined that a FAR method is not appropriate and that construction services will be procured under Host Country contracting (HB 11) procedures with AID paying contractors directly on the basis of work performed. No advances of AID funds are contemplated.

#### D. Recommendation

The USAID Project Committee has determined that the proposed activities are technically, administratively, economically and financially sound within the seven-year project. Consequently, the committee recommends that the Mission Director authorize a grant of \$31.0 million for the Family Planning and Child Survival IV Project.

#### E. Waivers

Source and origin waivers for procurement of vehicles and motorbikes were approved by AA/ANE on June 28 1989, and DAA/ANE on May 13, 1989.

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## II. BACKGROUND, RATIONALE AND DESCRIPTION

### A. Background

Morocco is the most populous country in the Maghreb region, with an estimated population of 25 million in 1988. Over the past decade, Morocco with AID assistance has substantially reduced population growth rates by improving the access to and use of family planning and maternal and child health services. Under the Population and Family Planning Support III project (608-0171) substantial progress was made in developing operational methodologies, e.g. "Visite à Domicile pour Motivation Systématique" (VDMS), for providing these services at the local level. At present, the VDMS component of the GOM family planning and maternal child health care (FP and MCH) program is operating in 30 of the 45 provinces nationwide. The program coverage is approximately 16 million people. Increased coverage under the FP and MCH program has contributed significantly to increased use of contraceptives and fertility rates have declined steadily over the last decade.

The 1987 Demographic and Family Health Survey (DHS) reports an increase in overall contraceptive prevalence from approximately 19.4 percent in 1979 to 35.9 percent in 1987. Moreover, there is almost universal knowledge on the part of Moroccan women of at least one method of contraception. Family planning services are offered in all Ministry of Public Health (MOPH) facilities, including voluntary sterilization in 30 of the 47 provincial hospitals. Vaccination coverage for children under five has risen from 50 percent to 87 percent in the last two years, and infant mortality has decreased from 130 per 1000 live births in 1980 to 73 in 1987.

Despite this impressive progress over the last decade, a number of problems persist which are exacerbated by recent fiscal austerity measures and systemic biases in the public health care system. This can be seen more clearly when national statistics are disaggregated along urban-rural lines. For example, large disparities are evident in contraceptive prevalence rates (52% vs. 25% respectively) and rural infant mortality rates which are 30 per 1000 live births higher than corresponding urban rates. Relatedly, only 15 percent of births in rural areas are attended by a qualified health worker, compared to 50 percent in urban settings. Accordingly, the GOM has made an increase in accessibility for rural population groups to FP and MCH services a major objective of the 1988-92 development plan. Towards that end, the MOPH has developed a national coverage strategy that involves a combination of fixed facilities, mobile teams and outreach services.

Currently, the challenge facing the GOM is how to implement this development objective, i.e., extending FP and MCH services of reasonable quality to women and children living in the primarily rural areas; in the face of continuing pressure on the MOPH budget. The solution will entail a review of budgetary priorities, greater efforts in the area of cost accounting and cost recovery and improvements in public health care efficiency and, finally, greater system complementarity with privately financed and provided health care, particularly in urban areas.

During intensive project review, a number of constraints were identified which limit expansion and improvement of health care in the Moroccan context:

FP and MCH Program Coverage - Despite significant advances in the last 10 years, many of Morocco's women and children continue to suffer from inadequate, or for a significant number, unavailable health care. Lack of coverage, particularly in rural areas, remains an important problem limiting the impact of FP and MCH services provided by the MOPH. Improvements recorded in infant mortality and contraceptive prevalence rates mask large differences between regions and population groups in access to and use of services. Data from recent surveys and MOPH service statistics show significant urban-rural variations in the performance of the Ministry's priority maternal and child health service programs. Vaccination rates prior to the national campaign were nearly 50% higher in urban areas. Five times as many urban as rural women have completed at least one prenatal visit or given birth under the supervision of a trained health worker; and the incidence of diarrheal disease is much higher in rural areas.

FP and MCH Program Effectiveness - A key problem area concerns the method mix of current contraceptive use, reflecting in part weakness in related MCH clinical services programs. The 1987 Family Health and Demographic Survey reports that 43% of married women of reproductive age, both contraceptive and non-contracepting, want no more children, and an additional 13% want to delay their next pregnancy for at least 24 months. Yet 80% of Moroccan women rely on oral contraceptives, due partially to the lack of access in rural areas to the clinical methods (IUD and VSC), both more appropriate responses to fertility desires of most women wanting no more children. Thus the family planning program, despite its successes, falls short of meeting the needs of women for whom pregnancy presents a high risk, including those of high parity and who are over 35.

Moreover, Morocco's infant mortality rate of 73 per 1000 in 1987 is relatively high for a country at Morocco's stage of development, and accounts for 27% of all deaths in Morocco, compared to 3% for developed countries. Forty percent of these deaths are of infants less than one month of age, deaths usually associated with poor screening and monitoring during pregnancy as well as birth complications. Diarrhea is associated with over 30% of all infant malnutrition. Medically supervised prenatal care and birth monitoring cover only a small proportion of total pregnancies and the MOPH is just beginning to implement a comprehensive strategy to promote improved monitoring of infant nutrition and management of diarrhea cases. Accordingly, continued improvement in the Ministry's pregnancy and birth monitoring and diarrhea disease management, including nutritional surveillance, is required to bring about further reductions in infant mortality.

FP and MCH Program Efficiency - The tenure of the current Minister of Health has been marked by an emphasis on improving management, but he faces several important constraints. For example, most administrators of the system have been trained as physicians, not managers. In addition, the MOPH management information system is clogged with too much data to provide useful information to decision-makers and is unable to provide provincial level information to allow better tailored responses to local needs. Health personnel at all levels of the system need inservice training to upgrade their skills.

Disease Surveillance and Control - The threat of AIDS and other sexually transmitted diseases (STD) has prompted the need to develop capacity within the MOPH to identify "high risk" groups and take steps to check the spread of infectious diseases through better monitoring, social analysis and control techniques. Public awareness campaigns and continuing education for physicians in disease surveillance and control techniques as well as "high risk group" identification are essential public health functions which are inadequately met at this time.

Health Care Sustainability - The challenge posed to the health sector at large will be to improve coverage and quality of health care services on a financially sustainable basis. Public health care systems are over extended in many areas and the quality of health care is often deficient. Given the likelihood of continued budgetary restraint related to the economic structural adjustment program, it is imperative to improve system efficiency and move towards greater cost recovery. The expansion of private health delivery systems to complement existing public health systems will be necessary to achieve overall health sector goals and provide more consumer-responsive health care. Mechanisms to finance improved health coverage and quality of health care, such as private health insurance, need to be more fully developed. Thus, there is a need to define appropriate financial incentives and mechanisms to encourage private sector provision and financing of health care needs.

The project will help address these constraints, which are currently binding on the Moroccan health sector through broadening access to FP and MCH services, improving program efficiency, and exploring health financing issues in both the public and private sectors.

#### B. Project Rationale and Lessons Learned

USAID Morocco's CDSS identifies reduced fertility and decreased infant and child mortality as priorities for AID assistance during the 1987-91 CDSS period. The project builds on activities initiated under the three previous projects. To date, these projects have supported the development and expansion of "Visite à Domicile pour Motivation Systématique" (VDMS), a household level FP and MCH outreach service program; improved the quality and increased availability of permanent contraception; strengthened communications between health workers and clients; and improved management and service statistics reporting systems. With the addition of Child Survival funds in 1986, AID intensified support to infant and child health aspects of the program.

Lessons Learned - The past 10 years of implementation experience with population and family planning programs in Morocco have resulted in some significant "Lessons Learned" that underlie design of this project.

##### 1. Effectiveness of the Primary Counterpart

The Ministry of Public Health is an effective and committed counterpart for family planning. As noted in the mid-term evaluation of the Population and Family Planning Support III project, the Ministry has managed to develop a

nationwide family planning program providing family planning services in all provinces, and at each level of the health system. As a result in part of these actions, contraceptive prevalence has increased from 19% to almost 36% in 10 years; and the program is regarded as a model for other African and Muslim countries who increasingly send representatives to study its design and implementation.

## 2. Integrated Family Planning and Maternal and Child Health Services

The integrated approach to family planning and maternal and child health works in Morocco; (1) workers and clients view FP as an important MCH intervention; (2) the MCH approach has made FP more widely accepted by GOM officials, the religious community, and local opinion leaders; (3) MCH interventions have not diluted FP activities; (4) FP is fully integrated in MOPH fixed facility and training programs, and increasingly in hospital maternity wards; (5) voluntary surgical contraception is offered as a routine intervention at provincial hospital where staff have been trained in this procedure. In sum, this approach has been both politically appropriate and cost effective in Morocco, making good use of trained medical personnel.

## 3. Population Policy

The lack of an explicit national population policy has not been a hindrance to the implementation of programs to reduce population growth rates. As stated in the mid-term evaluation, "the GOM's emphasis on an implementation strategy rather than explicit policy statements has been successful in accommodating the attitudes of more conservative government officials and religious leaders," leading to substantial gains in contraceptive prevalence and coverage.

## 4. Contraceptive Demand and Method Mix

There is a tremendous as yet unmet demand for family planning, with demand increasing faster than the ability of the national family planning program, public and private, to meet it. Furthermore, constraints in the delivery of clinical services, and the impact of door-to-door provision of oral contraceptives for much of Morocco has resulted in a disproportionate reliance on oral contraceptives. Thus, at the beginning of the Phase III population project in 1984, whereas USAID had expected that proportion of total users relying on oral contraceptives would decline from 75% in 1983 to 65% in 1988, instead the proportion increased to 80%. Preliminary estimates indicate a demand for 8 to 10 times the current number of IUD and sterilization procedures. Clinical facilities with adequate equipment and trained staff are not yet widely enough available to meet client demand for these methods. Other factors explaining the high usage of orals include the convenience of door-to-door access through VDMS to orals; the relative ease for rural male workers to explain and promote oral contraceptives compared to other methods requiring more detailed discussion of intimate issues; and the lack of effective educational materials for illiterate and semi-literate women on these other methods. Thus to increase prevalence and to improve the method mix of contraceptive use, there is (1) a need for improved access to clinical methods of family planning; and (2) improved promotional materials and communications training for workers on these methods.

## 5. VDMS Approach

The VDMS approach has strengthened the overall primary health delivery system. Under the approach, emphasis was placed on developing a capability among provincial and local level health personnel to identify the population to be served, plan coverage areas, and allocate staff resources to achieve program objectives. This kind of planning preceded VDMS, but the program provided resources for and allowed phased implementation of the approach at all levels. The experience provided lessons for the Ministry in planning the highly successful 1987 National Immunization Campaign.

On the other hand, it has been argued that the VDMS door-to-door approach is costly in urban areas; thus it has been withdrawn from areas where the population can use the private sector and MOPH fixed facilities. In rural areas, the MOPH has been experimenting with combining a variety of approaches to meet health needs in difficult-to-access areas in the most cost-effective manner. A 1986 World Bank loan helped finance the implementation of a range of approaches in three provinces. The current MOPH rural health program strategy incorporates a combination of outreach approaches, including fixed facilities, household visits by itinerant agents (such as VDMS agents), community level service sites covered on a scheduled basis, and mobile teams capable of delivering a wider range of services. These mobile teams, equipped to provide IUD insertion, pre- and post-natal care and limited curative services, have been highly effective in more isolated rural settings. Under this new strategy VDMS agents only cover families residing from 3 to 5 kms from a facility. Community service sites and mobile teams are used to reach more distant population groups. This revised approach will need close monitoring of its acceptability by clients served. It will also be necessary to monitor those clients who discontinue use of services to ascertain whether it is the delivery approach which is the critical variable in their decision.

## 6. Management Information System

To assure that project impact is maximized, continuing, quantified information on the operational effectiveness as well as the problems of VDMS and other outreach elements is needed. Thus the management information system must be functional and used at various levels of the system. Furthermore, an operations research strategy needs to be developed to test systematically alternative ways of implementing and managing services at all levels of the system, and in the various regions. Thus the management information system and the operations research strategy should focus on assuring that the program is providing services in the best way possible in terms of quality, acceptability, and costs of services delivered. Devising a system for measuring clients' continuation rates will be an important task.

## 7. Campaigns

The "campaign approach" can be useful in mobilizing and sensitizing both providers and the public to the need for and use of primary health care interventions, be they immunization, ORT, or even family planning in the correct setting. In the case of the first, the campaign was useful as well in

strengthening planning and implementation skills of primary health care across the board in the Ministry of Health. It was equally important in mobilizing resources outside the Ministry, both in the GOM and the private sector, to support a national health effort, and led in fact to new political support for public health activities. It can also be said that the 1987 immunization campaign created a sense of mission and pride throughout a Ministry which has long suffered from low morale and productivity.

#### 8. IEC

IEC activities should be oriented to outputs as opposed to institutional development. Project interventions aimed at improving production capacity have failed to produce effective materials and messages. This reflects the lack of clear IEC goals and objectives. IEC support of the national immunization campaign was output oriented and generally effective.

With regard to choice of media, TV is not generally appropriate for providing the type of method specific information now needed under the program and is difficult to access due to continuing social and cultural sensitivities. Radio has a wider audience; more cost-effective message channels; is accessible for FP messages; and provides greater flexibility to respond to social, cultural and ethnic variations in country due to regional programming. Finally it involves less sophisticated production requirements within MOPH central and local capabilities.

#### 9. Project Management

The mid-term evaluation of the current project found that the number and complexity of activities under the Population and Family Planning Support III project was such as to require greater staff depth in USAID to manage and move forward the entire range of project components, address sensitive issues and anticipate problems and opportunities. The evaluation suggested that additional support was required both for administrative coordination of project activities and for technical support to the MOPH and activities with the private sector.

The Ministry of Public Health staff needs to have a broader understanding of overall program objectives and implementation roles. Wider involvement of MOPH staff would stimulate greater cross linkages between project supported activities and reinforce impact. The "implementation committee" approach seems to offer the best hope of achieving broader understanding among MOPH counterparts and improving overall management performance.

#### 10. Phaseover and Operating Costs

The phaseover of project costs to the MOPH should be gradual to avoid disruption of logistical, supply and other support at the provincial level. A gradual reduction in AID local costs support by cost category is more easily absorbed in the GOM budget process than is a phaseout tied to geographic areas.

C. Other Donors

The largest donor in the Health Sector is the World Bank which is currently engaged in a 6 year \$28.4 million Health Development Loan begun in 1986, and is preparing a new \$160 million sector loan (\$100 million IBRD contribution) to be signed this year. The new loan greatly broadens the primary health care emphasis of the Health Development Loan by adding emergency and basic diagnostic services at the first level of referral (\$63 million), and reinforcement of the administrative and policy reform efforts of the GOM (\$7 million). Nonetheless, the largest part of the loan continues to focus on primary health care (\$90 million). The USAID project has been developed in full coordination with Bank and Ministry officials; with health financing and sector reform activities jointly discussed at all stages.

The Bank's minimal efforts in population under the new loan are balanced by the vigorous if modest \$3 million program over the 1987-91 period of UNFPA. The organization is engaged in population education efforts in schools and agricultural extension, assistance in census and demographic work, especially with the Ministry of Plan, and provides technical and training assistance to Ministry of Health programs in family planning and maternal and child health. It coordinates its programs closely with USAID Morocco.

UNICEF, which provided major help and publicity to the vaccination and oral rehydration campaigns, continues its assistance in these areas as well as nutrition and health education. WID is a major focus of UNICEF's activities, and reinforces the MCH thrust.

Although WHO provides minor assistance in terms of financing, i.e., less than \$1 million, its technical assistance in AIDS control, public health training, communicable diseases and epidemiology is a most useful complement to the efforts of the other agencies. WHO is providing increasing help as well to the Institute for Research and Training in Public Health.

UNDP is providing some \$3 million over the 1988-91 period of technical assistance in hospital maintenance support, and will provide seminar assistance on a regional basis, in health financing.

Other bilateral donors include France, Spain, Canada, and China, each of whom provides fellowships, consultant services and commodities.

D. Detailed Project Description

Goal and Project Purpose - The project will contribute to the sector goal of reducing rapid population growth and early child death in Morocco. The purpose of the project is to improve impact and sustainability of family planning and maternal child health programs.

Project Components and Major Activities - This project builds on the experience and success of three earlier projects (-0112, -0155, -0171) in the family planning and maternal and child health field. As such, the project will consolidate gains achieved to date and expand access to family planning and maternal and child health (FP and MCH) services provided through the

Ministry of Public Health (MOPH) primary health care delivery system. Under a revised program strategy which combines Visite à Domicile pour Motivation Systématique (VDMS), originally developed between 1978-1980 under an AID financed operations research project and the more recent IBRD supported Soins de Santé de Base (SSB), a more mobile and comprehensive system will effectively bring FP and MCH services to the most isolated and under-served households. To date, this program has been successfully implemented in 30 provinces covering 16 million of Morocco's population. This project will expand geographic coverage to an additional 12 provinces covering practically all population areas. The two components of the project which grow out of previous projects are (a) expansion of the revised VDMS program through the implementation of a more mobile and flexible outreach referral program, and (b) improvements in FP and MCH program efficiency. In addition, strengthening the capability of the MOPH to test, monitor and control AIDS will be an important activity. This activity will seek to identify "high risk" groups and develop the means of controlling the disease using technical and behavioral approaches. The third component of the project will analyze sustainability issues within the health care system and explore the means for "creating market opportunities" for health care services and products. This will involve an analysis of respective public and private sector roles in the provision and financing of health care as well as developing more "consumer responsive" health care systems and appropriate funding mechanisms e.g., cost recovery, insurance and group health plans, etc. This component will lead to a Health Financing project in 1991.

#### 1. BROADENED ACCESS TO FP AND MCH SERVICES

This project component will broaden access to FP and MCH services in both rural and urban areas of the country. Effective coverage of the population for family planning by the Ministry of Public Health and private services has reached 70% of the Moroccan population in urban and rural areas or approximately 16 million people. The goal of the outreach program is to reach 85% of the rural population nationally and close to 100% of the urban population, thus achieving effective family planning coverage for about 90% of the Moroccan population.

As the principal means of reaching rural areas, the project will extend the coverage of the VDMS outreach service program into underserved rural areas within the 30 provinces already covered and expand coverage to 12 new provinces. Because the extreme ruralness of the twelve new provinces, and the programs limited penetration of rural areas in existing provinces, this expansion will help increase coverage from 40% of the rural population or an estimated 5 million people in 1989 to 85% of the rural population or 11 million people by 1996. The project will improve access to clinical services at the health center, family planning reference center, and voluntary surgical contraception center levels in rural and urban areas within the MOPH health system. It will also increase the coverage of FP and MCH services provided by the private sector in rural and urban areas by expanding social marketing of contraceptives and MCH supplies and introducing FP and MCH services into employee health delivery programs.

a) VDMS Mobile Outreach

Reaching rural coverage targets will be achieved by introducing the appropriate features of the MOPH's pilot maternal child health system, "Soins de Santé de Base (SSB)," into existing VDMS provinces and by extending coverage of the improved system to the 12 remaining provinces. Population centers within 3 kms of existing MOPH rural dispensaries, clinics and health centers will be expected to seek both preventive and basic curative care at the health facility, with referral for more specialized diagnostic and treatment services scheduled following careful screening by local MOPH staff. Families residing from 3 to 5 kms from the nearest facility will continue to be covered by home visits similar to VDMS, with fieldworkers issuing referral slips for scheduled preventive clinics. Initially, these home visits will be carried out on a monthly basis. The project will finance technical and refresher training for VDMS staff and supervisors and provide improved supply kits and vehicle fuel and operating costs for the approximately 1500 fieldworkers assigned to the more remote rural areas. Community service sites, grouping populations of 300 to 600 people, will be established for population groups located between 5 to 10 kms from the nearest facility. These sites, operating multipurpose clinics for both preventive and basic curative care, will be covered by a MOPH fieldworker, at intervals of every two to four weeks based on the size and the needs of population covered and difficulty of access to the site. The sites will also receive less frequent coverage from MOPH mobile teams for more sophisticated maternal and child health services and IUD insertion. Population groups covered by these sites will continue to seek emergency care at the health facility. The project will finance technical equipment, supplies and storage containers for approximately 3,000 community service sites and 400 heavy duty motorbikes to assure routine coverage of the planned sites. Dispersed populations located beyond 10 kms from a facility, will be covered by MOPH mobile service units. These units will be staffed by lightly equipped two to three person teams and offer services similar to those provided at community services sites, including IUD insertions, pre-natal care and delivery assistance in conjunction with local traditional birth attendants. The project will finance 40 all-terrain vehicles along with required technical equipment and supplies for the mobile teams scheduled to provide coverage in these most difficult to reach rural settings. Administrative supplies, such as forms, bulletin boards (and related office materials), will also be provided for the outreach system.

b) Improved Access to Clinical Services

Findings of the National Health Facilities Infrastructure Study completed by the MOPH in 1987, demonstrate the severity of problems concerning rural population access to MOPH facilities, particularly facilities capable of providing long-acting, clinically supervised contraceptive methods and a more sophisticated array of maternal and child health services. These problems have been further aggravated by the deterioration of aging MOPH facilities and equipment during the recent budget austerity period. The mobile service component of planned outreach activities, discussed above, will provide some relief of these problems for the most remote areas. However, the availability and quality of FP and MCH services at the health center, family planning reference center and voluntary surgical contraception center levels must be

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staff do not currently possess the necessary training, equipment and supplies to effectively identify, diagnose and treat the growing number of vaginal infections and sexually transmitted disease (STD) cases encountered throughout the country.

The mid-term evaluation of the Population and Family Planning Support III Project (608-0171) and the April 1989 AID financed assessment of service and training activities at the Reference Centers agreed on the importance of NOPH plans to improve performance at these centers and to upgrade quality of FP services in rural facilities, thereby reducing routine gynecological consultations at the centers; increasing availability of long-acting contraceptive methods such as IUD and VSC and reinforcing technical referral and supervision services. The studies also address major limitations to IUD insertions, namely the reportedly high incidence of vaginal infections and STDS among women seeking IUDs. A key objective of the project is improving the ability of reference centers to diagnose and treat such infections, and provide training in the identification and management of these infections by FP staff in lower level service sites.

Recognizing the important role to be played by these centers, USAID has begun recruitment of a long-term advisor, under Population and Family Planning III through the AID/W Technical Advisors in Child Survival Project, to assist the NOPH in improving the performance of these centers in the areas of FP program supervision, training and service delivery. This project will finance second year costs for these advisory services. In addition, the project will finance a limited quantity of antibiotics and related medical supplies, for the treatment of vaginal infections and other STDs, at the eight FP reference centers serving as clinical practice sites for the recently created NOPH regional physician and nurse training centers. These supplies will help the NOPH rebuild confidence in the referral system for FP services and increase client caseloads to the levels required to carry-out planned physician and nurse training activities, particularly the identification, diagnosis, and treatment of vaginal infections and STDs.

(iii) Voluntary Surgical Contraception Center Level - The NOPH has developed a national VSC program, working through the National Training Center for Reproductive Health (NTRH) in collaboration with the Association for Voluntary Surgical Contraception (AVSC) and the Johns Hopkins University Program for International Education in Gynecology and Obstetrics (JHPIEGO). Over the period 1984-1989, with assistance provided under project 608-0171, the Ministry has expanded tubal ligation services to 32 provincial centers throughout Morocco. The expansion of this program, emphasizing high standards of medical quality and full integration of this family planning service as an acceptable option for the protection of maternal and child health in Morocco, has enabled the NOPH to perform VSC procedures for 32,000 women, approximately 6,000 cases per year.

This achievement has given the NOPH greater confidence in the projected increases in VSC acceptors relative to other contraceptive prevalence projections included under the Ministry's 1988-1992 development plan. Data from the 1987 DHS indicate substantial, current unmet demand for VSC. Among married women aged 15-49, 43% want no more children and the proportion of

these women preferring sterilization as a method is considerably higher than the current proportion of women sterilized. Based on further analysis of these data, the MOPH projects demand to be over 60,000 VSC procedures during the 1990-1994 period.

The project will give the MOPH the capability to meet this unmet demand for VSC services and encourage liberalization of MOPH eligibility criteria. At present, the program appears to have reached a plateau in terms of its capacity to increase the number of VSC procedures to meet actual and expected demand. The 1988 AVSC mid-term Assessment of the Morocco program reports that a limited amount of the existing unmet demand can be addressed through more efficient management of patients and increased availability of physician staff at existing centers. The report recounts the considerable hardships currently endured by rural women to obtain VSC services, including traveling long distances on multiple occasions to complete procedures and pre- and post-operative consultations. This has led to client loss, even among highly motivated women, and discouraged many potential clients for VSC services from pursuing the procedure.

The AVSC report notes, therefore, that extension of the program to the remaining unserved provinces and to peripheral sites in larger, more rural provinces will be required to make VSC more accessible to women residing in rural areas. The project will finance technical assistance to the MOPH for improved technical monitoring and program direction, equipment to furnish operating and recovery rooms, and related supplies and materials for the provision of services, in an additional fifteen (15) provincial centers and five (5) rural service facilities. This project will also continue limited operations support in the thirty existing centers.

c) Social Marketing - The project will help to transfer a portion of MOPH recurrent operating costs to the private sector by financing technical assistance, commodities and local costs to increase the percentage of contraceptives and MCH products procured through the private sector. This will be accomplished through the phased design and implementation of social marketing sales programs for oral contraceptives, OES, IUDs, and related child survival supplies. Social marketing will increase the number of sales outlets, and improve the efficiency and lower the costs of local FP and MCH product production.

The private sector currently supplies approximately 30% of contraceptives used in Morocco. This percentage represents a slight decline during the past few years, due to increased public sector distribution in rural areas. Current sales levels have been maintained, however, despite the absence of effective research, marketing and promotional activities and the limitation of relatively expensive product sales prices of contraceptives and other related MCH products to pharmacy outlets.

Several factors now favor the expansion of social marketing in Morocco. The private sector in Morocco is quite sophisticated and offers a pharmaceutical manufacturing and marketing infrastructure which complements the policy objectives of the MOPH. Major multinational pharmaceutical manufacturers are active through local representatives or subsidiaries. At present there are 17

brands of oral contraceptives, 3 IUD models, a long-acting injectable contraceptive product, three major brands of condoms, and a locally produced ORS product. These products are sold through a well organized network of pharmaceutical distribution and sales outlets represented throughout the country.

Baseline market and consumer research, financed under the Population and Family Planning III project 608-0171, has provided increased knowledge of the Moroccan commercial contraceptive market and fueled policy dialogue with MOPH and private sector officials. These discussions have led to development of an initial contraceptive social marketing (CSM) program for the promotion of condom sales through the over 1500 pharmacy and medical sales outlets in Morocco. The program, managed by a private pharmaceutical distribution firm, has received the full endorsement and support of the MOPH and began a series of pre-launch promotional activities through Arabic and French language radio broadcasts in June 1989. CSM staff simultaneously programmed space in local and regional Arabic and French language newspapers and journals and began product sale in discussions with local retailers, with formal program launch scheduled for September 1989.

In addition, under a project 608-0171 financed grant, the Moroccan Family Planning Association (AMPF) has successfully implemented a community based sales program for pills and condoms in 12 provinces and prefectures, and a mobile sales and promotion program covering local "souks", expositions and festivals throughout Morocco. Approximately 200 sales agents have been trained and supplied by AMPF and are now managing local sales programs. AMPF plans to extend this program in rural areas of an additional 12 provinces over the next two years. The AMPF has placed the initial order for installation of condom vending machines, provided under a grant by UNFPA. Approximately 100 of these machines will be installed in public shopping areas and large commercial firms, and provide individually packaged condoms at 1 dirham (about \$0.12) per piece.

Based on the success of these activities and Mission policy dialogue in the sector, the MOPH has recognized the need for increased use of social marketing for the distribution and sales of contraceptive and MCH products. Increased private sector sales of oral contraceptives and ORS are of particular interest to the MOPH. Oral contraceptives are presently supplied primarily through the public sector. Of an estimated demand of 12 million cycles per year the MOPH supplies approximately 9 million. The other 3 million cycles are supplied by private companies of which the market leaders of Maphar (Wyeth), Cooper-Maroc (Organon) and Polymedic (Schering). Experience with ORS is more recent. During 1988, the MOPH distributed approximately 3.5 million sachets of ORS, and a local pharmaceutical laboratory, Cooper-Maroc, increased limited ORS production for commercial sales. The MOPH estimates, however, that demand for ORS will soon exceed 10 million sachets per year, well beyond the capacity of the MOPH ORS production unit.

While there are many possible design variations for a potential oral contraceptive (OC) sales program, the four basic alternatives presented below were examined during an April 1989 CSM assessment visit under the AID/W SOMARC II project:

- promotion of an existing oral contraceptive brand by the local importer or manufacturer;
- promotion of a new, locally-produced or imported social marketing pill brand at a low price;
- promotion of several locally available oral contraceptive brands from different manufacturers;
- promotion of a USAID-donated and potentially a locally-manufactured oral contraceptive brand.

The promotion of locally available contraceptives from different manufacturers represents the most feasible approach to providing several OCs to low-income consumers at an affordable price and to making the entire OC market more accessible to the project's target population. An IUD component could also be added, without difficulty since each of the three existing pill manufacturers also sell imported IUD products. This approach will enhance competitiveness and avoid subsidy dependence within an essentially free market framework. The approach emphasizes improved marketing and product promotion, expanded availability of rural sales outlets and lower prices to consumers through improved efficiency and reduced costs in local product production. It does not subsidize the sales price.

The project will finance technical assistance, training, commodities and local costs for market research and product promotion sales and distribution to continue implementation of the condom sales program; and design and implement social marketing sales programs for oral contraceptives, ORS and related child survival supplies. The OC sales program will be developed in line with the approach discussed above. Consultants provided under the AID/W Contraceptive Social Marketing project will work with private sector and MOPH officials to design the most appropriate approach to increase commercial sales of ORS and to determine feasibility of adding a locally produced weaning food or other MCH products under the program.

d) Employee Services

Moroccan labor statutes require employers to provide minimum levels of medical and social benefits for their employees. A limited survey of chief executive officers from 20 firms, each employing over 250 employees, was completed during the Spring of 1987. The results of this study indicated that employers favor the introduction of family planning services into their firm's health programs and that a wide range of FP and MCH services could be incorporated without difficulty. Moreover 90% of the firms surveyed provide private health insurance coverage for their employees. Community level dispensaries are also provided by some firms to serve employee dependents.

The recently completed first phase of the MOPH Health Financing Study, financed under 1986 World Bank Health Sector loan, surveyed 60 of the largest Moroccan firms to develop details concerning the magnitude and the allocation of private sector disbursements in this area. Preliminary findings of this survey indicate that among the 38 largest firms sampled, only 8 firms lack

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on-site medical programs for their employees and even these firms routinely provide, at least, minimal first aid care. Overall, disbursements cover employer contributions to social security (CNSS); the costs of private health, accident and disability insurance; factory based occupational health and medical services; and a range of other medical benefits offered by the different employers.

Integrating FP and MCH services into in-house health service programs and private insurance components as well, provides a cost effective means of making FP and MCH services available to more Moroccan employees. To date, AID has provided assistance to three Moroccan firms, representing over 35,000 employees, to develop family planning service programs. The project will finance technical assistance and related start-up financing to increase provision of FP and MCH services under employee health programs, both at the worksite and through employer financed clinics and private insurance plans, thereby transferring a portion of MOPH recurrent operating costs to the private sector. Furthermore, to increase the availability of IUD and VSC services for formal sector employees, the project will finance local technical assistance, training, initial equipment and supplies to install VSC and related family planning clinical services in the maternity units of twelve (12) CNSS polyclinics. This model may be extended to the provision of other health-care services as well.

In summary, to broaden access to FP and MCH services the project will provide assistance for expanded outreach, clinical services, social marketing and employee services. The following table shows how the \$9,600,000 programmed for this component will be distributed by activity and category of inputs. See Table C.1. of the Financial Plan for a more detailed breakout of inputs.

Broaden Access to FP and MCH Services (US\$ '000)

<u>Activity:</u>	<u>Expanded Outreach</u>	<u>Clinical Services</u>	<u>Social Marketing</u>	<u>Employee Services</u>	<u>Total</u>
<u>Inputs:</u>					
Technical Assistance	-	1,300	280	120	1,700
Commodities	2,550	200	-	180	2,930
Training	300	250	200	200	950
Construction	-	1,900	-	-	1,900
Local Cost Support	<u>950</u>	<u>-</u>	<u>1,070</u>	<u>100</u>	<u>2,120</u>
LOP Total	3,800	3,650	1,550	600	9,600

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## 2. IMPROVED PROGRAM EFFICIENCY

The implementation of an expanded; more mobile and "higher quality" VDMS program, during a period of budgetary restraint, requires greater emphasis on management and the efficient allocation of scarce public health resources. Recent improvements in data collection and analysis of social, demographic and health status characteristics of the Moroccan population has strengthened central management capacity, particularly in the area of program planning. However, the execution of the new FP and MCH strategy will require more decentralized decision-making and reliable field reporting. The second project component will help improve the efficiency of FP and MCH programs by assisting the MOPH to improve its management information system and increase operations research; to expand managerial and technical training; and to expand its information, education, and communications programs. The project will also help the MOPH respond to the new AIDS threat by strengthening its AIDS disease surveillance, monitoring and control program.

### a) Management Information System and Operations Research

In developing plans to delegate increased authority to the provincial level, the MOPH has encountered several problems. Data collection activities have been designed to address national level information requirements, with little attention to increasing the usefulness of data collected for officials at lower levels of the system. Also, to the extent that data has been available, provincial officials have lacked the analytical tools and training to apply this information in program planning and problem solving to increase program impact and effectiveness.

To enable more indepth and systematic monitoring and evaluation of the effectiveness of the revised coverage strategy, the MOPH will establish eight field research zones, chosen from current and planned VDMS provinces. These provinces will be selected to provide the most representative range of the social, cultural, ethnic, economic and geographic diversity found in areas covered under the project. Approximately 50% of these provinces will be chosen from the eight mountainous northern provinces, targeted for facilities renovation and extension support, and the numerous southern provinces, scheduled to receive photo voltaic lighting assistance under the project.

The research zones will be used for the design and execution of studies to examine provider and client issues which influence the acceptability, use, and impact of the FP and MCH services delivered under the program. Project assistance in the areas of HIS improvement and installation, operations research and other special studies will be provided primarily in these eight research zones. An illustrative list of questions to be researched is presented under Part V., Project Monitoring and Evaluation Plan.

The project will finance twenty-four (24) months of long-term and ten (10) months of short-term technical assistance to work with MOPH central and provincial level officials to assess overall management training needs; identify requirements for specialized data collection activities at local levels; and improve management effectiveness of MOPH FP and MCH service statistics and management reporting systems. The project will finance

The project will finance seven academic participants and 10 months of short-term technical assistance, plus a limited amount of short-term and third country training and invitational travel, to develop expertise in currently lacking skills areas. Given the limited availability of Moroccan instructors trained in modern health care and hospital administration, the project will finance 24 months of resident advisory services to assist in curricula development and instruction at the new management training institute (NIRTPH). The project will also procure educational materials and equipment and finance local costs for in-country technical and management training activities.

c) Information, Education and Communications

The MOPH achieved major breakthroughs in mobilizing Moroccan social and political infrastructure to participate in the highly successful national vaccination campaigns held during 1987-88 and the subsequent oral rehydration therapy promotion campaign in July and August 1988. These campaigns heightened awareness of and increased participation in MOPH outreach and facility based programs. The campaign approach, however, is costly in terms of mobilization of resources and continued use of the interventions promoted depends on their strengthened institutionalization under ongoing service programs and routine availability of effective educational and promotional materials.

During the past year, the MOPH has worked to develop an integrated communications strategy for the promotion of the Ministry's six priority prevention and service programs - vaccination, pregnancy and birth monitoring, growth monitoring and infant nutrition, family planning, ORT and tuberculosis. A national workshop, bringing together representatives from the MOPH, private sector research, advertising and creative agencies, local associations, and other government ministries, was held in June 1989 to finalize this strategy and develop plans for its nationwide implementation.

The strategy calls for continued reliance on interpersonal contact between clients and trained health personnel, supported by local auxiliary and community workers, and emphasizes the need to produce improved printed material for illiterate and semi-literate women. The availability of print materials will be closely linked to service availability. In addition, given the key role played by the fieldworker, promotion efforts to improve the credibility of the health worker will be a top priority of materials development.

Experience has shown that a single media approach, no matter how well done, has little impact. So while print materials make sense in the early stages, given the extensive outreach activity planned under the program, they must be accompanied by an effective mass media campaign. Accordingly, the strategy calls for increased emphasis in the production of high quality FP and MCH radio programming which has an entertainment value as well as an educational message.

The proposed emphasis on radio as opposed to TV reflects continuing religious and cultural sensitivities which limit the content of messages which can be

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aired on Moroccan TV. Radio has a larger and more diversified audience, more widespread than television. Produced regionally, radio favors decentralization in production of messages and programs and can reach rural audiences in several languages. In terms of cost per person reached, radio spots and programs are much less expensive than television, and even print materials. Also, for a relatively small investment, the Ministry can produce the bulk of unedited program content, with final editing and production completed in existing commercial or public facilities. Similarly, production can be "portable" requiring little more than a good microphone and tape recorder to collect and test local level content and receive instant feedback.

Even though radio is more important, the strategy also recommends that the MOPH seek to exploit the two Moroccan TV channels, whose impact can be measured and messages periodically revised. Most importantly, the strategy recommends the development of an effective, ongoing evaluation and tracking system to enable systematic review of the impact of IEC materials and media expenditures and more efficient allocation of resources for FP and MCH promotion activities.

To support the MOPH's new IEC strategy, the project will provide short-term technical assistance and finance production of printed materials; radio and TV programming and diffusion; the IEC activities of non government organizations, such as the Moroccan Family Planning Association (AMPF); and research, tracking, and evaluation of IEC activities.

d) AIDS Disease Prevention and Control

It is anticipated that Morocco like many other countries will be exposed to risks of STD infections due to increased international travel e.g., tourism, overseas workers etc. While the known prevalence of AIDS is still quite low, the potential for the spread of this and other infectious diseases remains a potential threat. The MOPH reports 75 cases of HIV 1 infection (and more of HIV 2) detected as of July 17, 1989, with 20 deaths among the 33 AIDS disease cases reported. Of those detected with HIV, 81 percent were men with 76 percent of the cases belonging to "high risk" groups. The average age is 30 with the following distribution among modes of transmission: homosexual (27%); heterosexuals (6%); blood transfusion (15%); IV drug (30%); homosexual and drug (9%); perinatal (9%); and unknown (4%). There is a need to develop greater capacity within the MOPH to track infectious diseases in general and especially AIDS and AIDS related disease, and to take the lead in coordinating with other governmental agencies and non-profit organizations to prevent its spread, particularly among high risk groups.

In December 1986, the GOM set up the Comité National de Lutte contre le Sida (CNLS). The strategy for a national program was elaborated by the CNLS and implemented under the National Program. In active collaboration with the Committee this program has the following main objectives:

- Information and sensitization of the Moroccan population in the area of prevention;

- Information, education and training of health workers;
- Involvement of other ministries, particularly Interior, National Education, Information and Justice;
- Epidemiologic surveillance;
- Screening of donated blood;
- Provision of medical support for AIDS patients and asymptomatic patients.

Based on discussions with the MOPH and a local NGO, the Association de Lutte Contre Le Sida (ALCS), and a review of findings from USAID financed assessment visits made under AIDS COMM and AIDSTECH, the project assistance will focus on the following areas:

- Improving the quality of epidemiological information on the incidence of AIDS and other STDs;
- Gaining better understanding of the attitudes and practices of high risk populations as a means of developing counseling, educational and instruction materials to reduce the risks of HIV transmission among these groups;
- Taking actions to safeguard the national blood supply and transfusion network to reduce risks of secondary HIV transmission in medical facilities;
- Developing informational materials to increase public awareness of HIV infection and suggested preventive measures; and
- Improving MOPH diagnostic capabilities for HIV infection and other STDs.

The project will provide technical assistance and finances the following:

**Epidemiology** - Sero-epidemiologic studies aimed mainly at establishing the prevalence of the disease; the procurement of testing equipment for laboratories, including basic laboratory equipment and supplies; and improved STD surveillance activities at family planning reference centers and lower level service sites.

**Communication** - Information campaigns designed for different population groups; the production of didactic materials to be used during information campaigns and for the training of public sector employees; and studies and opinion surveys.

**Training** - Technical training sessions abroad for university medical staff; training sessions for hospital paramedical staff and laboratories staff; training sessions for the staff of the Ministries of Tourism, Justice and Interior in the areas of information, prevention and behavior; and MOPH physicians and nurse master trainer programs in improved identification, diagnosis and management of STD with associated laboratory clinical practicum.

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costs for the execution of planned studies. Approximately 7 months of the planned technical assistance will be provided by a senior health policy expert through a series of periodic visits during the first two years of the project. The remaining two months will finance assistance in specific areas of expertise. The project will also provide \$80,000 to finance in-country and short-term U.S. training in health financing.

The project provides \$120,000 to finance a local-hire PSC for a two year period. This contractor will assist the GOM in the day to day monitoring and coordination of implementation activities scheduled under the Health Financing component.

b) Cost Recovery

Recently, the GOM has taken steps to restructure management of MOPH hospitals, focusing on improvements in quality and operational efficiency and increased cost recovery. In the aggregate, cost recovery at the hospital level, all facilities, increased from 3.7% in 1980 to 7.8% in 1987, and from 4.5% to 10.8% at the two university teaching hospitals (CHU). During 1988 the two CHUs were granted limited autonomy in the management of non-personnel operating costs and authority to develop fee schedules, collect fees and retain these revenues for local operating expenses. This decentralization of hospital management has resulted in substantial increases in fees collected by these facilities, leading to the extension of this program to 9 regional hospitals in 1989.

As a first step in developing plans for more intensive cost recovery at the regional level, the MOPH has launched an indepth study of hospital management. Funded under the World Bank, Basic Health Services loan, the study compiled detailed information on the management and operation of 5 MOPH hospitals and is currently preparing recommendations covering specific management efficiency, quality enhancement and reform measures required to improve operation of these facilities. Although overall operating costs have been tabulated for the concerned facilities, the classification of costs by functional centers and development of efficiency and or productivity criteria for diagnostic and service programs are not included under the terms of reference for this study.

Detailed information on the structure of hospital costs is a necessary precondition for the development of fee schedules for partial and full cost recovery. Accordingly, the project will assist in design and application of a methodology enabling the MOPH to (i) identify actual costs for diagnostic, auxiliary and clinical services; (ii) carry out periodic efficiency and productivity analyses to assess the ongoing validity of these costs; and (iii) institute fees and collection procedures to increase cost recovery among clients with the ability to pay for their care.

The methodology will be developed and tested at the Mohamed V Regional Hospital in Meknes and the Mohamed V District Hospital in Hay Mohammadi, Casablanca--both located in the central-northwest regions which comprise over 70% of public and private sector hospital beds and physician services, and in the Hassan II Regional Hospital in Agadir--located in the predominately rural

southern region which currently has the lowest ratio of hospital beds and physician specialists. Each of these hospitals is included in the World Bank study and should benefit from planned management system and quality improvements to be implemented during the final phase of the study.

The planned methodology will produce the following information:

- detailed presentation of existing cost centers and actual cost experience for specific diagnostic, auxiliary and clinical services;
- standardized accounting formats to monitor revenues and costs at the functional center and unit of service level;
- software and related documentation for the integration of revenue and cost data in the hospital management information system;
- efficiency and productivity criteria for use in updating actual costs and identifying areas of system improvement; and
- budget preparation procedures, including techniques to forecast revenues and project costs by functional centers.

Costs per procedure within cost centers can be used as a basis for pricing services. However, the development of actual fee schedules and pricing policies will also require information relating to the demand anticipated within the catchment area and a more detailed profile of this consumer base. The project will provide \$70,000 per facility to complete required consumer studies; procure microcomputer, software and peripherals; train staff; and purchase necessary materials and supplies. The project will also provide an additional \$90,000 to finance six (6) months of short-term U.S. technical assistance.

c) Expansion of Private Health Insurance Coverage

Under this activity, the project will evaluate current constraints to insurance expansion and assess prospects for health maintenance programs and alternative private health delivery systems. While third-party insurance coverage is an important component of the Moroccan health care market, only 13% of the population is covered by private health insurance and an additional 8-10% under government "mutuelles" or company self-insurance plans. Thus, some 4 million Moroccan employees and dependents benefit from some form of third party reimbursement for their health care expenses. There are 21 private insurance companies, all Moroccan, of which 3 or 4 dominate with roughly 80% of the market. Most of the insurance policies written are group policies for workers in large private enterprises. Individual policies, while available, tend to be very expensive relative to group policies, in part because of the administrative costs of collection of premiums, and the practice of many individuals to "self-insure" if they do not have histories of extensive health care utilization.

Given the abundant supply of doctors and the magnitude of private funds spent on health care, approximately 50% of reported expenditures in the sector, it is surprising that there is not more activity in the private health insurance arena. In fact, the industry appears to have stabilized, with coverage rates remaining relatively constant during the past several years. Analysis of available data points to structural and institutional impediments to more robust insurance growth. Among the factors which seemingly impede further expansion of private health insurance coverage are: legal--regulatory statutes hinder development of physician group practices; access to capital--bank credit is tight and capital markets underdeveloped; large informal economy--inefficient premium collection systems; lack of information--actuarial experience unknown or changing rapidly; insufficient return on investment; and complex legal restrictions open to interpretation, with penalties for misinterpretation.

Still, under the appropriate conditions, expansion of health insurance represents a viable option to increase private funding for health services. To stimulate further local or international investment in this regard, the project will finance a detailed feasibility study to compile both descriptive and analytical data on the risks associated with expansion of private health insurance, under a variety of options, to a given population. The study will focus on a specific geographic or "catchment" service area, to assure maximum practical value in subsequent development of investment and business plans.

Beginning with the development of preliminary criteria to identify new target populations that can be enrolled in group plans, the project will finance studies of actuarial considerations, premium levels, co-payments, utilization and provider arrangements, etc. to enable development of financial projections which would indicate the attractiveness of various plans to potential investors. The potential audience for this information includes a) banks and insurance companies interested in further investment in private health insurance; b) private physicians or owners of large private clinics interested in developing group practices which can offer care on a capitated, prepaid basis; c) commercial or industrial firms with large numbers of employees and possibly existing self-financed health programs who want to consider the option of premium-based systems which shares the risks among clients and providers.

Although greater health insurance coverage may be possible by simply expanding the market through existing channels, another option would entail the development of health maintenance organizations (HMO) or other managed care arrangements. These programs have proven more effective in reducing unnecessary and inappropriate use of health services and, thereby, controlling costs. However, rather than undertaking a separate study of this option, since a feasibility study for an HMO includes almost all of the elements of a feasibility study for expansion of private health insurance, a "dual track" approach will be followed. In addition, the study will examine the feasibility of expanding the market to include catastrophic care among the range of insurance products available in the sector.

The feasibility study will include the following elements:

- legal restrictions and requirements
- demand in the local service area
- provider attitudes
- community commitment
- an inventory of providers and facilities
- current utilization of health providers and facilities
- cost of health care services provided: hospitalization charges, doctor visits, diagnostic tests, special procedures, pharmaceuticals, etc.
- size of target population
- nature and cost of existing health insurance plans
- capital requirements
- investment alternatives and returns for premiums collected
- access to public hospital equipment and technology by private health providers

The MOPH, in conjunction with an interdisciplinary advisory committee, will assure overall coordination in the execution of the various elements of the feasibility study. Scopes of work for the feasibility study will be prepared under an IQC or "buy-in" mechanism. The project will provide \$300,000 for services under the primary health financing contract for local accounting, management and research firms and individual consultants to complete the above analyses. An additional \$75,000 will be provided for 5 months of short-term U.S. technical assistance to assist in the design, contracting, monitoring and analysis of the individual studies noted above and development of business plans for use in generating concrete investment proposals.

d) Community Services

The project will explore GOM plans to mobilize local resources at the community level and collect additional data on utilization and demand for health services in rural communities. The focus of this effort will be local governing boards (collectivités locales) which are to receive 30% of the value-added tax (TVA) now levied on most sales for use in elaborating local development programs and infrastructure. Furthermore, local governments have been delegated authority to assess user fees for the various social services provided by community agencies. Given the claims on these limited funds, a deeper look at the potential involvement of communities in provision and financing of health services is required.

On an individual basis and in certain provinces, communities are providing facilities, fuel and some other support for health services, including visits of mobile teams, point-of-contact, the vaccination campaign and follow-on vaccination sessions. These efforts need to be expanded to go beyond what is often personal largesse to include community-wide and agreed upon contributions to key services. Research regarding the potential for and interest in such a process, be it through, in collaboration with or separate from the local government structure, could provide a basis for planned USAID-GOM collaboration on a larger scale, i.e. through the Health Financing Project FY 91.

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### III. COST ESTIMATES AND FINANCIAL PLAN

#### A. Overview

The total project cost is estimated to be \$109,000,000. AID financed inputs total \$31 million in grant funding. The Mission will obligate \$19,000,000 of this amount under a Grant to the GOM Ministry of Public Health, with the remaining \$12,500,000 obligated by AID/W for the central procurement of contraceptives for the Morocco program. These funds will be obligated over a six year period, starting with \$4,400,000 in FY 1989. The estimated GOM contribution of approximately \$78,000,000 represents the cost of salaries for project personnel; local operating costs for supplies, staff travel and allowances; and international air tickets for project participants.

#### B. Summary Budget

The AID financed project costs are provided under standard AID expenditures categories, i.e. technical assistance, training, commodities, construction and local costs.

##### Technical Assistance (\$3,240,000)

The project's emphasis on improved service quality and program efficiency, as well as the additional AIDS prevention and control and health financing activities, will require substantial technical support. USAID and MOH experience and in-house capacity in some of these areas, particularly AIDS and health financing, is limited. Accordingly, the project will finance 180 months of short- and long-term U.S. technical assistance, including seven person years of long term resident advisory services.

Technical assistance costs were calculated based on standard costs figures compiled by the USAID Controller's office for use in developing budgets for USAID funded contracts for short-term (IQCs, institutional contracts and PSCs) and long-term TA (institutional contracts, U.S. and local-hire PSCs).

##### Training (\$2,730,000)

Several of the activities under this project will require skills which currently do not exist or which are in limited supply in Morocco. Therefore, the project will finance seven long term academic participants, approximately sixty short-term U.S. and third country training programs, and a limited number of invitational study programs. The project will also finance approximately 45,000 training days which will include: specialized in-country management, clinical update and refresher training, and workshops and seminars to support specific elements of the project.

