

MORE



SUMMARIES OF FAMILY PLANNING OPERATIONS RESEARCH STUDIES

The MORE Project
Maximizing Results of Operations Research
TvT Associates
503 Capitol Court N.E.
Washington, DC 20002

Contract DPE 3030-C-00-8167
Agency for International Development

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TABLE OF CONTENTS

PREFACE

ACRONYMS

AFRICA

BKF-01	Burkina Faso - Strengthening Family Health Delivery - Phase I
BKF-02	Burkina Faso - Strengthening Family Health Delivery - Phase II
CHA-01	Chad - Preliminary Research for Development of a Family Planning Program in N'Djamena
GAM-01	Gambia - Contraceptive Distribution by Commercial Agents
GHA-01	Ghana - Delivery of Public Health Care Services by Traditional Birth Attendants in Rural Ghana
GHA-02	Ghana - Midwives and Maternities in Accra
GHA-03	Ghana - Market Based Distribution of Contraceptives
IVO-01	Ivory Coast - Promoting Community Participation in a Primary Health Care Program
IVO-02	Ivory Coast - Promoting Family Planning Among High Risk Women
IVO-03	Ivory Coast - Family Planning IEC and Service Delivery in the Private Sector
IVO-04	Ivory Coast - Diagnosing the Quality of Care Through an Improved MIS
KEN-01	Kenya - Mount Kenya East Supervision of CHA's
KEN-02	Kenya - Nyeri NFP: Two Teaching Approaches
KEN-03	Kenya - Tenwik Hospital Community Health Worker Motivation
KEN-04	Kenya - Maseno South Community Health Program
KEN-05	Kenya - Development of Contraceptive Guidelines for Providers
KEN-06	Kenya - Situation Analysis of the FP Program in Kenya: The Availability, Functioning, and Quality of MOH Services
KEN-07	Kenya - Expanding Health and Family Planning Service Delivery Systems Using Traditional Health Practitioners (Phase I)
KEN-08	Kenya - Evaluation of the MOH's MCH/FP In-Service Training Activities

KEN-09	Kenya - Computer Workshop on the Use of the Integrated System for Survey Analysis (ISSA)
KEN-10	Kenya - Evaluation of Family Planning Private Sector Project Activities
KEN-13	Kenya - Community Based Distribution Policy Guidelines Workshop
LES-01	Lesotho - Community-Based Distribution Project Evaluation
LES-02	Lesotho - Technical Assistance to CBD Project Evaluation and Family Planning Drop-outs Study
LIB-01	Liberia - Evaluation of Natural Family Planning Services in Liberia and Zambia
MAU-01	Mauritius - Client Autonomy Among Natural Family Planning Users
NGR-01	Niger - Family Health Motivation and Referral Project
NGA-01	Nigeria - CBD of Low Cost Family Planning and Maternal and Child Health Services in Rural Nigeria (Pilot)
NGA-02	Nigeria - CBD of Low Cost Family Planning and Maternal and Child Health Services in Rural Nigeria (Expansion)
NGA-03	Nigeria - Ibadan Market-Based Distribution Project
NGA-04	Nigeria - Ilorin Market-Based Distribution Project
NGA-05	Nigeria - Oyo State CBD Health and Family Planning Project Phase II
NGA-06	Nigeria - Lagos Market-Based Distribution Project
RWA-01	Rwanda - Promotion and Delivery of Family Planning Services
RWA-02	Rwanda - OR Proposal Development Workshop
SEN-01	Senegal - Integration of Family Planning into a Primary Health Care Program - Phases I & II
SEN-02	Senegal - Patient Records as a Management Tool for Program Planning
SUD-01	Sudan - Sudan Community Based Family Health Project (Pilot)
SUD-02	Sudan - Sudan Community Based Family Health Project (Expansion)
SUD-03	Sudan - Paramedic Insertion of IUDs
SUD-04	Sudan - Community Based Distribution Family Health Project: Final Survey
SWI-01	Swaziland - Family Life Association of Swaziland (FLAS) CBD Pilot Project Evaluation
TAN-01	Tanzania - Masai Health Services Project