Funding requirements to cover the cost of in-country, academic and short-term training scheduled under the project were developed based on average costs per in-country training day carried out under Project 0171 and standard calculations used in programming short-term and academic participants under the USAID Sector Support Training Project (0178). In line with Mission practices, estimates for short-term U.S. and academic participants are adjusted to include annual inflation of approximately 6.5%.

Commodities (\$16,240,000)

Funding for the procurement of required commodity support represents the largest project cost category. AID/W will be provided with \$12,000,000 for central procurement of contraceptive commodities for the Morocco program. The project will also finance procurement of motorbikes and vehicles to increase fieldworker mobility, equipment and supplies for rural FP and MCH outreach service program, laboratory and medical equipment for clinical facilities and surveillance programs, microcomputers and software, and training material and supplies for planned IEC activities.

A list of all equipment and materials, including the approximately \$12,000,000 in centrally procured contraceptive commodities, is provided under Annex E, Administrative Analysis. Cost estimates for these commodities were developed using the UNICEF 1989 UNIPAC catalogue, estimates prepared by USAID contractors and U.S. suppliers and local procurement experience under project 0171. Projected contraceptive procurement requirements were developed, in February 1989, by technical staff under the AID/W Family Planning Logistics Management Contract. Overall contraceptive product costs were calculated based on worldwide guidance transmitted under State 065342.

Local Costs (\$4,860,000)

The project will continue local cost support to strengthen and expand MOPH FP and MCH outreach services, VSC programs and implementation of ongoing data collection, special studies and IEC activities. In addition, the project will finance a portion of initial start up and operating costs for the private sector commercial sales and employee service programs. The costs of local technical assistance and studies associated with the implementation of health financing activities will also be covered. Cost estimates for recurrent operating costs, materials production, data collection, studies and related local costs are based on Mission and MOPH experience under Project 0171.

Construction (\$1,900,000)

The project will finance the renovation, construction, and or upgrading of thirty-four rural health facilities and twelve family planning reference centers. The installation of photovoltaic lighting systems in seventy rural health facilities will also be covered. Estimated construction costs were prepared by USAID architectural and engineering contractors and are based on prevailing costs per square meter of work and include estimated physical contingencies at approximately 15%. Additional details are provided under Annex E, Administrative Analysis. These estimates will be further refined following final USAID approval of specific facilities to be renovated, expanded or repaired under the project.

Other Costs (\$2,030,000)

The project includes \$500,000 for USAID monitoring and evaluation costs and an additional \$1,530,000 in contingency, to cover increased costs due to U.S. and or local inflation, at approximately 4.7% of non-contraceptive costs, along with approximately 4% for unforeseen project requirements.

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A summary of costs (\$000) by project subcomponent is presented below.

<b>I. Broadened Access to FP/MCH Services</b>		<b>9600</b>
A. Expanded Outreach	3800	
B. Clinical Services	3650	
C. Social Marketing	1550	
D. Employee Service Programs	600	
<b>II. Improved Program Efficiency</b>		<b>6050</b>
A. MIS and Operations Research	1130	
B. Management and Technical Training	2250	
C. Information, Education and Communications	920	
D. AIDS Prevention and Control	1750	
<b>III. Health Sector Financing</b>		<b>1320</b>
A. Health Policy Reform	455	
B. Hospital Cost Recovery	300	
C. Private Insurance Expansion	375	
D. Co-financing of Communities Services	190	
<b>IV. Project Monitoring and Evaluation</b>		<b>500</b>
A. Monitoring	200	
B. Evaluation and Financial Review	300	
Sub-total of Project Activities		<u>17470</u>
<b>V. Contingency (approx. 9% of non-contraceptive costs)</b>		<b>1530</b>
<b>VI. AID/W Procured Contraceptive Commodities</b>		<u><b>12000</b></u>
<b>PROJECT TOTAL</b>		<b>31000</b>

C. Financial Plan

The Project Financial Plan is illustrated in tables C.1 through C.5. A breakdown of foreign exchange and local currency costs are contained in table C.6.

Table C.1  
Financial Plan by Project Sub-Activity  
(\$000)

<b>I. Broadened Access to FP and MCH Services</b>		<b>9600</b>
<b>A. Expanded Outreach</b>		<b>3800</b>
1. 400 motorbikes	400	
2. 40 all terrain vehicles	1000	
3. equipment for 3000 service sites(PC)	400	
4. supply kits for 1500 fieldworkers	450	
5. technical equipment for mobile teams	50	
6. administrative supplies	250	
7. staff technical/refresher training	300	
8. fieldworker mobility	950	
<b>B. Clinical Services</b>		<b>3650</b>
1. facilities upgrade or remodelling	1500	
2. solar electrification systems	100	
3. VSC services	150	
4. pharmaceutical supplies	200	
5. physician and nurse training	250	
<b>C. Social Marketing</b>		<b>1550</b>
1. 24 mo.s short-term TA	280	
2. local TA and admin. support	220	
3. market research	250	
4. product promotion	400	
5. sales and distribution	200	
6. technical training	200	
<b>D. Employee Service Programs</b>		<b>600</b>
1. 10 mo.s short-term TA	120	
2. equipment and supplies	180	
3. clinical training	200	
4. seminars, studies and local costs	100	
<b>II. Increased Program Efficiency</b>		<b>6050</b>
<b>A. MIS and Operations Research</b>		<b>1130</b>
1. 24 mo.s long-term TA	310	
2. 10 mo.s short-term TA	120	
3. OR and special studies	180	
4. 1991 DHS	150	
5. data processing equipment	100	
6. printing and forms for MIS	270	

<b>B. Management and Technical Training</b>		<b>2250</b>
1. 24 mo.s long-term TA	300	
2. 7 academic participants	350	
3. 10 mo.s short-term TA	120	
4. ST training and invitational travel	180	
5. in-country training	900	
6. training materials and equipment	400	
<b>C. Information, Education and Communications</b>		<b>920</b>
1. 5 mo.s short-term TA	60	
2. production of printed materials	300	
3. radio & TV programing and diffusion	210	
4. IRC activities w/non-gov't assoc.s	200	
5. research, tracking and evaluation	150	
<b>D. AIDS Prevention and Control</b>		<b>1750</b>
1. 15 mo.s short-term TA	180	
2. epidemiological/behavioral studies	150	
3. laboratory equipment and supplies	750	
4. production of educational materials	400	
5. in-country training and seminars	270	
<b>III. Health Sector Financing</b>		<b>1320</b>
<b>A. Health Policy Reform</b>		<b>455</b>
1. 24 mo.s local-hire PSC	120	
2. 9 mo.s short-term TA	135	
3. training and invitational travel	80	
4. local seminars and studies	120	
<b>B. Hospital Cost Recovery</b>		<b>300</b>
1. 6 mo.s short-term TA	90	
2. equipment and supplies	60	
3. local seminars and studies	150	
<b>C. Private Insurance Expansion</b>		<b>375</b>
1. 5 mo.s short-term TA	75	
2. local seminars and studies	300	
<b>D. Co-financing of Communities Services</b>		<b>190</b>
1. 2 mo.s short-term TA	30	
2. seminars, studies and local costs	160	
<b>IV. Project Monitoring and Evaluation</b>		<b>500</b>
<b>A. Monitoring</b>		<b>200</b>
1. 12 mo.s long-term advisor (TACS)	200	
<b>B. Evaluation</b>		<b>300</b>
1. financial reviews	60	
2. mid-term and final evaluations	240	
	Sub-total of Project Activities	<u>17470</u>
<b>V. Contingency (approx. 9% of non-contraceptive costs)</b>		1530
<b>VI. AID/W Procured Contraceptive Commodities</b>		<u>12000</u>
<b>PROJECT TOTAL</b>		<u>31000</u>

**Table C.3**  
**Component No. 1: Broadened Access to FP/MCH Services**  
(\$000)

<u>Activity</u>	<u>FY: 1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>Total</u>
<b>A. Expanded Outreach Coverage</b>	<u>400</u>	<u>1130</u>	<u>870</u>	<u>430</u>	<u>520</u>	<u>170</u>	<u>280</u>	<u>3800</u>
1. 400 motorbikes	400	-	-	-	-	-	-	400
2. 40 all terrain vehicles	-	400	300	-	200	-	100	1000
3. equipment for 3000 service sites(PC)	-	150	100	100	-	-	50	400
4. supply kits for 1500 fieldworkers	-	110	100	-	80	100	60	450
5. technical equipment for mobile teams	-	50	-	-	-	-	-	50
6. administrative supplies	-	80	-	100	-	-	70	250
7. staff technical/refresher training	-	70	100	30	100	-	-	300
8. fieldworker mobility	-	270	270	200	140	70	-	950
<b>B. Clinical Services</b>	<u>410</u>	<u>440</u>	<u>610</u>	<u>800</u>	<u>660</u>	<u>580</u>	<u>150</u>	<u>3650</u>
1. facilities upgrade/remodelling	80	-	240	400	410	370	-	1500
2. solar electrification systems	30	170	100	50	-	-	50	400
3. VSC services	150	270	270	250	150	110	100	1300
4. pharmaceutical supplies	-	-	-	100	-	100	-	200
5. physician and nurse training	150	-	-	-	100	-	-	250
<b>C. Social Marketing</b>	<u>170</u>	<u>200</u>	<u>270</u>	<u>360</u>	<u>360</u>	<u>150</u>	<u>40</u>	<u>1550</u>
1. 24 mo.s short-term TA	120	-	80	80	-	-	-	280
2. local TA and admin. support	50	50	40	30	30	20	-	220
3. market research	-	50	50	50	50	50	-	250
4. product promotion	-	100	-	100	100	60	40	400
5. sales and distribution	-	-	50	50	80	20	-	200
6. technical training	-	-	50	50	100	-	-	200
<b>D. Employee Service Programs</b>	<u>-</u>	<u>170</u>	<u>30</u>	<u>280</u>	<u>-</u>	<u>90</u>	<u>30</u>	<u>600</u>
1. 10 mo.s short-term TA	-	-	30	90	-	-	-	120
2. equipment and shipping	-	100	-	80	-	-	-	180
3. clinical training	-	50	-	80	-	40	30	200
4. seminars, studies and local costs	-	20	-	30	-	50	-	100
<b>Total Project Component No. 1</b>	<u>980</u>	<u>1940</u>	<u>1780</u>	<u>1870</u>	<u>1540</u>	<u>990</u>	<u>500</u>	<u>9600</u>

**Table C.4**  
**Component No. 2: Increased Program Efficiency**  
**(\$000)**

<u>Activity</u>	<u>Fy: 1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>Total</u>
<b>A. MIS and Operations Research</b>	<u>50</u>	<u>240</u>	<u>300</u>	<u>170</u>	<u>210</u>	<u>130</u>	<u>30</u>	<u>1130</u>
1. 24 mo.s long-term TA	50	120	100	40	-	-	-	310
2. 10 mo.s short-term TA	-	-	50	-	40	30	-	120
3. OR and special studies	-	-	20	60	100	-	-	180
4. 1991 DHS	-	120	30	-	-	-	-	150
5. data processing equipment	-	-	100	-	-	-	-	100
6. printing	-	-	-	70	70	100	30	270
<b>B. Management and Technical Training</b>	<u>-</u>	<u>240</u>	<u>370</u>	<u>320</u>	<u>690</u>	<u>450</u>	<u>180</u>	<u>2250</u>
1. 24 mo.s long-term TA	-	100	130	70	-	-	-	300
2. 7 academic participants	-	-	-	-	350	-	-	350
3. 10 mo.s short-term TA	-	-	-	60	40	20	-	120
4. SI training and invitational travel	-	-	30	50	50	50	-	180
5. in-country training	-	40	110	140	250	250	110	900
6. training materials and equipment	-	100	100	-	-	130	70	400
<b>C. Information, Education and Communications</b>	<u>-</u>	<u>50</u>	<u>180</u>	<u>230</u>	<u>200</u>	<u>260</u>	<u>-</u>	<u>920</u>
1. 5 mo.s short-term TA	-	-	30	30	-	-	-	60
2. production of printed materials	-	50	50	50	50	100	-	300
3. radio & TV programing and diffusion	-	-	50	50	50	60	-	210
4. IEC activities w/non-gov't assoc.s	-	-	50	50	50	50	-	200
5. research, tracking and evaluation	-	-	-	50	50	50	-	150
<b>D. AIDS Prevention and Control</b>	<u>270</u>	<u>240</u>	<u>400</u>	<u>360</u>	<u>240</u>	<u>240</u>	<u>-</u>	<u>1750</u>
1. 15 mo.s short-term TA	-	40	60	60	20	-	-	180
2. epidemiological/behavioral studies	-	70	50	30	-	-	-	150
3. laboratory equipment and supplies	250	100	130	120	120	30	-	750
4. production of educational materials	20	-	80	100	50	150	-	400
5. in-country training and workshops	-	30	80	50	50	50	-	310

**Table C.5**  
**Component No. 3: Health Sector Financing**  
**(\$000)**

<u>Activity</u>	<u>Fy:</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>Total</u>
<b>A. Health Policy Reform</b>		<u>315</u>	<u>100</u>	<u>40</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>455</u>
1. 24 mo.s local-hire PSC		60	60	-	-	-	-	-	120
2. 9 mo.s short-term TA		135	-	-	-	-	-	-	135
3. in-country and short-term training		20	40	20	-	-	-	-	80
4. local seminars and studies		100	-	20	-	-	-	-	120
<b>B. Hospital Cost Recovery</b>		<u>300</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>300</u>
1. 6 mo.s short-term TA		90	-	-	-	-	-	-	90
2. equipment and supplies		60	-	-	-	-	-	-	60
3. local seminars and studies		150	-	-	-	-	-	-	150
<b>C. Private Insurance Expansion</b>		<u>335</u>	<u>40</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>375</u>
1. 5 mo.s short-term TA		75	-	-	-	-	-	-	75
2. local seminars and studies		260	40	-	-	-	-	-	300
<b>D. Co-financing of Communities Services</b>		<u>50</u>	<u>50</u>	<u>90</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>190</u>
1. 2 mo.s short-term TA		-	30	-	-	-	-	-	30
2. seminars, studies and local costs		50	20	90	-	-	-	-	160
<b>Total Project Component No. 3</b>		<u>1000</u>	<u>190</u>	<u>130</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1320</u>
<b>RELATED PROJECT COSTS</b>									
<b>A. Project Monitoring and Evaluation</b>		100	100	40	100	60	-	100	500
<b>B. Contingency</b>		-	-	-	150	260	330	790	1530
<b>C. AID/W Procured Contraceptives</b>		<u>2000</u>	<u>2000</u>	<u>1800</u>	<u>1800</u>	<u>1800</u>	<u>2600</u>	<u>-</u>	<u>12000</u>
<b>TOTAL PROJECT OBLIGATION</b>		4400	5000	5000	5000	5000	5000	1600	31000

**Table C.6**  
**POPULATION AND CHILD SURVIVAL IV Project No. 608-0198**  
**Source and Uses of Funds by Project Component**  
**(\$000)**

<u>Use of Funding</u>	<u>Source of Funding:</u>		<u>Host Gov't</u>		<u>Project Total</u>
	<u>AID</u>		<u>U.S.</u>	<u>DHS</u>	
<b>I. <u>BROADENED ACCESS TO FP/MCH SERVICES</u></b>	3215	6385	-	62110	71710
A. Expanded Outreach Coverage	(1400)	(2400)			
B. Clinical Services	(1235)	(2415)			
C. Social Marketing	(280)	(1270)			
D. Employee Service Programs	(300)	(300)			
<b>II. <u>IMPROVED PROGRAM EFFICIENCY</u></b>	2720	3330	-	13985	20035
A. MIS and Operations Research	(370)	(760)			
B. Management and Technical Training	(1000)	(1250)			
C. IEC	(170)	(750)			
D. AIDS Prevention and Control	(1180)	(570)			
<b>III. <u>HEALTH SECTOR FINANCING</u></b>	480	840	-	1270	2590
A. Health Policy Reform	(255)	(200)			
B. Hospital Cost Recovery	(120)	(180)			
C. Private Insurance Expansion	(75)	(300)			
D. Co-financing of Health Services	(30)	(180)			
<b>IV. <u>MONITORING, EVALUATION AND CONTINGENCY</u></b>	820	1210	-	635	2665
A. Project Monitoring and Evaluation	(440)	(60)			
B. Contingency	(380)	(1150)			
<b>V. <u>AID/W Procured Contraceptives</u></b>	<u>12000</u>	-	-	-	<u>12000</u>
<b>TOTAL PROJECT COSTS</b>	19235	11765	-	78000	109000

D. Methods of Implementation and Financing

<u>Methods of Implementation</u>	<u>Methods of Financing</u>	<u>Approximate Amount (\$000)</u>
<b>1. <u>Technical Assistance</u></b>		<b>\$3740</b>
a) AID Direct Contracts (operations research, data analysis, management and professional training, health financing, audit and evaluation)	Direct payment	1190
b) IQCs/IPAs (health financing and project monitoring)	Direct payment	290
c) AID Central Contracts (social marketing and employee services, professional training and voluntary surgical contraception Family Planning IEC, AIDS communications and technical support)	Direct payment	2260
<b>2. <u>Commodities</u></b>		<b>16240</b>
a) AID procurement (contraceptives - reallocation transfer)	Direct payment (by AID/W)	12000
b) Host Country Procurement (vehicles, medical supplies and equipment, educational and production materials, administrative supplies and printed materials).	Direct L/Comm and direct payment	2510
c) Contractor Procurement under buy-ins to central project contracts (clinical, laboratory and screening equipment, pharmaceuticals, micro-computers, training materials, audio equipment)	Direct payment (by AID/W)	1730
<b>3. <u>Training</u></b>		<b>2730</b>
PIO/PS and invitational travel	Direct payment	2730

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<b>4. <u>Local Costs</u></b>		<b>4860</b>
a) Host Country contracts (fieldworker travel allowances, training, IEC, data collection and studies, operations research, seminars)	Direct payment	3550
b) AID contracts or grants to local institutions (private insurance and health sector reform)	Direct payment	1310
<b>5. <u>Construction</u></b>		<b>1900</b>
a) AID direct contracts (A&E studies, photovoltaic materials)	Direct payment	480
b) Host Country contracts (A&E design and supervision, construction)	Direct L/Comm	1420
<b>6. <u>Contingency Funds</u></b>	To be programmed as appropriate.	<b>1530</b>
<b>Total</b>		<b><u>\$31000</u></b>

USAID management of project construction activities will be coordinated with a USDH civil engineer in the Office of Project Development and Private Enterprise.

USAID's role in the monitoring and certification of construction activities will consist of: 1) the review and approval of tender documents; cost estimates; design plans and specifications; and the A and E and construction contracts, 2) the review of vouchers and periodic monitoring of invoices by the project manager in conjunction with the USAID engineer to certify the appropriateness of making payments. In order to ensure that A.I.D. funds are being used appropriately the monitoring will involve occasional on-site inspection by the USAID engineer. In connection with requests for payment to the construction contractor(s), the A and E firm will certify that the construction is in accordance with specifications and GOM standards. This certification will be verified by the USAID engineer.

The USAID Mission is able to provide the necessary support services for proposed direct contractors, management of U.S. and third country short term and academic training, and overseas procurement activities planned under the project. Given its previous experience with AID's procurement procedures, the MOPH will maintain primary responsibility for the procurement of locally available supplies, services and equipment.

#### B. Procurement Plan

Commodities and services financed under the project, except 400 heavy duty motorbikes and 40 all-terrain vehicles, will be procured from suppliers in the cooperating country or in the U.S., using established A.I.D. procurement procedures. The 400 motorbikes will be procured from Japanese sources, under a host country contract with the Yamaha Motors Company. The 40 all-terrain vehicles, assembled in Morocco with over 50% componentry from France, Japan or Great Britain, will be procured through local Moroccan sources. Waivers of A.I.D. source and origin requirements to permit Code 935 procurement of these motorbikes, vehicles and related spare parts have been obtained and are included under Annex J of this Project Paper. A summary of procurement actions scheduled under the project is presented in the following sections.

1. Commodities - According to current projections, the general equipment and commodity list included under Annex E, Administrative Analysis, will be procured with project funds. Refinements of this list may result in minor shifts or substitutions from one commodity to another but the estimated \$16,240,000 programmed for commodity procurement will remain relatively unchanged. More precise details and specifications, for both local and international procurement, will be developed by the MOPH, in conjunction with contracted technical advisors, during the implementation of the project.

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To reduce the management burden on USAID staff, however, the bulk of project procurement activities, with the exception of AID/W central procurement of the program's contraceptive requirements, will be carried out by the host country or under project technical assistance contracts, as detailed below.

a. Host Country Procurement

Based on GOM performance during the implementation of Project 0171, USAID has determined that the MOPH has the capacity to carry out the host country procurement of commodities and services scheduled under the project. The following procurement actions will be carried out using GOM procurement methods, as modified by Handbook 11 requirements, including advertising and competitive bids, with review and approval of procurement documents by USAID.

- (i) Project vehicles: 400 motorbikes and 40 all-terrain vehicles.
- (ii) Technical Materials: Equipment and supplies for 3000 community service sites; 1500 VDMS fieldworkers; and 40 mobile service units.
- (iii) IEC Production: Audio-visual equipment and supplies.
- (iv) Administrative Support: Administrative supplies, printing and educational materials.

b. Procurement by Technical Contractors

Several organizations will provide technical assistance in the implementation of the project under buy-ins to AID central project contracts or grants. The remaining technical assistance requirements will be provided under a USAID-direct training and technical assistance (T/TA) contract and a health financing contract. These grantees and contractors will carry out all U.S. based procurement of equipment and supplies linked with the technical services provided under their contracts or grants. The following procurement actions will be carried out by project technical contractors or grantees.

- (i) The John Hopkins Program of International Education in Gynecology and Obstetrics (JHPIEGO): 25 laproscopic surgery kits; 50 diagnostic microscopes, slides and related STD screening materials for MOPH FP Reference Centers and university teaching hospitals in Rabat and Casablanca; antibiotics and pharmaceutical supplies for treatment of vaginal infections and STDs; and assorted clinical teaching aids.
- (ii) The Association for Voluntary Surgical Contraception (AVSC): 35 sets of Category A surgical equipment and supplies and 15 sets of Category B equipment. (See equipment list in Administrative Analysis).

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(iii) Family Health International (FHI-AIDSTECH): Equipment and related reagents and supplies for HIV screening and confirmation of positive samples at 20 provincial blood banks and six diagnostic laboratories.

(iv) USAID-direct T/TA Contract: 18 microcomputers, software and related peripherals (MOPH provincial research zones-8, Health Information and Statistics Service-2, Continuing Education Service-1, Management Training Institute-4, and cost recovery hospitals-3); and educational materials and equipment.

c. AID/W Central Contraceptive Procurement

An estimated \$12,000,000 in project funding will be reallocated to the Science and Technology Bureau, Office of Population (S&T/POP) for AID/W central procurement of the following contraceptive commodities for the Morocco program: approximately 65 million cycles of oral contraceptives; 380,000 IUDs; and 21 million condoms.

2. Professional and Technical Services - The project will finance 180 months of short- and long-term U.S. technical assistance, including seven person years of long term resident advisory services to support implementation of specific element of the three project components. In accordance with recommendations contained in the Mid-Term Evaluation of the Population and Family Planning Support III Project (O171), a portion of this assistance will be used to provide greater staff depth, within USAID, in areas requiring specific technical competence, i.e. clinical training and service delivery.

The following paragraphs explain how the technical assistance to be provided for each project component will be procured.

a. Broadened Access to FP and MCH Services:

Technical assistance requirements for this component will require five contracting actions through project financed buy-ins under AID/W central project contracts. First, the project will continue technical assistance in female reproductive health training, under the Instruction and Education in Gynecology and Obstetrics Project, through a buy-in to the AID/W John Hopkins University (JHPIEGO). JHPIEGO will provide support for the execution of in-country and short-term U.S. training of trainers programs for physicians, nurses and technical staff.

Second, a closely linked with assistance provided by JHPIEGO is support planned through a buy-in under the AID/W Cooperative Agreement with the Association of Voluntary Surgical Contraception (AVSC). AVSC will assist the MOPH in improving technical monitoring and direction of the Ministry's VSC program and expansion of this program to additional service sites.

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Third, the project will finance a buy-in under the AID/W AIDSTECH project contract with Family Health International (FHI) to assist the MOPH in developing programs for improved screening, diagnosis and management of AIDS cases. FHI will focus specific attention on the continuing medical education needs of physicians and related health personnel, and the development of protocols regarding treatment, counseling, and confidentiality.

Fourth, USAID technical direction of JHPIEGO, AVSC and AIDSTECH consultants and assistance activities will be strengthened through a two year assignment in Morocco by an experienced clinical advisor recruited under the AID/W Technical Advisors in Child Survival Project. The Project will finance international travel, in-country and second year salary costs for this advisor.

Technical assistance for planned social marketing and employee service program development will be acquired through a project financed buy-in under the AID/W Contraceptive Social Marketing (SOMARC II) project contract with the Futures Group (TFG). Under the SOMARC II buy-in, TFG will continue technical and local cost support for the implementation of the condom sales program begun under Project 0171 and assist the GOM in the development and implementation of commercial sales programs for oral contraceptives, IUDs, ORS and related MCH products.

b. Improved Program Efficiency:

Three major contracting actions are planned under this component. First, the project will finance management, training and general technical assistance under a USAID-direct institutional contract with a U.S. firm. This contract will provide (1) approximately 30 months of short-term technical assistance and 48 months for two long-term advisors, each for a period of 2 years; (2) local administrative, management and logistical support for MOPH in-country training, operations research and related data collection activities; and (3) home office support for the procurement, testing and shipment of commodities purchased in the U.S. and overseas.

Several technical assistance for IEC activities financed under the Project will be acquired through buy-ins under the AID/W Population Communications Services Project contract with the John Hopkins University, Center for Population Communications (JH/PCS) and the AIDSCOM Project contract with the Academy for Educational Development (AED). JH/PCS will continue assistance to the MOPH in the design, testing and production of family planning educational and promotional materials for illiterate and semi-literate women. The project will also cover the costs, under the JH/PCS contract, for the production of promotional materials for key child survival interventions. JH/PCS will provide these services through its current subcontract agreements with AED. Third, a direct buy-in for AED services will assist the MOPH in the development of a long-term, low key effort to inform the general public about AIDS and HIV infection, correct misconceptions, and to add information as the public demonstrates growing understanding of this problem.

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c. Health Sector Financing

Four AID contracting actions are planned under this component. First, to accelerate launching of health financing activities, three person months of short term technical assistance will be solicited on an IOC basis to: (a) participate in the establishment of the health financing agenda at the GOM health financing conference in October 1989, (b) prepare the terms of reference for the hospital cost recovery studies (local contract), and (c) prepare the terms of reference for an AID direct health financing contract. Second, once the hospital cost recovery terms of reference have been prepared with the assistance of the IOC contractor, a local contract will be awarded competitively to implement the cost recovery study of the three hospitals. Third, an AID direct health financing contract will be let, encompassing activities anticipated under the sector reform and health insurance elements elaborated in the project description. This contract, awarded in the third quarter of FY 90, will include 18 months of short term technical assistance, and \$380,000 in local studies and seminars which will be implemented by the contractor, or subcontracted by the contractor to local firms. Fourth, the project will finance a 2 year PSC to assist the GOM, and other Moroccan health organizations and associations, in the design and implementation of the health financing activities.

It is anticipated that the AID Bureau of Science and Technology will be awarding a global health financing technical assistance contract by the end of fiscal year 1989. If this contract is awarded and the technical experts are mobilized in a time frame appropriate for the health financing component of this project, it is likely that some of the technical assistance may be provided under the S & T contract through buy-ins. However, the availability of assistance through buy-ins will not obviate the need for an AID direct contract, as the buy-in mechanism is extremely unwieldy when it comes to implementation of studies and seminars, as each sub contract must be approved by the S & T project officer and the AID/W contracting officer.

3. Construction - The project will finance the services of local architectural and engineering, and construction firms to carry out planned facilities renovation and upgrading. These services will be acquired under host country contracts issued by the MOPH. Architects and engineers in the MOPH Construction Unit, in conjunction with provincial level civil works departments of the Ministry of Public Works and the USAID civil engineer, will oversee the technical performance of these local contractors and monitor implementation progress for this project activity. The project will also finance limited architectural and engineering services to assist the MOPH in final identification and surveys of sites for planned renovation, expansion and repair activities, and to carry out procurement and installation of photovoltaic lighting systems.

4. Gray Amendment - USAID will encourage, to the maximum extent possible, the participation of small and disadvantaged, minority- and women-owned or controlled small business concerns in the implementation

of the project. To that end, the Mission had identified at the PID stage of design, a set aside of the planned \$2.5 to \$3 million AID-direct general training and technical assistance (T/TA) contract for potential award to an 8(a) firm. As project design progressed, the health financing component of the project has been greatly expanded, however, and a significant amount of scheduled technical assistance, training and local costs to implement these activities will be programed under this contract. This has led to the addition of highly specialized expertise in the areas of private health insurance and hospital management to the previously envisioned FP and MCH technical training, program supervision, operations research and data collection assistance originally planned under the T/TA contract.

These modifications in the envisioned contract scope of work dictate the need for a contractor with proven competence in a wide range of technical disciplines and established linkages with subcontractor agencies, universities and individual consultants capable of providing the required assistance. Based on these circumstances, USAID now believes that an 8(a) contract is not an appropriate procurement mode for the required services. There are, however, subcontracting opportunities both in technical assistance and in commodity procurement envisioned under the T/TA contract. Accordingly, the RFP for this contract will require that all proposals include a plan for the participation of Gray Amendment firms in project implementation. In addition, technical assistance for the mid-term and final evaluation of the project may be provided under contracts with 8(a) firms, and Historically Black Colleges and Universities will be considered in a placement of academic and short-term participants financed under the project.

#### C. Implementation Schedule

##### FY 1989

##### Fourth Quarter

1. PP approved and seven-year project authorized at \$31 million
2. \$2 million reallocated to AID/W for ST/POP Central procurement of contraceptives for Morocco Program.
3. GOM counterpart funding levels, implementation arrangements and related terms and conditions of the Project Grant Agreement negotiated.
4. Grant Agreement executed, obligating initial tranche of project funding.
5. Initial Conditions Precedent (CP) to disbursement met.
6. PIO/T for 3 mos Health Financing IQC.
7. Recruitment for Health Financing PSC.
8. Host country contract for procurement of 400 heavy-duty motorbikes executed.
9. USAID/MOPH implementation planning meeting held.

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FY 1990

First Quarter

1. MOPH coordinator for health sector reform activities designated.
2. Initial project coordination meeting held and CY1990 workplan for each project component developed.
3. GOM seminar held to present and discuss results of the MOPH/IBRD health financing study. IQC Contractor to participate.
4. MOPH counterpart funding for Project activities included in GOM CY1990 budget submission.
5. IQC Contractor develops Terms of Reference for AID contract(s) to local research firm(s) for hospital cost recovery.
6. IQC Contractor develops terms of reference for AID Direct Health Financing Contract.
7. Buy-ins executed under AID/W, JHPIEGO, AVSC, SOHARC II, AIDSCOMM and AIDSTECH project contracts.
8. Preliminary site surveys and related pre-design studies contracted for the facilities renovation and upgrades, and the photovoltaic lighting elements of the project.
9. PIO/T issued, funding international travel and in-country support costs for IACS advisor.
10. Multi-disciplinary advisory committees established for each health financing subcomponent.
11. Initial agenda of studies needed to understand and remove barriers to greater private sector financing and delivery of health care developed.
12. PIO/T executed and RFP issued for USAID-direct contract for management, training and general technical assistance support to the MOPH.
13. RFP issued for locally contracted hospital cost recovery studies.

Second Quarter

1. Reproductive health training completed for physician and nursing clinical faculty at university teaching hospitals in Rabat and Casablanca and staff at the four CNSS polyclinic maternities in Casablanca and VSC service programs underway in each of these facilities.
2. Proposals received and reviewed and contractors selected for hospital cost recovery studies.
3. Project Agreement amended, obligating FY1990 funding.
4. Contraceptive Procurement Tables developed and \$2 million in Project funds reallocated to AID/W for central procurement of contraceptives for Morocco Program.
5. Health Financing PSC in place.
7. Project Coordination meeting held and initial project status report prepared and distributed.
8. Terms of Reference developed for AIDS knowledge, attitudes and practice study developed and RFP issued for host country contract with local research firm.

9. RFP(s) issued for Health Financing Contract.
10. USAID provisional registration completed for local Moroccan AIDS, physician and pharmacists PVO/NGO associations.

Third Quarter

1. Contractor selected for USAID-direct technical assistance and training contractor; and contract negotiated and executed.
2. MOPH subagreement under AID/W Demographic and Health Surveys II project contract developed and workplan prepared for execution of 1991 DHS.
3. PIO/Ts issued for buy-ins under JHPIEGO, AVSC, SOMARC II, JH/PCS, AIDSCOMM and AIDSTECH project contracts.
4. First group of 600 community service sites selected.
5. Final list of MOPH facilities to be renovated or upgraded and details of work to be completed at each facility, forwarded for USAID approval.
6. MOPH sub-agreements, covering the 1990-1994 operational program, negotiated with AVSC and JHPIEGO.
7. Procurement of photovoltaic lighting equipment initiated.
8. USAID OPGs, or MOPH sub-agreements executed with local PVO/NGOs (ACLS, local pharmacists and physicians associations).

Fourth Quarter

1. Secondary Conditions Precedent, concerning disbursement of facilities renovation and construction funding, met.
2. RFP issued for host country architectural and engineering (A+E) contractor.
3. Physician directors for MOPH Regional Training Centers designated and physician instructor training workshop held.
4. Equipment and supplies ordered for new VSC centers; FP Reference center laboratory units; VDMS field workers; and communities service sites.
5. Pre-launch planning and training completed for application of revised coverage strategy within existing VDMS provinces and expansion of the program to 12 new provinces.
6. Procurement of first group of mobile service vehicles (15) initiated.
7. Long term resident management and training advisor arrived and CY1990-91 workplan developed for project technical assistance contract.
8. Market research study for oral contraceptive sales program designed and contractor selected.
9. Field research zones designated in eight provinces; local staff trained in use of operations research (OR) and related data collection techniques; and initial OR studies underway.
10. Health Financing Contract Awarded.

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FY 1991

First Quarter

1. Project coordination meeting held and CY1991 workplan prepared.
2. MOPH counterpart funds included in GOM CY1991 budget plan.
3. Training program developed and contraceptive safety, function and side effects training provided for private pharmacists and pharmacy assistants.
4. AIDS and HIV infection case management and treatment protocols developed and physician training completed.
5. Host country A+E design and construction supervision contractor(s) selected.
6. Training of trainers workshop, covering identification, diagnosis and management of sexually transmitted diseases (STD), held for nursing instructors from the eight MOPH Regional Training Centers.
7. First phase of revised FP and MCH coverage strategy implemented in the thirty existing VDMS provinces and program expanded to twelve additional provinces.
8. Printed promotional materials for illiterate and semi-literate women produced and distributed.

Second Quarter

1. Project Grant Agreement amended, obligating FY1991 funding.
2. USAID-direct Technical Assistance contract and Host country A+E contract amended adding second tranche of incremental funding.
3. Microcomputer, software and related peripherals procured.
4. Automation of MOPH family planning and management information system completed in eight provinces.
5. Contraceptive Procurement Tables developed and FY1991 contraceptive funds reallocated to AID/W for central procurement of contraceptives for Morocco Program.
6. CSC Services expanded to five additional provincial hospitals.
7. Family planning service programs expanded to the seven remaining CNSS polyclinic maternities.
8. MOPH Hospital cost and utilization studies completed and revised fee schedules developed for three pilot hospitals.
9. Market Plan developed for oral contraceptive sales program.
10. Project coordination meeting held.

Third Quarter

1. Private health insurance feasibility study completed and business plan developed.
2. Evaluation of Project Health Financing component completed.
3. PIO/Is issued for buy-ins under JHPIEGO, AVSC, SOMARC II, JH/PCS, AIDSCOMM and AIDSTECH project contracts.
4. Second group of 1200 community service sites selected.
5. Field data collection initiated for 1991 DHS.
6. Procurement of second group of mobile service vehicles (15) initiated.
7. Regional physician and Nurse training programs underway.

Fourth Quarter

1. Pre-launch planning and training completed for application of second phase implementation of revised FP and MCH coverage strategy.
2. CSM oral contraceptive sales program launched.
3. MOPH FP and MCH employee service program subagreements developed with 10 private firms.
4. Detailed technical designs and construction specifications completed for MOPH facility renovation, extension and repair activities.
5. Staff training completed and AIDS testing initiated in provincial level blood banks.
6. printed materials for illiterate and semi-literate women evaluated and revised as appropriate.
7. MOPH IEC subagreement developed with local PVO.

FY 1992

First Quarter

1. Project coordination meeting held and CY1992 workplan prepared.
2. MOPH counterpart funds included in GOM CY1992 budget plan.
3. RFP issued for host country construction contract(s) for Project construction component.
4. MOPH clinical study on the incidence of sexually transmitted diseases (STD) and the effectiveness of MOPH treatment protocols initiated in the 8 family planning reference centers linked with MOPH regional physician and nurse training programs.
5. Third phase implementation of revised FP and MCH coverage strategy initiated.
6. Preliminary report for 1991 DHS released.

Second Quarter

1. Project Grant Agreement amended, obligating FY1992 funding.
2. Project technical assistance, and host country A+E contracts amended adding third tranche of incremental funding.
3. Host country construction contract(s) awarded and renovation, extension and repair work initiated for first group of MOPH facilities.
4. Contraceptive Procurement Tables developed and FY1991 contraceptive funds reallocated to AID/W for central procurement of contraceptives for Morocco Program.
6. VSC Services expanded to five additional provincial hospitals.
7. Market Plan developed for oral rehydration salts sales program.
8. Project coordination meeting held.

Third Quarter

1. Mid-term evaluation of the project completed.
2. PIO/Is issued for buy-ins under JHPIEGO, AVSC, SOMARC II, JH/PCS, AIDSCOMH and AIDSTECH project contracts.
3. Third group of 1200 community service sites selected.

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Fourth Quarter

1. MOPH FP and MCH employee service program subagreements developed with an additional 10 private firms.
2. Renovation, extension and repair work initiated for second group of MOPH facilities.
3. FP and MCH radio spots and programs produced and aired.
4. Oral rehydration salts (ORS) sales program launched.

FY 1993

First Quarter

1. Project coordination meeting held and CY1993 workplan prepared.
2. MOPH counterpart funds included in GOM CY1993 budget plan.
3. Impact assessment of IEC promotion materials financed under the project completed.
4. Candidates selected for the 7 academic participant slots and begin intensive english language training.

Second Quarter

1. Project Grant Agreement amended, obligating FY1993 funding.
2. Project technical assistance, and host country A+E and construction contracts amended adding additional incremental funding.
3. Renovation, extension and repair work initiated for third group of MOPH facilities.
4. Contraceptive Procurement Tables developed and FY1993 contraceptive funds reallocated to AID/W for central procurement of contraceptives for Morocco Program.
6. VSC Services expanded to five additional provincial hospitals and five new rural service sites.
7. Market Plan developed for IUD and MCH product sales programs.
8. Project coordination meeting held.

Third Quarter

1. PIO/Is issued for buy-ins under JHPIEGO, AVSC, JH/PCS, AIDSCOM and AIDSTECH project contracts.
2. Placement completed for long-term participants and PIO/Ps issued.
3. Audit of project disbursements completed.

Fourth Quarter

1. Construction work completed for first group of MOPH facilities.
2. Long-term participants depart for U.S.

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FY 1994

First Quarter

1. Project coordination meeting held and CY1994 workplan prepared.
2. MOPH counterpart funds included in GOM CY1994 budget plan.
3. IUD and MCH product sales programs launched.

Second Quarter

1. Project Grant Agreement amended, obligating FY1994 funding.
2. Project technical assistance, and host country A+E and construction contracts amended adding additional incremental funding.
3. Construction completed for second group of MOPH facilities.
4. Contraceptive Procurement Tables developed and FY1994 contraceptive funds reallocated to AID/W for central procurement of contraceptives for Morocco Program.

Third Quarter

1. Project coordination meeting held.
2. PIO/Ts issued for buy-ins under JHPIEGO and AVSC project contracts.

Fourth Quarter

1. Construction work completed for third group of MOPH facilities.
2. MOPH evaluation of FP and MCH employee service program subagreements completed.

FY 1995

First Quarter

1. Project coordination meeting held and CY1995 workplan prepared.
2. MOPH counterpart funds included in GOM CY1995 budget plan.

Second Quarter

1. Project Grant Agreement amended, obligating FY1995 funding.
2. Contraceptive Procurement Tables prepared and budgetary requirements developed for MOPH CY1995-96 contraceptive procurement.

Third Quarter

1. Project coordination meeting held.
2. Final evaluation of the Project completed.
3. PIO/Ts issued for buy-ins under JHPIEGO and AVSC project contracts.

Fourth Quarter

1. MOPH issues notification of final acceptance of facilities renovation and extension work and final payment made to contractor(s).

FY 1996

First Quarter

1. Project coordination meeting held and CY1996 workplan prepared.
2. MOPH counterpart funds included in GOM CY1996 budget plan, including approximately \$2.4 million in payment authority to cover billings for CY1996 contraceptive shipments.

Second Quarter

1. Contraceptive Procurement Tables prepared and budgetary requirements developed for MOPH CY1996-97 contraceptive procurement.

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V. MONITORING AND EVALUATION PLAN

Continuing monitoring and evaluation is planned to assure implementation progress, to determine whether major project financed activities are effective, and keep track of overall family planning and health status trends.

a) Implementation Progress - The responsibility for monitoring project progress rests with USAID project managers in the Office of Population and Human Resources, in collaboration with the MOPH Project Management Unit and technical advisors financed under the project. These individuals will be assisted by the USAID Controller and Program Officer, and the Regional Contract Officer and Legal Advisor as appropriate. A two day project orientation meeting of USAID project managers, the MOPH Project Management Unit, and other involved MOPH staff is scheduled soon after initial obligation to review the overall project design and methods for implementing specific activities. A second meeting will focus on development of a workplan for CY1990. Thereafter, the MOPH will schedule semi-annual coordination meetings. The fall meeting will focus on developing annual program and financial plans. The spring meeting will focus on progress achieved over the previous calendar year and actual financial contributions to the project by both parties. The semi-annual coordination meetings, coupled with findings from any special studies, will provide the basis for routine project status reports forwarded to USAID by the MOPH. These reports will be discussed during Mission Portfolio Reviews with the Director and senior staff, and corrective steps will be taken as needed.

b) Program Effectiveness - As this project will provide the last tranche of AID assistance to broaden access to MOPH family planning and maternal and child health services, it is essential that USAID assure itself and the MOPH that each activity is having the type of impact sought and is cost-effective. There are many questions remaining to be answered through a combination of operations research, the mid-term evaluation, and the MOPH's management information system.

For example:

- Can the revised VDMS outreach strategy assure satisfactory access to family planning and other MCH services for target beneficiaries? As door-to-door delivery of these services is withdrawn from some areas, it will be important to monitor whether potential clients actually use services provided at points of contact or by mobile teams and find them acceptable means of seeking resupply for oral contraceptives. Is the MOPH able to keep to schedule for visits to contact points over the long run?
- What will be the impact of points of contact and mobile teams on use of different methods of contraception? Related to this, what is the average travel time and difficulty experienced by clients in accessing points of contact and mobile units? Are the Ministry and workers maintaining vehicles, including molyettes, effectively.
- Are women using oral contraceptives correctly and what are their reasons for discontinuing use?

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- Can an accurate means of monitoring continuation rates be integrated into the MOPH's management information system?
- What is the relative effectiveness and acceptability of male and female workers in different regions in outreach situations? Related to this is the female worker's satisfaction with outreach work and whether improved transport, supplies, training or supervision can make outreach work more acceptable.
- What is the willingness and ability of couples to pay for contraceptives and MCH products by type and distance from sales outlet?
- Are ongoing vaccination and ORS programs maintaining or improving coverage levels attained under campaign approach?
- What are household-factors influencing the demand for FP and MCH services?
- How effective are client referral and follow-up systems work, e.g. for VSC services or medical evacuation for high risk pregnancies?

c) FP and Health Status Trends - The project has set specific targets for contraceptive prevalence, fertility rate, infant mortality, vaccination coverage, death associated with diarrhea, the proportion of women receiving prenatal care, and the proportion of medically supervised births. These indicators will be followed through a number of sources, including the 1991 Demographic and Health Survey, the 1992 Census, special studies and the MOPH's management information system.

For example, the fourth round of the Demographic and Health Survey (DHS) scheduled for 1991 is the GON's primary means of tracking contraceptive prevalence. The 1991 round will also have an increased emphasis on fertility. Vaccination coverage, diarrhea deaths, and prenatal care will be followed through the MOPH's management information system and special studies.

#### Evaluation Arrangements

Evaluations planned under the project, include an early project review of the health financing component, a mid-term and a full End-of-Project evaluation.

##### a) Review of the Health Financing Component

A review of the health financing component is planned for April 1991. The review will be completed in time for the findings to be incorporated in the Project Paper for the health financing project scheduled for late FY 1991. The objectives of this review will be to assess USAID's preliminary experience in the four activities under the project's health financing component. The review will specifically assess:

- 1) The agenda for policy dialogue and preliminary findings of research concerning the constraints to "market entry" by private health providers and financing entities;

- 2) The appropriateness and effectiveness of technical assistance and research intended to increase cost recovery in MOPH hospitals;
- 3) The findings of feasibility studies on the expansion of private health insurance; and
- 4) The initial findings of technical assistance and operational research on the potential for local government and community contribution to the financing of basic health services.

This review will be conducted in-house by USAID staff, assisted by the design team for the Health Financing project.

**b) Mid-Term Evaluation**

A mid-term evaluation of the remaining two project components is scheduled for April 1992. At that point, project activities will be well underway and the need for any "mid-course" corrections will become evident. This evaluation will be contracted to an S(a) firm.

Three areas of inquiry will be included in the evaluation:

- 1) First, the most critical question to be addressed at this juncture will be whether the mix of delivery approaches is effective in achieving the project intent of providing family planning and mother and child health care services to rural populations in a cost-effective and sustainable manner. The evaluation will evaluate the relative effectiveness of the various delivery approaches encompassed in the MOPH outreach strategy and make recommendations on appropriate adjustments in the outreach approaches.
- 2) Secondly, it will be assessed whether the upgraded and newly constructed MOPH clinical facilities are operating effectively and serving their intended clients and whether the referral system is operating more effectively.
- 3) Third, the evaluation will assess whether the timing of commodity deliveries coincides with project implementation requirements.

Based on findings, recommendations will be made as to appropriate adjustments in the mix of service delivery approaches and the actions for project implementation necessary to ensure the successful completion of USAID assistance.

**c) Final Project Evaluation**

The end-of-project evaluation is scheduled for Spring 1995 and will measure the extent to which project activities succeeded in achieving the project purpose. Moreover, it will evaluate the extent to which the project series I-IV contributed to the achievement of health sector goals and objectives, e.g., coverage, efficiency, cost recovery, sustainable preventive health care. To assess project impact, the evaluation will be designed so as to

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encompass a critical review of last two decades years of USAID assistance in the areas of family planning and mother and child health. This evaluation will be contracted under a direct AID contract. Areas that will be addressed in the context of the final evaluation include:

- 1) The effectiveness and efficiency of the FP and MCH public and private delivery systems;
- 2) The extent of GOM compliance with its responsibility of absorbing the recurrent costs associated with FP and MCH programs;
- 3) The lessons derived from USAID's assistance in the family planning and maternal and child health field that can be useful to AID worldwide in the design of projects in the health sector; and
- 4) Recommendations to the GOM on actions it might take to ensure program sustainability.

d) Budget

The project provides \$40,000 for the completion of the health financing project component review and \$200,000 for the Mid-Term and the End-Of-Project Evaluations. This is in addition to funding allocated for operations research and the Demographic and Health Survey. Given the complexity of measuring program effectiveness and tracking family planning and health status, the Mission will also budget for an AID evaluation expert TDY soon after project launch to help prepare a detailed operations research and evaluation plan for the project. The plan will identify all questions to be answered and the methodology and sources of data required to answer the questions.

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## VI. SUMMARY PROJECT ANALYSES

### Introduction

The following summaries of analyses and conclusions are based on the Technical, Economic, Sector Financial, Social Soundness, and Administrative Analyses provided in the Annexes to the Project Paper, as well as a series of analyses and evaluations carried out over the past several years under the Population and Family Planning III project. In addition, a consulting team was brought in in June 1989 to recommend the best approaches to exploring health financing issues. Reports not provided in the annexes, but which are referred to in the Project Paper are available in the Office of Population and Human Resources, USAID Morocco. The overall conclusion to be drawn from the analyses is that the design of the proposed project is feasible and should have a large impact on family planning and maternal and child health in Morocco.

### A. Technical Analysis

This section summarizes the rationale and technical soundness underlying the interventions planned under the project. The Technical Analysis, Annex A., identifies seven topics of technical concern and describes how project activities address these concerns. A summary of these topics follows.

#### 1. Contraceptive Technology

The Morocco Family Planning Program relies on the standard variety of supplies (pills, condoms and foams) and clinical (IUDs and female sterilization) contraceptive methods. These methods are all well beyond the experimental stage and their safety and effectiveness under various program conditions has already been established. Knowledge of family planning, almost universal at 98% of Moroccan women of reproductive age (MwRA), is less pervasive for long-acting contraceptive methods and the program is heavily skewed to oral contraceptive use, the method of 80% of contraceptive users.

The program's heavy reliance on oral contraceptives, across all age groups, does not accord with health considerations and fertility desires for a significant proportion of Moroccan women. Given the increased health risks associated with oral contraceptive use for higher parity women over 30 years old, those who want no more children should ideally be candidates for IUDs or VSC. The project will improve the quality of counseling provided these women and increase the availability of IUDs and VSC. Furthermore, the Project will increase the range of method options available under the program, through training, commodity and technical assistance to introduce new contraceptive technologies, including Norplant and long-acting injectable contraceptives, following FDA approval for these methods.

#### 2. Need for Family Planning Services

A key indicator of purpose level achievement is attainment of contraceptive prevalence (modern methods) of at least 45% of MwRA. Data on Moroccan women's

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desire for additional children and intention to use family planning, show continuing high levels of unmet need. This unmet need is estimated at 27.9% of MWRA and most of the unmet need is comprised of women who want no more children. Rural women, largely uneducated, are a key target group for MOPH family planning and maternal child health service programs. Continued increases in the use of family planning services among these women is required to achieve project objectives for increased contraceptive prevalence and to decrease maternal mortality. The project will improve both the quality of and access to these programs in rural areas. MOPH fieldworkers and clinic staff will receive more training in family planning motivation and counseling. The project will also develop printed materials and visual aids specifically designed to address the needs of illiterate and semi-literate women, both clients and traditional mid-wives.

### 3. Family Planning and Maternal Child Health Services

#### FP and MCH Outreach Programs (VDMS)

The VDMS program, through its extension of services to underserved populations and its success in recruiting new acceptors, has been important in bringing about increases in contraceptive prevalence, particularly in rural areas. Contraceptive prevalence in VDMS provinces reached 40% in 1987 compared to 25% in non-VDMS provinces. Although differences in prevalence levels in urban areas of VDMS and non-VDMS provinces was slight, prevalence levels in rural areas of VDMS provinces exceeded that in non-VDMS provinces by 50% (28% vs 19%). VDMS agents were cited as the primary source of contraceptive supplies by 24% of contracepting women in VDMS provinces, and the fact that prevalence was highest in older VDMS provinces suggests that its impact increases over time.

The VDMS program is currently operating in 30 provinces, comprising about 75% of the population. To improve VDMS program efficiency and increase coverage in rural areas, especially for more remote populations, this project will finance implementation of complementary FP and MCH outreach service strategies, including the use of contact points and mobile teams. These strategies, developed and tested under the MOPH Basic Health Services Project with the World Bank, have proven cost-effective in extending coverage to isolated and more dispersed population settlements. The project will extend this enhanced version of VDMS to an additional 12 provinces. Given current coverage levels, the Project target, to increase program coverage to 85% of the rural population, is a feasible objective.

Although VDMS services have also been influential in changing fertility preferences, there is a significant gap between knowledge of contraceptives coupled with the desire to have no more children, and actual use of family planning services. Women in VDMS provinces may desire fewer children than women in non-VDMS provinces, yet more than half of those pregnant at the time of the survey had not wanted to be pregnant, reflecting an unmet need for family planning. In addition the steps described below to improve access and the quality of services, the project will conduct qualitative research to

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determine the nature and extent of behaviors that result in HIV transmission. Although commending the GOM for measures underway to protect the Moroccan blood system, the Team suggested AID financing for commodity and training assistance to extend screening measures to 15 regional blood transfusion centers. Finally the team recommended that the GOM develop educational and training materials for the general public, specific at-risk groups and for health workers at every level of the system. Drawing on the talent of local private sector research and advertising firms the project will finance development of these materials. In addition, the project will work with the Ministry to help in the development of a program of continuing education and treatment protocols to be used in the Faculties of Medicine and Dentistry. Other basic issues to be addressed in determining the epidemiology of and controlling HIV infection in Morocco raised by the team are addressed in the Technical Analysis.

#### 5. Clinical Training

Morocco has developed an extensive infrastructure to provide professional training for physicians, nurses and associated technical staff. The area of clinical experience, however, has been more problematic. To date, clinical update and in-service training has been highly centralized and little capacity exists to provide this training at the regional or provincial level. The project will further decentralize MOPH clinical training activities. Regional Physician and Nurse Training Centers will be established on the campuses of 8 provincial nursing schools. To strengthen clinical practice components of course content, the MOPH will strengthen linkages between the provincial nursing school and family planning program management staff, particularly staff from family planning reference centers. In addition, the project will finance training in academic skills and program management for MOPH physician and nurse trainers, and faculty and clinical campus staff from medical school teaching hospitals in Rabat and Casablanca. The project will also install family planning service units at the two university clinical campuses.

#### 6. Information, Communication and Education

The IEC sector has been the weakest link in Morocco's successful family planning program. A major concern is the continuing weakness of the Ministry's Health Education Service (SES). Given these difficulties, the Mission has assisted the MOPH in decentralizing FP and MCH promotion and fieldworker communication activities. Following a slow start-up and a large scale reorganization, the MOPH now attaches more importance to the value of effective information, communication and education activities in promoting increased awareness and use of the Ministry's priority FP and MCH service programs.

The MOPH has targeted the following three key areas for IEC assistance under the Phase IV project a) improved FP and MCH promotion materials for illiterate and semi-literate women clients and traditional birth attendants; b) regional radio programming, with limited reinforcement through general promotional messages on the two national TV channels; c) improved health worker training in effective communication skills; and d) effective IEC tools and visual aids

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for health workers and clinic staff. The need for high quality printed materials for illiterates results from the extremely low rate of female literacy in Morocco. Guided presentation of simple print materials by trained health workers is therefore one of the few options available to the MOPH to communicate more detailed information on the use of specific family planning methods and MCH instructions not readily conveyed through mass media channels. Since the DHS reports that 68% of women sampled routinely listen to local radio broadcasts and 44% watch TV at least once per week, radio and TV provide complementary options for FP and MCH promotion.

The private sector will play a major role in the development of both IEC print and audio-visual materials planned under the project. Private media services in Morocco have grown considerably in the past decade. Despite the strengths of the private sector, many technical weaknesses remain. The organization, selection and use of focus groups to develop, test and evaluate interventions for example will benefit from technical assistance provided under the project.

7. Increased Private Sector Involvement in the Financing and Delivery of Services

Social Marketing

The private pharmaceutical sector in Morocco is quite sophisticated and offers a wide variety of manufacturing and marketing infrastructure which complements the policy objectives of the MOPH. The private sector currently supplies approximately 30% of contraceptives used in Morocco. Products are sold through a well organized network of pharmaceutical outlets throughout the country. A local pharmaceutical firm has already prepared plans, with USAID assistance and MOPH approval, for a subsidized condom sales program and will begin sales in September 1989. The project will supplement these efforts through the design and implementation of social marketing sales program for oral contraceptives, ORS, IUDs, and related child survival supplies. The project will also increase the number of sales outlets, and improve the efficiency and lower the costs of local FP and MCH product production. The project will not subsidize the sales price.

While there are many possible design variations for a potential oral contraceptive (OC) sales program, the 1989 CSM assessment report recommends the development of a program focusing on the promotion of locally available oral contraceptives as the most feasible approach to providing several OCs to low-income consumers at an affordable price and to making the entire OC market more accessible to the project's target population. The introduction of a USAID donated product which differs in formulation from those currently available could cause confusion and potential increases in side effects and discontinuation of use by women switching from public to private supply sources. Moreover, introducing a new product would require substantial investments in licensing agreements, manufacturing capability and quality control procedures.

### Expanded Insurance Coverage

Third-party insurance coverage is a small but growing component of the Moroccan health care market, with approximately 13% of the population covered by private health insurance and an additional 8 - 10% under government "mutuelle" or company self-insurance plans. As a result, over 4 million Moroccan employees and dependents benefit from some form of third party reimbursement for their health care expenses. Given the abundant supply of doctors and the magnitude of private funds spent on health care, accounting for approximately 50% of reported expenditures in the sector, it is surprising that there is not more activity in the private health insurance arena. Accordingly, the project will evaluate current constraints to insurance expansion and assess prospects for health maintenance programs and alternative private health delivery systems. A feasibility study for expansion of health insurance includes many of the elements required for assessing feasibility of a health maintenance organization or other prepaid health delivery plan. Thus a "dual track" approach is planned, under which the study to expand health insurance could conceivably be enlarged or reoriented into a feasibility study for a health maintenance organization if an appropriate target group and service and financing organization were identified.

### B. Economic Analysis

The economic analysis (Annex B) consists of two basic analyses: (a) the benefit-cost analysis and (b) the cost-effectiveness analysis. The first analysis shows a highly favorable benefit-cost relationship which justifies undertaking the project to achieve desired fertility reduction. The second analysis investigates the costs of attaining fertility reduction through different mixes of intervention strategies and finds that the proposed mix appears to be cost effective. It suggests conducting operations research to further improve the program's cost-effectiveness.

The benefits of fertility reduction have been calculated by Knowles and Benrida using the Moroccan Human Resources Planning Model. These benefits were then compared to the costs to family planning users to obtain desired fertility reductions. The benefit-cost ratio exceeds one after only two years and the internal rate of return is 175 percent for the twenty year projection period. The conclusion of this analysis is that an effective family planning program has a rate of return which makes it a higher priority investment than almost any other investment one can imagine for Morocco.

The cost-effectiveness analysis uses preliminary cost data to examine the NOPH strategy of using fixed facilities, home visits (VDHS) and mobile teams depending upon the distance of the population from existing fixed facilities. This analysis shows that considerable savings can be realized through greater reliance on mobile teams as the NOPH strategy plans to do. However, data on program effectiveness in achieving fertility reduction through these different intervention modes is still too weak to permit definitive conclusions about the optimal coverage strategy. Thus, operations research planned under the project is required to refine the coverage strategy. The cost-effectiveness issue is critically important in an era of budget stringency, given the

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continuing pressure on the GOM to reduce its budget deficit. However, the effectiveness of the revised delivery strategy in meeting clients' demand for services is the other side of the equation which must be evaluated. Given the very high economic and financial returns to family planning generally, more "expensive" delivery systems can be justified if the "frugal" systems under this project prove ineffective.

### C. Sector Financial Analysis

The sector financial analysis covers a series of sectoral public finance issues, shows the potential complementarities between alternative health care delivery systems and private health insurance, analyzes project recurrent costs to ascertain project sustainability after 1995, analyzes the demand for contraceptives and the adequacy of public sector supplies, demonstrates project compliance with AID recurrent cost policy, and discusses the financial management competence of the MOPH.

The analysis of recent budgetary trends shows the relative decline in public expenditures on preventive health measures and the real decline in per capita health expenditures by the MOPH over this decade. The analysis argues for a shift in priorities within the MOPH budget and a changing role for the MOPH away from that of universal provider and financier of health services toward one of a guarantor of access to health services, a regulator of quality, and a financier of public goods (such as preventive health measures).

The need to improve efficiency brought out by the analysis of budgetary trends leads to discussions of the private provision of health care and of cost recovery in public sector facilities. Cost recovery overall equalled only 4.9 percent in 1987 and cost recovery in hospitals amounted to 7.8 percent of their costs. The project will assist in improving hospital cost accounting and plans to increase cost recovery in public hospitals. Finally, the private provision of health care is linked to the availability of private health insurance. The analysis discusses constraints to the expansion of the health insurance industry.

Finally, the project's recurrent costs are analyzed to determine sustainability of project activities post-1995. The analysis shows an increase of the recurrent budget in constant 1989 dollars from \$8.6 million in 1989 to \$17.5 million in 1995 and an incremental cost of \$500,000 in equipment replacement costs annually as the program expands to cover 85% of rural populations and nearly all urban populations. Compared to a projected increase in the MOPH budget of \$64 million (in constant 1989 dollars) by 1995, the program is easily sustainable within foreseeable MOPH resource constraints. However, program expansion will require a growing proportion of MOPH budgetary resources, increasing from 4.4% of the MOPH budget in 1989 to 7.0% of the budget in 1995.

As part of the recurrent cost analysis, the wholesale cost of contraceptives is projected through 1997 on the basis of achieving the project's target contraceptive prevalence rate of 45%. Assumptions about shifts in method mix and changing proportions of public and private sector supply are used to

derive the annual cost by public and private sector (and by method) in meeting contraceptive demand. When the public sector supply requirements are compared to planned USAID-financed procurement, a "gap" appears in 1991 and widens in subsequent years. The need for the GOM to fill this contraceptive "gap" is thus identified and quantified.

With respect to the Agency's policy for recurrent cost financing, the analysis discusses the four criteria which must be met before recurrent cost may be financed and concludes that it is appropriate to finance such costs under this project, given the country's policy framework, budget situation, the high rate of return on this use of funds, and the negotiation of a plan to phase out USAID financing of these costs by the end of the project.

#### D. Social Soundness Analysis

The primary project beneficiaries are women of childbearing age (between 15 and 44) who represent 22% of Morocco's population. The target group most in need of direct services are poor and illiterate or semi-literate women of childbearing age, living in rural provinces with high fertility, low contraceptive prevalence and high infant mortality. Given the regional diversity which characterizes Moroccan terrain and cultural traditions, province specific data on beneficiaries have to be factored into the design and implementation of service delivery mechanisms.

The Moroccan socio-cultural environment is receptive to family planning and related family health services and there are no insurmountable social obstacles to the implementation of the project. The concept of contraception is accepted to both space births and limit family size, and the linkages between the spacing of births and mother and child health are increasingly recognized. The 1987 Moroccan Demographic and Health Survey reports almost universal knowledge (97.8%) of at least one modern method of family planning, with over 94% of women interviewed capable of identifying a source of supply. Moreover, public acceptance of family planning is supported by most Moroccan religious leaders. However, a number of socio-cultural constraints must be addressed in the design and implementation of project activities intended to expand coverage and prevalence of FP and MCH services in underserved rural areas.

Four leading constraints to expanded use of modern contraceptive methods and MCH services are identified in the Social Soundness Analysis (Annex D). The project addresses these constraints in the following manner: 1) Inadequate access to FP and MCH services and facilities in many rural areas will be improved through the extension of the MOPH FP and MCH outreach program to 12 additional provinces, and the upgrading and construction of additional clinical facilities; 2) Beneficiary perceptions of the public delivery system will be enhanced through the upgrading of facilities, the training of MOPH workers, mobile outreach designed to improve the quality of outreach and duration of consultations, and demand analysis and cost recovery research which will serve to identify price-related factors which influence client health seeking behaviour; 3) Inadequate information on correct contraceptive method use and on the preparation and use of MCH products will be addressed

through IEC activities designed to research consumer preferences as well as improve the reliability of information provided through MOPH channels, social marketing activities, pharmacies and physicians; and 4) MOPH worker motivation and perceptions of the FP and MCH Program will be enhanced through training, more decentralized management, improved logistics and supply, and the installation of photovoltaic lighting systems in rural dispensaries and health centers which will improve working and living conditions for rural workers.

Finally, information on the socio-cultural conditions of project beneficiaries has been collected during the three predecessor projects and will continue to be collected during this project in order. Specifically, a combination of the Ministry's Management Information System, special studies, and operations research will be used to assure that the mix of interventions, i.e. itinerants, points of contact and mobile teams, being used under the revised MOPH outreach strategy is effective in delivering FP and MCH services to target populations, as reflected by both contraceptive prevalence and continuation rates.

#### E. Environmental Analysis Summary

The initial environmental review included in the PID for this project recommended a negative environmental threshold decision based upon Section 22 CFR 216.2(c)(1)(i) on the grounds that the project will not significantly affect the physical or natural environment. AID/W subsequently approved a negative threshold decision in the ANPAC Review Cable, State 120849 (see paragraph 5D). This procedure properly satisfies Agency environmental review requirements for this project.

#### F. Administrative Analysis

The Ministry of Public Health (MOPH) will be the primary recipient of U.S. assistance under this project, although several project elements will be implemented in conjunction with the private sector and other government agencies. Many of the major project elements are largely a continuation and expansion of activities developed under earlier projects and, therefore, their implementation will rely on existing and well tested administrative arrangements. There are however, new project elements which require the development of untested administrative procedures. In addition, given the number and wide range of project activities, implementation of the project will require the coordinated action of each of the participating agencies. The Administrative Analysis (Annex E.) describes the agencies involved in the implementation of the project and the framework for coordinating their respective functions.

The MOPH has been an effective and committed counterpart for USAID assistance in the sector. The Ministry remains, however, a highly centralized and hierarchical structure, and is only now beginning a reorganization intended to decentralize decision making and strengthen the role of provinces in program administration and planning. The project will assist ongoing MOPH efforts in

this regard through increased management training of program and administrative staff, strengthening data collection and information systems and improving coordination among the various programs, departments and levels of the Ministry.

Under the revised organization, the Directorate of Technical Affairs, the principal counterpart under earlier AID projects, has been broken up, with its responsibilities divided among four of the Ministry's new seven directorates, and three new divisions. Overall management of the project has been assured, however, and could even be enhanced by the reorganization which will give greater responsibility to project managers. The decentralization brings with it, however, the need for more formal means of coordination and collaboration between Ministry elements. Plans for establishment of such mechanisms and details of their operation are briefly discussed under Part IV, Implementation Plan and further described in the Administrative Analysis.

The new organization has been approved by the Ministries of Finance and Administrative Affairs and is slowly being put into effect. It is expected that revisions will be made in the reorganization plan over the next year. In the meantime, the principal counterparts with whom USAID has worked in design of the project are expected to maintain their responsibilities.

The Administrative Analysis also discusses administrative and institutional issues rising out of the implementation experience of earlier projects; identifies the various public and private sector agencies involved in project implementation; describes the management responsibilities of USAID; attests to MOPH staff competence to administer host-country contracting; provides the rationale for the contracting mechanism chosen for planned construction activities; and provides details of plans for the procurement of commodities, technical assistance and construction services financed under the project.

**VII. CONDITIONS, COVENANTS**

The project shall be subject to the following essential terms and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate.

**1. Source and Origin of Commodities, Nationality of Services**

Commodities financed by A.I.D. with grant funds shall have their source and origin in Morocco or in the United States except as A.I.D. may otherwise agree in writing. Except for ocean shipping, the suppliers of commodities or services financed by grant funds shall have Morocco or the United States as their place of nationality, except, as A.I.D. may otherwise agree in writing.

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. The requirements of the Cargo Preference Act will be met with respect to all commodities financed by A.I.D. that are transported on ocean vessels.

**2. Conditions Precedent**

**A. Conditions Precedent to First Disbursement**

Prior to the first disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Cooperating Country will, except as the parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

A statement of the name of the person or persons representing the Cooperating Country, together with a specimen signature of each person specified in such statement.

**B. Conditions Precedent to Disbursement for Facilities Construction**

1) Prior to any disbursement, or to the issuance of any commitment documents under the Project Agreement, to finance architectural and engineering services, except for a preliminary survey of sites, the Cooperating Country shall furnish in form and substance satisfactory to AID:

- a) A contracting plan for all renovation, upgrading, and construction to be undertaken with project funds;
- b) a staffing plan for all facilities to be renovated, upgraded, or constructed with project funds;
- c) a plan for maintaining and supplying facilities which have been renovated, upgraded, or constructed with project funds; and
- d) an executed contract acceptable to AID for A and B services, to be funded under the project with a firm or firms acceptable to AID, and awarded under competitive procedures acceptable to AID.

2) Prior to any disbursement, or to the issuance of any commitment documents under the Project Agreement, to finance the renovation, upgrading, or construction of any physical facility with project funds, the Cooperating Country shall furnish in form and substance satisfactory to AID:

- a) A list of sites on which the renovation, upgrading, or construction will occur;
- b) design plans and specifications for each site;
- c) cost estimates for each site;
- d) invitations for bid for the renovation, upgrading, or construction services prior to their issuance; and
- e) executed contracts for the construction services to be funded under the project with a firm or firms acceptable to AID.

### 3. Covenants

A. The Cooperating Country shall covenant to provide to AID within 90 days of initial obligation the names and titles of the director and members of the MOPH Project Management Unit, and the name and title of the MOPH coordinator for health sector reform activities.

B. The Cooperating Country shall covenant to take whatever steps are necessary to ensure that the computers and motor vehicles financed under the Grant are properly maintained. The Cooperating Country shall covenant to budget sufficient funds on an annual basis for the maintenance, repair, and operating supplies necessary for the computers financed under the grant, and for the maintenance, repair, and operating costs of all vehicles financed under the Grant.

C. The Cooperating Country shall covenant to provide or cause to be provided all contraceptives needed to meet the demand in Morocco which are not provided by the private sector or other donors.

D. The Cooperating Country shall covenant to encourage an increased role for the Moroccan private sector in the provision of family planning goods and services, including the promotion of a social marketing strategy.

E. The Cooperating Country shall covenant to finance an increasing share of the recurrent costs of mobility, contraceptives, and other supplies for the family planning activities financed under the Grant. The Cooperating Country shall covenant to assume all recurrent costs for family planning activities by the project assistance completion date.

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F. The Parties will covenant to establish an evaluation program as part of the project. Except as the Parties otherwise agree in writing, the program will include, during the implementation of the Project and at one or more points thereafter:

- 1) evaluation of progress toward attainment of the objectives of the project;
- 2) identification and evaluation of problem areas of constraints which may inhibit such attainment;
- 3) assessment of how such information may be used to help overcome such problems; and
- 4) evaluation, to the degree feasible, of the overall development impact of the project.

G. The parties will covenant to jointly review and approve each fall the project work plan and financial requirements for the following year.

H. The parties will covenant to jointly review each spring the project activities which have been undertaken during the previous year, to discuss progress, adequacy of project contributions, and results, and formulate recommendations for the coming year, to be incorporated into the annual work plan.

I. The Cooperating Country will covenant to establish multi-disciplinary advisory committees to provide technical direction for surveys and studies financed under the project. Membership for these committees shall be drawn from physician and pharmacist trade and professional associations, private sector banking and research groups, labor organizations, private and public sector agencies, and other involved MOPH departments, as appropriate.

J. The Cooperating Country shall covenant that none of the funds made available under the Grant may be used for performance of abortion as a method of family planning; motivation or coercion of any person to undergo abortion; biomedical research which relates in whole or in part to methods of or the performance of abortion as a method of family planning; or actual promotion of abortion as a method of family planning.

**ANNEX A**  
**TECHNICAL ANALYSIS**

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ANNEX A

## TECHNICAL ANALYSIS

### 1. Introduction

The purpose of the Family Planning and Child Survival IV Project is to improve impact and sustainability of family planning and maternal child health programs in Morocco. To that end, the Project will broaden access to family planning and maternal child health (FP and MCH) services, increase program efficiency, and explore health care financing options in the Moroccan public and private sectors. The promotion and provision of family planning and maternal child health services has been a key emphasis under earlier phases of the Project. Phase IV supplements that objective with steps to improve management of services at all levels in the public sector; and stimulate expanded private sector delivery and financing of health services. As part of all of the above, the project will place increasing emphasis on examining factors influencing the demand for health and family planning services.

This section discusses technical feasibility issues associated with the achievement of the project purpose and the specific project outputs. The Mission has reviewed findings of an extensive array of surveys, analytical studies and evaluations of ongoing programs in preparation for the Family Planning and Child Survival IV Project. A list of these studies is provided in Attachment No. 1 to this Annex. These background analyses highlight the urgent need to improve the range and quality of MOPH family planning and MCH services programs, assure increased responsiveness to the needs of clients served by these programs and provide additional technical training for key MOPH staff.

### 2. Contraceptive Technology

The Morocco Family Planning Program relies on the standard variety of supply (pills, condoms and foams) and clinical (IUDs and female sterilization) contraceptive methods. These methods are all well beyond the experimental stage, and their safety and effectiveness under various program conditions has already been established. However, knowledge of family planning, almost universal at nearly 98% of MWRA, is less pervasive for long-acting contraceptive methods, and the program is heavily skewed to oral contraceptive use. Furthermore, there has been limited interest in the testing and introduction of new contraceptive technology.

Improvements in the quality and coverage of MOPH programs have made family planning services and supplies increasingly available over the past several years. These improvements have led to sustained increases in the knowledge and use of modern contraceptive methods by Moroccan women of reproductive age (MWRA). The 1987 Moroccan Demographic and Health Survey (DHS) reports almost universal knowledge (97.8%) of at least one modern method of family planning, with over 94% of women interviewed capable of identifying a source of supply. The survey also reports an increase in overall (modern and traditional methods) contraceptive prevalence, from 19.4% in 1979-80 and 25.5% in 1983-84, to 35.9% of MWRA in 1987.

Moroccan women know the pill, and where to obtain it. However, knowledge of other methods is not adequate. Women have less knowledge about the IUD, sterilization and condoms, or where they may be obtained. Existing knowledge is also tenuous. For IUD's and female sterilization, more than two thirds of women cited as "knowing" the method could not list it spontaneously; they merely said they recognized a description. Among uneducated women, urban and rural, knowledge of IUDs and female sterilization is directly related to use of both radios and televisions. Only about half of all uneducated rural women know of a valid source for IUDs compared to approximately 80% for urban women. Lack of knowledge may be an important constraint to choice and proper use (also continued use) of an appropriate method, or even to use of family planning at all. For example, spontaneous knowledge of female sterilization is low (33%) among women of high parity (5 or more children).

Approximately 52% of married women surveyed have used at least one modern method of contraception. Most contraceptive practice is based on modern methods. At present, 28.9% of NWRA use modern methods with over 60% of these provided by public sector sources. Oral contraceptives, the dominant method (approximately 80% of modern method use), are used by 22.9% of married women. A more detailed presentation of current contraceptive use is presented in Table A.1.

Table A.1: CURRENT CONTRACEPTION UTILIZATION BY  
MARRIED WOMEN OF REPRODUCTIVE AGE  
BY DEMOGRAPHIC AND SOCIAL CHARACTERISTICS

Demographic and Social Characteristics	METHODS								TOTAL
	PILL	IUD	FEMALE STERILI- ZATION	OTHER MODERN	ABSTI- NANCE	WITH- DRAWAL	OTHER TRADITION- AL METHODS	NO METHOD	
<u>Age</u>									
Less than 30	21.9	2.3	0.3	0.4	1.7	2.5	0.8	70.1	100
Over then 30	23.6	3.3	3.5	1.3	2.6	3.6	2.0	60.1	100
<u># of Living Children</u>									
0-2 children	18.3	2.4	0.3	0.6	2.1	1.8	0.7	73.8	100
3-4 children	26.6	4.0	1.8	1.1	2.8	3.8	1.0	58.9	100
5 or more	25.0	2.7	4.3	1.3	2.0	4.0	2.8	57.9	100
<u>Residence</u>									
Urban	31.2	5.4	3.8	1.6	4.2	3.9	1.7	48.2	100
Rural	17.0	1.1	1.0	0.6	0.9	2.6	1.4	75.4	100
<u>Region</u>									
Northwest	19.4	2.6	1.9	0.9	3.1	5.0	0.4	66.7	100
North	17.8	1.8	1.1	0.8	2.3	1.1	2.7	72.4	100
Central	28.9	4.6	4.1	0.9	2.6	1.6	1.2	43.9	100
East	27.8	1.7	1.1	3.8	1.7	1.4	2.6	59.9	100
Southeast	32.1	3.3	1.3	0.9	1.7	1.5	2.6	56.6	100
Southwest	24.6	2.9	1.7	0.8	1.4	1.5	2.1	65.0	100
South	11.0	1.2	1.0	0.1	1.4	8.8	1.3	75.2	100
<u>Educational Level</u>									
None	20.0	2.0	1.9	0.9	1.3	3.1	1.6	69.2	100
Primary	36.9	4.8	3.7	1.2	4.7	3.5	2.1	43.2	100
Secondary or higher	36.4	10.3	2.8	3.3	10.0	2.6	0.2	34.4	100
<u>Total</u>	22.9	2.9	2.2	0.9	2.3	3.1	1.5	64.2	100

The program's heavy reliance on oral contraceptives, across all age groups, does not reflect health considerations and fertility desires for a significant proportion of Moroccan women. For example, given the increased health risks associated with oral contraceptive use, multi-parous women over 30 years old who want no more children should ideally be candidates for IUD or VSC. Among married women aged 15-49, 49% want no more children, and of those who practice contraception 65.7% use the pill. Even though the preferred method among women who intend to use family planning to limit their births is the pill (49%), there is significantly greater interest in sterilization and the IUD, 25% and 13% respectively, than the actual method mix would indicate.

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The Project will improve the quality of counseling provided these women and increase the availability of IUD and VSC. Furthermore, the Project will increase the range of method options available under the program, through training, commodity and technical assistance to introduce new contraceptive technologies, including Norplant and long-acting injectable contraceptives, following receipt of FDA approval for these methods. The UNFPA will provide complementary commodity and local cost support for the introduction of these methods.

### 3. Need for Family Planning Services

A key indicator of purpose level achievement is attainment of contraceptive prevalence (modern methods) of at least 45% of MWRA. DHS data on Moroccan fertility trends, specifically data on women's desire for additional children and intention to use family planning, show continuing high levels of unmet need. During the past several months, the MOPH, with contract assistance, has carried out more in depth analysis of these data. Findings of these analyses indicate a high degree of feasibility that the projected contraceptive level will be attained.

Only a quarter of Moroccan married women want to have a birth within the next two years. Close to half never want another birth, and another quarter want to wait at least two years. Given that use of contraception presently covers only a third of MWRA, there is a substantial unmet need for family planning. This unmet need is estimated at 27.9%. Among this 27.9%, over half have already become pregnant or amenorrheic from an unwanted or mistimed birth. Furthermore, most of the unmet need is comprised of women who want no more children.

Table A.2: Unmet Need for Family Planning  
(Percent of all women)

	<u>Limiters</u> (want no more births)	<u>Spacers</u> (want more later)	<u>Totals</u>
Non-contracepting women at risk of becoming pregnant	8.8%	4.4%	13.2%
Already pregnant or amenorrheic	7.0%	7.7%	14.7%
All women	15.8%	12.1%	27.9%

The increase in contraceptive prevalence projected under the Project cannot be attained, however, without continued improvements in program performance. Analysis of DHS data show an independent and significant association for both education and place of residence with use of contraception. Marked rural-urban differentials in prevalence remain, even when controlling for

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education; for example, contraceptive use was 22% higher for uneducated urban women compared to their rural counterparts. The reverse is true as well; significant differences in contraceptive use exist between educated and uneducated women even when residence is taken into account; women with primary education have higher contraceptive use than uneducated women in both rural areas (23.9% higher) and urban areas (13.5% higher).

Given the association between residence and education, and use of contraception, one can develop a projection of future users based on the increase in the portion of the population which is educated and urban. Using this methodology, contraceptive prevalence would be estimated to increase from 25.5% in 1983-84 to 27.1% in 1987. However, a contraceptive prevalence rate of 35.9% was reported in the DHS. Thus, the increase in prevalence between 1983-84 and 1987 was not based solely on changes in the characteristics of the population. Clearly, a large part of the increase in contraceptive use occurring between 1983-84 and 1987 needs to be explained by factors other than an increase in educational attainment and urbanization. This indicates the important role family planning programs can play in increasing contraceptive use, and the need for its continued expansion and improvement.

Rural women, largely uneducated, are a key target group for MOPH family planning and maternal child health service programs. Although they are 2.7 times less likely to use contraception than urban educated women, their lower rates of use are not necessarily indicative of lower demand. The project will improve both the quality of and rural women's access to these programs. MOPH fieldworkers and clinic staff will receive increased training in family planning motivation and counseling. The project will also develop printed materials and visual aids specifically designed to meet the needs of illiterate and semi-literate women.

Without focusing family planning and maternal child health services on those women who are disadvantaged in terms of education and residence, the project will be unable to achieve its objective of 45% modern method use by 1996. It should be noted that a 45% modern contraceptive rate implies an overall rate, modern and traditional contraception combined, of 52.2% in 1996. This latter figure compares with a 36% combined, overall rate in 1987. Merely relying on changes in the distribution of women's education and residence will result in a 45% contraceptive prevalence rate, including both traditional and modern methods by 2007, but modern method use of this magnitude could not be attained until substantially later. Thus, development alone cannot solve Morocco's population problem; the project's emphasis on targeting family planning services to rural uneducated women is crucial to the solution.

4. Family Planning and Maternal Child Health Services

FP and MCH Outreach Programs (VDMS)

The VDMS program, through its extension of services to underserved populations and its success in recruiting new acceptors, has played an important role in bringing about the increases in contraceptive prevalence discussed above, particularly in rural areas. According to the DHS, contraceptive prevalence in VDMS provinces reached 40% in 1987, as opposed to 25% in non-VDMS provinces. Little difference is reported in contraceptive prevalence levels in urban areas of VDMS and non-VDMS provinces (52% vs 48%). As reported in the following table, however, prevalence in rural areas of VDMS provinces is 50% higher than in rural areas of non-VDMS provinces (28% vs 19%). The greater preponderance of the least educated in rural areas explains the fact that the VDMS and non-VDMS differential is greater in rural, as compared to urban areas. VDMS accounts for a significant proportion of these higher prevalence rates, with VDMS agents listed as the principal source of contraceptive supply by 24% of contracepting women in VDMS provinces. In addition, prevalence in rural areas is higher in older VDMS provinces, suggesting that the program's impact grows over time.

Table A.3: Contraceptive Prevalence in VDMS and Non-VDMS Provinces

	<u>VDMS*</u>				<u>Non-VDMS</u>
	Phase 1	2	3	All VDMS	Non-VDMS
<u>Urban</u>					
No School	48	44	49	47	38
Primary	(56)	57	60	59	69
Secondary and higher	(57)	72	67	67	(70)
<u>Rural</u>					
No School	41	25	21	26	18
Primary	(63)	(50)	(49)	52	(32)
Secondary and higher	(100)	(43)	(14)	(38)	(57)
Urban	50	50	54	52	48
Rural	43	26	22	28	19
Total	45	36	40	40	25

\* The numbers 1, 2 and 3 indicate the phases of VDMS expansion.  
 ( ) Indicates rate based on less than 50 cases.

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The VDMS program is currently operating in 30 provinces, comprising approximately 75% of the Moroccan population. Based on review of monthly FP and MCH service statistics and management reports, along with findings of the 1988 VDMS Program Assessment, the MOPH has determined that VDMS coverage ranges from 50% to 70% of the rural population in these provinces. Estimates on total FP and MCH program coverage range, therefore, from approximately 62% to 75% of the population, when estimated coverage levels for MOPH urban and rural fixed facilities, in both VDMS and non-VDMS provinces, are included.

To improve VDMS program efficiency and increase coverage in rural areas, this Project will finance implementation of complementary FP and MCH outreach service delivery strategies. These strategies, developed and tested under the MOPH Basic Health Services Project with the World Bank, have proven cost-effective in extending coverage to remote and dispersed population settlements. The Project will also extend this modified version of VDMS to an additional 12 provinces. Given current coverage levels, the Project target to increase program coverage to 85% of the rural population is therefore a feasible objective.

As mentioned earlier, the VDMS has made important contributions to increases in contraceptive prevalence realized to date. Use of contraception is higher in VDMS provinces than non-VDMS provinces, even after taking into account urban-rural residence and educational attainment. Moreover, VDMS services have been influential in changing fertility preferences. Table A.4 demonstrates of pregnant or still amenorrheic women included in the DHS survey, twice as many women in non-VDMS provinces had wanted to be pregnant at that time compared to women in VDMS provinces. Although women in VDMS provinces may desire fewer children than women in non-VDMS provinces, use of contraception in VDMS provinces has not kept pace with this demand. For example, of the 27% of the women who were pregnant in VDMS provinces, 15.6% had not wanted to be pregnant, reflecting unmet demand for family planning. This large unmet need is an indication of the lag time between desire and actual use of contraception.

Table A.4: Unmet Demand for Family Planning, VDMS vs Non-VDMS

	<u>VDMS</u>	<u>Non-VDMS</u>
Pregnant or amenorrheic (as a percentage of all women)	27.2%	34.2%
Pregnant or amenorrheic (wanted to be).	11.6%	22.5%
Unmet Demand for FP	15.6%	11.7%

The Project will conduct in depth qualitative research to better understand and address this large gap in demand for and use of contraception. Given the continuing high fertility levels in VDMS areas, the Project will also further examine behavior of currently contracepting women to assure proper use of oral contraceptives and identify factors leading to discontinuation of contraceptive use.

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Expansion of VDMS program coverage and planned improvements in the quality of FP and MCH services delivered under the program will contribute as well to the achievement of GOM maternal and child health objectives. At the purpose level, the Project seeks to increase vaccination coverage from 87% to 95% of infants 0-5 years old; reduce the number of infant deaths associated with diarrhea by 50%; and increase the proportion of women receiving prenatal care and the proportion of medically supervised births from 25% to 50%. Increasing the range and quality of services provided by VDMS is critically important for the achievement of these objectives.

Under the revised service package for the planned 3,000 community service sites, VDMS agents will motivate women and other community members regarding prenatal care; identify and complete preliminary medical histories and basic lab work for pregnant women; provide tetanus toxoid immunizations; supervise local traditional birth attendants; and refer women for prenatal consultations. These agents will also identify, treat and or refer cases of infant diarrhea; vaccinate infants 0-5; and provide counseling and referral for IUD insertion and female sterilization. The Project will finance training, commodity and logistic costs to facilitate performance of these new tasks by VDMS fieldworkers and to improve the quality, availability and operational effectiveness of backup technical referral and supervisory support.

A list of services offered is presented under Attachment 2 to this Technical Analysis. The MOPH has extensive experience in delivery of the FP and MCH interventions added under this revised service package. The technical soundness of these interventions has been established under AID assisted programs worldwide.

Experience in Morocco has demonstrated that the use of mobile teams in combination with outreach agents and point of contact at scheduled community service sites is a cost-effective means of delivering services to the rural population groups targeted under the Project. The Project will closely monitor implementation of this revised multiple-component delivery strategy, however, to assure its continuing acceptability and responsiveness to the needs of the communities served. Most important will be the addition to the Ministry's management information system of a usable method for tracking contraceptive continuation rates at local provincial and national levels. Technical assistance provided for the MIS will focus on this as an early output of assistance.

#### Clinic Based Family Planning Services

The MOPH has demonstrated an effective capacity to provide clinic-based family planning services for IUD insertion and voluntary surgical contraception (VSC). Since 1984, the Ministry, in conjunction with the National Training Center for Reproductive Health (NTRH), installed IUD programs in approximately 600 facilities and expanded tubal ligation services to 32 provincial centers. The 1988 Mid-term Evaluation of the Population and Family Planning Support III Project and Assessment of the AVSC Voluntary Surgical Contraception Program noted the high quality of MOPH clinical training and services programs and recommended steps to increase availability and utilization of these programs.

Public knowledge and awareness of IUD insertion and VSC as family planning methods is widespread among the Moroccan population. IUD services are available at the lowest levels of the system with reportedly very low incidence of post-insertion infection and the medical quality of the VSC program meets international standards of medical practice. Yet the Ministry's increased and improved capacity to deliver clinical family planning services has not resulted in significant change in the structure of modern contraceptive method usage in Morocco. In fact, during the period 1983-84 through 1987, the proportion of total users who rely on oral contraceptives as their principal method of family planning actually increased from 75% to 80% of modern method use.

According to the 1987 DHS, only 2.9% of married women use the IUD and only 2.2% have had tubal ligation, in spite of the large number of married women (approximately 49%) who have already achieved their desired family size and want no more children. Ideally, multi-parous women over the age of 30 who want no more children should be candidates for an IUD or VSC. However, the choice of contraceptive method in this age group still heavily favors oral contraceptives. The mid-term evaluation and AVSC assessment reports identify several reasons for this apparent contradiction.

First, as a result of gaps in training and diagnostic capability, there is a reluctance on the part of MOPH physician and nursing staff to insert IUDs. A major contra-indication to IUD insertion is the presence of a pelvic infection. Difficulties in accurately diagnosing these infections have proven a barrier to IUD use. Although a valid medical concern, the reported number of serious pelvic infections among women seeking IUDs is disproportionately high given that only an estimated 1.7% of women are sterile. The absence of up-to-date protocols, detailing under which conditions IUDs may be placed, further exacerbates this problem. Protocols in evidence at most sites are primarily those which nurses received during their formal education. The team recommended, therefore, that scientifically based protocols be developed and implemented, coupled with appropriate training in the diagnosis and treatment of pelvic infections and sexually transmitted diseases (STDs), as a means to increase use of this method.

The MOPH, with technical assistance provided by JHPIEGO, is currently developing technical guidelines concerning the identification and management of STDs and will issue revised protocols for IUD insertion following the completion of this exercise. A second and related IUD training constraint concerns the lack of practice that many of the MOPH physicians and nurses trained in this procedure have had in actually carrying out insertions. This coupled with the changes in IUD models provided by the MOPH, has led to an erosion of their skills and need for refresher training. The Project will finance technical and refresher training for MOPH physicians and nurses to address these constraints.

Provider reluctance, although to a lesser extent, also inhibits provision of tubal ligation services. This is due in part to strict application of conservative MOPH criteria which place minimum requirements on the age, number

and sex of children for women receiving VSC. Given the large unmet demand on the part of women who currently conform to this criteria, this MOPH policy is not viewed as a major constraint to the program at present. However, lack of training in and use of minilap procedures as well as of adequate facilities has also limited the availability of VSC procedures and are being addressed under the Project. Finally, official relaxation of the criteria limiting sterilization will be the subject of longer range policy dialogue with the Ministry, to determine the most propitious time to press on this question.

A third concern relates to the availability of services. Many of the facilities offering IUD services are poorly configured and equipped. Furthermore, almost 50% of these facilities in rural areas do not have electricity, creating serious problems with lighting and electrical equipment needed for IUD insertion and other clinical procedures. The problem with VSC centers is more linked to their location primarily in urban areas and the frequent lack of availability of these services because of other demands placed on physician and operating room staff trained in the procedure. Still, analysis of existing unmet demand indicate that additional VSC sites are required for provinces not currently covered.

The final concern relates to the need for improved coordination among the Ministry's curative, ambulatory and outreach programs and more effective oversight of program referral and technical supervision activities. Referral systems for family planning and other clinical services have been largely ineffective. Although general knowledge of IUD and VSC is increasing, significant differentials exist between spontaneous and prompted knowledge of these methods. Even when prompted, only 43.2% of rural women both know of IUD and VSC and of a source to obtain these services. In addition, when referrals are given there is no follow-up to determine if women referred actually received the medical consultation, IUD insertion or VSC recommended. Little distinction is made between clients having been referred by staff at lower levels in the system and regular walk-in cases. Consequently, large numbers of acceptors are lost, and reference center staff devote a considerable percentage of their time on routine ob/gyn consultations which could be managed at lower levels in the system.

The MOPH has taken steps to improve program management. The director of the family planning reference center, an ob/gyn physician, has been reassigned technical oversight responsibility for all family planning activities at the provincial level. Family planning referral and follow-up responsibilities have been clarified and reference center staff will be more actively involved in field supervision. Improved training in IUD and VSC motivation and counseling for VDMS fieldworkers will provide further improvements in this area. Given MOPH successful completion of planned clinical training for physicians and nurses, use of IUD and VSC should increase both in numbers of users and as a proportion of overall contraceptive prevalence, and the Ministry should experience little difficulty the expansion of these programs as proposed under the Project..

### Maternal Health Services

The GOM has identified reduction of infant mortality to below 50 deaths per 1000 births as the overriding goal of MOPH maternal child health programs included in Ministry's 1988-1992 Development Plan. Over the past decade, Morocco has recorded sustained progress in this area. The 1987 DHS, compiling data for the period 1982 through 1986, reports a decline in infant mortality nationwide from the 91 per 1000 reported in 1980 to 73 per 1000 in 1987. However, infant mortality remains pronounced in rural areas as evidenced by 1977-1986 statistics which show mortality rates of 91 per 1000 in rural areas as compared to 66 per 1000 in urban areas.

The proportion of these infant deaths occurring in the first month of life is of particular significance when considering MCH priorities. In Morocco, 41 of the 73 infant deaths per 1000 births occurred during the first month. Some of these deaths, those related to congenital abnormalities and hereditary diseases, are unavoidable. However, a certain percentage, those related to trauma during delivery, are preventable through effective prenatal education programs leading to identification and referral of high risk pregnancies for specialized medical attention. An extremely low percentage of Moroccan women are now receiving these services. According to the DHS, only 25% women received at least one prenatal consultation prior to their last birth and only 26% of births were assisted by a trained health professional. Here too, wide variations are reported for urban and rural areas in prenatal care--48.2% in urban areas as opposed to 12.6% for rural communities; and assistance at birth--56.2% vs 10.6%. Further analysis of who provided labor and delivery management revealed that 57.7% of all deliveries were attended by traditional birth attendants (TBAs). Approximately 20% of births were with nurses or midwives and about 6% were with doctors. An additional 16% were identified as "other" which, according to officials managing the survey, generally refers to other family members and neighbors.

These data have been useful in assisting the MOPH to refine strategies and programs developed to enable pregnant women gain access to quality care and services of trained health workers. The plan of action developed by the MOPH is carefully designed, reasonably phased, and focuses on more effective use of existing resources in three major areas: a) improved training of VDMS fieldworkers and clinic staff and incorporation of prenatal care under the revised VDMS service package; b) improved identification, documentation and referral of high risk cases; and c) improved and expanded service capability at existing facilities and delivery sites.

The Ministry has designed an in-service training program with emphasis in the areas of prenatal care, delivery and postpartum care. During the fall of 1988, training of trainers was completed for a team of 210 trainers, 60 from the central level and 150 regional. These trainers have subsequently

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completed general update and refresher training for over 3,600 nurses. The Project will finance follow-up training in prenatal, delivery and postpartum care, more specifically directed to the utilization of the newly developed prenatal record, delivery assistance and providing technical support to the over 13,000 TBAs identified in a recent census completed by the MOPH.

Recognizing the role good documentation can play in improving the quality of care delivered and strengthened technical referral and supervisory performance, the MOPH has developed a prenatal record card which will be used throughout the country. The prenatal record systematically guides staff at lower service levels, through the necessary components of a prenatal visit, with checkpoints to aid in the identification of high risk pregnancies. Furthermore, the record provides guidelines concerning the most appropriate site for delivery and assures continuity of information, with regard to a woman's pregnancy, during routine prenatal consultations and in the event of referral; and facilitates effective supervision and client follow-up.

Finally, to improve service in rural areas, the MOPH will increase the number of existing facilities equipped with at least one maternity bed along with related labor and delivery equipment. The Project will assist the MOPH, in this regard, by financing the remodeling or upgrade of 24 rural dispensaries and health centers, and providing photovoltaic lighting in an additional 70 facilities without electricity. Based on findings of architectural and engineering assessments completed during preparation work for the design of this Project, USAID has determined that the designs and plans for proposed facility renovation and lighting activities are technically sound, and that a reasonably firm estimate of the cost to the U.S. for this assistance has been developed. A detailed description of proposed facility renovation and lighting assistance is presented in the Administrative Analysis.

##### 5. AIDS Prevention and Control

Although health officials in Morocco have been cognizant for several years of the threat posed to Morocco by worldwide increases in the incidence of AIDS, the GOM was initially slow to admit officially that AIDS and HIU infection exist in Morocco. Cases were not formally reported to WHO until 1988. Since that time, however, the GOM has allocated \$1.5 million towards AIDS prevention activities and realized notable accomplishments in the planning and implementation of an impressive array of programs. In June 1988, USAID scheduled Assessment Missions, under the AID/W AIDSCOM and AIDSTECH project contracts, to review GOM progress to date and in identifying requirements for additional donor assistance in this effort.

Since little is known about the sexual behaviors of Moroccans, the Assessment Team recommended that studies be undertaken to determine the nature and extent of behaviors that result in HIV transmission. The Project will finance completion of these studies. A valuable by-product of such studies is the working linkages established with those persons being studied. Efforts will be made to maintain and strengthen these contacts once the studies are completed. In reviewing steps taken by the GOM to prevent secondary transmission, the team determined that measures currently being taken by the MOPH to protect the Moroccan blood system were technically sound.

Blood screening is now routine at university hospitals in Rabat and Casablanca and will soon be extended to 15 additional sites. Technicians at the blood bank have also already received extensive training in ELISA testing procedures and technicians at additional sites will be trained under the Project. These measures were developed with the assistance of a long-term advisor provided under the collaborative agreement between the MOPH and the National Blood Transfusion Center of France and the Government of France. The Project will finance additional commodity and training assistance to complete extension of these screening measures to the 15 regional blood transfusion centers.

The team also identified the following needs to be addressed to further determine the epidemiology of AIDS and HIV infection in Morocco: a) establishment of a system for maintaining the confidentiality of blood test results; b) strengthening the system for reporting communicable diseases of public health importance to a central epidemiology unit; c) reinforcement of the cadre of MOPH epidemiologists in the skills necessary for designing and performing the studies required to follow this new epidemic; and d) implementation of programs of information, education and counseling in hospitals and other public health venues which routinely see or interact with women. The Project will finance technical assistance and training to address these issues, including short-term and academic training in epidemiology at U.S. universities, and improve STD screening diagnosis and case management in MOPH family planning and MCH centers.

Finally the team recommended that the GOM develop educational and training materials for the general public, specific at-risks groups and for health workers at every level of the system. Specifically to be provided under the Project is continuing medical education for physicians and protocols regarding treatment, counseling, and confidentiality. The team recommended that these public education and training activities be limited to a long-term, low key effort to inform the general public, education in nature, to correct misconceptions about AIDS and HIV infection, and to add information as the public demonstrates growing understanding. Drawing again on the talent and availability of local private sector research and advertising firms, the Project will finance development of these educational materials.

#### 6. Clinical Training

Morocco has developed extensive infrastructure to provide professional training for physicians, nurses and associated technical staff. During March and April 1989, consultants under the AID/W Population Technical Assistance project and the Project 0171 financed RONCO Family Planning Training Contracts completed evaluations and assessments of short-term family planning training programs conducted by the NTCRH and the Ministry and of basic and short-term family planning training programs for MOPH nurses. In each case, the consultants found didactic materials and training content to be technically sound and comprehensive; training staff highly competent and motivated; and organization and implementation of training programs handled in a professional manner.

The area of clinical experience, however, has been more problematic. To date, clinical update and in-service training has been highly centralized and little capacity exists to provide this training at the regional or provincial level. Numerous physicians and nurses have received the necessary technical training. However, additional training in academic skills is required to enable these clinicians to organize and carry out in-service training for local staff. The MOPH has also experienced difficulty in assuring adequate caseloads, during clinical practice components, for courses held at regional and provincial levels. With the exception of students rotating through the NTCRH, the two national medical school teaching programs have experienced similar problems. Although instruction in family planning service delivery is included in course content, family planning services are not routinely available in maternity hospitals at the university clinical campuses in Rabat and Casablanca.

The MOPH clearly possesses the technical and operational skills to carry out training activities proposed under the Project. Since 1984, the Ministry, with technical assistance and local costs provided under Project 0171, has completed basic technical and refresher training for over 4,000 nurses, representing approximately 26,000 training days for training of trainers and second generation trainees. Over this same period, the National Training Center for Reproductive Health (NTRH), a JNPIEGO Regional Training Center providing training for physicians, nurses and technicians in female reproductive health, has trained 169 obstetrician-gynecologists and surgeons in laparoscopic tubal ligation and 310 nurses and technicians in operating room techniques and family planning information and services.

The Project will increase decentralization for MOPH clinical training activities. Regional Physician and Nurse Training Centers will be established on the campuses of 8 provincial nursing schools. To strengthen clinical practice components of course content, the MOPH will increase coordination between the provincial nursing school and family planning program management staff, particularly staff from family planning reference centers. Family planning reference centers will serve as the principal clinical site for all provincial level training in family planning. Activities currently underway to strengthen referral procedures and follow-up and to increase MOPH staff competence in the diagnosis and management of vaginal infections and other STDs will result in consistently higher case loads at these family planning reference centers.

In addition, the Project will finance training in academic skills and training program management for MOPH physician and nurse trainers and faculty and clinical campus staff from medical school teaching hospitals in Rabat and Casablanca. The Project will also install family planning service units at the two university clinical campuses.