TAN-02	Tanzania - An Evaluative Study of the Use of Family Planning Services at the Board of Internal Trade (BIT) Clinic
UGA-01	Uganda - Effect of Health Education on HIV Infection Transmission - Rakai District
ZAI-01	Zaire - Increasing the Availability and Acceptability of Contraceptives Through Community-Based Outreach in Bas Zaire (PRODEF Original)
ZAI-02	Zaire - Nsona Mpangu: Long Term Impact of CBD on Contraceptive Prevalence
ZAI-03	Zaire - Matadi: CBD vs. Dispensaries
ZAI-04	Zaire - Sona Bata: CBD vs. Dispensary-Based Distribution of Family Planning Services
ZAI-05	Zaire - Diagnostic Research on the Causes of the Subutilization of the Model Family Planning Clinic and Efforts to Promote its Use
ZAI-06	Zaire - VSC Motivations and Barriers for Women
ZAI-07	Zaire - Mbuji Mayi: CBD with Male Participation
ZAI-08	Zaire - Kisangani: A Test of Two Strategies for Family Planning Service Delivery
ZAI-09	Zaire - Continuation of Contraceptive Use and Reasons for Abandoning Contraceptive Methods
ZAI-10	Zaire - CBD Quality of Care Evaluation Model
ZAI-11	Zaire - Incorporating IEC Activities for AIDS into a Contraceptive CBD Project in Kinshasa
ZAM-01	Zambia - Natural Family Planning Demonstration Project
ZIM-01	Zimbabwe - Secondary Analysis of Kubatsirana Project Data
ZIM-02	Zimbabwe - Validation of CBD Service Delivery Statistics

IA AND NEAR EAST

ASIA-01	Asia - Assessment of Asian Family Planning Programs
BAN-01	Bangladesh - Contraceptive Distribution Project
BAN-02	Bangladesh - Small Operations Research Projects
BAN-03	Bangladesh - Modified Contraceptive Distribution Project
BAN-04	Bangladesh - An Integrated Program of Operations Research in Bangladesh

BAN-05	Bangladesh - Improving Performance of Asia Foundation Sub-Projects - Phase I
BAN-06	Bangladesh - Improving Geographical Coverage of Family Planning in the Urban Areas of Chittagong and Dhaka
BAN-07	Bangladesh - Evaluating the Effectiveness of Newly introduced Interventions in Pathfinder CBD Projects
BAN-08	Bangladesh - A Management Information System to Improve Field Worker Performance
BAN-09	Bangladesh - Copper-T IUD Follow-Up Study
BAN-10	Bangladesh - Improving Efficiency of Family Planning Services in Rural Bangladesh
BAN-11	Bangladesh - Improving Performance of Asia Foundation Projects - Phase II
BAN-12	Bangladesh - Expanding FP Services in Rural Bangladesh Through the Swanirvar Community Development Program
BAN-13	Bangladesh - Improving the Effectiveness of a Radio Campaign in Support of the Population Program
BAN-14	Bangladesh - Impact of Women's Savings Groups on Contraceptive Use
EGY-01	Egypt - Family Planning Saturation Project
EGY-02	Egypt - Expanded Household Contraceptive Distribution Demonstration Project (Menoufia)
EGY-03	Egypt - Integrated Social Services Delivery System (Menoufia)
EGY-04	Egypt - Beni-Suef Governorate Integrated Social Services Delivery System
IND-01	India - Promoting Pill Use in Urban and Semi-Urban Areas of India Through Improved Outreach and Distribution
INS-01	Indonesia - Improving Utilization and Self-Sufficiency of YKB Clinics - Phase I
INS-02	Indonesia - Improving Family Planning Outreach in Three Urban Areas of Indonesia
INS-03	Indonesia - Improving Utilization and Self-Sufficiency of YKB Clinics - Phase II
INS-04	Indonesia - Improving the Acceptance and Quality of Voluntary Sterilization Services Through Screening, Referral and Follow-up of Clients
INS-05	Indonesia - Improving Participation of Private Nurse Midwives in Delivering Longer Acting Methods in Lampung

INS-06	Indonesia - Assessment of Reimbursement Mechanism and Cost Analysis of VSC
INS-07	Indonesia - Improving Family Planning and Health Services to Urban Testing Workers Through Hospital-Based Factory Network
INS-08	Indonesia - KB Mandiri: Improving Village Family Planning Program
INS-09	Indonesia - Complementing Family Planning with Breastfeeding to Improve Maternal and Child Health
KOR-01	Korea - Low Cost Delivery of Contraceptives in Rural Areas: Euriyong Gun (Tier I)
KOR-02	Korea - Low Cost Delivery of Contraceptives in Rural Areas: Cheju Island (Tier II)
MOR-01	Morocco - Household Distribution of Contraceptives (Marakech)
MOR-02	Morocco - Household Distribution of Contraceptives (11 Provinces)
MOR-03	Morocco - OR as a Tool for Improving Family Health Services in 3 Provinces - Phase I
NEP-01	Nepal - Cost Effectiveness Analysis of Family Planning Programs
NEP-02	Nepal - Improving Family Planning Acceptance Through Panchayat Based Clinics & Outreach Services
NEP-03	Nepal - Developing Strategies to Increase IUD Use in Urban Areas
PAK-01	Pakistan - Diagnostic Study of Pakistan's Population Program
PHI-01	Philippines - Family Planning Hygiene Project
PHI-02	Philippines - Natural Family Planning in the Philippines
PHI-03	Philippines - Introduction of an IEC Package for Rural Women of Maguindanao (Pilot)
PHI-04	Philippines - Introduction of a Promotional Package on the Use of Combination Methods to Improve Contraceptive Effectiveness
PHI-05	Philippines - Mobilizing Satisfied Users for Promoting FP: A Pilot Study
PHI-06	Philippines - Use of Social Network Analysis for Increasing and Improving FP in Region VI
PHI-07	Philippines - Evaluation of the Cebu Male-Specific Campaign
SRI-01	Sri Lanka - Improving the Delivery of Oral Contraceptives
SRI-02	Sri Lanka - Operations Research on the Social Marketing of Contraceptives

- SRI-03 Sri Lanka - An Experimental Field Research Study to Increase IUD Acceptance
- SRI-04 Sri Lanka - Satisfied Users as Family Planning Motivators for Pills and IUDs
- SRI-05 Sri Lanka - Strengthening Ayurvedics' Role as Family Planning Providers
- TAI-01 Taiwan - Feasibility of Distributing Contraceptive Supplies to Encourage Family Planning Practice
- THA-01 Thailand - Family Planning Health and Hygiene
- THA-02 Thailand - Increasing Family Planning Acceptance Through Development Programs in Northeast Thailand
- THA-03 Thailand - Collecting Village Level Data for the Analysis of the Impact of Contraceptive Availability and Accessibility on Reproductive Change (1969-1979)
- THA-04 Thailand - Implementation of Contraceptive Counseling Services as a Strategy to Induce Contraceptive Use
- THA-05 Thailand - Comparative Analysis of Government and Private Programs in Southern Thailand
- THA-06 Thailand - Effectiveness of Village Health Volunteers on the Family Planning of Muslim and Buddhist Couples
- THA-07 Thailand - Reasons for Family Planning Method Switching in Northeastern Thailand
- THA-08 Thailand - Improving Contraceptive Prevalence Through Village Volunteers
- THA-11 Thailand - Testing Elasticity of Contraceptive Prices in Thailand
- THA-12 Thailand - Developing IEC Strategies for STDs and AIDS Prevention
- THA-13 Thailand - Developing AIDS Prevention Strategies for High-Risk Populations
- TUN-01 Tunisia - Household Distribution of Contraceptives
- TUN-02 Tunisia - Family Planning for Couples in Rural Areas

LATIN AMERICA AND THE CARIBBEAN

- BBD-01 Barbados - A Test of Two Strategies for Delaying Second Pregnancies in Teenagers
- BBD-02 Barbados - Strategies for Delivering FP Services in an Industrial Setting
- BBD-03 Barbados - Determinants and Quality of Condom Use
- BOL-01 Bolivia - Industrial Setting and Family Planning Promotion and Services

BOL-02	Bolivia - A CBD Program for Union Groups in La Paz
BRA-01	Brazil - Collaborative Operations Research Project in Piaui
BRA-02	Brazil - Household Delivery of Family Planning Information and Condoms
BRA-03	Brazil - Assessing Cost-Benefits of Incorporating Family Planning Services into a Prepaid HMO Plan
BRA-04	Brazil - Effect of Mass Media Promotion on Vasectomy Services
BRA-05	Brazil - Seminar on Alternatives to Expand Family Planning Services
COL-01	Colombia - Household Distribution of Contraceptives and the Rural Health Promoter: A Case Study of Boyaca
COL-02	Colombia - Community Distribution of Contraceptives in Rural Areas
COL-03	Colombia - Provision of Natural Family Planning Methods Through Comprehensive Health Care Systems
COL-04	Colombia - Private Sector CBD and Commercial Social Marketing Strategies
COL-05	Colombia - Cost-Effective Promotion and Distribution of IUDs Among Private Physicians
COL-06	Colombia - IEC Services to Promote Condom Use for AIDS Prevention
COL-07	Colombia - Strategies for Provision of Vasectomy Services
DMA-01	Dominica - Strategies for Reducing Male Opposition to Family Planning
DMA-02	Dominica - Feasibility of Operating Adolescent Clinics
DOM-01	Dominican Rep. - Strengthening Human Resources for CBD Program Expansion
DOM-02	Dominican Rep. - Testing Counseling Options for Provider-Dependent Contraceptive Methods
ECU-01	Ecuador - Delivery of Family Planning and Health Services in Campesino and Indigenous Communities
GRE-01	Grenada - Strategies for Promoting Contraceptive Use Among Women in High Risk Groups
GUA-01	Guatemala - Federation of Regional Cooperatives (FECOAR)
GUA-02	Guatemala - APROFAM Cotton Growers Project
GUA-03	Guatemala - Characteristics of Successful CBD Distributors