#### 7. Information, Communication and Education

The IEC sector has been the weakest link in Morocco's successful family planning program. The Mid-term Evaluation of Project 608-0171 described the Ministry's IEC objectives as unclear and lacking specific goals and objectives. The team recommended that the focus of Mission strategy for IEC

assistance to the Ministry be revised at all levels. A major concern discussed in the report is the continuing weakness of the Ministry's Health Education Service (SES). Under Project 0171, the SES was assigned lead responsibility for the management of IEC activities funded by the Project. However, neither the director nor the staff of the SES are specialists in communications and the service has been unable to carry out this role.

Given these difficulties, the Mission has assisted the MOPH in decentralizing FP and MCH promotion and fieldworker communication activities. Following a slow start-up and a great deal of administrative reorganization, the MOPH has begun to assign increasing importance to the value of effective information, communication and education activities in promoting increased awareness and use of the Ministry's priority FP and MCH service programs. Much of this new enthusiasm can be directly attributed to the series of highly successful national vaccination campaigns carried out by the MOPH in 1987, 1988 and 1989.

The campaign atmosphere resulted in the Ministry breaking new ground in several areas. With funding and technical assistance provided under Project 0171, the MOPH brought in communication expertise from the Moroccan Institute of Journalism to assist the Ministry in developing promotion strategies and plans trained health workers in "social marketing," used private advertising agencies and professional research firms in designing and testing promotion materials, staged media covered events, briefings and press releases, and made effective use of a variety of national, regional and local media channels. Drawing on these experiences, the Project will implement and evaluate the impact of a limited number of strategic promotion messages for MOPH priority programs.

Under Project 0171, USAID has provided technical assistance to the MOPH to refine promotion strategies for the Ministry's vaccination, ORT, family planning, pregnancy monitoring and birth surveillance, breastfeeding and infant nutrition programs. Based on further analysis of DHS data and findings of market and behavioral research conducted over the past three years by the MOPH and private firms, the MOPH has targeted the following three key areas for IEC assistance under the Phase IV project: a) improved FP and MCH promotion materials for illiterate and semi-literate women, including clients and traditional birth attendants; b) local and regional specific radio programming, with limited reinforcement through general promotional messages on the two national TV channels; c) improved health worker training in effective communication skills; and d) effective IEC tools and visual aids for health workers and clinic staff.

The need for high quality printed materials for illiterates results from the extremely low rate of female literacy in Morocco. In self-assessments offered by the approximately 7,000 women in the DHS sample, approximately 6% read with no difficulty, another 4% with limited difficulty and fully 90% do not read at all. Guided presentation of simple print materials by trained health workers is therefore one of the few options available to the MOPH to communicate more detailed information on the use of specific family planning methods and MCH instructions not readily conveyed through mass media channels. The DHS reports that 68% of women sampled routinely listen to local radio broadcasts and 44% watch TV at least once per week. The significant audience coverage by Moroccan radio and TV provide complementary options for FP and MCH promotion.

The private sector will play a major role in the development of both IEC print and audio-visual materials planned under the Project. Private media services in Morocco have grown considerably in the past decade. Morocco is the only country in Africa with the exception of Gabon to have a privately owned and operated radio station, and is the only country in Africa with a private television station. This media has resulted in an active private sector in the field of product promotion as well as market research. Over the past several months, these agencies have been more active in marketing social issues such as immunization, water conservation, accident prevention and so on. While the strengths of this sector are noted, it should also be mentioned that some weaknesses remain. The organization of and selection of focus groups for example will benefit from technical assistance provided under the Project.

The proposed emphasis on radio as opposed to TV reflects continuing religious and cultural sensitivities which limit the content of messages which can be aired on Moroccan TV. Radio has a larger and more diversified audience, more widespread than television. Produced regionally, radio favors decentralization in production of messages and programs and can reach rural audiences in several languages. In terms of cost per person reached, radio spots and programs are much less expensive than television, and even print materials. Also, for a relatively small investment, the Ministry can produce the bulk of unedited program content, with final editing and production completed in existing commercial or public facilities. Similarly, production can be "portable" requiring little more than a good microphone and tape recorder to collect and test local level content and receive instant feedback.

Unfortunately, both radio and TV are used less frequently by rural, illiterate women, a key target group of MOPH programs. The key contact in choosing to use family planning in Morocco remains the family and contact with the health worker. Thus, assuring the availability of simple visual aids and promotion materials at this level will continue as a top priority of MOPH IEC activities.

#### 8. Increased Private Sector Involvement in the Financing and Delivery of Services

##### Social Marketing

The private pharmaceutical sector in Morocco is quite sophisticated and offers a wide variety of manufacturing and marketing infrastructure which complements the policy objectives of the MOPH. Major multinational pharmaceutical manufacturers are active through local representatives and subsidiaries. At present there are 17 brands of oral contraceptives, 2 IUD models, a long-acting injectable contraceptive product, three major brands of condoms, a locally produced ORS product and several imported locally mixed weaning foods on the market. The private sector currently supplies approximately 30% of contraceptives used in Morocco. This percentage represents a slight decline during the past few years, due to increased public sector distribution in rural areas. Current sales levels have been maintained, however, in the absence of effective research, marketing and promotional activities and in spite of relatively expensive product sales prices.

These products are sold through a well organized network of pharmaceutical distribution and sales outlets represented through the country. There are over 1500 pharmacies and medical sales outlets, and the MOPH has begun discussions with local authorities and pharmacy representatives on the development of alternative sales arrangements in under-served rural areas. A local pharmaceutical firm has already prepared plans, with USAID assistance and MOPH approval, for a subsidized condom sales program and will begin sales in September 1989. The project will supplement these efforts through the design and implementation of social marketing sales program for oral contraceptives, ORS, IUDs, and related child survival supplies. The project will also increase the number of sales outlets, and improve the efficiency and lower the costs of local FP and MCH product production.

While there are many possible design variations for a potential oral contraceptive (OC) sales program, the four basic alternatives presented below were examined during an April 1989 CSM assessment visit under the AID/W SOMARC II Project:

- Promotion of an existing oral contraceptive brand by the local importer or manufacturer.
- Promotion of a new, locally-produced or imported social marketing pill brand at a low price.
- Promotion of several locally available oral contraceptive brands from different manufacturers.
- Promotion of a USAID-donated and potentially a locally-manufactured oral contraceptive brand.

The assessment report recommends the development of a CSM program focusing on the promotion of locally available oral contraceptives as the most feasible approach to providing several OCs to low-income consumers at an affordable price and to making the entire OC market more accessible to the project's target population.

Several technical considerations figure prominently in the assessment team's recommendation. The number one private sector oral contraceptive brand, approximately 950,000 cycles in 1988, is a low-dose biphasic product. This pill is the commercial equivalent to Lo-Femeral, the low dose formulation around which the MOPH and AID world wide programs have standardized to reduce side-effects and adverse health consequences associated with oral contraceptive use.

Two of the 3 pharmaceutical firms producing oral contraceptives in Morocco currently manufacture low dose pills and the third firm currently has a licensure agreement for a low dose pill and could introduce this product with little difficulty. Promotion of several local available oral contraceptive (OC) brands from different manufacturers provides several OCs to low-income consumers at an affordable price, and since all or most of the major firms participate, the entire OC market becomes more accessible to the project's target population. Offering a range of high-quality products on a continuous

basis clearly increases program impact on contraceptive usage and overall prevalence. Existing promotional and distribution schemes can be used, and the project benefits from the experience, goodwill and brand image already established in the marketplace.

Given the relatively high number of oral contraceptive brands already in the market, there is a strong technical argument against the introduction of a USAID-donated product or a new locally-produced or imported pill brand by a new firm. AID currently supplies two products for commercial retail sales programs, Norquest and Noriday. The formulation of these pills differs from the low dose public sector pill and would cause confusion and potential increases in side effects and discontinuation of use by women switching from public to private supply sources.

Finally, introducing a new product and distribution or manufacturing partner in the process, lacking experience in manufacturing and marketing OCs means that substantial investments would have to be made in both areas. Licensing agreements, manufacturing capability and quality control procedures would all have to be put in place.

#### Expanded Insurance Coverage

For private providers of health care to play an expanded role in the delivery of health services, it is essential that an effective demand exist for their services. This implies that consumers of health care must have the means of paying for services being rendered. The most effective way of providing a means to purchase services provided for a fee is through effective health insurance program. Third-party insurance coverage is an important component of the Moroccan health care market, with approximately 13% of the population covered by private health insurance and an additional 8 - 10% under government "mutuelle" or company self-insurance plans. As a result, over 4 million Moroccan employees and dependents benefit from some form of their party reimbursement for their health care expenses.

Given the abundant supply of doctors and the magnitude of private funds spent on health care, approximately 50% of reported expenditures in the sector, it is somewhat surprising that there is not more activity in the private health insurance arena. In fact, the industry appears to have stabilized, with coverage rates remaining relatively constant during the past several years. Accordingly, the project will evaluate current constraints to insurance expansion and assess prospects for health maintenance programs and alternative private health delivery systems. A detailed feasibility study will be carried out to compile data on the means of and risks associated with expansion of private health insurance, under a variety of options, to a given population.

Beginning with the development of preliminary criteria to identify new target populations that can be enrolled in group plans, the Project will finance studies of actuarial considerations, premium levels, copayments, utilization and provider arrangements, etc. to enable development of financial projects which could be presented to potential investors. Since a feasibility study for expansion of health insurance includes many of the elements of a

feasibility study for a health maintenance organization or other prepared health delivery plan, the study will assess feasibility of both expansion of current private insurance programs as well as the development of an HMO. Essentially a "dual track" approach is being proposed, permitting AID to follow either or both, as opportunities present themselves.

A key technical issue which will be addressed during execution of the planned feasibility study is the development of recommended procedures to monitor and control the health care provided under proposed insurance options, with respect to cost, utilization, and quality. Cost and utilization can be somewhat controlled under the HMO model by involving the doctors in the financial risks and benefits of the HMO. It is critical, however, that independent medical review of the quality of care is also provided in the system, especially given the relative absence of competition.

For the traditional indemnity type insurance plan, the problem relates more to controlling unnecessary and or inappropriate use of services and the resultant escalation in the costs of providing care. Under this model, particularly in a first "dollar" health insurance coverage situation such as that found in Morocco, the consumer of health care is less constrained by price and tends to over consume health services at the time of illness.

Therefore, the project, in conjunction with the planned assessment of constraints to the expansion of private health insurance, will finance technical assistance and local costs to develop procedures enabling more effective monitoring of the quality and appropriateness of health care provided under the various insurance plans in Morocco.

The above reflect the rationale and technical soundness underlying the interventions planned to increase the effectiveness of family planning and mother child health services and the GOM's AIDS prevention program.

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ATTACHMENT No. 1

Analyses et Tendances Démographiques au Maroc. 1986. Ministry of Plan, Centre d'Etudes et de Recherche Démographiques.

Enterprise Private Sector Study. 1987. The Enterprise Project, John Snow, Inc. An assessment of attitudes of Moroccan private firms towards introduction of family planning activities in employee health services.

Etude Opérationnelle des Programmes VDMS. 1988. Experdata Inc. An extensive evaluation of all aspects of the VDMS program which provided the basis for the midterm evaluation of the Population and Family Planning Project.

Femmes et Condition Féminine au Maroc. 1989. Ministry of Plan, Centre d'Etudes et de Recherches Démographiques.

Harway, Michelle. 1988. Assessing the Social Factors Affecting the Delivery of Family Planning and Mother Child Health Services.

Knowledge, Attitudes and Practices Study of Maternal Child Health, 1985-86. LMS Conseils. A two part study for the oral rehydration and vaccination campaigns.

La Situation des Enfants dans le Monde, 1987. United Nations Childrens Fund.

Leighton, Charlotte, et. al. 1988. Mid-Term Evaluation of the Population and Family Planning Support Project Phase III 608-0171, Morocco.

Midterm Assessment of the Voluntary Surgical Contraception Program. 1988. Association for Voluntary Surgical Contraception and the National Training Center for Reproductive Health.

National Family Planning and Fertility Study 1979-80. The Moroccan component of the World Fertility Survey in four volumes.

National Survey of Family Planning, Fecundity and Health in Morocco, 1981. The Demographic and Health Survey (DHS) administered and analysed by the MOPH and Westinghouse Health Systems.

National Survey of Health and Family Planning, 1983-84. Demographic and Health Survey (DHS) administered and analysed by the MOPH and Westinghouse Health Systems.

National Survey of Family Planning, Fecundity, and Health in Morocco, 1987. Demographic Health Survey (DHS) administered and analysed by the MOPH and Westinghouse Health Systems.

Pritech, Norris et. al. 1986. An Indicative Survey on Health Services Development in the Kingdom of Morocco: A Report to the Minister of Health.

Ross, John, et. al. 1988. Family Planning and Child Survival: 100 Developing Countries.

Social Marketing Feasibility Study, Part I, 1986-87. LMS Conseils and the Moroccan Family Planning Association. A qualitative and quantitative study of contraceptive knowledge, attitudes and practices of couples.

Social Marketing Feasibility Study, Part II, 1988. Creargie Maroc. A qualitative study on married couples attitudes towards the family, family planning and contraception, and alternative service sites.

VDMS Field Effectiveness Survey, 1988. 12 Volumes. EXPERDATA.

Vogel, Ronald and Suzanne J. Stinson. 1989. The Health Services Market in Morocco: Structure and Performance. Management Sciences for Health.

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ATTACHMENT No. 2

- a) Family Planning
  - Patient history;
  - Family planning promotion;
  - Contraceptive supply;
  - Referrals for IUD and VSC;
  - Health Education;
- b) Pregnancy Surveillance
  - Patient history;
  - Urine analysis;
  - TB testing (bacilloscopy);
  - Referral for symptoms of birth difficulty;
  - Blood pressure testing;
  - Hemoglobin testing;
  - Anti-tetanus vaccination.
- c) National Immunization Program
  - Vaccination follow-up; for infants and children
  - Children immunization vaccination;
  - Health education.
- d) Diarrhea Control
  - Screening;
  - Treatment of common cases;
  - Referral of serious cases;
  - Health education.
- e) Nutrition promotion
  - Weighing;
  - Screening;
  - Nutrition education;
  - Treatment of moderate cases with Actamine 5;
  - Surveillance of moderate cases by weighing;
  - Referral of serious cases;
  - Provision of Vitamine D2 for control of rachitism;
  - Provision or referral for Actamine 5.
- f) Control of infectious diseases
  - Screening by:
    - TB testing (bacilloscopy);
    - Urine analysis (bilharziosis);
    - Malaria testing;
  - Referral of suspect cases for treatment;
  - Administration of treatment
  - Follow-up of cases;
  - Worm and microbe surveillance;
  - Epidemiological survey of detected cases.
- g) School and environmental hygiene
  - BCG vaccination;
  - Vision testing;
  - Provision of ophthalmic ointment;
  - Screening and surveillance of endemic and epidemic disease;
  - Surveillance of Soaks;
  - Disinfection and surveillance of water spots;
  - Care and treatment of minor wounds and lesions, etc.
- h) Care
  - Taking of temperature.
- i) Health promotion
  - Health mapping;
  - Administrative information;
  - Public relations;
- j) Supervision and training
  - Community agents;
  - Traditional midwives.

**ANNEX B**  
**ECONOMIC ANALYSIS**

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## ANNEX B

### ECONOMIC ANALYSIS

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The project is economically justified on the basis of (i) benefit-cost analysis of fertility reduction and related improvements in maternal child health, and (ii) cost effectiveness of proposed project interventions. The benefit-cost analysis was based on project benefits, defined as the savings in public expenditure on health and education associated with a birth averted, as compared to the costs of the proposed project. It demonstrates that investments in family planning in Morocco represent very high rates of return and compare very favorably with alternative public sector investments. Concerning the mix of project interventions, the use of rural dispensaries, health centers and VDMS in conjunction with mobile teams appears to minimize costs per rural beneficiary. Therefore, the revised GOM outreach strategy based on mobile units is economically sound as discussed below.

#### 1. Benefits of Fertility Reduction

James C. Knowles of the Futures Group and Ahmed Benrida, Chief of the Human Resources Division of the Ministry of Plan, collaborated in the development of the Moroccan Human Resources Planning Model which was used to project benefits and costs for alternate population projections. (See Appendix to this Annex). The model calculated only the benefits to the government through reduced government expenditures on primary education and health made possible by slower population growth. It did not calculate private benefits or costs. The costs to the government are the funds expended in the health budget for family planning programs.

The results of their model are dramatic. There is a payback period of only two years. Benefits from reduced health costs are experienced almost immediately from a decline in fertility. The internal rate of return is 163 percent after only five years and is 175 percent for the twenty-year projection period. This analysis shows that there is a high return to investment in family planning in Morocco. The benefits are high, reaching 264 million Dirhams per year by the tenth year, and they persist into the future. Cumulative benefits net of cumulative costs amount to over 2 billion Dirhams in twenty years.

The family planning costs per user to obtain the desired fertility reductions are estimated for each commodity (pill, condom, IUD, sterilization) to reach the necessary contraceptive prevalence level. These costs include the wholesale price of the commodity and its distribution costs. The estimated full costs are approximately the same as typical private sector pharmacy prices. The benefit-cost ratio exceeds one after only five years if these cost estimates are doubled. Knowles further states, "Even if family planning cost per user were ten times higher (i.e., higher by an order of magnitude), the benefit-cost ratio would exceed one by the year 2004."

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The inescapable conclusion of this analysis is that an effective family planning program has a rate of return which makes it a priority investment relative to almost any other investment one can imagine in Morocco.

## 2. Probable Impacts from the Expansion of Coverage

Through this project, the family planning maternal child health outreach program will be funded at a level which permits improved coverage of rural populations currently in the program and an extension of coverage to all but fifteen percent of the rural population in 42 provinces. We estimate that coverage will increase from about five million rural people currently to 85% of the total rural population of 14.1 million in 1992. Benefits will thus accrue to twelve million rural inhabitants.

With respect to contraceptive prevalence, rates should quickly rise to no less than current acceptance rates of about 28.5% (modern methods only) among rural populations now reached by the program. With a modest improvement in urban coverage from non-VDMS sources, overall prevalence rates should rise to 43% (modern methods only) nationally as compared to 30% in 1988. Based on experience in other countries, this should result in a reduction in total fertility from about 4.4 to 4.8 currently to the 3-3.5 range as couples achieve desired family size more often than is now possible.

As stated above, increasing program coverage of rural populations from the 50% to 70% now typically covered in VDMS provinces to 85% coverage of rural populations in all provinces, should raise contraceptive prevalence rates in rural areas from 20% (modern methods only) to 27%. However, if contraceptive prevalence rates in the oldest VDMS provinces can be achieved nationally, the overall rate can be raised to 43% in rural areas and 45% nationally with virtually no change in current urban contraceptive prevalence.

The reduction in fertility from such changes in prevalence rates is not a simple relationship, but countries with similar prevalence rates enjoy total fertility rates of 3.2 to 3.3 as compared with 4.4 to 4.8 in Morocco today. This translates into at least a 25% decline in fertility, thus reducing the crude birth rate to only 25 or 26 per thousand (from 34 per thousand currently). With a continuing decline in the crude death rate also likely from 10 per thousand now to as low as 7 per thousand, the annual growth rate would drop from the 2.4-2.6 percent range to about 1.8 or 1.9 percent.

By the end of the project, the number of births averted would equal as many as 225,000 to 250,000 annually as a result of the family planning maternal child health outreach program. This is a considerable decline in fertility with major implications for population distribution and requirements for public infrastructure, especially in primary education and maternal child health care, as discussed in Knowles and Benrida.

The cost of achieving this fertility reduction and supporting improvements in maternal and child health is a recurrent budget estimated to increase gradually from \$13.2 million to \$17.5 million annually by 1995 with modest investments in facilities and equipment during the project estimated at only \$1.5 million.

### 3. Evidence of Fertility Reduction

A note of caution which should be introduced in the analysis in Sections 1 and 2 above is the question of cost-effectiveness of the family planning program. While a ten-fold increase in the cost of reaching the desired fertility decline would appear to provide the program with a large safety margin before the wisdom of this investment might be questioned, the case rests on the assumption that increased contraceptive prevalence level achieved by the FP/MCH program are in fact leading to reduced fertility. In other words, if the program does not result in a change in the fertility behavior of the "users," then the program is not worth financing no matter what it costs. On the other hand, to the extent that the program is successful in reducing fertility, then it should be supported up to the point at which additional resources result in just sufficient reductions in fertility to warrant the expenditure.

Considerable progress has been made in reducing the Crude Birth Rate to about 34 per 1000 in 1987 from 49 per 1000 in 1965 and 44 per 1000 in 1980. Much of this improvement is undoubtedly attributable to the increase in contraceptive prevalence, which in turn is partly due in recent years to the expanded access brought about through the VDMS program.

Evidence for the impact of the program is the data comparing VDMS and non-VDMS provinces. Contraceptive prevalence is higher in VDMS provinces as presented in the technical analysis section. There has been no attempt to control for the effect of greater economic well-being with the exception of urban vs. rural residence and the level of education. Other variables could also explain higher contraceptive prevalence independently of the VDMS program. However, the raw data suggest that the program has been very effective in raising contraceptive prevalence rates.

Additional operations research in the field on the different methods used to distribute contraceptives and educate or inform users will be undertaken to confirm that the program contributes to reductions in fertility. Secondly, the project will generate better fertility data by province to estimate the ultimate impact of changing socio-economic conditions and the family planning program.

### 4. Extent of Coverage

Assuming that increasing contraceptive prevalence reduces fertility, we would ideally wish to compare the cost of reaching the most isolated populations with the benefit derived from fertility reductions in that population. As the analysis by Knowles and Benrida shows, the cost of reaching isolated populations would have to exceed ten times the current average cost before one would conclude that the investment should not be made. Thus, the outreach program (VDMS and mobile teams) should be expanded to all populations except perhaps virtually inaccessible groups subsisting on mountain tops and groups which do not wish to reduce their fertility (if there are any such groups). In fact, preliminary data from the cost-effectiveness study show that rural groups are being reached quite economically through mobile teams at regular contact points. (A discussion of cost-effectiveness issues is provided below.). Thus, the case for near universal coverage, whether through public outreach or commercial programs, is compelling.

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**5. Benefits and Costs of Maternal Child Health Care**

The provision of additional maternal child health care as an integral part of the VDMS program yields benefits both in terms of reduced morbidity and mortality among mothers and children and in terms of reduced fertility due to improved health conditions which make couples more secure in having fewer children than under poor health conditions. These effects add to the increased child survival which results from reduced fertility because there are fewer high risk births.

The integrated FP/MCH strategy of the GOM is well established and continues to evolve approaches and delivery mechanisms. The benefits from improved health care for rural populations at general public expense accrue to individual beneficiaries and to society. The cost of providing these health care services is added to the cost of providing family planning services for this project. Benefits from fertility reduction alone are sufficient to carry the added cost of such health care provided at the same time as the family planning services.

**6. Program Mix - Cost-Effectiveness of Alternative Approaches to the Provision of Family Planning and Maternal Child Health Care**

The issue of the most cost-effective program mix is complex and merits careful study in itself during implementation of this project. Preliminary data from a Futures Group study of costs for providing the family planning portion of this program show the following average costs per user for different approaches.

Annual Cost per User Estimates, 1987  
Family Planning

<u>Fixed Facilities</u> (ambulatory only)	<u>Avg. Cost/User</u>	<u># Users</u>
Dispensaries - urban	\$ 7.53	142,713
- rural	\$25.18	110,576
Health Centers - urban	\$11.29	42,487
- rural	\$30.82	23,967
Reference Centers	\$34.71	16,047
<u>Itinérants (VDMS)</u>		
VDMS - urban	\$35.18	51,203
- rural	\$27.65	111,120
<u>Mobile Teams</u>	\$11.29	38,129
<u>Cost per user, all public ambulatory services</u>	\$20.35	
<u>Total Users</u>		536,242

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These data indicate (1) that rural services are more expensive than urban services in general due to the lower densities of rural populations, and (2) that mobile teams appear to be a highly cost-effective method of serving rural populations when compared to either fixed facilities or VDMS. The apparent anomaly of VDMS costing more in urban areas than in rural areas is explained by the relatively small number and dispersion of VDMS users in urban areas, with many urbanites relying on other sources of supply, or simply being away from home at work and thus difficult to serve through a home visit program. This raised the cost of conducting VDMS to higher-than-expected levels in urban areas. Operational problems, availability of other sources of supply and lack of cost-effectiveness resulted in a Ministry decision to stop VDMS services in urban areas.

The conclusion which the MOPH has already reached is that its strategies should rely as much as possible on mobile teams to reach rural populations. This implies a larger radius of coverage for rural fixed facilities, with personnel dividing their time between providing service at the dispensary and going out to contact points at regular pre-announced times to serve populations distant from the centers.

#### Cost-Effectiveness of GOM Strategy

These preliminary data on costs per user for family planning only show that the MOPH's new coverage strategy relying more heavily on mobile teams should be less costly (and thus permit greater coverage for the same budget amount) than reliance on the use of home visits by a single worker. These new strategies will also reduce the per user cost in rural areas to the level obtained in urban health centers, although perhaps not as low as the costs in urban dispensaries. Note that the contact point is less costly because the transportation cost of the home visitor is largely shifted to the beneficiary population and the number of people who can be seen in one day by a health worker is increased by eliminating his/her travel time between homes. Also, infrastructure costs appear to be lower than those borne in fixed facilities.

While the cost data are limited to time and materials for family planning only, it is likely that the same general conclusions hold for the basic health care portion of the health worker's intervention. Thus, we expect to see an increase in population coverage under this project at a per user cost which is considerably less than it would have been through a simple expansion of the home visit program or fixed facilities.

Under its newly defined strategy for covering the rural target population in 42 provinces, the MOPH will create 3,027 contact points requiring 303 agents and 35 new mobile units making 56 such units altogether. It will also continue the home visit program requiring 126 suburban visitors, 1184 full time agents, 231 half-time agents and 280 nurses for mobile teams from the Rural Health Centers.

Attempting to cover the target rural population in 42 provinces with a simple expansion of the current delivery mix in rural areas would cost 210 DM/user (\$24.71/user) or 147,218,000 DH (\$17,320,000/year) vs. 55,716,200 DH or

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\$6,864,000 now. Changing the mix to rely more heavily on the lower average cost mobile teams reduces the average cost per user considerably, thus allowing coverage to shift.

By shifting to greater reliance on mobile teams, total cost will rise to no more than 130,000,000 DH or \$15.3 million, an estimated savings of over \$2.0 million/yr. compared to the previous coverage strategy applied to the entire rural population. (See Table "New MOPH Rural Strategy Impact" for cost comparisons.) We believe this to be a conservative estimate of potential savings due to increasing efficiency in use of fixed facilities personnel and equipment which could reduce their per user costs to levels approaching those of urban dispensaries and health centers.

Attempting to provide FP/MCH coverage through dispensaries or rural health centers would require significantly greater initial investment in infrastructure and, if preliminary cost per user data is correct, higher annual costs than the mobile team strategy employing regular contact points. As an indication of the differences in cost, 57.8% of the rural population is now more than 3 kilometers from a dispensary or rural health center.

If the GOM wanted to provide coverage for all but 10% of the rural population, and assuming sufficient clustering of the population to place fixed facilities within reasonable range, the number of dispensaries and rural health centers would have to be more than doubled. Given the dispersion of the rural population not now served by fixed facilities, it is likely that a coverage strategy through fixed facilities would require a tripling or quadrupling of dispensaries.

Recognizing the cost of a conventional strategy as well as the cost of the home visit program, the GOM has evolved a strategy of mobile teams serving contact points. Preliminary data indicate the cost-effectiveness of this approach to providing basic FP/MCH coverage.

As of now, the strategy calls for few new fixed facilities, relying on mobile teams for outreach beyond 5 kilometers, home visits in a limited range of 3 to 5 kilometers, from fixed facilities (varying by locality and terrain), and strengthening of the referral system to provide a higher level of care than the outreach program can make available at contact points.

Further refinement of this coverage strategy is called for. For example, reliance on a home visit program could be reduced in favor of additional contact points for mobile teams if they prove to be as cost-effective as the preliminary data indicate. Continuing operations research combined with data on fertility behavior to gauge program impact will help refine the strategy not only in terms of fixed facility vs. contact point vs. VDMS but also in terms of best approaches in assessing and meeting clients' requirements for contraception.

Finally, in order for the MOPH to refine its coverage strategy, the cost-effectiveness data should be extended to the full range of preventive health care and basic curative services offered through these modes of FP/MCH delivery in rural areas.

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NEW MOPH RURAL STRATEGY IMPACT

	Current Program 1987 estimated		Simple Program Expansion		New Strategy		Annual Cost (000's of dirhams)		
	<u>Pop. Served</u>	<u>Users (1)</u>	<u>Pop. served</u>	<u>Users (2)</u>	<u>Pop. served</u>	<u>Users (3)</u>	<u>Col. (1)</u>	<u>Col. (2)</u>	<u>Col. (3)</u>
Rural Dispensaries	1,835,290	110,576	3,334,700	225,030	3,391,500	228,860	23,663	48,156	48,976
Rural Health Centers	848,000	23,967	1,540,800	103,970	1,484,000	100,140	6,279	27,241	26,237
Rural V.D.M.S.	1,646,710	111,120	3,871,250	261,230	2,020,900	136,370	26,113	61,389	32,047
Mobile Teams	<u>685,000</u>	<u>38,129</u>	<u>1,610,350</u>	<u>108,670</u>	<u>3,460,700</u>	<u>233,530</u>	<u>3,660</u>	<u>10,432</u>	<u>22,419</u>
	5,015,000	283,792	10,357,100	698,900	10,357,100	698,900	59,715	147,218	129,679

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projections. The projected differences in public costs between the two sets of projections were assumed to represent the potential benefits accruing to the public treasury from adhering to the more rapid fertility decline scenario (i.e., the Medium variant);

3) Public sector family planning costs were projected for each of the two fertility decline scenarios. The increase in family planning costs associated with the more rapid of the two fertility decline scenarios (i.e., the Medium variant) was assumed to represent the cost side of the benefit-cost analysis.

4) The annual streams of public sector benefits and costs were discounted and cumulated and both benefit-cost ratios and the internal rate of return were computed for each year of the projection (see Table 1).

A fuller discussion of the methodology employed and the assumptions made is provided in a technical appendix.

### Results

The results of the analysis are indeed dramatic. The main points are as follows:

1) Cumulative benefits exceed costs after only two years (i.e., the payback period is two years). Benefits in the form of reduced health costs (e.g., maternal/child health) are experienced almost immediately from a decline in fertility, while benefits in the form of reduced primary education costs begin to be felt after seven years (i.e., by 1994).

2) The benefit-cost ratio is greater than one after only two years (i.e., beginning in 1939), rising to thirteen after twenty years (2007). Even a doubling of the estimated family planning costs per user does not significantly alter the qualitative conclusions reached by the analysis (the benefit-cost ratio would still be above one by 1992). Even if family planning cost per user were ten times higher (i.e., higher by an order of magnitude), the benefit-cost ratio would exceed one by the year 2004.

3) The internal rate of return is 175 percent for the twenty-year projection period and is 163 percent after only 5 years (the internal rate of return so high because of the rapid payback period).

4) After ten years (1997), the projected annual benefits exceed costs by 264 million Dirham. At the end of twenty years, the projected annual savings rise to more than 1.3 billion Dirham. These projected annual savings are equal to 14.3 (12.4) percent of the projected total public education and health sector costs under the Medium (High) variant population projections in 2007;

5) By the end of the twenty-year projection period (2007), the cumulative benefits of lower fertility exceed the cumulative costs by over 10 billion Dirham (even discounted cumulative benefits exceed discounted cumulative costs by over 2 billion Dirham).

6) The results in Table 1 are conservative for several reasons, among which:

- benefits are limited to only two sectors, primary education and health; the results would be even stronger if other sectors--such as secondary education, water and sanitation and housing--were included;

- the benefit-cost ratios and internal rates of return include only benefits experienced up to and including the year for which these measures are calculated (i.e., the analysis neglects the benefits from fertility reduction in years 1-20 which would be felt in years 21 and later); the results would be even stronger if future benefits were included as well (although the effect would be minimal, due to discounting, for a projection period as long as twenty years); and

- the cost of training the necessary additional teachers and health personnel necessary to serve a larger population is not included in the analysis; according to Tables 3 and 4, 22,065 more teachers and 425 more doctors are required by the year 2007 with the High variant as compared to the Medium variant population projection.

### Conclusions

The analysis clearly indicates how important it is for the Government of Morocco to adhere to a pattern of fertility decline similar to the Medium variant hypothesis employed by CERED (and which has been widely adopted by GOM in its long-term planning). According to the projections in Table 6, this implies that the prevalence of modern contraceptive methods will have to increase from 29 to 38 percent by 1994 (an increase of 31 percent in only seven years) and that this rise in prevalence will entail increases in public sector family planning costs from approximately 74 million Dirham in 1987 to 105 million Dirham by 1994 (an increase of 42 percent).

## Appendix: Technical Notes

### Population Projections

The population projections presented in Table 2 were obtained using a cohort-component population projection program developed initially by the Research Triangle Institute (Wolowyna, 1988) and adapted for inclusion in the Moroccan Human Resources Planning Model. There are slight differences between the projections in Table 2 and those produced by CERED due to the use of different computer programs. In both cases, the actual projections were made using five-year age groups (i.e., ages 0-4, 5-9, 10-14,...) at five-year time intervals (1987, 1992, 1997,...). The resulting 5-year projections (those presented in Table 2) were interpolated using Beers coefficients to obtain single year of age distributions (ages 0,1,2,3,4,5,6,7,...) at five year intervals (i.e., 1982, 1987, 1992, ...) and then were linearly interpolated to obtain single year of age projections for the intervening years (e.g., 1982, 1983, 1984,...). The single year of age projections were used as input to the education sector projections, as explained below.

### Education

The education sector projections were made using the EDUC model (Knowles and Benrida, 1986), which is also part of the Human Resources Planning Model. EDUC's methodology is similar to that developed by UNESCO several years ago, i.e., a grade transition model is employed, which moves children through the school system according to initial enrolment rates (applied to children seven years of age, in the Moroccan model), and fixed repeater, promotion and drop-out rates. The education submodel provides very detailed projections of both recurrent and capital costs, with recent parameter values drawn from unpublished World Bank/Ministry of Education projections and from Benrida (1985). The projections in Table 3 are based on the assumption that the initial enrolment rate (i.e., the ratio of enrolment in grade one to children age 7) rises from 0.80 in 1987 to 1.00 in 2007 (i.e., increases by 0.01 each year), so that primary school enrolment is assumed to be virtually universal by the end of the projection period. If the initial enrolment rate were held constant, the benefit-cost ratios would be somewhat lower (however, this would be contrary to GOM policy and to recent trends: from 1972-73 to 1982-83, the initial enrolment rate increased from 45% to 75%).

### Health

The health sector model is drawn directly from the Human Resources Planning Model and is fairly simple in structure. Essentially, it applies exogenous service ratios (e.g., population per physician) to projections of the total population to project the number of public sector physicians, hospital beds, health centers and dispensaries. The service ratios are assumed



projected by multiplying the total number of users of each method by a fixed proportion who receive their supplies from a public sector source (or from a publicly subsidized private sector source, such as AMPF), and by assuming, in the case of public sector pill users, that 13 cycles per year are required per user and, in the case of public sector condom users, that 100 condoms per year are required per user. The number of IUD's required each year depends on the growth in the number of IUD users and in the proportion of previous users who discontinue use in each year (the IUD discontinuation rate, assumed to be 0.15). The number of sterilizations performed each year is assumed to depend on the increase in the number of sterilization users, the proportion of previously sterilized women who drop out each year (due to death, divorce, widowhood), and the number of sterilized women age 49 who pass into the non-fertile age group (ages 50+) each year due to aging.

Public sector family planning costs are obtained by multiplying the number of public sector commodities required (pills, condoms), public sector IUD insertions and sterilizations performed by the full cost of each commodity or service. The full cost of a cycle of pills, for example, includes not only the commodity's wholesale value but also public sector distribution costs. The costs of distributing VDMS commodities, which have been examined in some detail (EXPERDATA, 1988), were used to calculate full cost to wholesale price ratios for pills, condoms and iud's. The resulting full cost estimates, along with typical private sector commodity prices are as follows:

Commodity	Wholesale Price	Estimated Full Cost	Private Sector Price (Pharmacies)
Pill	1.10 Dh.	8.42 Dh.	7.90 - 16.60 Dh.
Condom	0.44	3.37 Dh.	3.50 Dh.
IUD	7.53	57.62 Dh.	70.00 Dh.

The estimated full costs--8.42 Dh. per pill cycle, 3.37 Dh. per condom and 57.62 Dh. per IUD inserted--were used to project the costs reported in Table 5, along with an estimate of 250 Dh. per sterilization performed. These full cost estimates are believed to be conservative (with the possible exception of the assumed sterilization cost) because they are based on the actual cost experience of what is often considered to be a relatively expensive distribution network (VDMS).

#### Benefit/Cost Calculations

A benefit-cost ratio is calculated for each year, as the ratio of cumulative discounted benefits to cumulative discounted costs, up to and including the year for which the ratio is calculated (i.e., the stream of benefits occurring beyond the projection period due to fertility reduction occurring in the projection period is not included). In calculating the benefit-cost ratios, a ten percent discount rate is used.

In addition, the internal rate of return is calculated for each year of the projection period, utilizing the stream of all benefits and costs experienced up to and including the year for which this measure is calculated (as with the benefit-cost ratio, future benefits are not included). The internal rate of return is defined as the discount rate which makes the cumulative discounted benefit stream exactly equal to the cumulative discounted cost stream.

## References

Benrida, Ahmed, Chapitre: Systeme d'Education et de Formation, Preliminary Report (June, 1985).

Bongaarts, John and John Stover, The Population Council's Target-setting Model: a User's Manual, Center for Policy Studies, Working Paper No. 130, The Population Council (December, 1966).

Centre de Recherches et d'Etudes Demographiques, Direction de la Statistique, Minister du Plan, Projections de la Population au Maroc (March, 1985).

Direction de la Planification, Ministere du Plan, Les Besoins de la Population en Infrastructure Sanitaire et en Personnel Medical et Paramedical (Mars, 1987).

Directorate of Planning, Ministry of Plan, Orientation Plan for Economic and Social Development, 1988-1992 (September, 1988).

EXPERDATA, "Evaluation du cout total du Programme V.D.M.S." (March, 1988).

Knowles, James C. and Ahmed Benrida, "EDUC: a Host-based Education Planning Model" (September, 1986).

Ministere de la Sante Publique, Enquete Nationale sur la Planification Familiale, la Fecondite et la Sante de la Population au Maroc (ENPS) 1987, Rapport Preliminaire, 1988.

Wolowyna, Oleh, NPROJ: A General Coart-Component Population Projection Model in Host, Draft, Research Triangle Institute (May, 1988).

**Table 1: Benefit Cost Calculations**

**BENEFITS** : Current Benefits  
**COSTS** : Current Costs  
**CUMBNFIT** : Cumulative Discounted Benefits  
**CUMCOSTS** : Cumulative Discounted Costs  
**DISBNFIT** : Discounted Benefits  
**DISCOSTS** : Discounted Costs  
**BCRATIO** : Benefit-Cost Ratio  
**IRR** : Internal Rate of Return

<b>PERIOD/</b>	<b>BENEFITS</b> (Dirham/10 <sup>6</sup> )	<b>COSTS*</b> (Dirham/10 <sup>6</sup> )	<b>CUMBNFIT</b> (Dirham/10 <sup>6</sup> )	<b>CUMCOSTS</b> (Dirham/10 <sup>6</sup> )
1987	0.000	1.760	0.000	1.760
1988	4.223	3.971	4.223	5.731
1989	10.359	6.238	14.582	11.969
1990	18.123	8.640	32.705	20.609
1991	27.569	11.174	60.274	31.783
1992	38.765	13.832	99.039	45.615
1993	53.797	16.615	152.836	62.230
1994	95.927	19.523	248.763	81.753
1995	150.002	22.560	398.765	104.313
1996	216.735	25.731	615.499	130.044
1997	292.745	29.029	908.244	159.073
1998	385.675	32.457	1293.919	191.530
1999	485.148	36.021	1779.067	227.550
2000	596.467	39.728	2375.534	267.278
2001	719.871	43.582	3095.405	310.860
2002	854.732	47.575	3950.137	358.435
2003	1007.831	51.705	4957.968	410.140
2004	1172.820	55.955	6130.789	466.095
2005	1352.726	60.299	7483.515	526.394
2006	1549.663	64.715	9033.178	591.109
2007	1767.135	16.456	10800.313	607.565

\* Family planning costs have been shifted nine months forward in time, compared to the costs reported in Table 6, to provide a more realistic time profile of family planning costs in relation to observed fertility declines.

\*\* (see note on following page)

Table 1 (continued)

PERIOD/	DISENFIT (Dirham/10 <sup>6</sup> )	DISCOSTS (Dirham/10 <sup>6</sup> )	BCRATIO**	IRR**
1987	0.000	1.760	0.000	---
1988	3.839	5.370	0.715	---
1989	12.400	10.525	1.178	0.604
1990	26.016	17.017	1.529	1.249
1991	44.846	24.648	1.819	1.514
1992	68.916	33.237	2.073	1.627
1993	99.283	42.616	2.330	1.680
1994	148.509	52.634	2.822	1.715
1995	218.486	63.159	3.459	1.735
1996	310.403	74.071	4.191	1.745
1997	423.268	85.263	4.964	1.750
1998	558.445	96.639	5.779	1.752
1999	713.028	108.116	6.595	1.753
2000	885.803	119.624	7.405	1.753
2001	1075.368	131.100	8.203	1.754
2002	1279.984	142.489	8.983	1.754
2003	1499.318	153.742	9.752	1.754
2004	1731.354	164.812	10.505	1.754
2005	1974.653	175.658	11.241	1.754
2006	2228.036	186.239	11.963	1.754
2007	2490.709	188.685	13.200	1.754

\*\* The benefit-cost ratio and the internal rate of return in a given year is calculated for all benefits and costs incurred up to and including that year. The internal rate of return is defined only for years in which cumulative benefits exceed cumulative costs.

**Table 2: Population by five-year age groups, at five-year intervals, for Two Fertility Scenarios: CERED Medium and High**

**POP55 : Population in five-year age groups**

**REGION : Total PERIOD : 1987**

AGE5/ BY SEX	POP55 (/10 <sup>3</sup> )		Total
	Female	Male	
0-4	1816.000	1885.000	3701.000
5-9	1487.000	1525.000	3012.000
10-14	1424.000	1475.000	2899.000
15-19	1243.000	1309.000	2552.000
20-24	1120.000	1083.000	2203.000
25-29	986.000	980.000	1966.000
30-34	758.000	772.000	1530.000
35-39	571.000	553.000	1124.000
40-44	437.000	386.000	823.000
45-49	473.000	384.000	857.000
50-54	352.000	336.000	688.000
55-59	355.000	315.000	670.000
60-64	198.000	215.000	413.000
65-69	220.000	209.000	429.000
70-74	83.000	104.000	187.000
75 +	158.000	158.000	316.000
<b>Total</b>	<b>11681.000</b>	<b>11689.000</b>	<b>23370.000</b>

AGE5/ BY SEX	POP55(High) (/10 <sup>3</sup> )		Total
	Female	Male	
0-4	1816.000	1885.000	3701.000
5-9	1487.000	1525.000	3012.000
10-14	1424.000	1475.000	2899.000
15-19	1243.000	1309.000	2552.000
20-24	1120.000	1083.000	2203.000
25-29	986.000	980.000	1966.000
30-34	758.000	772.000	1530.000
35-39	571.000	553.000	1124.000
40-44	437.000	386.000	823.000
45-49	473.000	384.000	857.000
50-54	352.000	336.000	688.000
55-59	355.000	315.000	670.000
60-64	198.000	215.000	413.000
65-69	220.000	209.000	429.000
70-74	83.000	104.000	187.000
75 +	158.000	158.000	316.000
<b>Total</b>	<b>11681.000</b>	<b>11689.000</b>	<b>23370.000</b>

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Table 2 (continued)

REGION : Total PERIOD : 1992

AGES/ BY SEX	POP55 (/10^3)		Total
	Female	Male	
0-4	1959.045	2027.989	3987.035
5-9	1790.469	1853.259	3643.728
10-14	1478.333	1514.428	2992.760
15-19	1415.102	1463.741	2878.843
20-24	1231.437	1293.132	2524.569
25-29	1106.943	1067.286	2174.230
30-34	972.623	964.743	1937.366
35-39	745.811	757.751	1503.562
40-44	559.725	539.773	1099.498
45-49	425.821	373.180	799.001
50-54	456.236	365.540	821.776
55-59	334.192	312.190	646.382
60-64	328.329	281.883	610.212
65-69	175.051	181.640	356.692
70-74	180.013	161.343	341.356
75 +	135.941	141.029	276.970
Total	13295.070	13298.908	26593.977

AGES/ BY SEX	POP55(High) (/10^3)		Total
	Female	Male	
0-4	2050.184	2122.336	4172.520
5-9	1790.469	1853.259	3643.728
10-14	1478.333	1514.428	2992.760
15-19	1415.102	1463.741	2878.843
20-24	1231.437	1293.132	2524.569
25-29	1106.943	1067.286	2174.230
30-34	972.623	964.743	1937.366
35-39	745.811	757.751	1503.562
40-44	559.725	539.773	1099.498
45-49	425.821	373.180	799.001
50-54	456.236	365.540	821.776
55-59	334.192	312.190	646.382
60-64	328.329	281.883	610.212
65-69	175.051	181.640	356.692
70-74	180.013	161.343	341.356
75 +	135.941	141.029	276.970
Total	13386.208	13393.254	26779.463

Table 2 (continued)

REGION : Total PERIOD : 1997

AGE5/ BY SEX	POP55 (/10 <sup>3</sup> )		Total
	Female	Male	
0-4	2040.437	2114.303	4154.740
5-9	1936.389	1999.232	3935.621
10-14	1781.608	1841.928	3623.536
15-19	1470.393	1504.056	2974.450
20-24	1403.592	1417.657	2851.250
25-29	1218.786	1276.212	2494.999
30-34	1093.639	1052.384	2146.024
35-39	958.649	948.733	1907.382
40-44	732.451	741.289	1473.740
45-49	546.469	523.201	1069.671
50-54	411.647	356.315	767.962
55-59	434.359	340.840	775.199
60-64	310.229	280.562	590.790
65-69	291.705	239.430	531.134
70-74	144.138	141.159	285.297
75 +	196.550	173.189	369.739
Total	14971.042	14980.492	29951.534

AGE5/ BY SEX	POP55(High) (/10 <sup>3</sup> )		Total
	Female	Male	
0-4	2285.246	2367.974	4653.219
5-9	2026.473	2092.241	4118.714
10-14	1781.608	1841.928	3623.536
15-19	1470.393	1504.056	2974.450
20-24	1403.592	1447.657	2851.250
25-29	1218.786	1276.212	2494.999
30-34	1093.639	1052.384	2146.024
35-39	958.649	948.733	1907.382
40-44	732.451	741.289	1473.740
45-49	546.469	523.201	1069.671
50-54	411.647	356.315	767.962
55-59	434.359	340.840	775.199
60-64	310.229	280.562	590.790
65-69	291.705	239.430	531.134
70-74	144.138	141.159	285.297
75 +	196.550	173.189	369.739
Total	15305.936	15327.171	30633.106

x  
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Table 2 (continued)

REGION : Total PERIOD : 2002

AGES/ BY SEX	POP55 (/10 <sup>3</sup> )		Total
	Female	Male	
0-4	2057.315	2133.754	4191.069
5-9	2021.711	2089.700	4111.410
10-14	1928.455	1988.597	3917.052
15-19	1773.556	1830.721	3604.277
20-24	1460.097	1489.189	2949.286
25-29	1391.053	1430.722	2821.775
30-34	1205.968	1260.384	2466.352
35-39	1079.750	1036.825	2116.575
40-44	943.192	930.151	1873.343
45-49	716.471	720.353	1436.824
50-54	529.440	501.039	1030.480
55-59	392.984	333.397	726.380
60-64	404.688	307.600	712.288
65-69	276.967	239.577	516.544
70-74	241.696	187.298	428.994
75 +	201.684	175.869	377.553
<b>Total</b>	<b>16625.027</b>	<b>16655.175</b>	<b>33280.202</b>

AGES/ BY SEX	POP55(High) (/10 <sup>3</sup> )		Total
	Female	Male	
0-4	2492.717	2585.333	5078.050
5-9	2264.272	2340.419	4604.691
10-14	2018.171	2081.111	4099.282
15-19	1773.556	1830.721	3604.277
20-24	1460.097	1489.189	2949.286
25-29	1391.053	1430.722	2821.775
30-34	1205.968	1260.384	2466.352
35-39	1079.750	1036.825	2116.575
40-44	943.192	930.151	1873.343
45-49	716.471	720.353	1436.824
50-54	529.440	501.039	1030.480
55-59	392.984	333.397	726.380
60-64	404.688	307.600	712.288
65-69	276.967	239.577	516.544
70-74	241.696	187.298	428.994
75 +	201.684	175.869	377.553
<b>Total</b>	<b>17392.706</b>	<b>17449.987</b>	<b>34842.692</b>

Table 2 (continued)

REGION : Total PERIOD : 2007

AGE5/ BY SEX	POP55 (/10 <sup>3</sup> )		Total
	Female	Male	
0-4	2017.475	2094.916	4112.392
5-9	2042.556	2113.639	4156.194
10-14	2014.944	2080.115	4095.059
15-19	1921.275	1977.937	3899.212
20-24	1763.203	1814.637	3577.841
25-29	1449.069	1473.800	2922.869
30-34	1378.580	1415.100	2793.680
35-39	1192.714	1243.905	2436.619
40-44	1064.288	1018.603	2082.891
45-49	924.397	906.045	1830.442
50-54	695.697	691.807	1387.503
55-59	506.858	470.425	977.283
60-64	367.515	302.182	669.696
65-69	363.123	264.122	627.245
70-74	231.003	188.727	419.730
75 +	277.769	210.436	488.205
<b>Total</b>	<b>18210.464</b>	<b>18266.396</b>	<b>36476.860</b>

AGE5/ BY SEX	POP55(High) (/10 <sup>3</sup> )		Total
	Female	Male	
0-4	2691.845	2795.172	5487.016
5-9	2474.834	2560.961	5035.794
10-14	2256.693	2329.684	4586.377
15-19	2010.657	2069.955	4080.611
20-24	1763.203	1814.637	3577.841
25-29	1449.069	1473.800	2922.869
30-34	1378.580	1415.100	2793.680
35-39	1192.714	1243.905	2436.619
40-44	1064.288	1018.603	2082.891
45-49	924.397	906.045	1830.442
50-54	695.697	691.807	1387.503
55-59	506.858	470.425	977.283
60-64	367.515	302.182	669.696
65-69	363.123	264.122	627.245
70-74	231.003	188.727	419.730
75 +	277.769	210.436	488.205
<b>Total</b>	<b>19648.244</b>	<b>19755.560</b>	<b>39403.803</b>

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**Table 3: Primary Education Projections for Two Population Scenarios**

**TOTENROL** : Total enrolment (all grades)  
**TOTTEACH** : Total number of teachers  
**CLASSES** : Number of Classes  
**ROOMS** : Number of Classrooms  
**NEWROOMS** : New Classrooms Required  
**CURRENT** : Total Recurrent Costs  
**CAPITAL** : Total Capital Costs  
**TOTCOST** : Total Cost (Recurrent + Capital)

PERIOD/	TOTENROL (/10 <sup>3</sup> )	TOTENROL(High) (/10 <sup>3</sup> )	TOTTEACH
1987	2855.198	2855.198	78763
1988	2957.196	2957.196	81578
1989	3068.746	3068.746	84655
1990	3195.639	3195.639	88156
1991	3341.279	3341.279	92173
1992	3503.029	3503.029	96635
1993	3674.517	3674.517	101366
1994	3847.317	3850.002	106133
1995	4007.265	4024.567	110545
1996	4155.352	4195.795	114630
1997	4291.952	4364.096	118399
1998	4420.432	4532.218	121943
1999	4542.161	4701.575	125301
2000	4657.689	4872.777	128488
2001	4766.677	5045.425	131495
2002	4868.712	5218.710	134309
2003	4965.828	5393.897	136988
2004	5057.186	5569.643	139509
2005	5142.301	5744.967	141857
2006	5221.198	5919.616	144033
2007	5294.046	6093.919	146043

Table 3 (continued)

PERIOD/	TOTTEACH(High)	CLASSES	CLASSES (High)	ROOMS
1987	78763	69066	69066	51727
1988	81578	71534	71534	53575
1989	84655	74232	74232	55596
1990	88156	77301	77301	57895
1991	92173	80824	80824	60534
1992	96635	84737	84737	63464
1993	101366	88885	88885	66571
1994	106207	93065	93130	69701
1995	111023	96934	97353	72599
1996	115746	100517	101495	75282
1997	120389	103821	105566	77757
1998	125027	106929	109533	80084
1999	129699	109873	113729	82290
2000	134421	112668	117871	84383
2001	139184	115304	122047	86357
2002	143964	117772	126239	88206
2003	148797	120122	130476	89965
2004	153645	122332	134728	91620
2005	158482	124390	138969	93162
2006	163300	126299	143193	94592
2007	168109	128061	147410	95912

PERIOD/	ROOMS (High)	NEWROOMS	NEWROOMS (High)	CURRENT (dirham/10 <sup>6</sup> )
1987	51727	1871	1871	2027.98
1988	53575	2107	2107	2118.04
1989	55596	2289	2289	2216.17
1990	57895	2577	2577	2326.74
1991	60534	2928	2928	2452.58
1992	63464	3233	3233	2592.18
1993	66571	3424	3424	2741.22
1994	69750	3381	3512	2893.74
1995	72913	3246	3511	3039.11
1996	76015	3046	3467	3177.85
1997	79064	2851	3429	3310.00
1998	82110	2716	3441	3437.91
1999	85178	2606	3479	3562.49
2000	88279	2504	3528	3684.05
2001	91407	2396	3569	3802.23
2002	94547	2280	3596	3916.59
2003	97721	2200	3647	4028.64
2004	100905	2105	3673	4137.62
2005	104081	2000	3681	4243.04
2006	107245	1895	3685	4344.83
2007	110403	1793	3694	4443.01

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Table 3 (continued)

PERIOD/	CURRENT(High) (dirham/10 <sup>6</sup> )	CAPITAL (dirham/10 <sup>6</sup> )	CAPITAL(High) (dirham/10 <sup>6</sup> )
1987	2027.981	334.497	334.497
1988	2118.049	376.645	376.645
1989	2216.170	409.241	409.241
1990	2326.746	460.747	460.747
1991	2452.584	523.528	523.528
1992	2592.182	578.073	578.073
1993	2741.223	612.239	612.239
1994	2895.678	604.611	627.962
1995	3051.973	580.432	627.825
1996	3208.276	544.601	619.840
1997	3364.841	509.788	613.136
1998	3523.719	485.701	615.280
1999	3686.023	465.913	622.003
2000	3852.286	447.794	630.722
2001	4022.270	428.482	638.181
2002	4195.402	407.727	643.039
2003	4372.738	393.443	652.008
2004	4553.277	376.364	656.655
2005	4736.275	357.623	658.135
2006	4921.550	338.858	658.790
2007	5109.392	320.540	660.494

PERIOD/	TOTCOST (Dirham/10 <sup>6</sup> )	TOTCOST(High) (Dirham/10 <sup>6</sup> )
1987	2362.478	2362.478
1988	2494.694	2494.694
1989	2625.411	2625.411
1990	2787.493	2787.493
1991	2976.112	2976.112
1992	3170.254	3170.254
1993	3353.462	3353.462
1994	3498.357	3523.640
1995	3619.542	3679.798
1996	3722.452	3828.116
1997	3819.793	3977.977
1998	3923.619	4138.999
1999	4028.409	4308.026
2000	4131.851	4483.008
2001	4230.719	4660.451
2002	4324.325	4838.441
2003	4422.084	5024.745
2004	4513.984	5209.933
2005	4600.671	5394.410
2006	4683.694	5580.340
2007	4763.550	5769.886

**Table 4: Projected health sector costs for two fertility scenarios**

DOCS : Number of public doctors (projected)  
 BEDS : Number of hospital beds (projected)  
 CENTERS : Number of health centers (projected);  
 DISPENS : Number of dispensaries (projected)  
 CURRENT : Recurrent health costs (projected)  
 CAPITAL : Health capital costs (projected)  
 TOTCOST : Total Health Expenditures (Current+Cap.)