GUA-04	Guatemala - Integrated System of Nutrition and Primary Health Care (SINAPS)
GUA-05	Guatemala - Project to Investigate Training of Rural Health Promoters (PRINAPS)
GUA-06	Guatemala - Training and Supervision of Volunteers (CAPSVO)
GUA-07	Guatemala - Improving Performance of Distributors in APROFAM's CBD Program in Indigenous Areas
GUA-08	Guatemala - Client-Designed, Culturally Acceptable Family Planning Service Delivery Systems for Indigenous Populations
HAI-01	Haiti - Household Distribution of Contraceptives
HAI-02	Haiti - Low Cost Delivery of Maternal and Child Health and Family Planning
HAI-03	Haiti - Alternative Family Planning Delivery Programs in Cité Simone
HAI-04	Haiti - Improving Contraceptive Continuation and Access to Family Planning Through Community Based Outreach
HAI-05	Haiti - Using Community Health Workers and Rally Posts for Family Planning Outreach
HON-01	Honduras - Program for the Promotion of Breastfeeding and Family Planning
HON-02	Honduras - Distributing IUDs to Private Physicians and Pharmacies
HON-03	Honduras - Reproductive Risk: A Strategy to Implement Family Planning Services in the IHSS
JAM-01	Jamaica - Cost Effectiveness of Two CBD Approaches: Volunteer Distributors vs. Outreach Workers
JAM-02	Jamaica - Evaluating the Effect of Continuing Education on Teen Mothers
MEX-01	Mexico - Community Based Family Planning Demonstration Program in San Pablo Autopan
MEX-02	Mexico - New Strategies for Delivery of Maternal and Child Health and Family Planning Services
MEX-03	Mexico - Alternatives for Reinforcing Rural Community-Based Maternal and Child Health and Family Planning Services
MEX-04	Mexico - Comparison of Contraceptive Distribution Systems
MEX-05	Mexico - Integrated Development of Young Adults in the Community
MEX-06	Mexico - Family Planning Service Delivery Strategies in an Industrial Setting

MEX-07	Mexico - Operations Research as a Management Tool
MEX-08	Mexico - Delivery of Family Planning on the Basis of Reproductive Risk
MEX-09	Mexico - Marketing Low and Moderate-Priced Condoms in Supermarkets
MEX-10	Mexico - Determining a Cost-Effective Strategy for Expanding Services to Young Adults
MEX-11	Mexico - Use of Mass Media in AIDS Prevention
MEX-12	Mexico - Effectiveness of Social Marketing Strategies in the Implementation of a Male-Only Clinic
MEX-13	Mexico - Effectiveness of Private Physician and Male Promoter in Implementation of Male-Only Clinic
MEX-14	Mexico - Increasing Male Participation in Family Planning: A Test of Three Strategies
MEX-15	Mexico - Impact of Incorporating Educational Strategies for AIDS Prevention and Control into FP Services
MEX-16	Mexico - Development and Testing of Family Life Education Program for Young Adults
NIC-01	Nicaragua - Community-Based Distribution of Contraceptives and Selected Health Supplies
PAR-01	Paraguay - Improved Worker Utilization: A Path to Expand Family Planning Coverage
PAR-02	Paraguay - Improving Family Planning Service Delivery in Rural Paraguay
PER-01	Peru - Maternal and Child Health and Family Planning in the Mid-South Region of Peru
PER-02	Peru - Experimental Study on Effectiveness and Efficiency of IUD-CBD Posts
PER-03	Peru - Integrating Family Planning Services and Women's Development Activities
PER-04	Peru - Testing Individual vs. Group Training of CBD Distributors
PER-05	Peru - OR to Improve Ministry of Health's Family Planning Services
PER-06	Peru - Evaluating the Impact of Rezoning Three Family Planning Agencies
PER-07	Peru - Comparison of Male and Female Community Based Distributors of Contraceptives
PER-08	Peru - Immediate Post-Partum and Post Abortion Family Planning

- PER-09 Peru - Involving Family Planning Workers in an AIDS Prevention Campaign
- PER-10 Peru - An AIDS Prevention and Reproductive Health Project for Prostitutes in Callao
- PER-11 Peru - Collaborative Introduction of the Clinical Performance and Acceptability of NORPLANT in Peru
- SKT-01 St.Kitts/Nevis - Effect of Family Life Education on Knowledge, Onset of Sexual Activity and Contraceptive Use
- SKT-02 St. Kitts - Strategies to Increase Men's Involvement in Family Planning Decision Making
- STV-01 St. Vincent - Increasing Contraceptive Prevalence and Improving Continuation Rates Using Community Health Aides
- STL-01 St.Lucia - Two Strategies for Contraceptive Distribution in Factories in St. Lucia
- STL-02 St.Lucia - Teens Clinics and Peer Counseling as Strategies for Combatting Teenage Pregnancy
- WIN-01 West Indies - Evaluation of the Caribbean Contraceptive Social Marketing Project in Three Countries

WORLD

- WORLD-01 Inter-Regional - Managing Delivery Systems: Identifying Leverage Points for Improving Family Planning Performance
- WORLD-02 Inter-Regional - Organizing for Effective Family Planning Programs

INDEX

APPENDIX 1 - ADDRESSES OF OR CONTRACTORS

PREFACE

This is a volume of summaries of family planning operations research studies funded by the Research Division, Office of Population of the Agency for International Development. It is intended to be an easy to use resource for information on the results of family planning operations research projects undertaken throughout the world. It also aims at enhancing the application of OR findings by providing family planning program managers with ideas about strategies for the improvement of service delivery that might be adapted for use in their programs, and by informing OR researchers about other projects that may have relevance for their own current activities.

The summaries in this volume are arranged by region and by country and are numbered consecutively within each country. A common format has been used to facilitate quick reference, and comparison across projects. The summaries are based on project summaries and final reports provided by the OR contractors, and provide only basic information about the OR projects. Additional information, or the final project report may be obtained by writing directly to the contractors. A list of contractor addresses is included in Appendix 1.

In the index, projects are listed by region, country and project number within each topic. Topics in the index include issues, delivery system, and contraceptive method studied.

This volume contains summaries of all projects funded by the Research Division's OR Program that were completed by May 1991. The volume focusses on results and thus does not include information on project's that are ongoing or just getting started. Although every effort was made to provide complete and final information on completed projects, in some instances documentation was unavailable (particularly for the older group of projects) or final reports were still in preparation, and thus a limited number of summaries contain only preliminary results. However, there will be periodic updates and revisions to this volume that will add new information to certain project summaries, in addition to adding newly completed projects.

ACRONYMS

Acronyms used in the summaries can be divided into two classes: those which can be used in many of the summaries (such as CBD for community based distribution), and those which are specific to one or a few projects in a geographic area (such as BFPA for the Barbados Family Planning Association). The second class of acronyms are spelled out in each summary. The first class, those which can be used in many summaries, are defined below and may not be detailed in the summaries.

A.I.D.	Agency for International Development
AIDS	Acquired immune deficiency syndrome
CBD	Community based distribution
CMP	Couple months of protection
CPFH	Center for Population and Family Health, Columbia University
CPR	Contraceptive prevalence rate
CSM	Contraceptive social marketing
CYP	Couple years of protection
EPI	Expanded Programme in Immunization
FP	Family planning
HIV	Human Immunodeficiency Virus
HMO	Health maintenance organization
IEC	Information, education and communication
INOPAL	Operations Research in Family Planning and Maternal-Child Health for Latin America and the Caribbean
IPPF	International Planned Parenthood Federation
IUD	Intrauterine device
KAP	Knowledge, attitude and practice
MCH	Maternal and child health
MOH	Ministry of Health
MWRA	Married women of reproductive age
NGO	Non-governmental organization
OB-GYN	Obstetrics-gynecology
OR	Operations research
ORS	Oral rehydration salts
ORT	Oral rehydration therapy
PHC	Primary health care
PVO	Private voluntary organization
SEATS	Family Planning Service Expansion and Technical Support Project
STD	Sexually transmitted disease
TBA	Traditional birth attendant
URC	University Research Corporation
USAID	United States Agency for International Development
VSC	Voluntary surgical contraception

PROJECT NO. BKF-01

COUNTRY: Burkina Faso

TITLE: Strengthening Family Health Delivery - Phase I

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: February 1986 - December 1987

BUDGET: \$23,000

BACKGROUND AND PURPOSE: In Burkina Faso, family planning services have been available in government clinics in Ouagadougou since February 1985. Services subsequently were extended to other cities. An OR study was undertaken to determine the impact of the program to date and to obtain baseline data necessary for planning subsequent interventions to enhance the effectiveness of family planning services.

DESCRIPTION: The government of Burkina Faso was interested in obtaining information on client and community perceptions about child spacing and family planning so that strategies for improving clinic services and appropriate outreach activities could be developed.

STUDY DESIGN AND METHODOLOGY: The project was designed to gather quantitative and qualitative data on knowledge, attitudes and practices of family planning. Quantitative data were gathered in a community-based KAP survey of MWRA, and a quota sample survey of men aged 18-60. Qualitative information was gathered from focus groups before and after the KAP surveys with men and women.

FINDINGS AND IMPLICATIONS:

- o Knowledge of contraceptive methods was surprisingly high: 64 percent of female respondents had heard of a modern method.
- o Prevalence of modern methods was low; only 4.9 percent of female respondents were currently using the pill, IUD, injection, foam or condoms.
- o Use of traditional methods was more prevalent; 48 percent of women were currently using abstinence.
- o The survey revealed very positive attitudes towards family planning: over 85 percent of all women, regardless of past contraceptive behavior, stated that they thought they would use a modern method of family planning in the future.