PERIOD/	DOCS	DOCS(High)	BEDS
1987	1643.492	1643.492	31347.493
1988	1731.366	1732.256	33023.440
1989	1828.185	1830.981	34868.335
1990	1929.084	1934.831	36790.741
1991	2034.171	2043.951	38792.680
1992	2142.323	2157.266	40852.707
1993	2261.214	2282.941	43117.070
1994	2388.619	2418.658	45543.324
1995	2525.554	2565.471	48150.692
1996	2673.358	2724.752	50964.655
1997	2833.906	2898.394	54020.803
1998	2999.505	3081.027	57172.362
1999	3179.663	3280.843	60600.432
2000	3374.712	3498.468	64311.139
2001	3586.273	3735.865	68335.110
2002	3814.625	3993.720	72677.420
2003	4056.883	4271.476	77282.739
2004	4324.399	4580.447	82366.914
2005	4618.576	4922.872	87956.116
2006	4943.146	5303.496	94120.755
2007	5302.064	5727.507	100935.201

Table 4 (continued)

PERIOD/	BEDS (High)	CENTERS	CENTERS (High)
1987	31347.493	378.769	378.769
1988	33040.420	394.693	394.896
1989	34921.658	412.030	412.660
1990	36900.335	429.616	430.896
1991	38979.184	447.410	449.561
1992	41137.643	465.096	468.340
1993	43531.375	484.252	488.905
1994	46116.071	504.268	510.610
1995	48911.730	525.227	533.529
1996	51944.418	547.256	557.776
1997	55250.092	570.559	583.542
1998	58726.224	593.410	609.538
1999	62528.804	617.521	637.171
2000	66669.521	642.701	666.270
2001	71185.528	668.978	696.882
2002	76089.592	696.083	728.764
2003	81370.677	723.156	761.408
2004	87243.866	751.834	796.350
2005	93751.138	781.832	833.343
2006	100982.051	813.180	872.460
2007	109034.351	845.816	913.683

PERIOD/	DISPENS	DISPENS (High)	CURRENT (Dirham/10 <sup>6</sup> )
1987	1302.515	1302.515	1293.000
1988	1349.172	1349.865	1422.341
1989	1399.824	1401.964	1564.090
1990	1450.421	1454.742	1710.731
1991	1500.781	1507.997	1862.297
1992	1549.816	1560.625	2016.893
1993	1602.724	1618.124	2186.281
1994	1657.372	1678.214	2366.731
1995	1713.933	1741.023	2559.529
1996	1772.717	1806.797	2766.418
1997	1834.267	1876.007	2989.891
1998	1892.939	1944.386	3217.893
1999	1954.140	2016.323	3464.472
2000	2017.129	2091.100	3729.615
2001	2081.851	2168.689	4015.180
2002	2147.341	2248.157	4320.957
2003	2210.839	2327.783	4642.030
2004	2277.242	2412.078	4994.336
2005	2345.496	2500.030	5378.899
2006	2415.499	2591.586	5799.976
2007	2486.870	2686.419	6261.901

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Table 4 (continued)

PERIOD/	CURRENT(High) (Dirham/10 <sup>6</sup> )	CAPITAL (Dirham/10 <sup>6</sup> )	CAPITAL(High) (Dirham/10 <sup>6</sup> )
1987	1293.000	400.000	400.000
1988	1423.750	407.532	410.346
1989	1568.498	429.968	435.918
1990	1719.756	436.645	445.743
1991	1877.591	443.135	455.410
1992	2040.158	445.647	461.146
1993	2219.961	470.895	491.012
1994	2413.081	488.321	512.616
1995	2620.828	507.736	536.183
1996	2844.954	529.937	562.471
1997	3087.940	556.252	592.764
1998	3341.194	558.865	605.857
1999	3616.682	587.619	640.940
2000	3914.749	615.418	675.594
2001	4237.675	645.701	713.345
2002	4585.743	674.471	750.301
2003	4957.336	692.986	782.851
2004	5368.140	739.597	842.666
2005	5820.182	786.274	903.978
2006	6318.929	838.660	972.723
2007	6870.188	896.506	1049.019

PERIOD/	TOTCOST (Dirham/10 <sup>6</sup> )	TOTCOST(High) (Dirham/10 <sup>6</sup> )
1987	1693.000	1693.000
1988	1829.873	1834.096
1989	1994.058	2004.417
1990	2147.376	2165.499
1991	2305.432	2333.001
1992	2462.540	2501.305
1993	2657.176	2710.973
1994	2853.053	2925.697
1995	3067.265	3157.011
1996	3296.335	3407.426
1997	3546.143	3680.704
1998	3776.757	3947.052
1999	4052.091	4257.623
2000	4345.033	4590.343
2001	4660.881	4951.020
2002	4995.428	5336.045
2003	5335.017	5740.187
2004	5733.933	6210.805
2005	6165.173	6724.161
2006	6638.635	7291.653
2007	7158.407	7919.207

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**Table 5: Public Users, Supply and Cost by (Modern) Method  
for Two Fertility Scenarios**

UTILPUB : Public Users by Method  
 APPRVPUB : Public Supply by Method  
 COUTPUB : Public Cost by Method

**METHOD: P11**

PERIOD/	UTILPUB (/10 <sup>3</sup> )	UTILPUB(High) (/10 <sup>3</sup> )	APPRVPUB (/10 <sup>3</sup> )	APPRVPUB(High) (/10 <sup>3</sup> )
1987	596.955	596.955	7760.409	7760.409
1988	644.911	628.213	8383.847	8166.773
1989	694.696	660.208	9031.049	8582.708
1990	746.759	693.379	9707.861	9013.932
1991	801.696	728.333	10422.048	9468.332
1992	859.873	765.455	11178.350	9950.917
1993	921.107	804.618	11974.388	10460.029
1994	985.410	845.831	12810.329	10995.806
1995	1052.363	888.660	13680.722	11552.584
1996	1121.426	932.518	14578.534	12122.735
1997	1192.238	977.000	15499.091	12701.003
1998	1264.321	1021.678	16436.178	13281.817
1999	1338.162	1067.013	17396.105	13871.172
2000	1413.966	1113.185	18381.558	14471.409
2001	1492.063	1160.488	19396.823	15086.346
2002	1572.697	1209.150	20445.059	15718.948
2003	1655.554	1258.936	21522.203	16366.170
2004	1740.991	1310.207	22632.882	17032.691
2005	1828.819	1362.890	23774.648	17717.575
2006	1918.750	1416.862	24943.752	18419.206
2007	2010.556	1472.068	26137.228	19136.883

Table 5 (continued)

PERIOD/	COU TPUB (Dirham/10 <sup>6</sup> )	COU TPUB(High) (Dirham/10 <sup>6</sup> )
1987	65.324	65.324
1988	70.572	68.745
1989	76.020	72.246
1990	81.717	75.876
1991	87.729	79.701
1992	94.095	83.763
1993	100.796	88.048
1994	107.832	92.558
1995	115.159	97.245
1996	122.716	102.044
1997	130.465	106.912
1998	138.353	111.801
1999	146.433	116.762
2000	154.729	121.815
2001	163.275	126.991
2002	172.098	132.316
2003	181.165	137.764
2004	190.515	143.374
2005	200.125	149.139
2006	209.967	155.046
2007	220.113	161.087

METHOD: IUD

PERIOD/	UTILPUB (/10 <sup>3</sup> )	UTILPUB(High) (/10 <sup>3</sup> )	APPRVPUB (/10 <sup>3</sup> )	APPRVPUB(High) (/10 <sup>3</sup> )
1987	76.786	76.786	11.518	11.518
1988	82.783	80.773	17.964	15.803
1989	89.031	84.872	19.134	16.523
1990	95.591	89.141	20.406	17.320
1991	102.540	93.659	21.808	18.223
1992	109.922	98.473	23.317	19.224
1993	117.713	103.565	24.864	20.245
1994	125.913	108.936	26.472	21.308
1995	134.458	114.520	28.073	22.344
1996	143.267	120.234	29.638	23.320
1997	152.282	126.017	31.182	24.252
1998	161.431	131.805	32.677	25.124
1999	170.777	137.658	34.262	26.063
2000	180.353	143.606	35.911	27.043
2001	190.213	149.694	37.652	28.086
2002	200.396	155.957	39.479	29.186
2003	210.869	162.366	41.317	30.283
2004	221.676	168.967	43.248	31.451
2005	232.769	175.728	45.177	32.613
2006	244.074	182.603	47.068	33.749
2007	255.536	189.562	48.933	34.872

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Table 5 (continued)

PERIOD/	COU TPUB (Dirham/10 <sup>6</sup> )	COU TPUB(High) (Dirham/10 <sup>6</sup> )
1987	0.664	0.664
1988	1.035	0.911
1989	1.103	0.952
1990	1.176	0.998
1991	1.257	1.050
1992	1.344	1.108
1993	1.433	1.167
1994	1.525	1.228
1995	1.618	1.288
1996	1.708	1.344
1997	1.797	1.397
1998	1.883	1.448
1999	1.974	1.502
2000	2.069	1.558
2001	2.170	1.618
2002	2.275	1.682
2003	2.381	1.745
2004	2.492	1.812
2005	2.603	1.879
2006	2.712	1.945
2007	2.820	2.009

METHOD: Sterilisation

PERIOD/	UTILPUB (/10 <sup>3</sup> )	UTILPUB(High) (/10 <sup>3</sup> )	APPRVPUB (/10 <sup>3</sup> )	APPRVPUB(High) (/10 <sup>3</sup> )
1987	51.528	51.528	2.446	2.446
1988	55.048	54.102	6.004	5.041
1989	58.785	56.806	6.218	5.149
1990	62.785	59.678	6.461	5.282
1991	67.102	62.773	6.780	5.488
1992	71.761	66.120	7.172	5.769
1993	76.738	69.697	7.593	6.081
1994	82.031	73.503	8.059	6.436
1995	87.570	77.472	8.491	6.760
1996	93.262	81.518	8.850	7.014
1997	99.039	85.579	9.144	7.207
1998	104.816	89.581	9.352	7.325
1999	110.643	93.575	9.614	7.496
2000	116.557	97.592	9.924	7.706
2001	122.629	101.688	10.319	7.984
2002	128.909	105.900	10.782	8.314
2003	135.391	110.216	11.255	8.646
2004	142.109	114.663	11.777	9.018
2005	148.955	119.155	12.198	9.306
2006	155.772	123.569	12.449	9.460
2007	162.446	127.823	12.568	9.511

Table 5 (continued)

PERIOD/	COUTPUB (Dirham/10 <sup>6</sup> )	COUTPUB(High) (Dirham/10 <sup>6</sup> )
1987	0.611	0.611
1988	1.501	1.260
1989	1.554	1.287
1990	1.615	1.320
1991	1.695	1.372
1992	1.793	1.442
1993	1.898	1.520
1994	2.015	1.609
1995	2.123	1.690
1996	2.212	1.753
1997	2.286	1.802
1998	2.338	1.831
1999	2.404	1.874
2000	2.481	1.926
2001	2.580	1.996
2002	2.695	2.079
2003	2.814	2.162
2004	2.944	2.254
2005	3.049	2.327
2006	3.112	2.365
2007	3.142	2.378

METHOD: Other Modern Methods

PERIOD/	UTILPUB (/10 <sup>3</sup> )	UTILPUB(High) (/10 <sup>3</sup> )	APPRVPUB (/10 <sup>3</sup> )	APPRVPUB(High) (/10 <sup>3</sup> )
1987	20.864	20.864	2086.401	2086.401
1988	22.383	21.925	2238.272	2192.505
1989	23.980	23.028	2398.033	2302.838
1990	25.674	24.190	2567.442	2419.010
1991	27.486	25.432	2748.643	2543.161
1992	29.428	26.765	2942.767	2676.513
1993	31.489	28.184	3148.945	2818.382
1994	33.671	29.687	3367.140	2968.742
1995	35.950	31.254	3595.027	3125.358
1996	38.296	32.853	3829.563	3285.272
1997	40.685	34.463	4068.528	3446.346
1998	43.092	36.062	4309.166	3606.208
1999	45.533	37.667	4553.336	3766.699
2000	48.023	39.289	4802.287	3928.875
2001	50.582	40.945	5058.237	4094.532
2002	53.228	42.649	5322.768	4264.899
2003	55.953	44.394	5595.349	4439.372
2004	58.773	46.191	5877.258	4619.112
2005	61.656	48.018	6165.553	4801.837
2006	64.558	49.843	6455.817	4984.254
2007	67.449	51.642	6744.910	5164.210

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**Table 6: Contraceptive Prevalence (Modern Methods)  
and Program Cost for Two Fertility Scenarios**

**PREVLNCE** : Contraceptive Prevalence  
**TOTCOST** : Total Public Cost

PERIOD/	PREVLNCE	PREVLNCE(High)	TOTCOST (Dirham/10 <sup>6</sup> )	TOTCOST(High (Dirham/10 <sup>6</sup> )
1987	0.286	0.286	73.624	73.62
1988	0.299	0.292	80.645	78.29
1989	0.312	0.297	86.751	82.23
1990	0.325	0.303	93.153	86.33
1991	0.339	0.309	99.935	90.68
1992	0.352	0.314	107.140	95.32
1993	0.364	0.320	114.729	100.22
1994	0.377	0.325	122.710	105.39
1995	0.389	0.331	131.004	110.74
1996	0.402	0.336	139.531	116.20
1997	0.414	0.341	148.247	121.71
1998	0.426	0.346	157.084	127.22
1999	0.437	0.351	166.143	132.82
2000	0.449	0.356	175.449	138.52
2001	0.461	0.361	185.056	144.39
2002	0.473	0.366	194.991	150.43
2003	0.484	0.371	205.200	156.61
2004	0.496	0.376	215.740	162.99
2005	0.508	0.381	226.538	169.51
2006	0.519	0.386	237.528	176.13
2007	0.531	0.391	248.685	182.86

**ANNEX C**  
**SECTOR FINANCIAL ANALYSIS**

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1/25/20

## ANNEX C

### SECTOR FINANCIAL ANALYSIS

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The financial analysis reviews recent budgetary trends affecting the public health sector and the implications these have for renewed efforts in the area of cost recovery. In this context, public finance issues are outlined and will be an integral part of the policy dialogue agenda conducted under the project. The analysis also highlights potential complementarities arising from alternative health care delivery systems and private health insurance. The recurrent cost burden of this project is analyzed in terms of project sustainability after AID funding ceases in 1995. The demand for contraceptives and the adequacy of public sector supplies is analyzed to assure that the contraceptive prevalence target can met. The conformance of recurrent cost financing by the project to the AID Recurrent Cost Policy Paper is examined. Finally, the financial management competence of the MOPH is discussed.

#### 1. Recent Budgetary Trends

The public sector dominates the provision of health care in Morocco with approximately eighty percent of the population depending on its services. In terms of the public sector health budget, the MOPH is responsible for more than 90 percent of expenditures financed by government revenues. Alarminglly, when inflation and population growth are taken into account, the MOPH budget has been declining in real per capita terms in recent years. Moreover, the relative distribution of expenditures within this limited budget have continued to favor curative urban-based health care. Thus the preventive health care share of the MOPH budget shown in Table I has declined in relative terms from 7.6 percent in 1980 to 5.7 percent by 1987. Furthermore, fiscal austerity measures have led to curtailment of the investment budget and a cut-back in recurrent costs expenditures. This has had serious implications for both program coverage and quality of services provided under the public health care system.

Table I  
PUBLIC EXPENDITURES ON HEALTH IN MOROCCO  
1980-1984-1987  
(DH,000)

Thousands of DHS	1980		1984		1987		Average Annual Rate of Increase		
	Amount	%	Amount	%	Amount	%	80-84	84-87	80-87
Hospital Care	414.4	55.2	604.4	56.2	816.8	57.3	9.9	10.6	10.2
Ambulatory Care	173.5	23.1	267.5	24.9	315.6	22.1	11.4	5.7	8.9
<b>Total Medical Care</b>	<b>587.9</b>	<b>78.3</b>	<b>871.9</b>	<b>81.1</b>	<b>1,132.4</b>	<b>79.4</b>	<b>10.4</b>	<b>9.1</b>	<b>9.8</b>
Environmental/ Health Prevention/ Sanitation	56.7	7.6	70.0	6.5	82.0	5.8	5.4	5.4	5.4
Medical Education*	27.1	3.6	20.1	1.9	54.9	3.8	-7.2	39.7	10.6
Administration	78.6	10.5	112.7	10.5	157.1	11.0	9.4	11.7	10.4
<b>Total</b>	<b>750.3</b>	<b>100.0</b>	<b>1,074.8</b>	<b>100.0</b>	<b>1,426.3</b>	<b>100.0</b>	<b>9.4</b>	<b>9.9</b>	<b>9.6</b>

Major sources of expenditures: Min. of Public Health, Min. of Defense, Min. of Interior (Local Collectives), Min. of Social Affairs, and Min. of Agriculture. Ministry of Public Health is responsible for 90% of public health care system.

\* The entry does not include the volume of treatments given by teaching physicians in the CHU (18.5 million DHS in 1980; 24.8 million DHS in 1984; and 29.8 million DHS in 1987). These expenditures were included under the heading, personnel costs for hospital care.

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Table II, presents detailed time-series expenditure data, showing trends in MOPH recurrent and total budget (recurrent plus investment) for the years 1980 to 1986. The data are given in both nominal and real terms, and are also converted to a per capita basis based on estimated system coverage. Between 1982-1986, the population of Morocco increased from 20.4 to 22.7 million, or 11.3 percent. Although MOPH recurrent and total expenditures steadily increased in nominal terms throughout the first half of the 1980s, they declined, in real terms, by 23.1 and 19.4 percent respectively. In last two columns of table II these real expenditures are calculated on a per capita basis, using the total Moroccan population as the denominator. The data show that real per capita recurrent expenditures by the MOPH were 30.3 DH in 1982, and had fallen to 21.0 DH by 1986, the last year for which MOPH data were available; likewise, real per capita total expenditures by the MOPH fell from 41.6 DH in 1982 to 30.1 DH in 1986. The respective percentage changes in these numbers were a minus 30.7 percent and a minus 27.6 percent.

It can be argued that these government per capita data do not present a realistic picture, because, at the same time that MOPH real expenditures were declining, the demand for services in MOPH facilities was declining, due to: (1) the spread of CNOPS health insurance and the building of the affiliated mutuelles clinics for government employees; (2) the building of 12 CMSS multi-purpose clinics that could be used by anyone willing to pay their fees, and (3) to growth in other forms of private health insurance and in health care in the private sector. This argument is legitimate, and with what data were available, another set of per capita calculations were made and put into Table II in the parentheses in columns 1, 6 and 7 to take into account the population actually served by the MOPH and excluding the estimated 4.9 million people using health services delivered outside the MOPH.

Thus there were 17.2 million beneficiaries in 1985 dependent solely on the MOPH for health care services. If this number is taken as the base in calculating per capita expenditures, then for 1985 the expenditure was 29 DH and 34,5 DH for recurrent and total budget respectively. Comparing 1985 data with 1982 data (shown in the parentheses in Table II) the drop appears less precipitous. Thus even adjusting expenditure data for those who are wholly dependent on MOPH facilities, the per capita expenditure continues to show a decline albeit more gradual. This raises the issue of relative priorities within the MOPH budget and the relative cost-effectiveness of individual public health care programs.

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Table II  
BUDGET OF MOPH  
(millions of DH)

<u>Year</u>	<u>Population in millions (coverage)</u>	<u>Recurrent Budget (nominal)</u>	<u>Total Budget (nominal)</u>	<u>Recurrent Budget (real)</u>	<u>Total Budget (real)</u>	<u>Recurrent Budget (real) per cap</u>	<u>Total Budget (real) per cap</u>
1980		701.2	938.9	630.2	759.5		
1981		803.1	1,103.1	613.5	821.5		
1982	20.4 (18.8)	904.6	1,149.2	618.4	849.4	30.3 (32.9)	41.6 (45.2)
1983	20.9	914.2	1,053.5	640.6	813.6	30.7	38.9
1984	21.5	985.1	1,171.1	533.0	614.2	24.8	28.6
1985	22.1 (17.2)	1,137.9	1,637.9	498.5	592.6	22.6 (29.0)	26.8 (34.5)
1986	22.7			475.6	684.4	21.0	30.1
<b>% change</b>							
82-86	+11.3			-23.1	-19.4	-30.7 (-11.9)	-27.6 (-23.7)
82-85							

SOURCE: Ahmed El Hariti, "Le Système de Santé au Maroc entre les Contraintes Financières et les Exigences Sociales," 1988  
Centre d'Etudes et de Recherches Démographiques.  
"Analyses et Tendances...", 1986, p. 207

The most fundamental option available to the MOPH is to reallocate its budget to increase its investments in health prevention and promotion activities by shifting resources away from curative care provision. First, this concept of "shifting" resources within the MOPH budget is a practical one, given the unlikelihood that additional budgetary resources will become available for investment in health prevention and promotion activities. Second, it is an efficiency-enhancing option since it improves the overall cost-effectiveness of the MOPH budget (comparing investment returns between preventive and curative care). Third, from a public finance point-of-view, health prevention and promotion are referred to as "public goods," that is, difficult if not impossible to price in the market (since their benefits are not easily excluded from persons who do not pay a price for them). Because of this feature, the government is the most efficient, if not the only possible provider of these services. Finally, and directly related to the Project, the MOPH has been working with AID and other health donors over the last decade to develop and refine its primary health care/health prevention strategy and program. It is therefore well prepared to direct increased investments into these activities in the 1990s.

Operationally this means first, the so-called "divestiture" of certain population groups from the MOPH rolls, by fact of their use of private clinics and/or insured status. This could occur officially, as part of a new policy to target MOPH subsidies to poorer population groups, both urban and rural. As it is now, scarce MOPH funds are being used to provide essentially "back up" services to population groups that can afford to and actually prefer to use alternative services. Secondly, and necessarily linked to resource reallocation, is the future of the evolving role of the MOPH. The future evolution whereby MOPH gradually "divests" itself (officially) of its role as a universal provider and financier of health services and instead becomes a guarantor of access to services by the population, regardless of ability to pay, a regulator of health services quality, in both the public and private sectors, and a financier and stimulator of demand for public goods that are relevant to the epidemiological trends of the modernized industrial sectors of Morocco.

## 2. Cost Recovery and Private "Providers"

In light of the above budgetary realities, there is a need to improve public health system efficiency and cost recovery from those who can afford to pay. The identification and estimation of the costs of providing services is a prerequisite to the establishment of fees which are related to actual costs through a social pricing formula. In addition, there needs to be a regular adjustment of fees to reflect inflation and improvements in medical technology. Finally, the institution must adopt an efficient fee collection system with a formula for determining how much of collected fees remain with the institution and how much are redistributed through the system. The application of cost accounting will help identify cost saving opportunities internally as well as stimulate market entry by private providers of both health care and financing e.g. health insurance. The greater the cost recovery effort within the public health system, the stronger the inducement will be for private health providers to enter the "health care market" and service specific market segments. The more competitive cost structure of

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private providers may permit market entry even before full public sector cost recovery is attained. The creation of market opportunities for the private sector through the pricing mechanism is an important operational approach which this project will support through policy dialogue, design and installation of cost accounting methodologies, reform implementation studies and pilot efforts.

### 3. Cost Recovery in the Public Sector

Cost recovery in the health-care sector refers to charging prices for medical goods and services that have often, in the past, been provided free-of-charge in government health-care facilities. Many professionals in the health care field have balked at the thought of this practice, because one of the major purposes of public facilities is to serve the poor. But, these same professionals have now come to realize that cost recovery can achieve a multiplicity of desirable objectives, if it is carefully designed. One objective of cost recovery can be to raise additional financial resources for the public health care system. However, people who can afford to pay for health care will usually only pay for the public health care if its quality is superior to that provided by the private sector at comparable prices. Within this kind of economic context of pricing and quality change, charging nominal prices, or even higher than nominal prices, only to the public sector clientele who can afford to pay the prices, provides additional revenues with which to improve the quality of care for all of the public sector.

Moreover, inversely-graduated cost recovery can also provide the price signals within the health care system that could also lead to a more rational use of the total system through referrals, and that could mean greater levels of quality of care. For example, it has often been observed in many developing countries that people bypass lower-level facilities in order to go to higher levels for treatment that could have more appropriately been given at the lower-level facilities. Reasons for this kind of behavior include the desire for specialist services and for a better quality of care, because lower-level facilities often do not have drugs and supplies. If a price structure were to be implemented that would charge relatively higher fees at the tertiary level of the system, and very low or no fees at the primary level, then many people would have an economic incentive to first seek treatment at lower levels. This incentive would be even more strongly reinforced if care-giver referrals to higher levels of the system went uncharged, and if some of the revenue gains from the higher levels of the system were to be channeled down to the lower levels, in order to improve quality there.

Of course, equity considerations always dictate that government be extremely careful in ascertaining who are the extremely poor among its clientele, and not charging them, except if they use higher level care, without first obtaining a referral. The major incentive that higher-level facilities have to collect these user fees is that they be allowed to retain some percentage, for example 50 percent, of the fees that they collect (the other 50 percent going to the MOPH for distribution to lower levels of the system) and that their budgets be not diminished by the MOPH by the amounts that they are allowed to retain from their cost-recovery efforts.

Cost-recovery efforts in the public health care sector in Morocco are presently not widespread. The data that are available indicate that cost recovery, as a percentage of total government health expenditures was 2.6 percent in 1980, 4.8 percent in 1984, and 4.9 percent in 1987<sup>1/</sup>. This compares to a 1986 cost recovery ratio of 12.1 percent in Ghana, a country with a considerably lower per capita income than Morocco. On the other hand, cost recovery at the all-hospital level in Morocco increased from 3.7 percent in 1980 to 7.8 percent in 1987, and cost recovery at the C.H.U. increased from 4.5 percent to 10.8 percent. These trends are encouraging. Also, the C.H.U. in Casablanca is presently preparing a new cost-recovery schedule, together with a plan for new quality improvements, that, it hopes, will eventually raise its cost-recovery ratio to about 50 percent.

The nine newly-autonomous regional hospitals will also soon begin more intensive cost-recovery and quality-improvement efforts. Cost-recovery policy issues that remain to be resolved included (a) the development of better methods of identifying and exempting the truly poor from payment, (2) establishing percentage amounts to be retained by the facilities practicing the cost recovery, and (3) devising a revenue-sharing formula to be used by the MOPH in order to distribute an MOPH share of cost recovery to poorer, lower-level facilities.

An area closely related to cost recovery is cost reduction. Implicit in the goal of cost recovery is a thorough understanding of the cost structure. Once actual costs are quantified, one has a better rational base for setting prices for health services. However, if one has not been closely monitoring costs, these "costs" may reflect inefficiencies and costs that can be reduced or eliminated.

Conceptually, cost recovery is a four-step process:

1. Identifying existing costs and cost centers
2. Measuring productivity and efficiency
3. Revising cost estimates based on improved operations
4. Setting prices that reflect cost as well as desired incentives to use

Each of these steps requires considerable effort and development of standards and measures for collecting cost data and analysing it on a "procedure" basis--different laboratory tests or different medical services (cost centers). The project will provide technical assistance in this important area on a pilot basis.

<sup>1/</sup> Groupement ICONE/SEDES, Premiers Résultats des Dépenses Publiques, de Santé au Maroc, 1980, 1984, 1987, Rabat 1989

#### 4. Expanding Health Insurance

Increasing coverage in the health insurance market could be a viable alternative to existing public sector care. To do this requires identifying new target populations that can be enrolled in group plans, particularly those in the "informal" sector. Preliminary criteria for this identification process needs to be considered, for example:

- administration procedures for premium collection
- health care service and facility accessibility
- acceptance of the insurance concept by the target enrollee population
- acceptance of the population by an insurer.

Once potential enrollment groups are preliminarily identified, a feasibility study needs to be carried out to see if the financial elements are sound, for example: actuarial considerations, premium levels, copayments, utilization expectation, preferred provider arrangements, etc. Based on one or more target populations, the feasibility study should result in financial projections which indicate the attractiveness of the project to investors, and public policy interests.

An investment constraint imposed on the insurance industry is that 60% of reserves must be invested in bonds issued or guaranteed by the government. Unlike the U.S. government bond market, the interest rates and yields in Morocco do not fluctuate with investor demand. The government borrowing "market" yields are below international money rates, and below domestic private-sector borrowing rates. The government also requires the banking system to purchase government bonds, amounting to roughly 30% of bank deposits. Although the balance is shifting toward the private sector, in 1982 government borrowing, from all domestic sources, consumed more than 70% of total credit available in Morocco. Insurance companies are potentially a huge source of private sector financing, as they are in the U.S., but they require a greater variety of investment vehicles than is currently offered between the imposed government bond purchases and the underdeveloped Casablanca stock exchange.

In an environment of controlled investment, it can be difficult for insurance companies to make a profitable return on their assets. The problem is exacerbated if they do not have good actuarial data to assess their future liabilities. It is challenging enough to meet these future liabilities when good actuarial data is available and there is a wide range of investment opportunities. When either of these is constrained it is much harder.

The insurance industry does not appear to be established enough or large enough to have reliable actuarial data from its own experience. Further, it is possible that historic experience, were it available, would not reflect the same characteristics in new target populations for expanded health coverage. This is in part because new populations may have different health problems and utilization tendencies, but also because new policies may increase accessibility and utilization of health care.

To influence utilization patterns, and reduce the risk from inaccurate actuarial predictions, it is highly recommended that some form of "co-payment" be built into health benefits. A co-payment is usually a nominal payment that is made to the health provider, by the consumer, at each visit. This dissuades the consumer who is covered by a third-party payor from over-utilizing the provider when the consumer doesn't incur any cost for do so.

##### 5. Recurrent Costs

The expansion of the family planning and maternal child health care program will have significant but easily absorbable recurrent cost implications for the budget of the Ministry of Public Health. At the same time, the expected increase in private health care financing, increased recovery of costs in public facilities, and increasing reliance on commercial distribution of contraceptives are expected to increase the resources available for health care. If such resources are not simply captured by the Ministry of Finance to reduce the overall budget deficit of the GOM, they can be used to increase financing for preventive health care and to increase public health care coverage in rural areas not well served by the health care system. Also, as Knowles and Benrida showed in their benefit-cost analysis (see appendix to Economic Analysis) the benefits due to averted pregnancies and births, and reduced infant morbidity and mortality, will far outweigh the expected level of recurrent costs from the program. It is a program which will pay for itself.

The Mission first estimated the costs of an expanded family planning and MCH program in Rabat 2496. These estimates have been further refined and are presented below.

Table III

Annual Operating Costs of the Project Estimated by the MOPH  
(in thousands of dollars)

	1990	1991	1992	1993	1994	1995	1996	Total
<b>Recurrent Budget:</b>								
Salaries Fieldworker Allowances	7,837	9,516	11,126	11,126	11,126	11,126	11,126	72,984
Mobility	428	470	517	569	626	689	758	4,057
Supplies	273	300	330	363	399	439	483	2,586
Contraceptives	1,982	2,091	2,170	2,260	2,359	2,421	2,383	15,666
Subtotal	11,271	13,167	14,973	15,189	15,425	15,635	15,758	101,418
MCH	1,904	1,904	1,904	1,904	1,904	1,904	1,904	13,328
Grand Total	13,175	15,071	16,877	17,093	17,329	17,539	17,662	114,746
<b>of which: USAID Project Budget</b>								
Mobility	270	270	200	140	70	0	0	950
Contraceptives	2,000	2,000	1,800	1,800	1,800	2,600	0	12,000
USAID Total	2,270	2,270	2,000	1,940	1,870	2,600	0	12,950

These figures are higher than initially estimated in the interim report on recurrent cost financing. However, the basic conclusions of that interim analysis remain unaltered. The recurrent costs are well within the expected growth of the health ministry budget, particularly to the extent that the efforts to increase cost recovery in public facilities and to rely more on commercial distribution of contraceptives succeed.

The expansion of the FP and MCH program through VDMS and mobile teams will raise annual operating costs to \$17.5 million by 1995 as shown in the table above as compared to \$8.6 million in 1989. In addition, equipment will have to be replaced periodically. This includes medical equipment and the additional vehicles and motorbikes used by itinerant agents and mobile teams. Assuming a 5 year useful life in rural conditions, the MOPH will have to devote about 4.3 million Dirhams or nearly \$500,000 to renew equipment for this program. However, as discussed in the section on cost-effectiveness, coverage will also increase in rural areas. The figure for 1995 includes \$11.1 million in salary costs, nearly \$2.1 million in allowances, transportation and supplies, and \$3.49 million in contraceptives and MCH products. The salary portion of the expanded program consists for the most part of employees already on MOPH payrolls and likely to remain employed with or without an expanded FP and MCH. The recurrent cost of the program to the MOPH is thus \$17.5 million in operating costs and \$0.5 million in capital

costs annually by 1995. This incremental cost is readily absorbed by an MOPH budget which we project to increase by \$64 million by 1995. This projection is based on moderate but steady growth in GDP projected by the World Bank and a constant share of the MOPH budget in the general and annexed budgets of the GOM equal to about 3.5 percent. Absorption of the increasing cost of the rural outreach program will require a shift within the MOPH budget, from 4.4% of the budget in 1989 to 7.0% in 1995. To the extent that curative health care expenditures are shifted to the private sector through cost recovery in public hospitals and the shifting of contraception costs to the private sector, the MOPH budget could decline in relation to GDP and still absorb the recurrent cost of the FP and MCH outreach program.

Given the strategy to reduce per user costs discussed in the economic analysis (see section on Program "Mix" and Cost-Effectiveness), continuing attention during the project to refinement of this strategy, other measures by the MOPH to recover costs, and the potential contribution of a future health financing initiative, the prospect of maintaining an effective outreach program without an inordinate increase in the MOPH budget is excellent.

#### 6. Demand for Contraceptives and the Adequacy of Public Sector Supplies

While the conclusion of the recurrent cost analysis is that these costs are readily manageable within foreseeable MOPH budget resources, there is nonetheless a significant recurrent cost issue with respect to the public supply of contraceptives during the life of the project. Projections of contraceptive use through 1997 made to calculate their recurrent costs show a growing gap between the amounts consumed each year from public sector supplies and the amounts financed by USAID to replenish public sector stocks of contraceptives. (See below) Unless other sources of supply for the public sector are increased, it would appear that the USAID-financed supplies will not be adequate to keep up with the growth in demand for contraceptives from the public sector. Various short-term strategies such as reduction of stock levels from the current norm of a one-year supply to a lower level (e.g. six months) and advance ordering for earlier delivery can insure that there are no interruptions in supply during the project for users of public sector sources of supply. However, it is clear from this analysis that the GOM must assume responsibility for procuring public sector supplies beginning with the 1994 budget year, or pursue a more aggressive social marketing strategy to bring about a shift more rapidly to private sector sources of supply and thereby ease the pressure on public sector supplies.

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>
<b>Total Cost - All Methods (dollars)</b>						
	3,035,172	3,311,239	3,613,867	3,937,254	4,066,778	4,124,447
<b>Public Share of Cost (dollars)</b>						
Total	2,170,812	2,260,619	2,359,088**	2,421,142	2,382,680	2,295,270
(USAID)*(2,000,000)	(1,800,000)	(1,800,000)	(1,800,000)	(1,800,000)	(2,600,000)	-
"Gap"	170,812	460,619	559,088	621,142	-217,320	2,295,270
<b>Private Share of Cost (dollars)</b>						
growth	864,359 0.21	1,050,620 0.22	1,254,780 0.19	1,516,112 0.21	1,684,098 0.11	1,829,177 0.09

\*USAID-financed procurement ordered two years before

\*\*GOM must budget \$2.4 million in 1994 for delivery in late 1996; use in 1997

The two-page table following this discussion entitled "Projection of Contraceptive Demand and Sources (1986-1997)" shows the projected growth of contraceptive use and the cost to the public sector for providing its share of the total. The cost figures built into the calculations are \$ .13 per cycle of oral contraceptives, \$1.45 per IUD, \$ .045 a piece for condoms and \$ .145 per unit of spermicide. The use of oral contraception is projected to decline from 82% of all modern methods in 1986 to 66% in 1997. During the same period, the use of IUDs is projected to increase from 9% to 17% and the use of sterilization is projected to increase from 6% to 12%. The public share in the cost of providing reversible contraceptive methods will decline from 79% of oral contraceptives in 1986 to 57% in 1997 and from 97% of all condoms and spermicides to only 56%. However, the public sector is assumed to remain the primary source of IUDs with its share declining only gradually from 96% to 89%. When these assumptions are combined with the growth of the population at risk (married women of reproductive age) and the targeted increase in contraceptive prevalence, the result is a growing budget for contraceptives to be financed by the public sector through 1995. At that time a peak of \$2.4 million is reached. Approximately the same amount of contraceptives will be provided through public sector sources in 1996 and thereafter the amount will decline slowly as the private sector share increases faster than the overall growth in contraceptive use.

The desired growth in contraceptive use during the project is accomplished by rapid growth of private sector supplies and a slower rate of growth for public sector supplies due to the declining share of the public sector for all contraceptives except IUDs. In spite of annual 20% growth rates for the private sector, the amounts supplied through USAID financing will fall behind the amounts used annually by 1991. At this point, in-country stocks can be drawn down below the one-year level in order to keep up with demand. By the end of 1994, stocks will be at about a six-month level unless other sources of

supply are expanded. By the end of 1995 stocks could decline to only a three-month supply, but the final USAID order of \$2.6 million will restore part of the depleted stocks in 1996. Thereafter NOPH-procured contraceptives (orders beginning in 1994 for delivery in 1996) will keep abreast of the demand and maintain stocks at a five to six-month level.

The conclusion of this analysis is that USAID financing will not suffice to procure all necessary public sector contraceptives. Depending upon the NOPH's desired stock level for contraceptives, the GOM must begin to assume responsibility for procurement of contraceptives as early as 1992 but no later than 1994 to avoid shortfalls in availability of contraceptives to the target population.

Projection of Contraceptive Demand and Sources (1986-1997)

	1986	1987	1988	1989	1990	1991
MWRA	3,491,536	3,608,459	3,729,245	3,854,143	3,983,811	4,118,887
Prevalence Rate	0.27	0.29	0.31	0.32	0.34	0.36
Users	953,189	1,042,845	1,144,878	1,248,742	1,362,463	1,482,800

Projected Method Mix

Pill	0.82	0.82	0.81	0.80	0.79	0.77
IUD	0.09	0.10	0.10	0.10	0.11	0.12
Condoms & Spermicide	0.03	0.03	0.03	0.03	0.03	0.03
Sterilization	0.06	0.06	0.07	0.07	0.08	0.08
Total	1.00	1.00	1.00	1.00	1.00	1.00

Users by Method

Pill	784,475	852,004	925,062	998,994	1,069,534	1,138,797
IUD	87,693	99,070	112,198	124,874	148,509	174,977
Condoms & Spermicide	23,830	27,114	30,912	36,214	42,236	50,411
Sterilization	57,191	64,656	76,707	88,661	102,185	118,622

Total Estimated Consumption - Reversible Methods

Pill	10,198,173	11,076,053	12,025,801	12,986,920	13,903,939	14,804,277
IUD	31,319	35,382	40,071	44,598	53,039	62,487
Condoms (85%)	2,025,599	2,304,768	2,627,588	3,078,258	3,590,218	4,285,441
Spermicides (15%)	357,446	406,709	463,676	543,203	633,545	756,222

Total Cost - All Methods

Pill	1,604,173	1,742,263	1,891,658	2,042,843	2,187,090	2,328,711
IUD	54,949	62,078	70,304	78,247	93,057	109,631
Condoms	110,294	125,495	143,072	167,611	195,487	233,341
Spermicides	62,714	71,357	81,352	95,305	111,156	132,681
Total	1,832,130	2,001,193	2,186,387	2,384,006	2,586,789	2,804,371

Public Share in Distribution

Pill	0.79	0.78	0.77	0.76	0.75	0.7
IUD	0.96	0.95	0.95	0.94	0.94	0.9
Condoms & Spermicide	0.97	0.94	0.91	0.87	0.83	0.7

Public Share of Cost (dollars)

Pill	1,267,296	1,358,965	1,456,577	1,552,560	1,640,317	1,699,961
IUD	52,751	58,974	66,789	73,552	87,473	101,961
Condoms	106,985	117,965	130,196	145,822	162,255	184,341
Spermicides	60,832	67,076	74,030	82,915	92,259	104,811
Total	1,487,865	1,602,980	1,727,592	1,854,850	1,982,304	2,091,081

Private Share of Cost (dollars)

Total	344,264	398,213	456,795	529,156	604,485	713,290
annual growth rate		0.16	0.15	0.15	0.14	0.1

Projection of Contraceptive Demand and Sources (1986-1997)

	1992	1993	1994	1995	1996	1997
MWRA	4,259,480	4,405,848	4,558,273	4,717,049	4,875,012	5,038,261
Prevalence Rate	0.38	0.40	0.42	0.44	0.45	0.46
Users	1,614,343	1,766,745	1,923,591	2,084,936	2,193,755	2,267,219

Projected Method Mix

Pill	0.75	0.74	0.72	0.70	0.68	0.67
IUD	0.13	0.13	0.14	0.15	0.16	0.16
Condoms & Spermicide	0.04	0.04	0.04	0.05	0.05	0.05
Sterilization	0.09	0.09	0.10	0.10	0.11	0.11
Total	1.00	1.00	1.00	1.00	1.00	1.00

Users by Method

Pill	1,215,600	1,302,091	1,383,062	1,459,455	1,491,754	1,496,361
IUD	203,407	236,744	273,150	312,740	351,001	385,421
Condoms & Spermicide	58,116	68,903	84,638	104,247	109,688	113,361
Sterilization	137,219	159,007	182,741	208,494	241,313	272,066

Total Estimated Consumption - Reversible Methods

Pill	15,802,803	16,927,184	17,979,807	18,972,914	19,392,798	19,452,741
IUD	72,645	84,551	97,554	111,693	125,358	137,651
Condoms (85%)	4,940,064	5,856,967	7,194,485	8,861,289	9,323,790	9,636,021
Spermicides (15%)	871,745	1,033,546	1,269,570	1,563,702	1,645,317	1,700,411

Total Cost - All Methods

Pill	2,485,781	2,662,646	2,828,224	2,984,439	3,050,487	3,059,911
IUD	127,456	148,345	171,158	195,965	219,940	241,511
Condoms	268,986	318,912	391,740	482,497	507,580	524,681
Spermicides	152,948	181,336	222,746	274,351	288,671	298,331
Total	3,035,172	3,311,239	3,613,867	3,937,254	4,066,778	4,124,441

Public Share in Distribution

Pill	0.70	0.67	0.64	0.60	0.57	0.56
IUD	0.93	0.92	0.91	0.90	0.90	0.89
Condoms & Spermicide	0.74	0.68	0.64	0.60	0.56	0.55

Public Share of Cost (dollars)

Pill	1,740,047	1,783,973	1,810,063	1,790,664	1,738,778	1,652,351
IUD	118,535	136,478	155,754	176,369	197,946	214,941
Condoms	199,050	216,860	250,713	289,498	284,301	272,831
Spermicides	113,181	123,308	142,557	164,611	161,656	155,131
Total	2,170,812	2,260,619	2,359,088	2,421,142	2,382,680	2,295,271

Private Share of Cost (dollars)

Total	864,359	1,050,620	1,254,780	1,516,112	1,684,098	1,829,171
(annual growth rate)	0.21	0.22	0.19	0.21	0.11	0.0

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## 7. Recurrent Cost Financing Policy

According to the AID Recurrent Cost Policy Paper, ". . . direct funding of recurrent costs, either at the project or budget level, is only justifiable under fairly narrow conditions. These conditions, which have been spelled out in this paper include:

- (a) An acceptable policy framework or clear movement toward such a policy framework;
- (b) An assurance that recurrent cost support has higher development impact than new investments;
- (c) An inability of the host country to undertake recurrent cost financing;
- (d) A carefully phased plan exists for shifting the entire burden to the host government."