FOLLOW-UP AND FUTURE PLANS: Results from the OR study were presented at a national conference which provided a forum for discussing future directions for family planning in Burkina Faso. Subsequently, a second OR study was undertaken to test the integration of family planning services with other MCH services in MCH centers and maternities in Ougadougou.

PROJECT NO. BKF-02

COUNTRY: Burkina Faso

TITLE: Strengthening Family Health Delivery - Phase II

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: November 1987 - April 1990

BUDGET: \$65,963

BACKGROUND AND PURPOSE: Burkina Faso faces serious maternal and child health (MCH) problems, illustrated by an infant mortality rate of 139 per 1000 and a maternal mortality rate of 6 per 1000. Government health authorities created the Direction of Family Health (DFH) within the Ministry of Health and Social Action (MOHSA) in 1985, with responsibility for planning, coordinating, supervising, and evaluating the country's MCH and family planning program. Family planning services were initiated in the MCH centers in Ouagadougou in February 1985 and later introduced in other provinces. An OR project was implemented by DFH in collaboration with Columbia University to improve the availability and accessibility of family planning services in Ouagadougou. Phase II of this project builds on the research findings of Phase I (see Project No. BKF-01) and aimed to improve family planning services by reorganizing the delivery system in MCH centers and maternities in Ouagadougou.

DESCRIPTION: Under the original system, specific services were offered only on designated days of the week. Thus, a woman taking her child for immunization, for example, would have to return to the MCH center on a different day for well-child care, and on yet another day for family planning services. The goal of the new system was to offer integrated services; that is, all services everyday in all MCH centers. Also, it was intended that the staff would take advantage of the clients' visits to provide them with all the services they needed, not just the services for which they came. In the maternities, integration consisted of intensive education, counseling and referral of mothers to the MCH centers. Before the change to integrated services took place, situational analyses of 6 MCH centers as well as seminars were undertaken. The situational analyses used individual interviews and focus group discussions with staff and clients, and direct observation, to suggest means of reorganizing the physical and human resources of each center. Technical training in management and family planning provision was given to staff in MCH centers and maternities. A follow-up team of DFH and project personnel regularly visited each center to review progress. Outreach to the community took place through contact with social workers, community health committees and agents.

STUDY DESIGN AND METHODOLOGY: Each center conducted a self-evaluation six and twelve months after integration began. Service statistics for four activities--family planning, prenatal visits, well-baby clinic and vaccinations--were collected the year before integration began, and for the first year of integrated services. Three mini-surveys of MCH center clients were conducted--prior to integration, after six and twelve months--to measure the change in services received with emphasis on family planning.

FINDINGS AND IMPLICATIONS:

- o Final self-evaluation of the centers indicated a high level of satisfaction among center and MCH personnel. Clients also had positive attitudes to the changes.

- o All centers attained the main objective of providing all services every day.
- o Most centers achieved an increased attendance at family planning clinics; some surpassed their goals.
- o The mini-surveys indicated that the average number of services received per visit had increased from under 1 to a mean of 1.3 one year later.
- o Users of modern family planning methods among the MCH center clientele have increased from 8.2 percent to 18 percent in two years.

FOLLOW-UP AND FUTURE PLANS: The project has resulted in a decision by the MOHSA to make integrated services the official mode of health care delivery, and plans are underway to replicate the integration process in the country's other provinces.

PROJECT NO. CHA-01

COUNTRY: Chad

TITLE: Preliminary Research for Development of a Family Planning Program in N'Djamena

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: April 1988 - October 1988

BUDGET: \$42,200

BACKGROUND AND PURPOSE: Chadian political and health authorities have recently begun to discuss the development of a Family Welfare program. The USAID Mission, in support of this initiative, organized a seminar on family welfare in October 1988 for national authorities to consider various aspects of service delivery and policy.

DESCRIPTION: Columbia University helped the Ministry of Public Health (MOPH) carry out a study of current contraceptive practices and the demand for family planning services in the capital, N'Djamena. The study was designed to provide the background data needed to develop a family planning program adapted to the Chadian socio-cultural context. An entire working session at the seminar was devoted to the presentation and discussion of the results of this study.

STUDY DESIGN AND METHODOLOGY: The study included a baseline random sample survey in six MCH and social welfare centers in N'Djamena to assess KAP regarding family planning. Data were collected from 1220 women aged 12-49 on contraceptive behavior and attitudes, child survival, use of MCH services, and communication with partners regarding contraceptive use. In addition, focus group discussions on family planning KAP were conducted with women using MCH services, men, students and MCH workers.

FINDINGS AND IMPLICATIONS:

The baseline KAP survey established:

- o The mean ideal family size was 7.25 children.
- o Forty-eight percent of those surveyed knew at least one method of contraception and 31 percent could name at least one modern method.
- o Only 3.2 percent had used a modern contraceptive method in the past and 1.3 percent of women at risk of becoming pregnant were currently using a modern method; 22 percent were practicing postpartum abstinence.
- o Fifty-six percent would like to use a contraceptive in the future to space births.

The focus groups revealed:

- o Participants knew little about modern contraception.
- o Child spacing was considered an established African tradition with acknowledged benefits for the health and harmony of the family, but traditional means for spacing births, such as

prolonged abstinence and breastfeeding, pose difficulties for urban couples and were felt to be in decline.

- o Limitation of births was considered a foreign concept, affronting religious and cultural sensibilities.
- o More detailed information on child spacing via group education sessions was requested by most participants.

FOLLOW-UP AND FUTURE PLANS: The study results were widely disseminated through the national seminar on family welfare. For program development to proceed further, outside technical assistance and encouragement is needed: assigning a SEATS resident advisor has been proposed.

PROJECT NO. GAM-01

COUNTRY: Gambia

TITLE: Contraceptive Distribution by Commercial Agents

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Gambia Family Planning Association

DATES: March 1987 - September 1989

BUDGET: \$18,817

BACKGROUND AND PURPOSE: Since 1969, the Gambia Family Planning Association has been the leading provider of family planning services in the Gambia. To make family planning more accessible, the GFPA has developed a wide range of service delivery approaches. In 1983, a community-based distribution program was instituted, and an effort also was made at that time to involve retail shopkeepers, pharmacists, and private clinicians in the sale of low-cost contraceptives. Those agreeing to participate were referred to as local agent distributors (LADs). By 1985, the GFPA had 6,000 regular clients, but they represented only 5 per cent of eligible couples. Therefore, the GFPA determined that more effective service delivery systems, as well as data collection efforts would have to be developed.

DESCRIPTION: As a means of strengthening commercial retail sales and distribution networks, the GFPA undertook a study to compare the effectiveness of local family planning agents who are trained and routinely supervised with agents who receive only minimal ongoing support. Eighty current LADs were identified and assigned either to the experimental or the control group with equal proportions of medical and non-medical personnel in each group. The experimental group attended a two-day training program on family planning IEC, motivation, contraceptive technology, client screening and counselling, and record keeping. An initial free supply of contraceptives was given to both groups. In addition, the experimental group received a visit from a supervisor at the beginning of the field test and participants were instructed on the non-medical contraceptives they would be distributing, on referral of clients for other methods, and on report form completion and filing. Thereafter, the supervisor visited only periodically to assess performance. Every two months the GFPA drivers delivered supplies and picked up report forms.

STUDY DESIGN AND METHODOLOGY: The study employed a quasi-experimental design. The experimental group were given pre- and post-training tests of knowledge; tests also were given at the end of the project to all LADs. Additional data were collected from supervisory records, sales reports, and reports of contraceptives issued by the GFPA.

FINDINGS AND IMPLICATIONS:

- o Volumes of contraceptive sales for both groups remained low. Average monthly sales for those who carried the specific methods were 21 condoms, 12 pill cycles, 17 foaming tablets and 2 injections.
- o No significant difference in sales rates was detected between experimental and control groups.
- o The LADS noted that the lack of public information about family planning was a constraint on their performance. IEC and advertising, using methods such as posters and radio

spots, group meetings, and home visits were suggested as means to improve the program.

- o The LADs also suggested that people need information about where contraceptives can be obtained. Given the sensitive nature of the subject the LADS had been unable or unwilling to undertake this promotional activity themselves.
- o Incomplete and unreliable sales reports remained a problem for both experimental and control groups; that suggested that the present report form needed revision.

FOLLOW-UP AND FUTURE PLANS: The Government of Gambia is considering legislation to mandate training for retailers of contraceptives.

PROJECT NO. GHA-01

COUNTRY: Ghana

TITLE: Delivery of Public Health Care Services by Traditional Birth Attendants in Rural Ghana

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: June 1987 - June 1990

BUDGET: \$63,230

BACKGROUND AND PURPOSE: Ghana's population policy has been in place since 1969 but the government, dissatisfied with progress in reducing the population growth rate, recently reestablished family planning as a priority area within the country's MCH/PHC program. The contribution of traditional birth attendants (TBAs) to the plan to improve services in rural areas is recognized by the government: the national PHC plan assigns great responsibility to the TBAs and to the health post workers who train, supervise and monitor them. An OR project was designed to test a strategy for delivery of PHC services by TBAs, with particular attention to creating effective training and supervisory links between the government's health care delivery system and the TBAs.