The financing of recurrent MOPH operating costs (mobility costs and contraceptives) under this project are justified with respect to all four criteria listed above. As discussed in the FY 1991 Action Plan, the Moroccan macroeconomic framework has been liberalized over the past six years and continues to evolve toward a more open, market-oriented economy. In addition, health sector policies are being reformed to encourage private sector health care, social marketing of contraceptives, and public sector cost recovery, all of which will reduce the burden of operating costs on the MOPH and raise revenues adequate to cover recurrent costs. Moreover, USAID will maintain a policy dialogue on recurrent cost problems and the project will provide technical assistance to support reforms under the project. The economic analysis in the Project Paper has demonstrated a high rate of return to this project, showing the rate of return to this use of funds to be greatly in excess of that on alternative new investments for Morocco. Third, with respect to ability to finance recurrent costs, Morocco has been unable to finance all of its recurrent costs and still maintain a critical minimum of public investment (as agreed upon in the World Bank Structural Adjustment Loan) due to the pressure on its budget under the program negotiated with the IMF to steadily reduce an unsustainable budget deficit. Finally, a clear plan for completely phasing out USAID financing of recurrent operating costs will be prepared and negotiated in detail with the GOM for both mobility costs and the procurement of contraceptives (discussed above) for inclusion in the Project Agreement. The decline in USAID financing of mobility costs over time and the phase-out for support of contraceptives is presented above. Discussions with the GOM on the magnitude and the timing of the phase-out will result in a clear, mutually acceptable plan for the progressive assumption of all recurrent cost financing by the MOPH to be incorporated in the Project Agreement. Thus, Morocco meets the tests of the agency's recurrent costs policy in terms of (1) an acceptable policy framework, (2) a higher development impact than new investments, (3) an inability to finance recurrent costs, and (4) a carefully phased plan to shift the burden to the GOM (and to the Moroccan private sector as well).

**8. Financial Management Competence**

The MOPH will process disbursements for ongoing FP and MCH program activities, financed with GOM resources, using standard MOPH accounting and financial management systems. The GOM accounting and financial management system manages financial transactions and disbursements on a nation-wide basis and includes required procedures, controls and documentation to enable retroactive audit and financial review of the use of disbursements recorded under the system.

The project provides limited funding, on a progressively decreasing scale, to finance MOPH recurrent expenditures for the purchase of gasoline and maintenance services for MOPH vehicles and motorbikes. These goods and services are procured under contract with the GOM National Transportation Office (ONT), with disbursement handled through USAID direct payment to ONT. Under project 0171 and earlier phases of the project, the MOPH has demonstrated, as confirmed during earlier project audits, an effective capacity to manage the goods and services provided under ONT contracts.

All remaining USAID inputs for the purchase of goods and services, including construction services, will be provided under host country, USAID direct or AID/W central project contracts with disbursements processed through USAID direct or AID/W direct payment mechanisms, as appropriate.

Accordingly, USAID has determined that MOPH financial management competence and accounting systems are adequate to enable the Ministry to discharge its financial and disbursement responsibilities during project implementation.

**ANNEX D**  
**SOCIAL SOUNDNESS ANALYSIS**

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## ANNEX D

### SOCIAL SOUNDNESS ANALYSIS

#### Introduction

Despite the fact that all Ministry of Public Health facilities now offer basic family planning and mother and child health services, access to satisfactory services is still difficult for a large number of rural Moroccan families. This project will broaden access to family planning and mother and child health services for underserved rural and urban populations. This section provides a profile of primary beneficiaries and discusses the socio-cultural feasibility of extending family planning and mother and child health service coverage. Of key importance is the receptivity of rural populations to expanded and new forms of FP and MCH coverage planned under the project. The project will also explore means of encouraging the private sector to organize and finance alternative health care systems. Some aspects of that activity, i.e., client and community participation in health financing, are briefly addressed here as well.

This analysis is based on the report "Assessing the Social Factors Affecting the Delivery of Family Planning and Mother and Child Health Services" by Michele Harway, and a series of recent studies, the results of which are summarized in that report and cited as Attachment No. 1 to the Technical Analysis.

#### Project Beneficiaries

The target group for the proposed program can be conceptualized as forming two concentric circles. The inner circle represents the target group MOST in need of services; that is, poor and uneducated women of childbearing age (between 15 and 44), living in rural provinces with high fertility, low contraceptive prevalence and high infant mortality rates (Provinces such as Azilal, Chefchaouen, Essaouira, Ouarzazate, Taounate, Tata and Tetouan). These women usually have four or more children, and live from 3-10 kilometers from a fixed medical facility, often in mountainous terrain without roads. The outreach strategy of the project focuses on these women, the most difficult to reach with acceptable services.

The next circle around this inner circle represents most of the rest of Morocco, excluding the very wealthy and most highly educated. Here again, primary targets are women of childbearing age, especially the poor and uneducated, and those with many children, but includes those living in urban areas, in other provinces and less difficult to access areas. These women are the potential beneficiaries of other project interventions including social marketing, factory-based services, fixed facility improvement, etc.

Selected data on the following pages of direct relevance to family planning and mother and child health demonstrate the reality and challenge of meeting the needs of this target group.

HEALTH, DEMOGRAPHIC, AND EDUCATIONAL FACTS ON MOROCCO

		<u>YEAR OF DATA</u>
<u>DEMOGRAPHY</u>		
Total Population (in millions)	25	1988
Urban	47%	1987
Rural	53%	1987
Crude Birth Rate	35	1987
Crude Death Rate	10	1987
Population Growth Rate	2.5%	1987
Total Fertility Rate	4.9	1987
Percent of Women of Childbearing Age (15-44)		
Using Contraception (Traditional and Modern)	35.6%	1987
Using Modern Methods only	28.9%	1987
Urban	52%	1987
Rural	25%	1987
<u>HEALTH</u>		
Female Life Expectancy (# of years)	64.4	1987
Male Life Expectancy	61.5	1987
Infant Mortality (less than 1 year per 1000 live births)	73	1982-1986
Mortality Rate for Children ages 1-5 (per 1000)	31	1982-1986
Percent of Births under Medical Supervision	26%	1987
Percent of Children 1-5 Immunized against Tuberculosis, Diphtheria, Measles, Polio, Tetanus, and Whooping Cough	87%	1987
<u>EDUCATION</u>		
Adult Literacy Rate		
Males	45%	1985
Females	22%	1985
Percent of Children enrolled in Primary School		
Males	97%	1980-84
Females	61%	1980-84
Percent of Children enrolled in Secondary School		
Males	35%	1980-84
Females	24%	1980-84

INCOME

Per Capita Income (1988 Exchange Rates) \$850.

**General Population Data:** Fifty three percent of Morocco's estimated 25 million people live in rural areas today. Some 41% are below the age of 15; 4% or almost 6 million are women of childbearing age; and 15% or 3.8 million are children under 5. Per capita income in 1988 was approximately \$850.

**Basic Education:** Female illiteracy rates nationwide, while declining, remain extremely high. In 1982, 72.9% of Moroccan females 10 and over were illiterate; a rate declining to 56.1% for those 10-14, reflecting increases in female education. Urban rural differentials are substantial. Although some 2.4% of urban women were illiterate, the figure rose to 90% for rural women. Yet between 1978 and 1986, there was a 7.8% increase in girls attending Koranic schools, a 9.2% increase in pre-schools, and a 4% increase in primary schools. Although the increase of females in primary school is lower than the increase in Koranic schools, as the rural school system expands in line with current GOM goals, these numbers are expected to grow more rapidly.

**Employment:** Although slightly less than 12% of women were formally employed (salaried) in 1982 (9% in rural areas and 15% in urban areas), in 1986 26% of the urban actively employed, and 43% of the rural actively employed were women, for a national average of 35%. Formal unemployment is high (35-41%) for women with low or intermediate levels of education. Female employment statistics, however, do not capture women's labor in the household, on the farm or in the informal sector which is constant, physically demanding, and generally underpaid. This is the fate of many women agricultural workers, numbers of whom, if married, are currently spouseless and forced to support themselves and their families with 10 hour-a-day, 6 day-a-week backbreaking jobs. Time to seek health care for children or themselves is limited to emergencies, often too late. Furthermore, many of these women never appear on formal employment records since, by employing workers for less than 6 months, employers can avoid paying social security or providing any benefits.

Most families (74%) live in homes containing two rooms or less, lacking most modern comforts especially in rural areas. More than 80% of such homes lack toilets, 98% running water. In 1984, less than 60% of the population had reasonable access to safe water, a figure that has changed little since then.

**Infant Mortality:** Infant mortality represents 27% of all deaths at all ages in Morocco (1988). Infant mortality data, of varying quality, are available by province, with rates in rural areas still substantially exceeding urban rates. The national infant mortality rate of 73 per 1000 live births covers rates exceeding 100 per 1000 births in some southern provinces and in the northern Rif areas, and as low as 55 for Rabat.

Infant mortality rates are higher for young mothers, particularly for illiterate mothers in rural areas. Rates are highest in provinces such as Ouarzazate, Tata, Marrakech, Essaouira, Azilal, Taounate, Chefchaouen, and Tetouan. For ages one to five, mortality rates are 52 per thousand (1987).

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Ministry of Health data indicates diarrhea and contagious diseases, especially measles, as the leading causes of infant mortality. These are followed by malnutrition in children and pregnant women, closely-spaced births, and medically unsupervised pregnancies and births.

**Age at First Marriage/ Marriage Stability:** Women's age at first marriage in 1982 was 22 years, with women marrying at a younger age in rural areas, i.e., 21 vs about 24 in urban areas. Higher numbers of unmarried women in the 20-24 year age bracket are found in large cities such as Rabat, Marrakech, Casablanca, Meknes, Oujda, Kenitra and Mohammedia (55% and more) than in areas such as Ouarzazate, Tata, and Guelmin, where three-quarters of women will have married by that age.

Marriages are often unstable, in both rural and urban areas. More than 12% of marriages celebrated between 1975 and 1980 dissolved within two and a half years. Yet remarriage is common, with 70% of divorcees and widows remarrying. Nonetheless, the lives of women without or between husbands, usually with more than one child, can be particularly difficult.

**Fertility:** The total fertility rate, the total number of children a woman will give birth to over her childbearing years at current rates of reproduction averaged 4.9 and ranges from a high of 7.96 for Chefchaouan to a low of 3.45 in Rabat. The average rural rate is 5.86; fertility rates vary by instructional level of the mother, ranging from 2.3 children born to women with higher education, versus 5.2 born to illiterate women.

**Urbanization:** The urban population in 1987 approximated 12 million people, accounting for 47% of Morocco's population. The population of larger cities in Morocco almost doubled, while the number of medium sized cities tripled between 1960 and 1982, reflecting large scale, often two-stage, rural migration.

Given the regional diversity which characterizes Moroccan terrain and cultural traditions, Berbers and Arabs; mountain, plains, and desert people; Rif, Atlas, and Anti-Atlas traditions; agriculturalists and herders; and differences in colonial heritages: e.g., the Spanish North versus the French-occupied center and south, it is essential that service interventions be tailored to the socio-cultural realities of each situation. Thus province specific data on beneficiaries must be factored into the design and implementation of specific service delivery mechanisms for each province.

This need is recognized in the project's multiplicity of service delivery approaches under the new MOPH outreach strategy, as well as in social marketing campaigns, which include regional radio messages. Monitoring of the acceptability of these and other interventions in the target populations is key to their effectiveness.

### 3. Socio-Cultural Context

The Moroccan socio-cultural environment is largely receptive to family planning, especially in the context of related family health services. The concept of contraception is generally accepted, both to space births and to

mit family size; and the linkages between the spacing of births and mother and child health are increasingly recognized. Public acceptance of family planning is supported by most Moroccan religious authorities, although conservative attitudes continue to prevail among some health providers and some government officials. The support of religious leaders is expected to continue and increase following the recent declaration by the Grand Mufti of Egypt on the desirability of family planning in developing countries.

Recent surveys suggest a strong desire on the part of Moroccan women to limit their family size and space births. The surveys indicate that 40% to 50% of married women do not wish to have more children, and 13% would like to postpone the birth of their next child. Yet, only 24% of rural women use modern contraceptives. Men's attitudes and motivations for participating in contraception are generally poorly understood. Contraceptive use or family planning is reported by several observers to be a male-female struggle over a right to decide on reproductive matters. Leading socio-cultural constraints to increased prevalence of modern contraception are discussed below. Although there are no insurmountable social obstacles to the implementation of the project, socio-cultural constraints need to be explored further to expand coverage and prevalence of family planning and mother and child health care, especially in underserved rural areas.

#### Concept and Methods of Modern Contraception

Overall, 97% of Moroccan women know about some form of modern contraception. Most couples in urban and rural areas can identify the three major modern reversible methods of contraception, with the pill cited in some studies as an ideal contraceptive despite its side effects. The functioning of the various methods, however, is not well understood. Consumers and potential consumers are rarely informed by family planning experts about how a method works to prevent pregnancy. This information gap allows for the proliferation of usually misleading and/or frightening rumors about contraceptive products, e.g., oral contraceptives are toxic; the IUD, known as "the small operation," essentially involves surgery, to be avoided unless very ill. The majority of couples stated that their major sources of information concerning contraception were family and friends, and information exchanged in gathering places such as "souks" or "hamams." This underlines the need for good public education in family planning, and points up the possibility of using these formal networks when possible to promote preventive health measures.

Most couples consider the existence of more than five or six children in a family to be a financial burden. Yet attitudes about family planning are based on the couples' perceptions of the respective roles within the family, the child and the woman in society. The decision to accept family planning is largely tied to the notion of "planning" or birth spacing. In fact, most couples, especially in rural areas, understand family planning to mean limiting family size. Their use of family planning may reflect their recognition of the mother as a person, who in addition to rearing the children, may work outside the home. Couples who reject contraception, on the other hand, generally reject the concept of limiting family size. Although they may not feel the need to have children for their economic usefulness,

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children, especially young women, are regarded as helpful workers, with a girl's education not yet regarded as essential, or long enough, to be a burden. Although research has revealed much about men and women's attitudes about contraception, more subtle attitudinal factors remain to be understood, again on a regionally specific basis. To that end the project will finance a number of attitudinal studies of various socio-economic and geographic groups, as part of research on improved IE&C materials, operations research and health financing feasibility studies.

In terms of methods of modern contraception, there is overwhelming reliance on the use of oral contraceptives. Studies of knowledge and awareness of various methods indicate that the pill is known by 97% of women, followed by 79% awareness of IUDs, 77% of female sterilization, 59% of condoms, 56% of injectable methods, and 24% of vaginal methods. In contrast to the pill, the condom is the modern, reversible method that seems to be the least acceptable. Because men tend to be reluctant to talk about FP, and because of the negative association of condoms with extramarital sex, substantial public education will be necessary to achieve any large increase in condom use. Among other things, this could have important ramifications for the success of any condom-based AIDS control program. Surgical contraceptive methods are viewed with a certain reluctance. This is related, in part, to the finding that Moroccans tend to consider surgery and subsequent hospitalization as desperate measures to be taken for the very ill. The acceptance of tubal ligation is likewise limited and subject to cultural norms. In theory, tubal ligation is available only to women aged at least 28 but not older than 42, with spousal consent, from families with at least four living children, one of whom must be a boy, with the youngest at least two years old. In practice, however, it appears that these criteria are applied flexibly, depending on both the provider's views and the client's own situation. Because side effects are more limited compared to IUDs, tubal ligations may be more acceptable to eligible women. Additional attitudinal research will be needed and is financed in the project for the design of appropriate information and outreach strategies on the various contraceptive methods.

5. Constraints to Expanded Use of Modern Contraceptive Methods and MCH Services

a) Client Knowledge and Use of Family Planning and MCH Services

Despite the fairly widespread acceptance of the concept of contraception, the level of understanding about correct usage of products and actual prevalence fall below potential demand. Similar shortcomings exist in the use of MCH services and products.

Recent survey findings indicate that the pill, in particular, is often used incorrectly. Many women have the notion of taking the pill for a few months, then stopping for a period "to let their bodies rest" and begin again. It is unclear what contraceptive methods, if any, are used during the "rest" period. Furthermore, both studies and anecdotal evidence exist that many women

continue to believe the pill should be taken only and always after sex. Yet, other studies show that most health workers know and can explain the correct way to take the pill, what to do if one or two are missed, etc. What is still needed thus is substantial public education about the correct use of orals, about rumors, and side effects. Both rumors and side effects are often taken less seriously than they should be by health professionals and by outreach workers intent on covering as many clients as possible. Finally, research work on continuation rates, and service statistics that track such rates accurately are essential in assuring that (1) outreach strategies are acceptable and effective, and (2) reported prevalence indeed leads to lower fertility.

While the notion of having an IUD inserted is readily accepted by Moroccan women, few women choose this option, and it is unclear how much the IUD share of prevalence will increase because of reported side effects and the earlier mentioned fear of "surgery." VSC similarly has a low market share, but because of its more limited side effects, is likely to benefit quickly from the increase of trained doctors who can perform this surgery, and thus easier access for clients to this method. Most VSC clients seem satisfied with the services. Many women referred other women for services. Judging by the number of women who are on waiting lists in many provinces for VSC, there is significant unmet demand.

Vaginal methods are almost unknown in Morocco. The fact that major donor organizations have not focused on these methods is responsible. With proper education, there may be a market for such vaginals as foaming tablet, sponges, suppositories, etc. Proper sanitation will be a concern with all these methods, as will the potentially high failure rate associated with incorrect use. But these methods are likely to have appeal to an increasing private sector market for birth control in urban areas among educated women.

Despite its negative image, condom use is increasing. Detailed information is lacking about current condom users. Better understanding of the current market is needed to design public education materials to expand condom use, both as an AIDS control and a family planning method.

Misconceptions about the effectiveness and proper preparation and use of ORS products is also an obstacle to increased use of MCH services and the reduction of Morocco's high rate of infant mortality. For example, mothers in each kind of setting are often found to restrict the intake of water and often avoid protein by their diarrhea-struck children. Diarrhea and vomiting are perceived as a healthy purging that will lead to a relief of sickness. The persistence of such beliefs is related to the ambivalence and information provided by many service providers about ORT. According to the KAP study carried out before the 1988 Child Diarrhea Control Campaign, only 3% of women who consulted pharmacists concerning diarrhea were given ORS, and in only 10% of cases was ORS prescribed by doctors, though public sector doctors are more likely to prescribe ORS. The gap between prevalence and apparent demand is related to inadequate access to PP and MCH services in rural areas and the quality of available information about family planning and MCH services.

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The 1987-88 National Health and Demographic Survey reported that although at least over a quarter of women had medically supervised births, in rural areas this figure was a low 10%, with only 12.6% of these women receiving any prenatal care from a doctor, nurse/midwife or nurse. Regional differences, reflecting accessibility to care as well as cultural patterns exist here as well. In general, however, as education increases, women are more likely to have received both prenatal care and medical supervision for births.

Although much of the misinformation and gaps in client knowledge can be attributed to the informal sources of information, health professionals also do not always provide complete and adequate advice on FP products and their correct use. A survey of private health professionals indicates that they do not feel as informed as they would like to be and that it is the least well informed pharmacy assistants who have the greatest contacts with the "poorer" client. Currently neither the formal nor the informal communications networks in operation provide the medical community or the public with appropriate or high quality information about family planning method and their correct use.

The project will finance IE&C activities designed to research consumer preferences as well as improve the reliability of information provided through PH channels, social marketing activities, private pharmacies and physicians. Since there often is a close and trusting relationship between men clients and traditional midwives, training of traditional midwives in family planning and mother and child health and other community workers is planned under the project and will particularly benefit the most remote and nomadic populations, where community participation is essential for the delivery of minimal services. In addition, pharmacists and pharmacy assistants will receive training in contraceptive technology, including management of side effects, and family planning communications.

#### b) Access to FP and MCH Services and Facilities

Access to fixed MOPH facilities is limited in many rural areas and to date mobile outreach services have not been available in all provinces. The shortage in clinical facilities has had a particularly adverse impact on women of high parity and those over 35, who no longer want children or wish to delay their next pregnancy. That 80% of Moroccan women rely on oral contraceptives, which is not the most appropriate method for women wanting no more children, reflects in part insufficient access to clinical facilities that provide IUD insertions and VSC services, as well as the misperceptions and fears associated with more reliable and permanent clinical methods.

The project will extend access to the MOPH FP and MCH program to 12 new provinces located mostly in the northern region of Morocco. These provinces are relatively isolated with limited transportation infrastructure. Mobile units will be created to reduce beneficiary travel time by meeting at service points located in a given area. Improved access to clinical facilities financed under the project will include the upgrading of rural dispensaries; upgrading or construction needed to create 12 additional family planning reference centers, and the equipping of 15 additional provincial centers and 5 rural facilities for voluntary surgical contraception.

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c) Beneficiary Perceptions of the Public Delivery System

When health facilities are available, however, they are, especially at lower levels of the health system, often insufficiently used. Reasons include cultural patterns, with clients seeking help in the mornings in connection with visits to the souk, women's inability to leave the house alone to seek help at a clinic, the perceived lack of qualified personnel (i.e., a physician) at the dispensary level, lack of pharmaceuticals, and a general dissatisfaction with the facility or reception by the staff.

Many clients perceive MOPH facilities and services to be unsanitary and inefficient. In fact, existing facilities are often in poor physical condition, under-equipped and lack sufficient supplies. Rural dispensaries rarely provide the privacy for adequate FP services or beds for births, and clients have noted difficulty in obtaining ORS, and other MCH products. The quality of client interaction with health workers is also often limited by communication barriers, including but not limited to, an unfamiliarity with local dialects.

According to recent surveys, although effective communication between clients and health workers was somewhat limited by the worker's inability to speak the local dialect (11%) and the use of technical terms that the clients cannot understand (12%), most restricting was the fact that workers do not demonstrate the use of products (57%). Given cultural sensitivities, male workers are particularly reluctant to provide adequate explanation and demonstration of products to women clients, and women clients are often reluctant to seek FP and MCH services from male workers. This problem is especially acute in remote rural areas where itinerant workers tend to be male due to the difficulties associated with work and travel in remote regions. The amount of time outreach workers have been able to spend with each client also varies directly on the quality of communication. Workers have been evaluated on the basis of the number of houses they have visited by the end of the day rather than the quality of the interaction. In the past, health workers may have had as little as three minutes to devote per household. Although this may be an adequate amount of time to leave additional cycles of pills, it does not allow for child weighing, demonstration of ORS, or a convincing discussion on the wisdom of changing contraceptive methods. Changing the basis of the evaluation of outreach workers' activities to take into account actual accomplishments and quality of interaction is important to improving the impact of these programs.

Generally, there is some indication from the evaluation of the VDMS program and social marketing feasibility studies that client perceptions of MOPH services may be negatively influenced by their free-of-charge nature. An assumption, noted often, that if something is free it is not as valuable as something that has an assigned value, might be interfering with the level of acceptability. On the other hand, VDMS workers for the most part indicate that even a small payment would be impossible for most of their clients. In one study, women who said they were happy to receive and use such items as ORS stated that they would not purchase these same items, even if needed by their children. This is borne out as well by the fact that few women frequent the AHPF centers where small payments are required for FP supplies. And yet families with

financial means prefer private medical and pharmaceutical outlets. Additional research in this area is needed to define price-related factors which influence client health-seeking behaviour in various populations.

Project activities intended to improve client perception of the quality of MOPH services include the upgrading of facilities mentioned above, training for MOPH workers, mobile outreach coverage designed to improve the quality of services and duration of consultations. In addition, demand analysis and cost recovery research are planned to identify price-related factors which influence client behaviour.

d) MOPH Worker Perception of the FP and MCH Program

The mid-term field evaluation of the AID-supported VDMS program showed that staff morale among MOPH itinerant workers is an obstacle to improved service delivery. VDMS workers' job satisfaction was shown to diminish correspondingly as distance from the MOPH centers increases, reflecting a need to improve supportive supervision. Correspondingly, client satisfaction with the VDMS program also decreased as distance from a fixed medical facility increases, and clients expect and need a wider range of services.

Work environment-related factors which lower morale include problems with staff reimbursement for travel expenses, repair of motorbikes, restocking of supplies, and the difficulty of reaching remote rural outposts. Most (74%) rural workers cited serious transportation problems as a major obstacle. Inadequate management and supervision of outreach workers has also been shown to undermine the quality of coverage provided by MOPH workers. Personal inconveniences associated with rural life, i.e. the lack of electricity, running water and access to recreation, also undermine the morale of rural workers in general.

Recognizing the needs of their target populations, VDMS workers recommended that a greater effort be made to provide services for households far from health facilities by providing "points de rassemblements" or "points of contact" and by stocking "points de approvisionnement," where rural families could obtain pills and other supplies. The planned expanded use of mobile teams and points of contact responds to the wider needs for health and family planning services of these people. The extent to which, however, the convenience of door-to-door service is lost, and leads to family planning drop-outs will be monitored in areas where VDMS visits are withdrawn. This will be done using as a baseline a "census" of households taken by point of contact and mobile team workers before the program begins, and then followed up specifically to note discontinuation rates.

VDMS workers also urged that greater efforts be made to involve other ministries in support of the family planning and MCH programs. Broadening the efforts to work with other ministries beyond the central level to the provinces should be easier with the Ministry of Health's efforts to decentralize program management, and should be a focus of USAID attention.

Under the project, worker motivation will be enhanced as well through more decentralized management and improved mobility of the enhanced FP and MCH program.

The expansion of the traditional VDMS approach of door-to-door visits to include wider use of point of contact and the mobile team concept should improve logistics and supply if planning and supervision are adequate. The installation of photovoltaic lighting systems in approximately seventy rural dispensaries and health centers will improve working and living conditions for rural workers. Finally, worker motivation can be improved by providing basic quantitative skills training making it possible for them to monitor progress and see results of their efforts.

## 6. Programmatic and Strategy Issues

### a) Relative "Mix" of Interventions

What seems to be the most effective approach in a country as diverse as Morocco is to have a multiplicity of service delivery approaches tailor-made to the different regions or populations. Thus the project will support the expansion of the MOPH outreach system by introducing appropriate features of the MOPH's pilot maternal child health system, "Soins de Sante de Base" (SSB). The enhanced strategy incorporates a combination of outreach approaches, including fixed facilities, household (VDMS) visits by itinerant agents, community level service points covered on a scheduled basis, and mobile units capable of providing a wider range of services, especially to the "inner circle" of beneficiaries. Given that the SSB strategy has been implemented since 1984 in only three provinces, it is important to monitor its effectiveness in terms of the various outreach approaches and their application of family planning services in outlying rural areas. Two obvious problems with the approach are that (1) some women, in accord with local mores, do not leave their homes, and thus will no longer benefit from access to services; and (2) some terrain, within 3 kilometers of health centers, may be mountainous making access to health care more difficult than in flatter outlying regions. Finally, to be successful, the approach is dependent on the MOPH arranging, publicizing, and observing schedules for both point of contact and mobile teams, implying a need for good logistic planning, budget support and supervision.

The necessity to tailor program elements to terrain must be counterbalanced with an awareness of the common elements which the different Moroccan regions share. These include central government structures which unite the various regions and socio-cultural factors such as the "souk," the "hammam," and the "mosque." These all offer possibilities to be considered for providing information and sometimes services in family health care.

### b) Relative Effectiveness of Male and Female Workers

Surveys show that women clients tend to be more responsive to female workers. Due in part to cultural sensibilities, male workers are often reluctant to provide female clients with detailed explanations of contraceptive products. An effort is being made to increase the female staff in fixed facilities and mobile outreach teams. However, the MOPH has decided to rely almost

exclusively on male itinerant workers for door-to-door work, due to the difficulties associated with outreach work in remote rural areas, and past negative experiences of female outreach agents. Additional information is needed on the potential for effective outreach work by male and female workers. During the first year of project activities, there will be a review of data regarding effectiveness of male and female outreach employees as an input into the design of expanded support for such activities. Moreover, a review of the satisfaction of female workers with their responsibilities will be undertaken, including the steps needed to increase their effectiveness and satisfaction. Given the socio-cultural diversity of Morocco, research on the receptivity of clients and appropriateness of communication channels must be conducted on a region-specific basis, ideally through a series of focus groups conducted in each key region by qualified MOPH staff.

In short FP and MCH program interventions will be monitored closely in terms of socio-cultural effectiveness and ways to improve effectiveness, e.g. gender mix of MOPH outreach workers.

**ANNEX F**  
**PID GUIDANCE CABLE**

CAPITALIZE ON THE RESULTS OF THESE STUDIES TO FORMULATE AN APPROPRIATE SECTOR POLICY DIALOGUE AGENDA FOR THE ISSUES. THE PP SHOULD BEGIN TO DEFINE THIS AGENDA BY LAYING OUT AREAS FOR POLICY RESEARCH AND A STRATEGY FOR COMPLETING NECESSARY ANALYTICAL WORK. IN ADDITION TO DEFINING THE SUBSTANTIVE AREAS FOR ANALYSIS, THE PP SHOULD ALSO DEVELOP A TACTICAL APPROACH FOR PURSUING POLICY CHANGE WITH THE GOM. WHAT IS THE HEALTH SECTOR GOAL BY THE YEAR 2000 IN TERMS OF HEALTH CARE COVERAGE AND QUALITY OF SERVICES DELIVERED? HOW CAN DELIVERY SYSTEMS BE MORE EFFICIENTLY DESIGNED AND MANAGED? HOW CAN QUOTE EFFICIENT UNQUOTE SYSTEM COSTS BE MORE EQUITABLY SHARED BETWEEN PUBLIC AND PRIVATE SECTORS?

5. OTHER CONCERNS: THE FOLLOWING CONCERNS WERE RAISED DURING THE PRC AND SHOULD BE ADDRESSED IN THE COURSE OF PP DEVELOPMENT.

(A) POLICY CONSIDERATIONS - THE PID STATES THAT A KEY ACCOMPLISHMENT OF PROJECT ASSISTANCE WILL BE THE MODIFICATION OF THE CURRENT CONTRACEPTIVE METHOD STRUCTURE, SPECIFICALLY THE REDUCTION IN CONTRACEPTIVE ORAL PILL USE IN FAVOR OF OTHER RELIABLE CLINICAL METHODS. THE PP SHOULD MAKE CLEAR THAT CONSISTENT WITH ALL POLICY OF QUOTE INFORMED FREE CHOICE UNQUOTE THE PROJECT ANTICIPATES CHANGES IN CONTRACEPTIVE USE PATTERN ON INCREASED ACCESS TO OTHER CONTRACEPTIVE METHODS AND

IMPROVEMENTS IN FAMILY PLANNING OUTREACH SERVICES.

(B) RENOVATION AND CONSTRUCTION - IT IS UNCLEAR FROM THE PID WHAT THE EXACT NATURE OF CONSTRUCTION WOULD BE AND WHETHER A 611 (A) DETERMINATION WOULD BE NEEDED. ALSO THERE WAS CONCERN THAT USE OF THE FIXED AMOUNT REIMBURSEMENT (FAR) METHOD FOR RENOVATION AND CONSTRUCTION OF MCH FACILITIES UNDER THE PROJECT MIGHT NOT BE APPROPRIATE. PAST EXPERIENCE SHOWS THAT THE GOM GENERALLY REQUIRES AN ADVANCE OF FUNDS DUE TO BUDGETARY CONSTRAINTS.

(C) LESSONS LEARNED - THE PID REFERS TO PAST EVALUATIONS AND THE MISSION IS REVIEWING RELEVANT EXPERIENCES WITH SIMILAR PROJECTS IN OTHER AID COUNTRIES. HOWEVER, THERE IS LITTLE INDICATION AS TO WHAT THE EXPERIENCES HAVE BEEN IN THE MOROCCO HEALTH PROJECTS, AND SPECIFICALLY WHAT DESIGN APPROACHES HAVE BEEN DEVELOPED TO BETTER COPE WITH HEALTH SECTOR PROBLEMS. THE PP SHOULD CONTAIN A QUOTE LESSONS LEARNED UNQUOTE SECTION ON SUCH ISSUES AS IMPROVED MONITORING OF VIMS.

(D) ENVIRONMENTAL DETERMINATION - ANY/PI/ENV CONCURS IN RECOMMENDING NEGATIVE ENVIRONMENTAL THRESHOLD DECISION.

6. THE MISSION IS COMMITTED TO A WELL DESIGNED PP/MCH EXPANSION PROGRAM AS OUTLINED IN THE PID AND LOOKS FORWARD TO THE GENERATION OF HEALTH SECTOR ACTIVITIES THAT WILL BE INITIATED UNDER THIS PROJECT.

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THE ANE BUREAU STANDS READY TO PROVIDE NECESSARY PROJECT DESIGN ASSISTANCE AND MOBILIZE CONSULTANTS, AS NEEDED. (THE MISSION REQUEST FOR ADDITIONAL PD AND S FUNDS FOR PROJECT DESIGN WAS RAISED DURING THE ANPAC AND FUNDING APPROVAL WILL BE CONVEYED SEPIEL). FINALLY, IT WAS NOTED DURING THE REVIEW THAT HIGH QUALITY EXPERTISE WILL BE NEEDED IN DESIGNING THE HEALTH FINANCING COMPONENT AND OPERATIONAL ACTIVITIES. CONSEQUENTLY, ANE/TR WILL ACTIVELY ASSIST IN IDENTIFYING APPROPRIATE EXPERTS AND, IF POSSIBLE, THOSE WITH FRENCH PROFICIENCY. BA&R

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ACTION AIDS INFO: DCM ICON/S

# OFFICIAL FILE

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TAGS:

SUBJECT: ANPAC REVIEW OF MOROCCO POPULATION AND CHILD  
 SURVIVAL IV (608-0190)

ACTION : PHR

DATE: 04/21

INFO: DIR-DDR

REG-08M-CHINA-DE

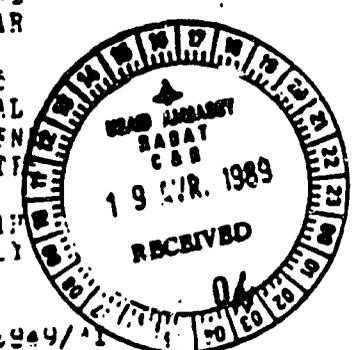
1. AN ANPAC WAS CONVENED TO REVIEW SUBJECT PID ON MARCH 31, CHAIRED BY ANE/PP DIRECTOR RON VENEZIA WIFE AA CAROL AITLMAN AND IAA WILLIAM FULLER IN ATTENDANCE. OTHER OFFICERS PARTICIPATING IN THE ANPAC REVIEW INCLUDED ANE/TE, ANE/MENA, GC/ANE, ANE/PE, AND PPC/PE. THE PRO REVIEW HELD IN FEBRUARY, IDENTIFIED THREE ISSUES AND A NUMBER OF CONCERNS. THESE WERE DISCUSSED DURING THE ANPAC IN LIGHT OF SUPPLEMENTAL INFORMATION PROVIDED BY THE MISSION (RABAT 2496) AND IN THE CONTEXT OF BRIEFINGS GIVEN TO THE AA AND IAA DURING THEIR RECENT VISIT TO MOROCCO. THE PID (AS SUPPLEMENTED BY RABAT 2496) WAS APPROVED BY THE ANPAC. ACCORDINGLY, USAID/MOROCCO IS DELEGATED AUTHORITY TO APPROVE THE PROJECT PAPER AND AUTHORIZE THE PROJECT AT A TOTAL COST OF DOLS. 31.0 MILLION. ANPAC GUIDANCE ON THE FOLLOWING ISSUES AND CONCERNS ARE PROVIDED BELOW:

2. RECURRENT COSTS: THE PROPOSED PROJECT WILL BROADEN FAMILY PLANNING AND MATERNAL CHILD HEALTH (FP/MCH) CARE

COVERAGE, IN URBAN AND RURAL AREAS AND IMPROVE MANAGEMENT OF FP/MCH DELIVERY SYSTEMS. AS SUCH, THE SUSTAINABILITY OF NEW PROGRAMS IS A BASIC DESIGN ISSUE AS WELL AS HAVING IMPLICATIONS FOR THE HEALTH SECTOR AS A WHOLE. ACCORDINGLY, THERE WAS CONCERN THAT EXPANDING COVERAGE TO MORE DIFFICULT OR REMOTE AREAS WOULD REPRESENT HIGHER THAN AVERAGE COSTS. THE INCREASED COST BURDEN OF THE PROJECT SHOULD BE FULLY ANALYZED IN THE PI WITHIN THE CONTEXT OF LOCAL RESOURCE AVAILABILITIES. THE PRELIMINARY ANALYSIS OF PROJECT RECURRENT COSTS AND FISCAL REVENUE PROJECTIONS SEEM TO INDICATE THAT AS FAR AS THIS PARTICULAR PROJECT IS CONCERNED, THE FUTURE SYSTEMS TO BE MARGINAL E.G. DOLS. 11.5 MILLION BY 1995 AND THEREFORE FAMILY RESPONSIBLE BASED ON CURRENT FISCAL PROJECTIONS. HOWEVER, THE ANPAC FELT THAT THE RECURRENT COST ISSUE NEEDS TO BE PRESENTED PROMINENTLY AND CENTRALLY TO THE COMMISSIONER'S ISSUE AND THE COMMISSIONER SHOULD BE ADVISED THAT THIS PROJECT SHOULD BE THE LAST OF A SERIES OF ALL ASSISTED PROJECTS THAT DIRECTLY

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**ACTION TAKEN**  
 No Action Necessary ✓  
 Replied by: \_\_\_\_\_  
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 Initials & Date



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PIFANE COVERAGE OF POB SERVICES. THIS SHOULD BE PART OF THE AID HEALTH SECTOR POLICY DIALCOGUF, AS DESCRIBED FURTHER IN PARA 4.

3. HEALTH CARE FINANCING: THE ANPAC NOTED THAT HEALTH CARE FINANCING IS A COMPLICATED FIELD AND WILL REQUIRE CONSIDERABLE ANALYSIS TO DEVELOP AN APPROPRIATE SET OF POLICY AND OTHER MEASURES. THE MISSION IS URGED TO BE CREATIVE AND AGGRESSIVE IN THIS AREA IN LIGHT OF THE POTENTIAL CONTRIBUTION OF THE PRIVATE SECTOR AND LIABLY OPPORTUNITIES FOR MAKING PUBLIC HEALTH CARE MORE COST EFFECTIVE. THE ANPAC FULLY ENDORSES THE MISSION DECISION TO ADD DOLS. 1.0 MILLION FOR ANALYTICAL STUDIES AND EXPERIMENTAL PROGRAMS. WITH REGARD TO THE LATTER, THE INITIATION OF A SERIES OF SMALL PILOTS WITH VARIOUS GROUPS IS ENCOURAGED. FOR EXAMPLE, WE UNDERSTAND THE MISSION IS CONSIDERING EFFORTS WITH HEALTH MAINTENANCE ORGANIZATIONS, PRIVATE INSURANCE PROGRAMS AND, POSSIBLY LOCAL GOVERNMENT COST SHARING MECHANISMS TO SUPPORT SERVICE DELIVERY SYSTEMS. SUCH PILOT EFFORTS ENTAIL SOME EXPERIMENTATION AND RISK; HOWEVER, THE MISSION SHOULD SEE AS WIDE A RANGE OF OPTIONS AS MAY BE OFFERED AND WITH SOME CHANCE OF FAILURE IF NECESSARY. THE PP SHOULD DEVELOP BOTH A TECHNICAL AND TACTICAL STRATEGY FOR THE STUDIES/ANALYSIS/PILOT TESTING NEEDED TO ADVANCE THE HEALTH FINANCING DECISIONS. WHILE WE AGREE SOME FUNDS SHOULD BE RESERVED FOR TARGETS OF OPPORTUNITY OR UNANTICIPATED NEEDS, USAID SHOULD IDENTIFY WITH THE COM WHERE OUR ANALYTICAL AND PILOT EFFORTS WILL BE

PROCESSED. OBVIOUSLY THIS ANALYTIC AND OPERATIONAL AGENDA WILL HAVE TO BE CLOSELY COORDINATED WITH THE WORLD BANK AND ACR. ASSUMING THE BANK WILL FOCUS ON FACILITY AND SERVICES MANAGEMENT, WE HAVE IDENTIFIED SOME AREAS FOR YOUR CONSIDERATION WHICH ARE LIABLY TO NEED ADDITIONAL INFORMATION: ACTUARIAL DATA LEADING TO RISK POOLING ANALYSIS FOR PUBLIC AND PRIVATE USE; A DETAILED LOOK AT WHAT IS GOING ON NOW IN THE PRIVATE SECTOR; THE LEGAL AND REGULATORY ENVIRONMENT AND CHANGES THAT ARE NEEDED; CAPITAL REQUIREMENTS INCLUDING A LOOK AT THE STATE OF COM FACILITIES; COMMERCIAL INTERESTS IN AND CONSTRAINTS TO HEALTH INVESTMENTS AND FAMILY PENSION REQUIREMENTS. THIS COMPONENT OF THE PROJECT SHOULD PROVIDE THE ANALYSIS AND BASIC MECHANISMS FOR ALL SUPPORT UNDER THE PROPOSED BY 91 HEALTH FINANCING PROJECT.

4. POLICY DIALCOGUF AGENDA: THE ANPAC NOTED THAT A NUMBER OF IMPORTANT HEALTH SECTOR STUDIES ARE CURRENTLY UNDERWAY FUNDED BY OTHER DONORS E.G. HOSPITAL MANAGEMENT STUDY AND HEALTH CARE FINANCING. IT IS IMPORTANT TO

PREPARE COVERAGE OF MOB SERVICES. THIS SHOULD BE PART OF THE AID HEALTH SECTOR POLICY DIALOGUE, AS DESCRIBED FURTHER IN PARA 4.

3. HEALTH CARE FINANCING: THE ANPAC NOTED THAT HEALTH CARE FINANCING IS A COMPLICATED FIELD AND WILL REQUIRE CONSIDERABLE ANALYSIS TO DEVELOP AN APPROPRIATE SET OF POLICY AND OTHER MEASURES. THE MISSION IS URGED TO BE CREATIVE AND AGGRESSIVE IN THIS AREA IN LIGHT OF THE POTENTIAL CONTRIBUTION OF THE PRIVATE SECTOR AND LIKELY OPPORTUNITIES FOR MAKING PUBLIC HEALTH CARE MORE COST EFFECTIVE. THE ANPAC FULLY INCORPES THE MISSION DECISION TO ADD DOLS. 1.0 MILLION FOR ANALYTICAL STUDIES AND EXPERIMENTAL PROGRAMS. WITH REGARD TO THE LATTER, THE INITIATION OF A SERIES OF SMALL PILOTS WITH VARIOUS GROUPS IS ENCOURAGED. FOR EXAMPLE, WE UNDERSTAND THE MISSION IS CONSIDERING EFFORTS WITH HEALTH MAINTENANCE ORGANIZATIONS, PRIVATE INSURANCE PROGRAMS AND, POSSIBLY LOCAL GOVERNMENT COST SHARING MECHANISMS TO SUPPORT SERVICE DELIVERY SYSTEMS. SUCH PILOT EFFORTS ENTAIL SOME EXPERIMENTATION AND RISK; HOWEVER, THE MISSION SHOULD SEE AS WIDE A RANGE OF OPTIONS AS MAY BE OFFERED AND WITH SOME CHANCE OF FAILURE IF NECESSARY. THE PP SHOULD DEVELOP A TECHNICAL AND TACTICAL STRATEGY FOR THE STUDIES/ANALYSIS/PILOT TESTING NEEDED TO ADVANCE THE HEALTH FINANCING DECISIONS. WHILE WE AGREE SOME FUNDS SHOULD BE RESERVED FOR TARGETS OF OPPORTUNITY OR UNANTICIPATED NEEDS, USAID SHOULD IDENTIFY WITH THE COM WHERE OUR ANALYTICAL AND PILOT EFFORTS WILL BE

FOCUSSED. OBVIOUSLY THIS ANALYTIC AND OPERATIONAL AGENDA WILL HAVE TO BE CLOSELY COORDINATED WITH THE WORLD BANK AND ACR. ASSUMING THE PLAN WILL FOCUS ON FACILITY AND SERVICES MANAGEMENT, WE HAVE IDENTIFIED SOME AREAS FOR YOUR CONSIDERATION WHICH ARE LIKELY TO NEED ADDITIONAL INFORMATION: ACTUARIAL DATA LEADING TO RISK POOLING ANALYSIS FOR PUBLIC AND PRIVATE USE; A DETAILED LOOK AT WHAT IS GOING ON NOW IN THE PRIVATE SECTOR; THE LEGAL AND REGULATORY ENVIRONMENT AND CHANGES THAT ARE NEEDED; CAPITAL REQUIREMENTS INCLUDING A LOOK AT THE STATE OF COM FACILITIES; COMMERCIAL INTERESTS IN AND CONSTRAINTS TO HEALTH INVESTMENTS AND FAMILY PENSION REQUIREMENTS. THIS COMPONENT OF THE PROJECT SHOULD PROVIDE THE ANALYSIS AND BASIC MECHANISMS FOR ALL SUPPORT UNDER THE PROPOSED 91 HEALTH FINANCING PROJECT.

4. POLICY DIALOGUE AGENDA: THE ANPAC NOTED THAT A NUMBER OF IMPORTANT HEALTH SECTOR STUDIES ARE CURRENTLY UNDERWAY FUNDED BY OTHER DONORS E.G. HOSPITAL MANAGEMENT STUDY AND HEALTH CARE FINANCING. IT IS IMPORTANT TO

**ANNEX E**  
**ADMINISTRATIVE ANALYSIS**

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**ANNEX B**

**ADMINISTRATIVE ANALYSIS**

**A. ADMINISTRATIVE ARRANGEMENTS AND RESPONSIBILITIES**

The Ministry of Public Health (MOPH) will continue to be the primary recipient of U.S. assistance under this Project, with several elements implemented in conjunction with the private sector and other government agencies. Many of the major elements of the project are a continuation and expansion of activities developed with assistance provided under earlier projects. There are, however, new project elements (particularly health sector financing, AIDS prevention and control, and to a lesser extent, facilities renovation and extension) for which there is limited prior experience. In addition, given the number of activities, implementation of the project will require the coordinated action of each of the participating agencies. A description of the key agencies involved in the project is presented below.

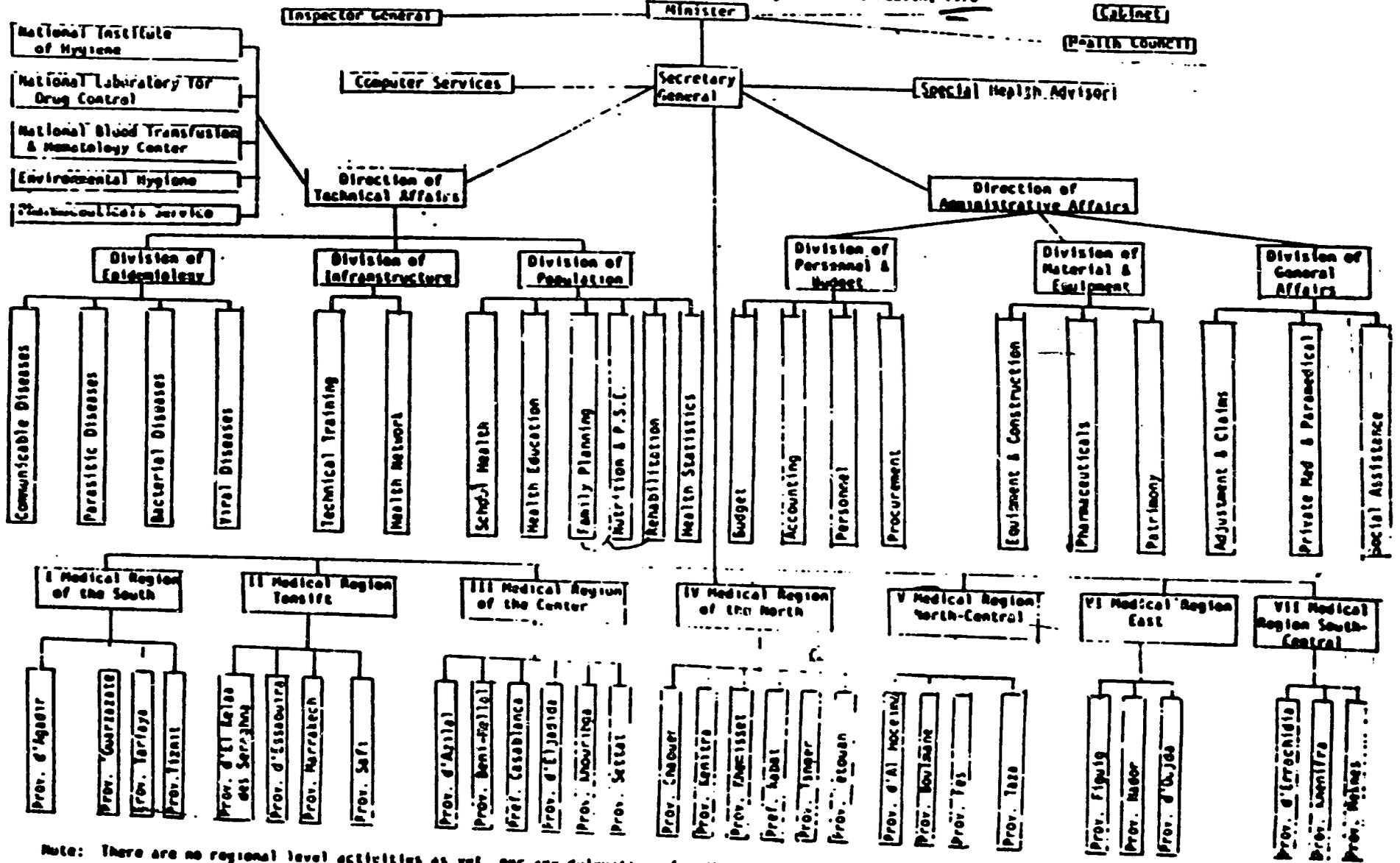
**1. Ministry of Public Health**

The Ministry is in the early stages of a major reorganization which will involve some key counterparts. The current and evolving organigrams are presented under tables E.1 and E.2, respectively, and illustrate this analysis. Currently, the Ministry has two Directorates, that of Technical Affairs and of Administrative Affairs. To date, the Directorate of Technical Affairs (DAT) has held primary responsibility for the entire range of the Ministry's curative and preventive health care programs, including AID, World Bank, and other donor-supported activities. Actual implementation responsibilities of the predecessor AID project were assigned to DAT's Division of Population which comprises practically all programs dealing with preventive care, including family planning, mother and child health, health education, potable water, etc. The Service of Family Planning coordinated day-to-day management of the project 0171, working closely with other Services in the Division handling related child survival interventions (immunization, ORT, nutrition).

Under the revised table of organization, the DAT has been broken up, with its responsibilities to be shared between four of the Ministry's new seven directorates, and three of the new divisions. Specifically, the Division of Population will be largely subsumed into the new Directorate of Prevention and Health Training which will become the seat of project management and coordination. Project assistance for prevention and control of AIDS activities, however, will be managed by the Directorate of Human Epidemiology and Health Programs; technical and management training activities by the Directorate of Human Resources; and the data management and special studies activities, including the 1991 Demographic and Health Survey, will be the responsibility of the Division of Planning, Statistics and Data Processing. Activities with the private sector and health financing will involve the Directorate of Regulations and Control, the Division of Coordination of Autonomous Institutions, and the Division of Pharmaceuticals.

TABLE E.1

Organization Chart of the Moroccan Ministry of Public Health, 1976



Note: There are no regional level activities as yet, nor any delegation of authority, responsibility, etc. This is still in the planning stage.

Source: "20 Years of Public Health," Ministry of Public Health, 1976.

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and district health services. He is supported in this role by a service of Research and Evaluation and two standing coordination committees for hospital operations and basic health services. A copy of the revised organigram for Provincial Health Services is presented in table E.3. Copies of the previous provincial level organigrams are presented also as tables E.4 and E.5.

The revised structure will facilitate improved coordination in client referral and follow-up, more effective technical back-up and supervision; and increased participation by clinical staff in planned FP and MCH training programs.

## 2. USAID

USAID officers will continue to exercise primary responsibility for the management of activities discussed in this Project Paper. Specific project management responsibility will rest with the Population and Human Resources (PHR) Division of USAID. PHR staffing will include the Division Chief; a Population Officer; a project-funded Child Survival Advisor (TACS); a Special Projects Officer; and a FSM professional employee. A local hire PSC health finance advisor working with the MOPH in the development and coordination of planned sector reform activities will also assist in assembling information to enable more effective GOM monitoring of the Project.

As in the past, the Population Officer will act as the Project Officer for the project, with management responsibility for the various subproject components shared by the remaining USDH staff identified above. Based on USAID experience with the predecessor Project 608-0171, the Mission has increased staff depth in key technical skills areas, i.e., certain aspects of child survival, health financing, to enable more effective management of the numerous and complex assistance activities scheduled under the Project.

Furthermore, to reduce the management burden, USAID will consolidate technical assistance in specific fields under a single contractor, who will be responsible for necessary coordination and follow-up. For example, one firm will handle private sector activities, another IE&C, and a third, technical assistance and training needs across the board. Monitoring of this latter contract will be the task of the new Child Survival advisor. The general training and technical assistance services will be provided under an AID direct institutional contract for management, training and technical assistance. This contract will provide: (1) approximately 30 months of short-term technical assistance and 48 months for two long-term advisors, each for a period of 2 years; (2) local administrative, management and logistical support for MOPH in-country training, operations research and related data collection activities; and (3) home office support for the procurement, testing and shipment of commodities purchased in the U.S. and overseas. In addition, there will be multiple actors involved in efforts to expand private health insurance and carry out necessary sector reform measures. Given USAID interest in playing a more active role in moving these activities forward and assuring coordination, the Mission will also contract assistance requirements for these project elements, under a separate USAID direct contract. Ongoing assistance requirements in specific technical skills areas will continue to be acquired through buy-ins under AID/W central project contracts.

TABLE E.3 -  
PROVINCIAL HEALTH SERVICES

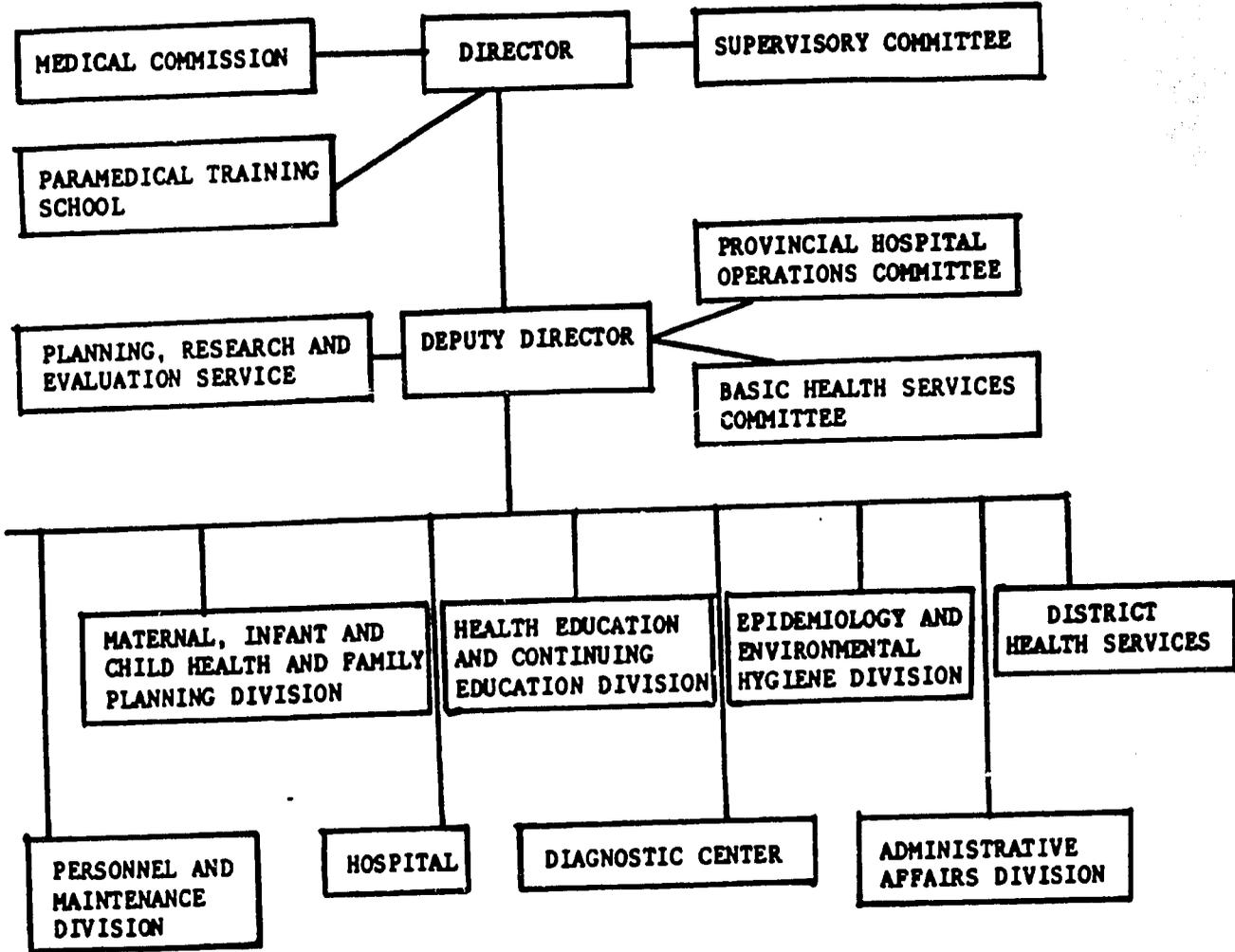


TABLE E-4

ORGANISATION SANITAIRE D'UNE PROVINCE MEDICALE

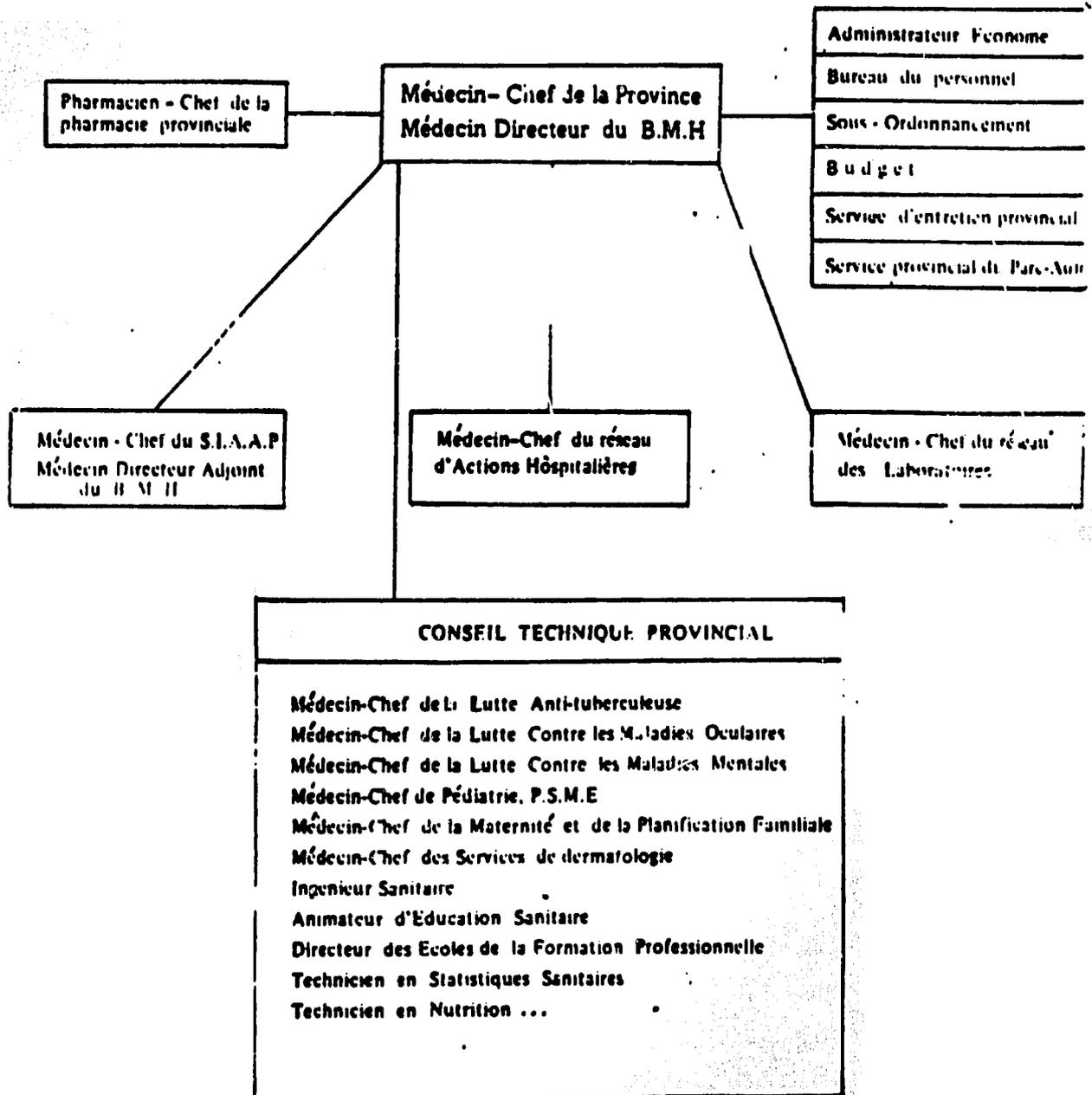
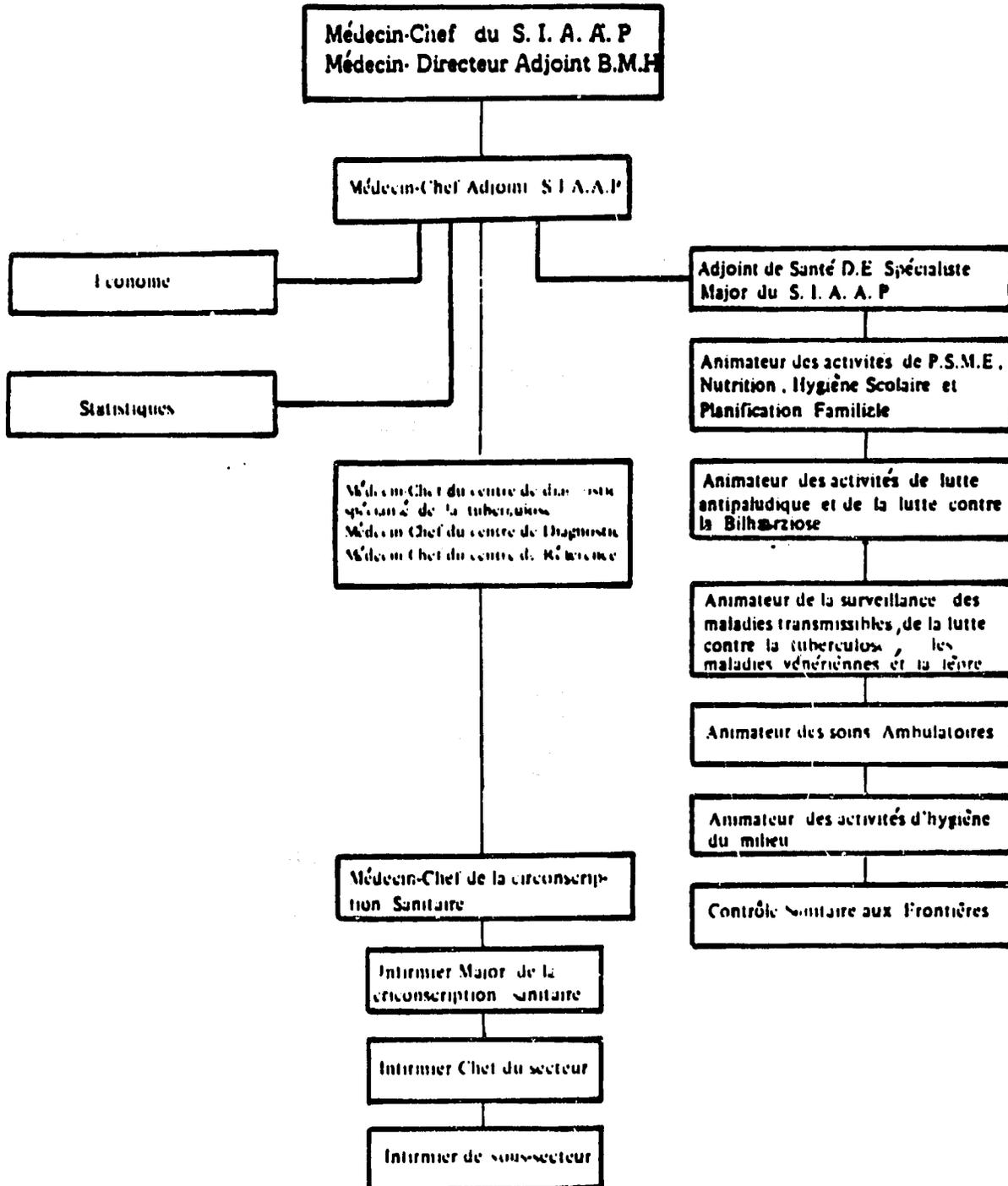


TABLE E-5

ORGANISATION DU SERVICE DE L'INFRASTRUCTURE  
D'ACTIONS AMBULATOIRES PROVINCIAL OU PREFECTORAL

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In this regard several AID grantee and contractor organizations will participate in the project. These include:

a) The Johns Hopkins Program for International Education in Gynecology and Obstetrics (JHPIEGO).

JHPIEGO will assist the MOPH in strengthening both pre-service and in-service training in reproductive health and family planning. The contractor will also assist the Ministry with next steps to decentralize clinical update and refresher training programs and to establish Regional Physician and Nurse Training Centers for clinical instruction in family planning techniques. These centers will be located in Agadir, Marrakech, Kenitra, Fez, Casablanca, Rabat, Meknes, and Oujda. The centers will be operated in close collaboration with the National Training Center for Reproductive Health, University Teaching Hospitals (CHU) in Rabat and Casablanca, and MOPH provincial-level schools of Nursing and Midwifery. JHPIEGO will also assist in establishing family planning services in private sector organizations, such as the National Center for Social Security (CNSS) and under private employee service programs.

b) The Association for Voluntary Surgical Contraception (AVSC).

AVSC will assist the MOPH in the further expansion of the national reproductive health and surgical contraception program described under the clinical services element of the project. AVSC will purchase medical supplies and equipment, finance operational expenses for the program, and provide technical supervision for hospitals participating in the sub-project. Funding for this activity will be provided under the Project via a buy-in to the existing AVSC grant agreement with AID/Washington.

c) The Westinghouse Institute for Resource Development (IRD).

IRD will finance technical assistance to the MOPH in conducting the 1991 Demographic and Health Survey (DHS), disseminating the results to policy makers and family planning program administrators, and strengthening MOPH institutional capabilities for undertaking future surveys of this type. IRD assistance will be funded through the AID/W Demographic and Health Surveys Project Contract.

d) The Johns Hopkins University (JHU), Center for Population Communications.

JHU will assist the MOPH in identification of the information and education needs of the MOPH family planning and MCH programs; execution of marketing and audience surveys; production of FP and MCH promotion materials; and design, implementation, and overall assessment of the Ministry's IEC program. This assistance will be provided through a buy-in under the AID/W Population Communication Services (PCS) Project Contract.

e) Academy for Educational Development (AED), and Family Health International (FHI).

AED and FHI will provide technical assistance, under buy-ins to the AID/W AIDSCOM and AIDSTECH project contracts, for MOPH surveys to determine the incidence and prevalence of HIV infections and AIDS, and attitudes towards AIDS; research to test and evaluate AIDS intervention programs and hypotheses; and provision of blood screening equipment and other prevention commodities.

3. Other Public and Private Sector Organizations

The MOPH will also receive assistance from several other public and private sector organizations. Following is a list of the specific organizations which will participate in the implementation of the project.

A. Autonomous Training Institutions

Five autonomous training institutions will provide training and technical supervision to facilitate implementation of the clinical services, employee services, technical and management training, and AIDS prevention and control elements of the Project. A brief description of these institutions is presented below.

(i) The National Training Center for Reproductive Health (NTCRH):

The NTCRH is a national family planning and reproductive health service and training facility, with a 30-bed maternity and obstetrics-gynecological service, located in Rabat, Morocco. The center functions under the joint auspices of the Ministries of Health and Education, and has provided regional training for Moroccan participants in sub-Saharan Africa, under an agreement with JHPIEGO, since 1981. The NTCRH offers training for physicians, nurses and technical staff in a full range of reproductive health. The Center's technical staff consist of 12 physician specialists in obstetrics, gynecology and reproductive surgery; 22 resident physicians, who are specializing in obstetrics and gynecology, 80 nurses and another 62 administrative and service personnel.

Since 1984, the NTCRH has trained approximately 150 physicians and over 270 paramedical personnel in laparoscopic tubal ligation procedures, operating room techniques, and family planning information and services. The NTCRH also annually serves as a clinical rotation site for approximately 80 medical 5th and 6th year students. The Center has performed over 6,000 tubal ligations and provided technical supervision for an additional 16,000 such procedures performed in MOPH provincial centers throughout the country. The NTCRH will provide similar clinical training and technical supervision assistance under the Project.

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(ii) University Teaching Hospitals (CHU):

The 180-bed Averroes Maternity Hospital (Rabat) and the 248-bed Maternity-de Ibn Sina (Casablanca) will also become more actively involved in family planning clinical training and program supervision under the Project. Each of these maternities carries out over 12,000 deliveries per year and serves as one of the nine medical facilities comprising the CHU clinical campus of Rabat and Casablanca.

Instruction and service programs at the two CHU maternities are similar to programs managed by the NTCRH, each with approximately 30-40 resident physicians completing their specialty in obstetrics and gynecology, and an additional 120-160 5th and 6th year medical students rotating through these facilities on an annual basis.

(iii) Management Training Institutes

Two newly created management training institutes, the National Institute for Research and Training in Public Health (NI RTPH) and the Regional Family Planning Logistics and Management Training Center (REPLMTC), will assist the LOPH in carrying out planned management training activities financed under the project.

The NI RTPH has been established as an autonomous institution under the auspices of the MOPH. The institute is currently located on the grounds of the MOPH College of Public Health and will begin offering masters level and short term-training, in public health and hospital management, in September 1989. The REPLMTC, also housed on the grounds of the College of Public Health, was established in March 1989 with assistance provided under the AID/W Family Planning Logistics Management Project. This center will offer short-term training and technical assistance in FP program and logistics management, with the initial course scheduled to be held in December 1989.

b. Private Voluntary Organizations (PVO)

Two PVOs, the Moroccan Family Planning Association and the Moroccan Association for the Prevention and Control of AIDS, will assist the MOPH in the implementation of the IEC and AIDS prevention and control elements of the project.

(i) The Association Marocaine de Planification Familiale (AMPF)

AMPF, the Moroccan affiliate of the International Planned Parenthood Federation (IPPF), will continue to assist the MOPH in the development of FP promotional and educational materials. Founded in 1966, and accorded IPPF-affiliate status in 1971, AMPF is recognized by the GOM as a "société civile" -- a non-government organization engaged in socially beneficial activities. Its primary functions are to: (1) motivate, inform and educate the Moroccan people about the advantages of family planning; and (2) provide family planning services to the Moroccan people, especially the rural population who do not have access to the "Ministry of Public Health facilities" (AMPF constitution, 1974).

ANPF has a staff of 65, including 9 administrative personnel, 12 IE&C staff, and 44 persons involved in FP service provision. Working out of Rabat Headquarters and branches in Marrakech, Fes, Tangier, Casablanca, and Agadir, the organization operates 12 FP clinics; a FP service delivery program using mobile units and community based sales agents; and an extensive FP IE&C program, including radio, TV, public exhibitions and training workshops for personnel from various Moroccan government and non-government agencies. In October, 1983 the Mission registered ANPF as a PVO eligible to seek U.S. Government resources.

(i) Association de Lutte Contra le SIDA (ALCS)

ALCS, a non-profit organization created in 1987, will assist the MOPH and the GOM National Commission for the Prevention and Control of AIDS, in the implementation of the full range of activities planned under the AIDS prevention and control element of the project, particularly those activities requiring more direct contact with members of high risk population groups. Members of the ALCS, for the most part, are drawn from the Moroccan medical community. The Executive Board of the Association includes several senior GOM officials and the ALCS has the endorsement of the MOPH. The President of the Association is an active member of the GOM AIDS Commission and is recognized as a leading expert on the prevalence and transmission of AIDS in Morocco.

To date, ALCS has developed a series of AIDS information brochures and pamphlets; completed a 12,000 sample survey on knowledge, attitudes and practices concerning AIDS and HIV infection in Morocco; provided counseling to AIDS patients and family members; and established a telephone hotline to provide information on AIDS and HIV infection and suggested preventive measures.

The ALCS operates out of Casablanca and has regional offices in El Jadida, Marrakech and Rabat. It is planning to open additional offices in other major cities. The main objectives of the Association are dissemination of information, and moral and medical support for asymptomatic patients and AIDS patients. ALCS recently forwarded USAID documentation on its legal status, membership, financial resources, and procedures and plans for future activities. USAID is presently reviewing these materials in anticipation of recommending formal AID registration of the Association as an authorized indigenous PVO eligible for direct financial assistance from AID.

c. Private Sector Agencies

The principal private sector agencies involved in the project are the Moroccan Physician and Pharmacists Professional Associations and the National Center for Social Security (CNSS). Other potential private sector participants include the Moroccan Private Employers Confederation (CGEM), the Moroccan Federation of Private Insurance Agencies (FMSAA), and the National Social Security Fund for Public Sector Employees (CNOPS).

(i) Conseil de l'Ordre des Medecins

The "Conseil de l'Ordre des Medecins" is a Moroccan professional society, roughly equivalent to the American Medical Association in the U.S., for Moroccan physicians from the public, private, military and academic sectors. The Conseil is directed by a national governing board comprised of the presidents of its 7 regional branches, representatives from each of the concerned medical sectors and an executive secretariat. The president of the national body, as well as those for the 7 regional branches, is appointed by Royal Decree, assuring continuity in operation and policies espoused by the Conseil and ready access to senior levels of the government.

In May 1988, the Conseil, under the auspices of the King, hosted a national seminar on access to health care in Morocco. The seminar was opened by the Prime Minister and featured active debate by the over 600 physicians in attendance, with the Minister of Health chairing several of the plenary sessions and remaining throughout the three day workshop. Several of the recommendations developed during the seminar figure prominently among the health sector policy issues to be examined under the project. The Conseil has been a leading voice for health sector reform and improvement of medical practice in Morocco and will be represented on the technical advisory committee.

In addition, certain of the regional conseils - and especially that of the north central region - have been particularly interested in health financing issues, holding seminars, discussing standards of practice and alternative financing and delivery systems. Given their smaller size, these organizations may serve as more useful partners for specific dialogue in health financing than would the Conseil itself.

(ii) The Federation Marocaine de Syndicats des Pharmaciens  
(FMSP)

The FMSP is a national trade association grouping the 18 local and regional professional associations of Moroccan pharmacists. Although, the Federation works in close collaboration with the Conseil de l'Ordre des Medecins et des Pharmaciens on issues concerning the moral and professional integrity of medical and pharmaceutical practice in Morocco, its principal role is to assist in addressing the practical concerns of its membership, i.e. laws and regulations governing the installation of new pharmacies and medical product sales outlets (depots); access to credits; continuing professional and technical education; pharmaceutical pricing and sales margins; etc. In this role, the FMSP, through the Syndicat des Pharmaciens de Kabat, has assisted in development of plans for the new condom sales program, scheduled for launch in September 1989. The FMSP will continue participation of this nature in the implementation of project 0198, working with the MOPH to develop social marketing sales programs for contraceptives and MCH products, and to create rural pharmaceutical and medical product sales outlets.

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(iii) Caisse Nationale de la Securite Sociale (CNSS)

The CNSS, a public institution, was established in 1959 as the centerpiece of what is known in Morocco as a system of social protection for the salaried labor force in the private sector. CNSS generates revenues for its programs by mandatory employer and employee contributions for all private sector firms. There are three types of benefits programs according to the law: (1) family benefits; (2) short-term indemnity benefits for illness and maternity leave; and (3) long-term payments for retirement, workers compensation and survivors benefits. The CNSS has been involved in health service delivery, since 1979, through its family benefits branch.

From 1979 through 1988, the CNSS developed, organized, and financed a multipurpose clinic system which consists of 12 facilities that contain a total of 1280 beds nationwide and employ 229 full-time physicians. The project will strengthen the capacity of the CNSS to provide reproductive health and family planning training to CNSS's 16 full-time and 46 part-time physician OB/GYN specialists and related paramedical staff; and to install VSC services in the maternity units of these 12 polyclinics. The CNSS will also participate in the planned private health insurance feasibility assessment and will figure in subsequent deliberations on options to expand private insurance coverage.

(iv) The Federation Marocaine des Societes d'Assurances et des Assureures (FMSSA) and Caisse Nationale des Oeuvres de Prevoyance Sociaux (CNOPS)

Among other private sector organizations which will be invited to participate in the planned private health insurance feasibility assessment are the Federation Marocaine des Societes d'Assurance et des Assureures and the Caisse Nationale des Oeuvres de Prevoyance Sociaux.

The FMSSA is a national trade association whose principal responsibility is to represent the 21 Moroccan private insurance companies in negotiations with the GOM. These negotiations primarily involve officials within the Ministry of Finance's "Direction des Assurances et de la Prevoyance Sociale," concerning laws and regulations governing insurance industry operations and pricing. Private insurance firms represented by FMSSA normally offer health insurance policies, often part of a group insurance package, to private sector employers. Although the price of health insurance is not regulated, and does not have a fixed price, insurance companies are regulated as to their investments (60% of reserves must be invested in bonds issued or guaranteed by the GOM at below market rates). Pricing for these group premiums are set based on expectations of sickness and utilization, and adjusted each year to reflect the actual experience, although there is competition in rates. These policies currently provide coverage for approximately 13% of the Moroccan population.

The CNOPS consists of a loose organization of 8 autonomous public-sector employee mutual groups, responsible for both the financing and delivery of health care. Although the CNOPS functions as the umbrella organization of the

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8 mutual groups and maintains its own separate administrative offices, each of the mutuals manages its own benefit program. Membership in six of the eight mutual groups is voluntary. The two remaining groups, covering the Moroccan armed forces and dependents, require compulsory participation for members under their aegis. In 1988, this ensemble of mutual groups, under the umbrella of CNOPS, had 650,000 members, or 80 percent of all public sector employees.

(v) Confederation Generale Economique Marocaine

The Confederation Generale Economique Marocaine (CGEM) is the private employers confederation, often viewed as the functional equivalent of the U.S. National Association of Manufacturers. The CGEM was established in Casablanca more than 20 years ago and between 1976 and 1985, its membership grew from 180 to 4,000 members, including 45 professional associations. The proclaimed goals of the federation are to promote a rational economic development policy and to strengthen the role of private enterprises in Morocco's economic and social development. USAID and the MOPH, and AID contractor staff, have approached CGEM as a potential participant in the project. In this role, CGEM would communicate information and stimulate interest in the planned employee service activities to the numerous Moroccan employers subscribing to the CGEM newsletter.

B. INSTITUTIONAL ISSUES

The MOPH has been an effective and committed counterpart for USAID assistance in the sector. The Ministry remains, however, a highly centralized and hierarchical structure, and has moved slowly in delegating decision making authority to program managers at the central level and increasing the role of provinces in program administration and planning. The project will assist ongoing MOPH efforts in this regard through increased management training of program and administrative staff; strengthening data collection and information systems; and improving coordination among the various programs, departments and levels of the Ministry. To this end, an analysis of MOPH performance and capabilities in the following program management areas was completed during the design of the Project.

1. Project Direction

One of the strongest aspects of the predecessor projects has been the emphasis on strengthening institutional capacity within the MOPH. Yet much of the Ministry's success in implementing family planning and maternal child health programs has depended on a relatively small number of capable, energetic staff at the central level and in the provinces. The MOPH is aware of the fragility this creates in assuring long-term continuity and effectiveness in program management. The Ministry has, therefore, taken steps to improve this situation.

To improve program management at the central level, the Ministry established a Project Management Unit (PMU), within the MOPH Division of Population, and has progressively strengthened the managerial capacity of the PMU by increasing both the number and technical competence of assigned staff. The PMU is directed by the Chief of the MOPH Family Planning Service, with administrative and technical support provided by a senior administrator (a USAID MPH participant under the Health Management project 0151); the administrative assistant for the Population Division; a data management assistant; a recently recruited public health physician; a nurse midwife; and additional secretarial and logistics personnel from the Division of Population.

In 1986 the Ministry appointed a former Provincial Medical Director to manage and coordinate USAID Child Survival assistance for the national vaccination program. The project coordinator has been extremely successful in directing national vaccination campaigns during each of the last three years and improving the performance of the ongoing service program. As a result, the MOPH has institutionalized this approach and designated program managers for each of its 18 preventive health service programs. The PMU coordinates program manager activities, particularly those receiving USAID assistance. These program managers will be members of the planned Project Coordination Committee for Project 0198.

## 2. Project Coordination

The Ministry's hierarchical structure has hindered coordination both among the various MOPH departments involved in the project and with other concerned public and private sector organizations. At the central level, the PMU structure has been effective in improving coordination among MOPH vertical FP and MCH programs. Management and technical direction for VSC services, however, has been assured primarily by the NTCRH, with little involvement by central level technical staff in the MOPH or from the faculty of university teaching hospitals (CHU) in Rabat and Casablanca. Personal and professional conflict among key NTCRH and MOPH central level officials have also contributed to the limited coordination and delineation of responsibility between this largely hospital-based program and the FP outreach and referral programs responsible for client motivation and recruitment.

Similar problems have arisen in the execution of clinical training programs. Conflicts have developed between MOPH and NTCRH staff concerning selection of physicians and nurses to receive clinical training, and over responsibility for follow up on the performance of these trainees upon their return to the provinces. To date, the CHUs have not been involved in clinical updating and refresher training for MOPH staff. Due to planned expansion, in both the public and private sectors, of the VSC program and the decentralization of MOPH clinical training activities, the Ministry has initiated steps to clearly outline the operational roles and responsibilities of NTCRH, CHU and MOPH staff in the implementation and technical monitoring of these programs. Technical assistance (AVSC and JHPIEGO) financed under the project will assist the MOPH in this regard. In addition, both the NTCRH and the two CHUs will be represented on the Project Coordinating Committee.

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At the provincial level, the revised organizational structure will facilitate overall coordination between curative and preventive service programs. However, there are wide variations in management capabilities, at the province, district and lower levels of the system. Understandably, staffing, administration, and organization of service delivery are different from province to province, depending on local conditions. Certain basic planning and administrative processes have been developed during the implementation of VDMS and the design and testing of the basic health services (SSB) strategy, to standardize management practices and improve program planning and implementation. Nonetheless, additional improvements are required in this area to broaden staff capabilities and strengthen management systems. The project will finance short- and long-term advisory and training assistance to address this need.

At the central level, the Ministry has assigned responsibility for technical oversight and coordination of all provincial level FP activities to the Director of the Provincial Maternity Hospitals, who also serves as the Director of the FP Reference Center. This official will assure coordination between the FP Reference Center; FP outreach and fixed facility programs; physician and nurse training, including clinical practicums; and surgical contraception activities. Technical assistance provided under the JHPIEGO and AVSC contracts will assist in identifying required modifications in local procedures and carrying out related staff training.

### 3. Decentralized Management and Planning

The bureaucratic and hierarchical emphasis of MOPH management and reporting system leads to an inordinate amount of time spent on routine tasks by administrators and program managers. Both central and provincial level managers have therefore, been unable to spend sufficient time monitoring the effectiveness and impact of ongoing programs and planning new initiatives. The lack of training in modern management practices and the absence of effective information systems further complicates this problem.

The recently approved MOPH central and provincial reorganization will streamline current reporting and administrative relationships and decentralize decision making authority to lower levels in the system. The project will provide two long-term resident advisors and 10 months of short-term technical assistance to assist the MOPH in the development and implementation of management training programs; the design and execution of operations research and special studies; and the revision and provincial level automation of the Ministry's FP and MCH service statistics and management reporting system (MIS).

The revised MIS will be geared for more effective use as a monitoring and planning tool. In line with recommendations of the Mid-term Evaluation of project 0171, the revised system will enable the MOPH to maintain up-to-date information on the total number of continuing and new family planning acceptors, as well as information on discontinuation of contraceptive use, vaccination coverage, and other MCH data. The MOPH has established quantified targets at the national, provincial and local level for all key program

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interventions and will routinely monitor implementation performance against these targets, using the revised MIS format. These data will be verified and further refined through operations research and special studies to be undertaken by the MOPH.

#### 4. Staff Competence

The Technical Analysis (included under Annex A) demonstrates that the MOPH possesses the clinical and operational expertise to carry out the planned FP and MCH program expansion and health sector reform activities. In an area more relevant to this analysis, the MOPH will be responsible for host country procurement of approximately \$4 million in goods and services financed under the project. These procurement actions will involve the purchase of: project vehicles; medical equipment and supplies; audio-visual equipment and supplies; and administrative supplies, printing, and educational materials. The Ministry will also contract locally available architectural, engineering and construction services, and limited technical assistance for the implementation of studies and assessments in the area of health care financing and delivery in Morocco.

The MOPH has an effective procurement service, experienced in both domestic and international procurement, and has demonstrated the capacity to manage contracts awarded to Moroccan and overseas suppliers. Under project 0171, the Ministry has procured goods and services for an estimated total value of \$2,500,000. These procurement actions include the purchase of an estimated \$565,000 in printed materials, administrative supplies and fieldworker equipment; \$225,000 for infant weaning supplies; \$370,000 for locally available advisory services; and \$1,350,000 for project vehicles and spare parts.

In implementing these procurement actions, the MOPH has followed standard GOM procedures, including advertising to insure full and open competition and procurement of goods and services at the lowest available cost. USAID has participated as an observer in MOPH bid openings, reviews of technical proposals and contract awards, and has found GOM practices to conform with AID procedures and requirements.

Due to some initial confusion, however, many of the commodities procured under 0171 by the Ministry were purchased under MOPH purchase orders ("bons de commande") or contracts that did not include all of the standard terms and conditions required under AID financed host country contracts. In bringing this point to the attention of MOPH officials, USAID was required to be extensively involved during the development of a recently prepared MOPH host country contract for the procurement of project vehicles. This experience has improved MOPH understanding of AID host country contracting procedures and increased the Ministry's ability to carry out similar contracting activities in the future. The Implementation Seminar to be held in the first month of the project will reinforce understanding of AID policy and regulations in procurement. Accordingly, based on GOM performance during the implementation of Project 0171, USAID has determined that the MOPH has the capacity to carry out the host country contracting of goods and services scheduled under the Project.

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## 5. Construction Management

Host country contracting will be used to procure the architectural and engineering (A&E) and construction services financed under the Project. USAID has had mixed experience with the implementation of construction by the MOPH. During the late 1970s and early 1980s, under Project 0155, USAID financed the construction of ten Family Planning Reference Centers. These facilities were constructed under fixed amount reimbursement (FAR) procedure. While seven of the ten facilities were completed to technical standards and submitted the required documentation on time for AID reimbursement prior to the PACD, contractors at three sites were unable to meet payroll and discontinued work midway through the construction period. Although two of these facilities were eventually completed, the experience highlights a key problem with GOM financed construction in Morocco, namely the slowness of the GOM in making payments to suppliers and contractors. This problem results in contractors stopping work for long periods of time, sometimes even going bankrupt, which discourages the interest of contractors in submitting reasonable bids for future GOM projects. Builders prefer to bid on private sector projects, particularly now that demand for construction in the private sector have picked up after a few slow years.

More recently, however, construction has been a substantial component of the ongoing IBRD 1985 Health Sector Loan project. Under the IBRD project, the MOPH was the contracting agency with the Ministry of Public Works (MOPW) serving as its representative. The MOPW receives a modest fee for services rendered. The World Bank's project finances 68% of total construction costs, the rest being financed by the Ministry of Finance budget. Construction implemented to date is of good quality and the supervision by the Direction des Equipments Publics of the MOPW has been excellent. However, the project has experienced serious delays due to the slowness of the MOP in releasing the 32% GOM contribution to the project. Mechanisms have been modified several times and seem to have improved though there are still some lengthy delays.

Thus, although the MOPH, in conjunction with the MOPW, has demonstrated the capacity to supervise and monitor extensive construction activities, it continues to experience difficulties in meeting its payment obligations to contractors. Likewise many of the earlier problems under the USAID project were due to the severe budget crunch experienced by the GOM at that time. As a result, the MOPH was not able to meet its payment obligations and project implementation suffered. While the GOM budget situation has improved since that time, similar problems with construction payments continue to exist. To avoid delays in the implementation of construction elements of the project USAID has opted for direct payments by AID to host country contractors.

### C. PROCUREMENT PLANS

1. General Equipment and Commodity list - The following is an illustrative list of commodities and equipment which will be procured under the project. Refinements of this list may result in minor shifts or substitutions from one commodity to another but the estimated \$16,240,000 programmed for commodity

procurement will remain relatively unchanged. More precise details and specifications, for both local and international procurement, will be developed by the MOFH, in conjunction with contracted technical advisors, during the implementation of the Project.

a) Equipment and Supply lists for the 3000 Community Service Sites

Basic furniture:

- 1 folding table 1x0,6x0,8m
- 3 folding chairs
- 1 wooden box 1x0,75x0,5m
- 1 isothermal container
- 1 lighting lamp butagaz (3kg)
- 1 bottle of butagaz for lamp (3kg)
- 1 cloth umbrella 1,80m
- 1 empty container for water (10L)

Technical Equipment

- 1 blood pressure tester
- 1 stainless steel tray for instruments
- 1 stainless steel curved basin
- 1 box of bandages and antiseptics with:
  - 1 pair of Mayo scissors
  - 1 pair of curved Mayo scissors
  - 2 forceps
  - 1 scalpel holder
  - blades for the scalpel
  - assorted needles
  - 1 needle holder
- 4 plastic liquid dispensers
- 5 plastic medicine dispensers

b) Equipment and Supply lists for the 1500 field agents

- 1 blood pressure tester
- 1 stainless steel tray for instruments
- 1 stainless steel curved basin
- 1 box of bandages and antiseptics with
  - 1 pair of Mayo scissors
  - 1 pair of curved Mayo scissors
  - 2 forceps
  - 1 scalpel holder
  - blades for the scalpel
  - assorted needles
  - 1 needle holder
- 4 plastic liquid dispensers
- 5 plastic medicine dispensers

c) Equipment and Supply lists for the 35 Mobile Service Units

Basic Furniture:

- 1 light tent for camping (5x3m)
- 1 folding table (1m x .6m x .8m)
- 3 folding chairs

- 2 minilap kits
- 1 vasectomy kit
- 1 pelvic emergency surgery kit
- 1 manual aspirator
- 1 manual resuscitator
- 1 emergency oxygen resuscitation unit (demand resuscitation)

Intubation equipment:

- 1 laryngoscope
- 10 airways
- 5 endotracheal tubes

- 1 basic IV stand
- 10 bottles Sporocidin concentrate

**Category B Equipment (15 sets)**

- 1 manual operating table (Adjustable to trendelenburg position)
- 1 gynecological exam table
- 1 examination lamp
- 2 revolving stools for exam and OR
- 1 adult scale
- 1 OR lamp
- 1 basic instrument table
- 1 stretcher
- 1 autoclave
- 1 anesthesia machine

**f) Microcomputer systems including related peripherals, and software**

- 1 IBM-AT or compatible, equipped with 512K main memory, 1.2 megabyte floppy disk drive (standard), one 360K IBM-PC type floppy disk drive (option), an 80287 math co-processor, graphics controller cards, 2 asynchronous serial ports and one parallel port.
- 1 Bernoulli box, equipped with two drives
- 10 Bernoulli box cartridges
- 500 feet of RS-232C connection cable
- 1 EPSON LQ-1500 DOT matrix printer (200CPS)
- 1 INMAC T switch (ABCD)
- 2 IBM-PC to centronics printer cables (1 male-male)
- 1 SOLA voltage regulator (220-volt, 50 Hertz, 500 VA)
- 1 quadchrome color monitor
- 1 monochrome monitor
- 3 boxes of 3M double-sided, quad-density diskettes (for IBM-AT drive)
- 10 ribbons for EPSON LQ-1500 printer unit
- 1 dust cover for IBM-AT
- 1 dust cover for Bernoulli Box
- 1 dust cover for EPSON LQ-1500 printer
- 1 cleaning kit for disk drives

- 2 INHAC plastic diskette holders (for holding up to 50 diskettes)
- 1 DBASE III software package
- 1 LOTUS 123 software package
- 1 PC-2622 terminal emulation software package for IBM-AT, PC-DOS 3.0 (From Walker, Richer and Quinn, Inc., 1914 N. 34th, Suite 301, Seattle, WA 98103, Phone: (206) 624-0503)
- 1 Edix software package
- 1 SPSS/PC software package
- 1 Quick Code Software package (for dBase III)
- 1 Quick Report Software package (for dBase III)
- 3 copies "Lotus, La Pratique" (French language instruction manual).

g) Other Commodities

The project will also procure laboratory equipment and supplies for AIDS detection and screening in 20 provincial-level blood banks and 6 diagnostic laboratories; 50 microscopes, slides and related pharmaceutical supplies for diagnosis and treatment of vaginal infections and STDs in FP Reference Centers, Regional Physician and Nurse Training Centers and Hospital Maternity Units; and assorted educational equipment, training and printed materials and administrative supplies.

h) Contraceptives

Estimated Contraceptive Requirements (000)

	1989	1990	1991	1992	1993	1994	TOTAL
<u>A. Pills</u>							
Lo Femenal	9,622	10,115	10,480	10,730	11,000	11,160	63,107
Overette	247	313	324	332	341	346	1,903
<u>B. Condoms</u>							
Sultan (52 cm)	2,676	2,980	3,380	3,654	3,984	4,602	21,276
<u>C. IUDs</u>							
Copper T380A	38	48	58	68	78	89	379

- 2. Professional and Technical Services - The Project will finance 180 months of short- and long- term U.S. technical assistance, including seven person years of long term resident advisory services to implement specific elements of the three project components.

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a) Long-Term Technical Assistance

Scopes of Work for the resident Management and Data Collection Advisor, and the Hospital and Health Care Administration Training Advisor, the local-hir Health Financing PSC, and the USAID Technical Advisor for Child Survival (TACS) are presented below.

(i) Management and Data Collection Advisor (Institutional contract)

The Management and Data Collection Advisor will function as the counterpart of the Director of the MOPH Project Management Unit (PMU) in the provision of technical assistance to this project. The consultant will work as an integral member of the PMU and assist its director and concerned program managers involved in the Project as follows:

- Design management information systems and standard operating procedures for use by the PMU and provincial staff to manage all phases of project implementation.
- Design and operationalize an annual project planning cycle which formulates comprehensive annual project workplans and budgets in accordance with the GOM planning cycle and assures timely allocation and disbursement of funds.
- Oversee the design and implementation of project related operations research and special studies, assessments, and pilot demonstration efforts.
- Coordinate the identification of additional technical assistance needs in the area of management systems development and operations research, develop the necessary scopes of work and oversee recruitment of consultants.
- Coordinate determination of management, data collection and analysis training needs, identification of suitable short-term U.S. and observational study training opportunities, and assist in design and execution of in-country training programs to address these needs.
- Provide technical oversight of all short-term consultants providing assistance under the management information system and operations research sub element of the Project.

In order to carry out these responsibilities, the Consultant should have a minimum of 10 years experience in the field of public health with specific experience in the design of management information systems and the execution of surveys, studies and related data collection activities in a developing country. The Consultant should be conversant in public health administration in general and indicators of FP and MCH program performance in particular. A doctoral degree or its equivalent in one of the allied health sciences is desirable. Fluency in written and spoken French will be required at the S-3 and R-3 level.

**(ii) Hospital and Health Care Administration Training Advisor**  
**(Institutional Contract)**

The Consultant will be the counterpart of the Director of the MOPH Institute of Research and Training in Public Health, and will function as an integral member of faculty and training staff for the Institute. The Consultant will assist the Director of the Institute in carrying out planned management training and applied research activities to be undertaken by the Institute, as follows:

- Develop training plans and curricula for hospital and health services administration and actively participate as a trainer or lecturer in in-country management training for long- and short-term participant programs offered by the Institute.
- Design the format and practical instrument for pre- and post-training evaluation of instruction programs at the Institute.
- Review findings of MOPH/IBRD hospital management study, develop methodology, analysis plan, questionnaires and related data collection instruments and assist the MOPH in the execution of a health care management training needs assessment.
- Based on the findings of the health care management training needs assessment, develop a multi-year training plan to address MOPH staff training needs in hospital and health services management.
- Coordinate the identification of additional technical assistance needs in the area of health care management curricula development and training, develop the necessary scopes of work and oversee recruitment of consultants.
- Provide technical oversight of all short-term consultants providing assistance under the management and technical training supplement of the Project.

In order to carry out these responsibilities, the Consultant should have a minimum of 8-10 years experience at the university level in the instruction of hospital and health services administration or public health management courses. The Consultant should be conversant in public health administration in general and hospital and health services management in particular. A doctoral degree or its equivalent in health sector planning and management plus a masters degree in one of the allied health sciences is desirable. Fluency in written and spoken French will be required at least an S-3 and R-3 level, with demonstrated capability to lecture and teach in French.

**(iii) Health Financing Advisor (local-hire PSC)**

This local-hire advisor will assist the MOPH in the design, implementation and coordination of health sector financing and sector reform activities financed

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under the Project. The Contractor will function as a counterpart to the principal staff assistant of the MOPH coordinator for sector reform and provide assistance as follows:

- Review and analyze data on the financing, organization and regulation of the Moroccan Health Sector as a basis for providing up-to-date information on required studies, training, technical assistance and reform measures to increase private sector involvement in the financing and delivery of health services.
- Coordinate preparation and program development activities for short-term technical assistance visits by senior health planning and policy reform consultants; hospital cost recovery and private health insurance management advisors.
- Assist in development of terms of reference for locally contracted hospital cost recovery, private insurance expansion, and related policy development studies in areas of interest for required health sector reform, and monitor performance of local contractors in carrying out these studies.
- Follow up on recommendations of short-term health sector financing advisors financed under the Project and track MOPH progress in completing activities included under annual project workplans.
- Assist MOPH in preparation of routine project monitoring reports.

The Consultant should have a masters degree in public health (MPH) or business administration (MBA) or other post graduate training at an equivalent level in a related specialty. The advisor must be fluent in French with a minimum of three years of professional experience including international experience in program or financial management.

(iv) USAID Technical Advisor for Child Survival (TACS)

The Child Survival Advisor will work under the day to day supervision of the Population Officer, and the overall guidance of the Division Chief of the USAID Population and Human Resources Division. The contractor will assist in the management of child survival, health (including AIDS) and population-related programs and survey work, and provide coordination to professional and clinical training programs supported by AID. He/she will work closely with the USAID Mission, Ministry of Health and other organizations to ensure the timely and effective implementation of the Project through the provision of the following assistance:

- Provide technical, programming and budgetary advice to the MOPH and USAID in all aspect of child survival and other health programs, including AIDS. Monitor financial, logistics and information aspects of AID supported health and family planning activities.

- Assure that all AID reporting requirements on impact and financing of child survival and other health activities (including AIDS) are met. Assist the MOPH in setting up reporting and tracking systems to provide such information in an efficient manner.
- Review and analyze data on health and family planning programs as a basis for providing up-to-date information on impact, effectiveness, outputs and inputs to programs; prepare graphics and other materials for use in presentation on such programs to mission, public or private sector audiences.
- Assist the MOPH in the design, implementation and evaluation of clinical family planning training and technical support programs.
- Provide technical and management assistance to the division, Ministry of Health and other moroccan public and private institutions in designing, implementing and evaluating professional and clinical training programs in child survival, AIDS, and family planning.
- Draft materials for use in publicizing AID contributions to health and family planning programs, including speeches, press releases, etc.

The TACS advisor must have a masters degree in public health or clinical training and post graduate training at an equivalent level in a related specialty. The advisor must be fluent in French with a minimum of five years of professional experience including international experience in the management of mother and child health programs, especially in clinical training and health communications.

b) Short-Term Technical Assistance

As a complement to the two (2) long term advisors and the local hire health financing PSC, the project will finance 96 months of short term technical assistance for the MOPH. Final definition of the particular specialities of this assistance will be made by the MOPH and USAID early in project implementation and will depend, in part, on the expertise of the long term advisors. At minimum, however, areas to be addressed with short term technical assistance will include (i) social marketing, research and communication materials production; (ii) clinical training, evaluation, and curricula development; (iii) epidemiological surveillance and laboratory support systems; (iv) health sector financing and policy reform; (v) hospital and financial management; and (vi) administration of private health insurance programs.

3. Construction Services

The project will upgrade twelve rural dispensaries to health center status, through the addition of FP and MCH service modules and delivery units. Required repairs and renovations will also be undertaken in approximately ten existing rural health centers to increase capacity and improve the quality of

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services provided by these facilities. Twelve additional MOPH facilities will undergo minor repairs or improvements. Twelve new Family Planning Reference Centers also will be established, through the upgrade of existing urban dispensaries or the construction of new facilities adjacent to existing health centers or dispensaries. The project will also finance the installation of photovoltaic lighting systems in approximately seventy rural dispensaries and health centers, currently not covered under the GOM electrical grid, and associated staff housing for these facilities (approximately 100 units).

During the preparation of the Project Paper, USAID contracted the services of a local architect, with extensive knowledge of construction practices and pricing in Morocco and prior experience in the design and development of plans and estimates for USAID financed construction activities. The contractor, working with Mission and GOM staff, prepared a detailed technical assessment of planned construction activities, including preliminary plans and cost estimates as well as suggesting contracting mechanisms for required A + E design and supervision and construction management. Through the AID/W Bureau of Science and Technology, the Mission also contracted the services of an engineer, specializing in renewable energy supply systems, to complete a similar technical assessment for proposed photovoltaic lighting assistance to be provided under the Project. While copies of each of these assessment reports are available in the project files, a summary of the key points developed during the assessment mission is provided below.

a. Renovation, Extension and Repair of MOPH Health Centers and Dispensaries

Many MOPH facilities are quite old, with delivery of priority FP and MCH services constrained due to serious functional deficiencies, and need improvements, particularly in the organization of space or amenities. This situation, in part, has resulted in smaller than capacity attendance by rural populations to clinic based FP and MCH service programs. The project will begin to address this problem in selected rural settings, through limited facilities renovation, extension and repair assistance within the following parameters:

(i) Criteria for Facilities Selection

Provinces will be selected based on the following criteria:

- Provinces with high infant mortality and low contraceptive prevalence. These provinces are, as a rule, located away from the country's mainstream socio-economic activities, with populations spread out in remote locations and under represented in terms of MOPH infrastructure and service programs.

- Provinces with large peri-urban areas with fast growing population where existing FP/MCH services are overextended. These provinces attract the migration of the rural population, and quite often house large urban populations with limited financial means and high birth rates.

1976

Facilities within provinces will be preselected based on:

- gaps in MOPH services coverage; and physical deficiencies of the facilities identified in the Health Plan established by each province in 1987. The information provided by the Health Plan has been incorporated into a data bank by the Infrastructure Division of the MOPH and can be conveniently retrieved.

and finally selected based on:

- field work conducted in each selected province, interviews with the provincial MOPH representatives as to the evolution of physical/population needs since the Plans were prepared.

Based on preliminary application of the above criteria, the MOPH and USAID have agreed that the renovation, extensions and repair assistance will be concentrated in approximately 8 provinces located in northern Morocco (Al Hoceima, Larache, Nador, Sidi Kacem, Tanger, Tetouan, Taounat, and Taza).

(ii) Technical Program

The MOPH has developed standard plans and configurations for its four principal preventive care facilities - basic rural dispensaries, dispensary/clinics, health centers and reference centers. These plans are structured to enable the progressive upgrade and extension of a particular facility to the next higher level of sophistication in line with the growth and medical care needs of the population served. Based on the level of sophistication, these facilities include space for medical consultation -- triage, examination and treatment; maternal and child health -- MCH clinics, FP counseling and services; maternity care -- pre-natal education and screening delivery and recovery; and related support -- pharmacy, storage and files.

The twelve facility upgrades to health center status will be limited to the construction of approximately 115 square meters (m<sup>2</sup>) in addition service areas. In cases where the unit to be extended is very small, the extension will be slightly larger. Where the unit is relatively large the extension will be smaller than average size and the existing unit may undergo improvements to suit its new function. In all cases, the extensions will be designed to be functionally integrated with existing structures.

Individual facilities worksheets, identifying physical deficiencies for MOPH facilities, were reviewed to reach agreement on facility renovation work in ten existing health centers to be financed under the project. These worksheets were completed for each MOPH facility, during the development of the National Health Plan prepared in 1987, and are maintained in the MOPH infrastructure data bank. Based on the findings of this review, the required facility renovation work has been grouped under 7 categories, with categories 1 - 3 representing approximately 60% of the estimated costs for planned

1989

renovation work. These categories include 1) major structural repairs; 2) surfacing of walls and floors; 3) water-proofing and sealing; 4) woodwork; 5) plumbing; 6) electrical work; and 7) painting and glass work. The minor repair work scheduled for twelve additional facilities will be primarily limited to categories 4 - 7 and confined to areas in which facilities are located which will be renovated or upgraded under the project.

b. Family Planning (FP) Reference Centers

The twelve FP Reference Center sites will be selected using criteria similar to those developed for use in the selection of health centers and dispensaries assisted under the Project, focusing increased attention on contraceptive prevalence and method mix, and overall family planning program performance in the concerned provinces. Based on preliminary application of these criteria, FP Reference Centers will be established in the provinces of Larache, Sidi Kacem, Chaouen, Taounat, Fes, Marrakech, Taroudant, Tiznit, Errachidia and Khenifra. Three centers will also be established in the Prefecture of Casablanca, in Ain Chock, Al Fida and Mohammedia. These centers will be established on sites where urban or district hospitals, health centers or dispensaries are located. Depending on the site and the existing building(s), the reference center will be built either as a free standing unit or as an extension of the existing health facility. In either case the reference center will consist of a unit of approximately 130 m<sup>2</sup>.

c. Photovoltaic Lighting

Good lighting is critical for the practice of certain medical services. In many facilities electricity is not available (50% of rural facilities in 1987 across Morocco; less than 30% in southern Morocco), nor are other adequate lighting systems. Even natural light does not always penetrate well inside the facilities. This situation prevents the MOPH staff from dispensing FP and MCH services as needed and contributes to the instability and low productivity of MOPH personnel who have to perform their tasks in difficult conditions and lacking minimum comfort. Accordingly, the project will equip seventy health centers, dispensaries and related staff housing with photovoltaic (PV) systems for lighting and television. More specifically, each facility will receive a lighting PV kit of 150 Wt, possibly more if necessary; each staff housing unit will receive a basic PV kit (50 Wt) for 2 lights and a radio or television set. Spare parts will also be provided.

The following criteria will be used in the selection of facilities to receive photovoltaic lighting assistance: facilities must be located in: (i) provinces which benefit from excellent insolation all year around; (ii) areas where there is no electric grid and where there is no short/medium term plan to install it; and (iii) be those facilities, within a province, that show the greatest need for it.

d. Cost Estimates

Cost estimates for proposed construction activities financed under the Project were prepared by USAID A+E design consultants, working in close collaboration with MOPH engineering and program staff.

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(i) Facility Renovation, Extension and Repair

Cost estimates for this activity were prepared based on a review of architectural plans and designs for facility configuration models adopted for MOPH preventive health facilities; and facility data sheet identifying physical deficiencies in existing MOPH facilities. Based on the findings of this review, technical programs, identify space requirements for the planned extensions and the specific categories of renovation and repair work to be undertaken, were developed and converted against prevailing unit cost estimates, by m2 of construction and category of renovation and or repair, to determine the overall budget for this activity. Site visits were then carried out at the provincial level to check central level data against actual local conditions, and the cost estimates were modified, as appropriate. The projected cost of this activity, including approximately 15% to cover unforeseen physical contingencies, is presented below.

Type of Intervention	Number	Unit cost/intervention		Overall costs		Total	%
		design	construction	Design	Const.		
FP Reference Center	12	3,880	27,730	46,590	332,770	379,360	30%
Health Center Upgrade/ Renovation	22	3,790	27,110	83,500	596,370	679,870	55%
Facility Repair	12	1,420	13,570	17,100	162,900	180,000	15%
<b>Subtotal design and Civil Work</b>				<b>147,190</b>	<b>1,092,040</b>	<b>1,239,230</b>	<b>100%</b>
<b>Physical Contingencies</b>				<b>22,080</b>	<b>163,810</b>	<b>185,890</b>	
<b>Total Construction</b>				<b>169,270</b>	<b>1,255,850</b>	<b>1,425,120</b>	
<b>Related Management Costs</b>						<b>74,880</b>	
<b>Grand Total</b>						<b>1,500,000</b>	

(ii) Photovoltaic Lighting

Cost estimates for this activity were developed by the USAID Renewable Energy Advisor, in collaboration with MOPH engineering and program staff and officials from the "Centre de Développement des Energies Renouvelables, of the GOM Ministry of Energy. These estimates were developed through compiling unit costs for an estimated seventy (70) 150 watt photovoltaic (PV) systems, at approximately \$2,500 per system, for the concerned health facilities; approximately one hundred (100) 50 watt PV systems, at approximately \$1,000 per system, for related staff housing; costs of associated spare parts and equipment; and transportation, installation, training and monitoring costs, as presented below:

2017

Photovoltaic systems (70 at \$2,500 ea. and 100 at \$1,000 ea.)	\$ 275,000
Equipment and spare parts	50,000
Installation and Transportation	45,000
Training and technical monitoring	30,000
	<hr/>
	\$ 400,000

e. Required Services

Approximately 3 or 4 joint venture A+E groups (one per group of provinces) will be contracted by the MOPH to prepare A+E studies, and each monitor construction of approximately two to three building contractors. An additional 6 to 8 building contractors will be contracted by the Ministry to carry out the civil works. The tenders will be aimed at regional medium size contractors, "tous corps d'état," who are likely to be interested by the size of the contracts and possess the responsibility to complement these construction activities.

**ANNEX G**  
**LOGFRAME**

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ANNEX G

LOGICAL FRAMEWORK

Project Title & Number: **FAMILY PLANNING AND CHILD SURVIVAL IV (608-0198)**

Date prepared: July, 1989

Life of Project:  
From FY 89 to FY 96  
Total U.S. Funding: \$31,000

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<u>NERATIVE SUMMARY</u>	<u>OBJECTIVELY VERIFIABLE INDICATORS</u>	<u>MEANS OF VERIFICATION</u>	<u>IMPORTANT ASSUMPTIONS</u>
<u>Project:</u>	<u>Measures of Goal Achievement:</u>		<u>Assumptions for Achieving Goal Targets:</u>
To reduce rapid population growth and early child death in Morocco.	1) Total Fertility Rate reduced from 4.9 to 4.0.  2) Infant mortality reduced from 73 to less than 50 per 1,000.  3) Maternal mortality quantified and reduced.	GOM Ministry of Plan multi-round demographic surveys, 1992 census, and post censal reports.  (Note: North Africa Regional figure in 1983 cited at 500 deaths/100,000 births in <u>Family Planning and Child Survival</u> , John A. Ross et al, 1988.)	Increased contraceptive prevalence is translated into fertility declines.
<u>Project Purpose:</u>	<u>Conditions that will indicate purpose has been achieved</u>		<u>Assumptions for achieving purpose:</u>
To improve impact and sustainability of family planning and maternal child health programs, in Morocco.	1) Contraceptive prevalence of 45% modern methods among Married Women of Reproductive Age (MARA) attained and the number of couples practicing family planning increased from 1,145,000 in 1988 to 2,194,000 in 1996.  2) Availability of Quality family planning and mother and child information and services increased from 70% to 90% of Moroccan population; vaccination coverage increased from 87% to 95%; death associated with diarrheas decreased by 50%; proportion of women receiving prenatal care increased from 25% to 50%; and proportion of medically supervised births increased from 26% to 50%.  3) Stabilize MOFH budget at 3.5% of GOM budget. Increase expenditure on rural outreach from 4.4% to 7.0% of MOFH budget. Increased per capita expenditures on curative health from private sector sources.	1) MOFH, USAID records and reports.  2) FP program service statistics: analysis of contraceptive stock flow.  3) Contraceptive prevalence surveys.  4) National Family Health and Demographic Surveys. 5) GOM budget, national income accounts, household expenditure survey data, and insurance records.	Continued demand for modern contraceptives due to family preference for spaced births or to limit family size.

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LOGICAL FRAMEWORK  
(Cont'd)

ANNEX G

<u>Project Outputs:</u>	<u>Magnitude of Outputs:</u>	<u>Means of Verification:</u>	<u>Important Assumptions:</u>
1) Family planning and maternal child health outreach service programs operational nationwide.	1) FP/MCH outreach service programs in 12 additional provinces and coverage in rural areas increased by 20% to 85% in 30 existing provinces.	1) On-site verification of project activity and examination of client records maintained by MOPH fieldworkers and fixed facilities.	1) Increased availability of high quality FP/MCH services will result in increased use of these services by mothers and children.
2) Pregnancy surveillance and birth monitoring, IUD and VSC programs expanded.	2) 34 rural facilities upgraded or repaired; improved services at 24 FP reference centers and construction of 12 new centers; and VSC services established in 15 additional provincial centers and five rural facilities.	2) Site visits and reviews of monthly and quarterly service reports.	2) The GOM will continue to finance the costs of outreach services in the 30 existing provinces.
3) Expand condom social marketing program and launch social marketing programs for oral contraceptives, CRS, and related CS supplies.	3) 900 additional FP/MCH product sales outlets established.	3) Commodity distribution sales reports.	3) Local costs of production can be reduced as sales volumes increase and these reductions can be passed on to clients.
4) Employee services programs expanded.	4) Install VSC and related clinical services in 12 polyclinics; and integrate FP/MCH services into 20 private employee programs.	4) Quarterly service statistics reports forwarded to the MOPH.	4) Benefits of FP/MCH service packages will be attractive enough to attract private sector firms; and
5) MDEH and program management performance at all levels improved & professional and managerial training program strengthened. Administrative staff training.	5) Reproductive health training programs installed at 5 additional training sites; 350 physicians, 2,200 nurses, and 4,500 technicians and administrators trained; management information system revamped.	5) Review of training reports, management system.	5) Local and expatriate TA available.
6) Effective, FP, CRS, infant vaccination and nutrition education promotion materials developed.	6) Multi-media materials production and IEC Promotion plan developed and implemented.	6) Monitoring of radio, T.V., movie presentations.	6) GOM will authorize "air-time" for broadcast FP messages.

ANNEX G

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LOGICAL FRAMEWORK (Cont'd)

7) AIDS and STD surveillance program in place.	7) 5 studies completed; 50,000 health personnel and counselling staff trained; and 13 diagnostic/laboratories supplied.	7) Copies of survey reports & review of training and screening records.	
8) Increased understanding of policy issues which affect efficiency and cost recovery in public facilities and which hinder expansion of private financing and delivery of health services.	8) Workshops, seminars and studies.	8) Consultant reports.	8) Political and economic climate remains favorable to expansion of private sector activities.
9) Design and application of methodology to develop detailed information on structure of hospital costs.	9) Methodology developed at three hospitals.	9) Consultant reports.	
10) Feasibility study for establishing an HMO or expanding private health insurance.	10) Series of studies leading to one or more pilot.	10) Consultant reports.	10) MOH encourages moving from studies to pilot activities.
11) Demand analyses at local community level and mechanisms for local financing and cost recovery.	11) Number of pilot sites to be determined.	11) Consultant reports.	

Inputs:

FY 89-95:

Technical assistance:	3,740,000
Commodities:	16,240,000
Training:	2,730,000
Construction	1,900,000
Local costs	4,860,000
Contingency	<u>1,530,000</u>
Total	31,000,000

See Financial Plan

- |  |   |
|--|---|
| 1) USAID and AID grantees/contractor reports.                                | 1) Inputs available on a timely basis.                            |
| 2) Shipping documents and reports on contraceptive and commodity deliveries. | 2) GOM can effectively absorb and utilize AID-provided resources. |
| 3) Consultant reports.   |   |
| 4) PIO/Ds, PIO/Cs, PIO/Ps.   |   |
| 5) USAID financial records.  |   |
| 6) SFIO-3s submitted by recipient agencies.                                  |   |
| 7) Related project reports.  |   |

**ANNEX E**  
**GOM LETTER OF REQUEST**

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ROYAUME DU MAROC  
MINISTRE DE LA SANTE  
PUBLIQUE

N° 1449 DT/  
16 AOUT 1989

INFO COPY

المملكة المغربية  
وزارة الصحة العمومية

608-0198

LE MINISTRE DE LA SANTE PUBLIQUE

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MONSIEUR LE DIRECTEUR DE L'AGENCE  
POUR LE DEVELOPPEMENT INTERNATIONAL  
DES ETATS-UNIS D'AMERIQUE - RABAT -

OBJET: PHR  
DATE: 02/23  
REF: MR-01MR-PROG-  
FN-CHRON-RF

Cher Monsieur JOHNSON,

Dans le Cadre de nos discussions avec vous et vos collaborateurs, le Ministère de la Santé Publique sollicite de l'US-AID de procéder à l'approbation du don des 31 millions de dollars pour financer l'exécution de la phase IV du projet d'assistance du Gouvernement Américain pour les activités de planification familiale et de survie de l'enfant au Maroc.

Le but du projet est de :

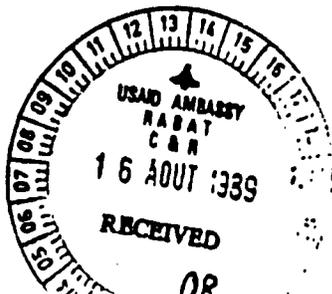
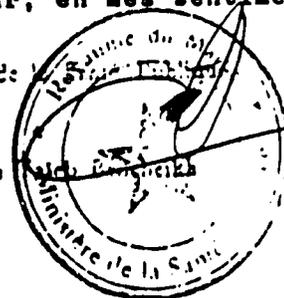
- 1 - Assurer un plus grand accès de la population aux services de planification familiale et de santé maternelle et infantile.
- 2 - Améliorer la qualité et l'efficacité de la gestion des programmes sanitaires et des équipements du Ministère de la Santé Publique
- 3 - Continuer les réformes sanitaires en vue d'une plus grande implication du secteur privé dans le financement et les prestations de service.

Le projet sera exécuté par le Ministère de la Santé Publique avec la participation du secteur privé, des organisations et associations non gouvernementales.

En attendant la finalisation du document du projet proposé et la discussion des modalités de son exécution, je vous prie de croire, Monsieur le Directeur, en mes sentiments respectueux

Ministre de la Santé Publique

Signé :



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**ANNEX I**

**611 (e) CERTIFICATION**

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CLASS: UNCLASSIFIED  
 CHRG: AID 88/15/89  
 APPR: DIR:CMJOHNSON  
 DRFTD: RLA:BNARRINGTON:J  
 CLEAR: 1. PROJ:ESCHOPIEL  
 2. D/DIR:EMORSE  
 DISTR: AID-5 DCM MB

ADM AID

FOR AA/AME ADELMAN FROM DIRECTOR JOHNSON.

E.O. 12355: N/A  
 SUBJECT: 5:1(E) CERTIFICATION FOR MOROCCO FAMILY  
 PLANNING AND CHILD SURVIVAL IV  
 PROJECT (803-0198)

607-0198  
 DIR-DIR-RLA  
 PROJ-PHR-CHRON-R

REFS: STATE 120849

1. YOUR IMMEDIATE CONSIDERATION IS REQUESTED OF THE FOLLOWING CERTIFICATION OF THE FINANCIAL AND HUMAN RESOURCES CAPABILITY OF THE GOVERNMENT OF THE KINGDOM OF MOROCCO TO EFFECTIVELY UTILIZE AND MAINTAIN CAPITAL INPUTS PROVIDED UNDER THE FAMILY PLANNING AND CHILD SURVIVAL IV PROJECT. UNDER DELEGATION OF AUTHORITY NO. 434, YOU HAVE AUTHORITY TO RECEIVE AND TAKE INTO CONSIDERATION SUCH CERTIFICATIONS, AND THIS AUTHORITY HAS NOT BEEN REDELEGATED TO THE FIELD. AUTHORIZATION OF THE PROJECT IS SCHEDULED TO OCCUR THIS WEEK. THE TEXT OF THE CERTIFICATION FOLLOWS:

2. THIS PROJECT REPRESENTS A CONTINUATION AND EXPANSION OF ACTIVITIES BEGUN UNDER THREE EARLIER PROJECTS IN THE FAMILY PLANNING AND CHILD HEALTH FIELD. THE PROJECT WILL EXPAND ACCESS TO FAMILY PLANNING AND MATERNAL CHILD HEALTH (FP/MCH) SERVICES PROVIDED THROUGH THE MINISTRY OF PUBLIC HEALTH (MOPH) PRIMARY HEALTH CARE DELIVERY SYSTEM. TO ACHIEVE THIS, THE PROJECT WILL EXPAND GEOGRAPHIC COVERAGE TO AN ADDITIONAL 12 PROVINCES COVERING THE REMAINING RURAL AND UNDERSERVED POPULATION IN MOROCCO. IN ORDER TO INCREASE THE AVAILABILITY OF CLINICAL SERVICE PROGRAMS IN SPECIFIC RURAL SETTINGS, THE PROJECT WILL FINANCE REMODELING OR EXTENSIONS TO UPGRADE MOPH FACILITIES. THESE UPGRADED FACILITIES WILL SUPPORT MOPH EFFORTS TO INCREASE THE USE OF MORE RELIABLE AND PERMANENT METHODS OF FAMILY PLANNING (IUDS AND VSC). IT IS ANTICIPATED THAT TWELVE RURAL DISPENSARIES WILL BE UPGRADED, THROUGH THE ADDITION OF FP/MCH SERVICE MODULES AND DELIVERY UNITS, TO THE HEALTH CENTER LEVEL. IN ORDER TO INCREASE SERVICE CAPACITY, AT THE HEALTH CENTER LEVEL, AN ESTIMATED TEN FACILITIES WILL BE RENOVATED. TWELVE FACILITIES WILL UNDERGO MINOR REPAIRS OR IMPROVEMENTS. IN ADDITION, THE PROJECT WILL FINANCE THE ESTABLISHMENT, THROUGH FACILITY UPGRADES OR NEW CONSTRUCTION, OF UP TO TWELVE

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RABAT 7373

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STATE 271617

ACTION AII3 INFO: DCM ECON/S

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TO AMEMBASSY RABAT IMMEDIATE 2685  
BT  
UNCLAS STATE 271617

LOC: 310 145  
24 AUG 88 1615  
CN: 47346  
CHRG: AID  
DIST: AID

6080198

AIIAC FOR MISSION DIRECTOR CHARLES JOHNSON

E.O. 12356: N/A

TAGS:

SUBJECT: APPROVAL OF 611(E) CERTIFICATION FOR MOROCCO  
FAMILY PLANNING AND CHILD SURVIVAL IV PROJECT (608-0198)

REF: RABAT 07979

ACTION: RLA  
DUE DATE: 08/28  
INFO: DIR - DIR PHE  
PROG - OFN CHRON  
RF

1. THERE IS A QUESTION WHETHER SUCH CERTIFICATION IS  
NEEDED FROM READING OF RELEVANT STATUTE AND AID  
HANDBOOKS REGARDING DEFINITION OF "CAPITAL ASSISTANCE  
PROJECT" IN SEC. 611(E) CONTEXT. WE UNDERSTAND THAT THE  
ISSUE OF WHETHER CAPITAL COMPONENT IN A PREDOMINANTLY TA  
ACTIVITY COMES WITHIN SEC. 611(E) IS BEING SUBMITTED BY  
PIC TO ITS GC OFFICE FOR DETERMINATION. HOWEVER, GIVEN  
THE NEED TO MOVE URGENTLY WITH PROJECT OBLIGATION, WE  
HAVE TAKEN THE PRUDENT COURSE AND "CONSIDERED" 611(E)  
CERTIFICATION AS REQUESTED REFTEL.

2. THE AA/ANE HAS RECEIVED SUBJECT CERTIFICATION PER  
REFTEL AND HAS TAKEN INTO CONSIDERATION THE  
JUSTIFICATION STATED THEREIN. THE AA/ANE HEREBY CONCURS  
WITH THAT CERTIFICATION AND THE USAID DIRECTOR MAY  
PROCEED WITH NEGOTIATION OF PROJECT AGREEMENT. AS TO  
WHETHER PCTB CERTIFICATION AND REVIEW OF CERTIFICATION

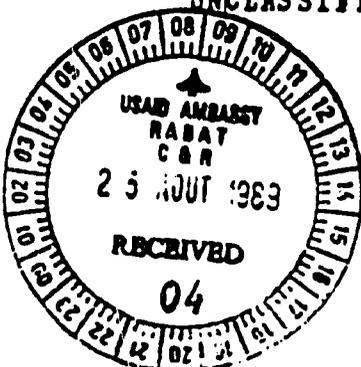
FUNCTIONS CAN BE DELEGATED TO MISSIONS IN FACE OF SEC.  
611(E) LANGUAGE IS ALSO SUBJECT OF ATTENTION BY PPC AND  
ITS GC OFFICE. WE WILL KEEP YOU APPRISED. EAGLEBURGER

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**ANNEX J**

**WAIVERS**

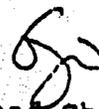
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AGENCY FOR INTERNATIONAL DEVELOPMENT

WASHINGTON, D. C. 20523

Waiver Number: ANE/89/G/25/608-0198

ACTION MEMORANDUM FOR THE ASSISTANT ADMINISTRATOR, BUREAU FOR ASIA AND NEAR EAST

FROM: ANE/PD, Bruce J. Odell 

SUBJECT: Morocco -- Population and Child Survival IV Project  
608-0198  
Source and Origin Waiver for Motorbikes

- a. Cooperating Country: Morocco
- b. Authorization: 608-0198
- c. Nature of Funding: Grant
- d. Description of Goods: Approximately 400 motorbikes and related spare parts
- e. Value of Goods: \$450,000
- f. Probable Source: Japan
- g. Probable Origin: Japan

Action: Authorization is required for a procurement source and origin waiver to permit USAID/Rabat to purchase 400 motorbikes and spare parts from Japan for a total value of approximately \$450,000.

Authority: A.I.D. financing of motor vehicles is governed by Handbook 1B, Chapter 4C2, which stipulates that (1) vehicles must be manufactured in the United States unless special circumstances exist, as required by Section 636(i) of the Foreign Assistance Act, and (2) the source and origin of the vehicles must be from countries within the authorized Geographic Code, as required by Handbook 1B, Chapter 5B. As a general rule, the industrially advanced countries, other than the United States, are ineligible source countries.

Discussion: This supersedes the motorbike component of Waiver No. ANE/89/G/18/608-0198, signed by the Acting AA on 13 May 1989, which designated Morocco as the source on the basis of erroneous information that the bikes would be assembled in Morocco from components imported from Japan. When it was discovered later that the motorbikes are manufactured entirely in Japan, it was decided to issue a further waiver, for the motorbikes alone, with Japan

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shown for both source and origin. The non-motorbike component of Waiver No. ANE/89/G/18/608-0198, in the amount of \$1,050,000, is unaffected by the above considerations, and consequently remains in force (Tab A).

The value and purposes for which the motorbikes are intended remain the same as described in Waiver No. ANE/89/G/18/608-0198, and consequently are not repeated herewith, except to note that, for reasons of economy and simplicity, motorcycles with engines of small displacement (less than 100cc) are appropriate to this project. Experience with motorbikes in current use shows that they are poorly adapted to the rugged terrain and climate. Motorbike downtime for repair and maintenance has been a leading obstacle to health workers' spending more time in the field. Additional and more rugged motorbikes are needed to address the mobility issue.

Justification: There are no U.S. or other Code 941 country manufactured motorbikes equipped with small (50cc) high compression motors, heavy duty frames and suspension systems. The Mission has further determined that no alternate models of U.S. motorbikes are sold in Morocco and that no spare part or service capability exists for U.S. vehicles, particularly in the remote areas of Morocco where the bikes will be used. Spare parts and maintenance facilities do exist in Morocco for the proposed Code 935-manufactured motorbikes.

Under Handbook 1B, Chapter 4C2D, you are authorized to waive source and origin requirements under FAA Section 636(i) for motor vehicles, if you find that special circumstances exist. In this case, the lack of adequate spare parts and service facilities for U.S.-manufactured motorbikes constitutes "special circumstances." Pursuant to Handbook 1B, Chapter 5B4A(2), source/origin waivers are permitted where the commodity is not available from countries included in the authorized geographic code. As described above, motorbikes and spares of U.S. source and origin are not available from the authorized geographic code.

The Mission has already consulted GC and M/SER/OP with respect to this waiver action, which supersedes the motorbike portion of Waiver ANE/89/G/18/608-0198. (The latter waiver covered motorbikes and cars for a combined value of \$1,500,000, in the expectation that both kinds of vehicles were assembled in Morocco from imported components.)

Recommendation: That, based on the foregoing and by signing below, you (I) waive the authorized Geographic Code for source and origin from Code 000 to Code 935, to permit procurement of appropriate motorbikes and spare parts for a total value of

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approximately \$450,000 pursuant to Handbook 1B, Chapter 5B4A(2); (2) certify that the exclusion of procurement from Free World countries other than the Cooperating Country and countries included in Code 941 would seriously impede the attainment of U.S. foreign policy objectives and objectives of the foreign assistance program pursuant to Handbook 1B, Chapter 5B4B; and (3) certify that special circumstances exist and that you accordingly waive Section 636(1) of the FAA of 1961, as amended.

Approved: Carol Adelman

Disapproved: \_\_\_\_\_

Date: 6/28/89

Attachment:

Tab A -- Waiver ANE/89/G/25/608-0198 dated 13 May 1989

Clearances:

DAA/ANE:RBrown	<u>RB</u>
ANE/PD/MNE:PSMatheson	<u>PLM</u>
ANE/PD/PCS:JBritt	<u>(draft)</u>
ANE/MENA:RDelaney	<u>(draft)</u>
GC/ANE:DLuten	<u>(draft)</u>
ANE/TR:TLukas	<u>(per MJ)</u>
M/SER/OP/COMS:JFrame	<u>(draft)</u>
ANE/TR/ARD:JLee	<u>(draft)</u>

cc: USAID/Rabat  
M/AAA/SER:JOWens  
ANE/PD/PCS:Waiver Book  
ANE/PD File

{Rabat 5688 and BWickland:27 Jun 89:ext. 79979:doc. 6429d1}

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Waiver Number: ANE/89/G/18/608-0198

**ACTION MEMORANDUM FOR THE ASSISTANT ADMINISTRATOR, BUREAU FOR ASIA AND NEAR EAST**

**FROM:** ANE/PD, Ronald P. Venezia

**SUBJECT:** Source and Origin Waiver for Project Vehicles in Morocco Population/Family Planning Support IV Project (608-0198)

- a. Cooperating Country: Morocco
- b. Authorization: Project Agreement 608-0198
- c. Nature of Funding: Development Assistance Grant
- d. Description of Goods: Approximately 40 all terrain or mini van type vehicles; 400 motor bikes; and related spare parts.
- e. Value of Goods: \$1,500,000
- f. Probable Source: Morocco
- g. Probable Origin: Over 50 percent componentry from France, Japan, or Great Britain (Code 935)

Problem: Authorization is required for a procurement source and origin waiver to permit the purchase of vehicles and spare parts assembled in Morocco from French, Japanese, or British origin components, and procured through local Moroccan sources for an approximate total value of \$1.5 million.

Discussion: The proposed procurement of approximately 40 vehicles and 400 motor bikes will be funded under the Population and Family Planning IV Project (608-0198). These vehicles and motor bikes will be used by the Moroccan Ministry of Public Health (MOPH) officials to increase Family Planning and Mother Child Health (FP/MCH) Program coverage in remote rural areas.

The FP/MCH outreach program provides services to rural areas too remote to benefit from fixed MOPH facilities. The recently completed VDMS Field Study and the Midterm Evaluation of the Phase III Population Project show a leveling off in program effectiveness. The studies also indicate that this problem increases in direct relationship to the distance from the nearest MOPH fixed facility and the difficulty of terrain.

Therefore, improved outreach capabilities from fixed health facilities is critical to achieving the higher coverage goals of the MOPH. Due to Morocco's wide geographical diversity, the logistics involved with an outreach operation are enormous with the most critical constraint being the mobility of trained personnel. Thus, rural service delivery, and improved management and supervision at the province level require increased mobility.

The enhanced mobility of MOPH staff will be even more critical to the success of project objectives under Phase IV. This project aims to expand outreach services to twelve additional provinces and increase services to more than 30% of the population living in the more remote and hard to access areas of provinces already covered under Phase III. Experience with the motorbikes/mobylettes used presently shows that they are poorly adapted to the rugged terrain and climate. Motorbike downtime for repair and maintenance has been a leading obstacle to workers not spending more time in the field. Additional and heavier motorbikes are needed to adequately address the mobility issue.

The heavier motor bikes procured under this project will service community operated centers ("points de contact"), at six to ten kilometers from a fixed MOPH facility. Additional vehicles will improve supervision and provide mobile service units to areas more than ten kilometers away from the nearest MOPH fixed facility. USAID initiated this outreach effort under previous projects and remains the lead donor supporting this program.

AID financing of motor vehicles is governed by Handbook 1B, Chapter 4C2. It stipulates: (1) vehicles must be manufactured in the United States, unless special circumstances exist, as required by Section 636(1) of the Foreign Assistance Act; (2) the source and origin of the vehicles must be from countries within the authorized geographic code, as required by Handbook 1B, Chapter 5B; and (3) passenger car procurement must be justified in the project paper or a later submission to AID/W. As a general rule, the industrially advanced countries, other than the United States, are ineligible source countries.

The following points with respect to vehicle availability and use in Morocco are relevant to this waiver:

1. Based on Mission consultations with U.S. firms in Morocco, i.e., General Motors, Ford and Jeep, it was determined that no appropriate U.S. vehicles are sold in Morocco and that no spare parts or service capability exists in Morocco for U.S. vehicles at the present time. Any such vehicles which do exist have been brought in on a case-by-case basis and have proven difficult to maintain. The situation is not likely to improve in the foreseeable future.
2. Consistent with waiver policy guidelines contained in Handbook 1B, preference will be given to procurement of vehicles which are assembled in Morocco.
3. Spare parts and maintenance personnel are available for the proposed foreign manufactured vehicles. In addition, local sales representatives of these vehicles are ready sources for additional spare parts, and assure local maintenance capacity to keep the vehicles running.
4. Pursuant to Handbook 1B, Chapter 5B4c(2), GC and M/SER/OP have been consulted with respect to this waiver action.

Authority: Pursuant to Handbook 1B, Chapter 4Cd, you are authorized to waive source and origin requirements under FAA Section 636 (i) for motor vehicles, if you find that special circumstances exist. In this case, the special circumstances are the lack of adequate service facilities and supply of spare parts for U.S. manufactured vehicles. Pursuant to Handbook 1B, Chapter 5B4a(7), source/origin waivers are permitted under circumstances deemed critical to the success of project objectives. As described above, procurement and utilization of the vehicles in question are critical to successful project implementation.

Recommendation: Based on the foregoing, that by indicating your approval below, you:

- a. Pursuant to Handbook 1B, Chapter 5B4a(7), waive the authorized geographic code for source and origin from Code 000 to Code 935 to permit the procurement of the project financed vehicles and spare parts described herein at an approximate cost of \$1.5 million;
- b. In accordance with Handbook 1B, Chapter 5B4b, certify that the exclusion of procurement from free world countries other than the cooperating country and countries included in Code 941 would seriously impede the attainment of U.S. foreign policy objectives and objectives of the foreign assistance program; and

c. Certify that special circumstances exist to waive and do hereby waive Section 636(i) of the FAA of 1961, as amended.

Approved: William P. Miller

Disapproved: \_\_\_\_\_

Date: MAY 13 1989

**Clearances:**

**DAA/ANE:WFuller**  
**ANE/PD/MENA:PSMatheson**  
**ANE/MENA:RDelaney**  
**GC/ANE:DLuten**  
**ANE/TR:BTurner**  
**ANE/TR/HPN:CPayne**  
**M/SER/OP/COMS:JFrame**

(draft)  
(draft)  
BT  
\_\_\_\_\_  
\_\_\_\_\_

**cc: USAID/Rabat**  
**M/AA/SER:JOwens**  
**ANE/PD File**

**ANE/PD/MENA:DMasters:sw:04/24/89:7-9065:Doc. #6261d**

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**ANNEX K**  
**STATUTORY CHECKLIST**

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5C(2) PROJECT CHECKLIST

Listed below are statutory criteria applicable to projects. This section is divided into two parts. Part A. includes criteria applicable to all projects. Part B. applies to projects funded from specific sources only: B(1) applies to all projects funded with Development Assistance; B(2) applies to projects funded with Development Assistance loans, and B.3. applies to projects funded from ESF.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

A. GENERAL CRITERIA FOR PROJECT

1. FY 1989 Appropriations Act Sec. 523; FAA Sec. 634A.

If money is sought 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?

Congress was notified on July 27 1989. The project Agreement will not be signed until the waiting period has expired.

2. FAA Sec. 611(a)(1). Prior to 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?

(a) Yes

(b) Yes

3. FAA Sec. 611(a)(2). If legislative action is required within recipient country, 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?

None required.

4. FAA Sec. 611(b); FY 1989 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

5. 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 Assistant Administrator taken into consideration the country's capability to maintain and utilize the project effectively?

Yes

6. FAA Sec. 209. Is project susceptible to execution as part of regional or multilateral project? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.

No.

Assistance will not encourage regional development programs.

7. FAA Sec. 601(a). Information and conclusions on whether project 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.

Project will have very little impact on areas a and c-f. A major component of the project will explore ways to increase the involvement of the Moroccan private sector in the financing or provision of health care services.

8. 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

Project will have very little, if any, impact on US private trade and investment abroad.

The project will, however, make use of US private enterprise in the provision of technical assistance and training.

channels and the services of U.S. private enterprise).

9. 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.
10. 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?
11. FY 1989 Appropriations Act Sec. 521. 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, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity?
12. FY 1989 Appropriations Act Sec. 549. 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

The GOM will provide salaries of counterparts, local currencies for local cost expenditures. Budget expenditures will be monitored yearly. No US owned LC is available for this project.

No.

Assistance will not be used for the production of any commodity for export.

No.

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wearing apparel?

13. FAA Sec. 119(g)(4)-(5). 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 means significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas?

(a) No.

(b) No.

(c) No.

(d) No.

14. FAA 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. FY 1989 Appropriations Act. 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. FY 1989 Appropriations Act Sec. 538. 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 requirement of A.I.D., and is the PVO registered with A.I.D. ?

No assistance will be made to a PVO that does not meet auditing requirements of AID or is not registered with AID.

17. FY 1989 Appropriations Act Sec. 514. If funds are being obligated under an appropriation account to which they were not appropriated,

N/A

has prior approval of the Appropriations Committees of Congress been obtained?

18. FY 1989 Appropriations Act Sec. 515. If deob/reob authority is sought to be exercised in the provision of assistance, are the funds being obligated for the same general purpose, and for countries within the same general region as originally obligated, and have the Appropriations Committees of both Houses of Congress been properly notified?

If deob/reob authority is used, procedures will be followed.

19. 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 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).

Case Zablocki Act requirements will be met.

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

- a. FY 1989 Appropriations Act Sec. 548 (as interpreted by conference report). If assistance is for agricultural development activities (specifically, any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference, or training), are such activities (a) specifically and principally designed to increase agricultural exports by the host country to a country other than the United

N/A

X  
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States, where the export would lead to direct competition in that third country with exports of a similar commodity grown or produced in the United States, and can the activities reasonably be expected to cause substantial injury to U.S. exporters of a similar agricultural commodity; or (b) in support of research that is intended primarily to benefit U.S. producers?

- b. FAA Sec. 102(b), 111, 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 the appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward a better life, and otherwise encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status, (e) utilize and encourage regional cooperation by developing countries.

Project will improve the sustainability of the GOM's health programs by increasing their efficiency, by increasing cost recovery in public facilities and by stimulating greater financing and provision of health services by the private sector. The project will contribute to the improvement of women's health status through birth spacing, birth monitoring, and the provision of related basic health services.

- c. FAA Sec. 103, 103A, 104, 105, 106, 120-21. Does the project fit the criteria for the source

Yes

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of funds (functional account) being used?

d. FAA Sec. 107. Is emphasis placed on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?

N/A

e. FAA Sec. 110, 124(d). Will the recipient country provide at least 25% 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)?

The GOM will provide at least 25% of the costs of the program.

f. 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?

g. FAA Sec. 281(b). Describe extent to which program 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 civil education and training in skills required for effective participation in governmental processes essential to self-government.

Project design has paid close attention to the needs, desires and capacities of Moroccan people as discerned through various surveys and evaluations conducted over a period of years. (See the Social Analysis for further details). One project component will explore the feasibility of increased participation of local government in basic health service delivery.

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h. FY 1989 Appropriations Act Sec. 536. 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.**

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.**

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.**

i. FY 1989 Appropriations Act. Is the assistance being made available to any organization or program which has been determined to support or participate in the management of a program of coercive abortion or involuntary sterilization? **No.**

If assistance is from the population functional account, are any of the funds to be made available to voluntary family planning projects which do not offer, either directly or through referral to or information about access to, a broad range of family planning methods and services? **No.**

j. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement **Yes**

rules allow otherwise?

- k. FY 1989 Appropriations Act.  
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)?

The general training and technical assistance contract envisioned under the project will require too broad a range of proven competence to limit the prime contractor to minority firms. However, sub-contracting opportunities will be encouraged for both TA and commodity procurement, TA for evaluations will be provided by 8(a) firms and HBCU's will be considered for placement of participants.

1. FAA Sec. 118(c). Does the assistance comply with the environmental procedures set forth in A.I.D. Regulation 16? Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent feasible: (a) stress the importance of conserving and sustainably managing forest resources; (b) 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; (c) support training programs, educational efforts, and the establishment or strengthening of institutions to improve forest management; (d) help end destructive slash-and-burn

Assistance complies with Reg. 16.

The nature of this project does not lend self to activities promoting tropical forests.

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agriculture by supporting stable and productive farming practices; (e) help conserve forests which have not yet been degraded by helping to increase production on lands already cleared or degraded; (f) conserve forested watersheds and rehabilitate those which have been deforested; (g) support training, research, and other actions which lead to sustainable and more environmentally sound practices for timber harvesting, removal, and processing; (h) support research to expand knowledge of tropical forests and identify alternatives which will prevent forest destruction, loss, or degradation; (i) 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; (j) seek to increase the awareness of U.S. government agencies and other donors of the immediate and long-term value of tropical forests; and (k) utilize the resources and abilities of all relevant U.S. government agencies?

- m. FAA Sec. 118(c)(13). If the assistance will support a program or project significantly affecting tropical forests (including

N/A

projects involving the planting of exotic plant species), will the program or project (a) be based upon careful analysis of the alternatives available to achieve the best sustainable use of the land, and (b) take full account of the environmental impacts of the proposed activities on biological diversity?

- n. FAA Sec. 118(c)(14). Will assistance be used for (a) the procurement or use of logging equipment, unless an 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; or (b) actions which will significantly degrade national parks or similar protected areas which contain tropical forests, or introduce exotic plants or animals into such areas?

(a) No.

(b) No.

- o. FAA Sec. 118(c)(15). Will assistance be used for (a) activities which would result in the conversion of forest lands to the rearing of livestock; (b) the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undegraded forest lands; (c) the colonization of forest lands; or (d) the construction of dams or other water control structures which flood relatively undegraded forest lands, unless with

(a) No.

(b) No.

(c) No.

(d) No.

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?

- p. FY 1989 Appropriations Act. 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) being provided in accordance with the policies contained in section 102 of the FAA/ (c) being provided, when consistent with the objectives of such assistance, through African, United States and other PVOs that have demonstrated effectiveness in the promotion of local grassroots activities on behalf of long-term development in Sub-Saharan Africa; (d) being used to help overcome shorter-term constraints to long-term development, 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 finance and

N/A

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to establish a favorable environment for individual enterprise and self-sustaining development, and to take into account, in assisted policy reforms, the need to protect vulnerable groups; (e) 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 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?

2. Development Assistance Project  
Criteria (Loans Only)

N/A

- a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan, at a reasonable rate of interest.
- b. 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% 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?

- c. FY 1988 Continuing Resolution.  
If for a loan to a private sector institution from funds made available to carry out the provisions of FAA Sections 103 through 106, will loan be provided, to the maximum extent practicable, at or near the prevailing interest rate paid on Treasury obligations of similar maturity at the time of obligating such funds?
- d. FAA Sec. 122(b). Does the activity give reasonable promise of assisting long-range plans and programs designed to develop economic resources and increase productive capacities?

3. Economic Support Fund Project Criteria

N/A

- a. 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?
- b. FAA Sec. 531(c). Will assistance under this chapter be used for military, or paramilitary activities?
- c. ISDCA of 1985 Sec. 207. Will ESF funds be used to finance the construction of, or the operation or maintenance of, or

the supplying of fuel for, a nuclear facility? If so, has the President certified that such country is a party to the Treaty on the Non-Proliferation of Nuclear Weapons or the Treaty for the Prohibition of Nuclear Weapons in Latin America (the "Treaty of Tlatelolco"), cooperates fully with the IAEA, and pursues nonproliferation policies consistent with those of the United States?

- d. 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?

5C(3) STANDARD ITEM CHECKLIST

Listed below are the statutory items which normally will be covered routinely in those provisions of an assistance agreement dealing with its implementation, or covered in the agreement by imposing limits on certain uses of funds.

These items are arranged under the general headings of (A) Procurement, (B) Construction, and (C) Other Restrictions.

A. PROCUREMENT

- |   |     |
|---|-----|
| 1. <u>FAA Sec. 602(a)</u> . Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed?   | Yes |
| 2. <u>FAA Sec. 604(a)</u> . Will all procurement be from the U.S. except as otherwise determined by the President or under delegation from him?   | Yes |
| 3. <u>FAA Sec. 604(d)</u> . 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 |
| 4. <u>FAA Sec. 604(e); ISDCA of 1980 Sec. 705(a)</u> . 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 |

5. FAA Sec. 304(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.)

No.

6. 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 commercial vessels to the extent such vessels are available at fair and reasonable rate?

No.

7. 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?

Yes

The use of other federal agencies is not contemplated at this time.

8. 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

9. FY 1989 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? **Yes**
10. FY 1989 Appropriations Act Sec. 524. If assistance is for consulting service through 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)? **Yes**
11. FY 1989 Appropriations Act Sec. 584. For all direct AID contracts or solicitations, and all subcontracts entered into under such contracts, does the contract, solicitation or subcontract include a clause requiring that United States marine insurance companies have a fair opportunity to bid for marine insurance when such insurance is necessary or appropriate? **Yes**

**B. CONSTRUCTION**

1. FAA Sec. 601(d). If capital (e.g., construction) project, will U.S. engineering and professional services be used? **Given small size of proposed contracts, local consulting firms will be used.**
2. FAA Sec. 611(c). If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable? **Yes**
3. 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 CP), or does assistance have the express approval of Congress? **N/A**

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C. OTHER RESTRICTIONS

1. FAA Sec. 122(b). If development loan 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
  
2. 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
  
3. FAA Sec. 620(h). Do arrangements exist to insure 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? Yes
  
4. Will arrangements preclude use of financing:
  - a. FAA Sec. 104(f); FY 1989 Appropriations Act, Sect. 525 and 536 (1) To pay for performance of abortions as a method of family planning or to motivate or coerce persons to practice abortions; (2) to pay for performance of involuntary sterilization as method of family planning, or to coerce or provide financial incentive to any person to undergo sterilization; (3) to pay for any biomedical research which relates, in whole or part, to methods or the performance of abortions or involuntary sterilizations as a means of family planning; or (4) to lobby for abortion? Yes  
Yes  
Yes  
Yes

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- b. FAA Sec. 483. To make reimbursements, in the form of cash payments, to persons whose illicit drug crops are eradicated? **Yes**
- c. FAA Sec. 620(q). To compensate owners for expropriated or nationalized property, except to compensate foreign nationals in accordance with a land reform program certified by the President? **Yes**
- d. FAA Sec. 660. To provide training, advice, or any financial support for police, prisons, or other law enforcement forces, except for narcotics programs? **Yes**
- e. FAA Sec. 662. For CIA activities? **Yes**
- f. FAA Sec. 636(i). 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**
- g. FY 1989 Appropriations Act Sec. 503. To pay pensions, annuities, retirement pay, or adjusted service compensation for prior or current military personnel? **Yes**
- h. FY 1989 Appropriations Act Sec. 505. To pay U.N. assessments, arrearages or dues? **Yes**
- i. FY 1989 Appropriations Act Sec. 506. To carry out provisions of FAA section 209(d) (transfer of FAA funds to multilateral organizations for lending)? **Yes**

- j. FY 1989 Appropriations Act Sec. 510. To finance the export of nuclear equipment, fuel, or technology? Yes
  
- k. FY 1989 Appropriations Act Sec. 511. 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
  
- l. FY 1989 Appropriation Act Sec. 516; State Authorization Sec. 109. To 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? Yes

**ANNEX L**  
**POLICY AGENDA**

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ANNEX I

POLICY AGENDA - REDUCED POPULATION GROWTH AND IMPROVED PRIMARY HEALTH CARE

<u>Current Policy</u>	<u>Policy Sought</u>	<u>Next Steps</u>	<u>Benchmarks</u>
<u>Problem Area: Public Sector Health Financing</u>			
Both curative and preventive services in the public service are largely free of charge. Except in the autonomous hospitals (4 at present, 12 by 1990), any fees collected are returned to the central treasury.	A rational and effective cost recovery system applied in all public sector health facilities.	USAID will assist the MOPH to (a) identify actual costs for diagnostic, auxiliary and clinical services; (b) assess validity of costs through periodic efficiency and productivity analyses; and (c) institute fees and collection procedures to increase cost recovery among clients able to pay.  USAID to continue consultations with the MOPH, MOF, MOEA, the Conseil and Syndicat de l'Ordre des Médecins regarding the modification or abolition of fee schedules in the private sector. A plan of action in this area will be developed after presentation of results of the Health Financing Study and review of possibilities.	Methodology developed and tested at hospitals in Meknès, Hay Mohammadi and Agadir by 12/31/90.  To be determined by December 1.
Ministry of Health percentage of overall GOM budget is low in comparison with other countries at the same level of economic development (3% compared to 5-8%), diminishing in real terms; and programmed largely for curative services.	Ministry of Health budget is increased, and a greater proportion is allocated for primary health care services.	USAID will complete (1) on-going work with Ministry of Health on benefit-cost analyses of family planning and primary health care services to support MOPH request for additional resources; and (2) analysis of program cost effectiveness as a basis for international program decisions and budget allocations.	Ministry of Health successfully presents a larger budget request for CY 1990, including an increased proportion and absolute amount for preventive and primary health care services.

*E.H.*

Current Policy

Policy Sought

Next Steps

Benchmarks

Problem Area: Lack of Dynamism in Private Health Care Sector

A variety of policies and practices, and a lack of enabling legislation combine to limit new private sector initiatives in the delivery and financing of both curative and preventive health services.

Policies and procedures developed and publicized to encourage greater private sector action in health delivery and financing.

Following the presentation of the results of the Health Financing Study & consultation with the MOPH, Ministry of Finance, and professional associations, USAID will develop the Terms of Reference for the feasibility study for expansion of health insurance and an agenda of other studies needed, including those of legal and regulatory issues, to understand and remove barriers to greater private sector delivery and financing of health care.

Terms of Reference for the feasibility study for expansion of insurance and the agenda for other studies developed Second Quarter.

Problem Area: Population Policy

The GOM's response to rapid population growth remains centered in the Ministry of Health.

Broader active involvement of the GOM as well as the private sector in the promotion of family planning services.

USAID will increase involvement of other ministries in family planning promotion, especially the Ministry of Interior and local governments (Collectivités Locales) through wider presentation of the "Family Planning Saves Lives" message.

Ministry of Interior openly supports family planning programs.

The social marketing program for contraceptives will be extended, increasing outlets beyond the pharmacy sector.

Contraceptives, i.e. condoms and orals, promoted openly in pharmacies, and sold outside pharmacies.

Community sales points for contraceptives and primary health care supplies established.

*hwh*