DESCRIPTION: The pilot project was implemented in rural Dangbe District, Greater Accra Region. After participating in a Training of Trainers (TOT) workshop, staff of the district's health posts trained and supervised TBAs from villages in the posts' catchment areas. TBA training covered pre- and post-natal care, obstetrical care, first aid, personal and environmental hygiene, oral rehydration therapy, family planning, and education about other PHC interventions. Family planning services included foaming tablets and condoms, and advisory/referral services for other methods. TBAs also learned to identify high risk pregnancies and refer those clients to the health post. At the end of training, the TBAs were provided with a kit containing equipment for use in their practice, along with a record book, referral cards, and an initial supply of contraceptives. The project originally planned to test two alternative supervision strategies: supervisor visits to TBAs in their own villages versus monthly group meetings at the health post. That test was dropped when field experience showed that a flexible combination of the two was most effective.

STUDY DESIGN AND METHODOLOGY: A series of quantitative and qualitative studies were undertaken to study and document the planning, implementation and follow-up phases of this demonstration project. These include a review of previous TBA experience in Ghana and a management audit of central, regional, district and health post management practices and systems. Focus groups discussions were held with TBAs and health workers, and baseline and post-intervention random sample surveys were carried out with women in the project villages to assess changes in family planning and MCH KAP. Two rounds of mini-surveys were administered to measure project outcomes and service statistics, supervision assessments, and TBA Performance Evaluations provided information on characteristics and activities of the TBAs.

FINDINGS AND IMPLICATIONS:

- o Current use of modern methods, while still low, increased from 3.5 percent before the project to 6.7 percent two years later.

High Risk Groups

GUA-01	Guatemala - Federation of Regional Cooperatives (FECOAR)
GUA-02	Guatemala - APROFAM Cotton Growers Project
GUA-03	Guatemala - Characteristics of Successful CBD Distributors

- o Fewer than 3 percent had obtained family planning supplies from the TBAs, although this poor performance may be due in part to lack of supplies in some of the health posts.
- o About one-third of women had heard about infant weighing or immunization from a TBA, and only 10 percent had heard about family planning or ORS.
- o Little change was seen in the number of deliveries by TBAs after completion of training, but there was an increase in the provision of prenatal care, which few TBAs had offered previously.
- o TBAs retained and practiced what they learned about prenatal care and delivery, especially hygiene during and after delivery.
- o Common complications of pregnancy and delivery were adequately handled, and more difficult cases referred to the health posts.

FOLLOW-UP AND FUTURE PLANS: The national TBA program, modeled on the OR project, was launched by the MOH in August 1989 and will be extended into all regions with support from USAID, the World Bank, UNFPA and UNICEF.

PROJECT NO. GHA-02

COUNTRY: Ghana

TITLE: Midwives and Maternities in Accra

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Ghana Registered Midwives Association

DATES: November 1987 - June 1990

BUDGET: \$45,626

BACKGROUND AND PURPOSE: In Ghana, private maternity homes run by trained, qualified midwives have long been an important source of prenatal and delivery care for mothers. Very few maternities however, provide family planning services, usually because the midwife-proprietors have never been encouraged or trained to do so. Yet qualified midwives, as respected members of their communities, have obvious potential as family planning providers. Their clients are the major target audience for family planning services. Recognizing the need for family planning services among the public and the desire of the midwives to provide them, the Ghana Registered Midwives Association (GRMA) began a training program in 1987 designed to increase the availability of quality family planning services through private sector midwives.

DESCRIPTION: An OR project was undertaken as part of the training program to investigate whether private sector midwives, with inputs of training and other support, would become active providers of quality family planning services. The research also was intended to: a) identify characteristics of midwives or their maternities associated with above average family planning activity; b) determine if private sector midwives reach a different population from that served by the Ghana Social Marketing Program (GSMP); and c) learn if clients of midwives have different contraceptive continuation rates than the GSMP outlets. A total of 218 nurse-midwives were trained in hormonal and barrier methods of contraception, primary health care, and midwifery topics; 45 of this group were also trained to insert IUDs.

STUDY DESIGN AND METHODOLOGY: Data collection for this demonstration project included a self-administered questionnaire before training to determine the characteristics of midwives and their maternities, service statistics, a survey of the first 5,000 family planning clients, a follow-up survey of acceptors and non-acceptors, and post-intervention in-depth interviews with midwives.

FINDINGS AND IMPLICATIONS:

- o During the first two years of the project, the nurse-midwives attracted 13,163 new family planning acceptors; 7,150 revisits were recorded between March and December 1989.
- o These clients were provided with 6,438 couple years of protection.
- o Four out of five of the midwives' new family planning clients (79.6 percent) were first time contraceptive users, indicating that the maternities are reaching a previously unreached group.
- o The follow-up OR survey showed that most of the new acceptors came from the midwives' existing clients, but one-quarter were new clients of the maternity homes.

- o Continuation rates were found to be encouragingly high at almost 90 percent at three months, and nearly 70 percent at nine months.
- o Although other sources of supply are available, including pharmacies, chemical sellers, and other clinics, the client follow-up survey revealed that four out of five continued to obtain their supplies from the nurse-midwives.
- o Contraceptive prevalence of women delivering in the month following the midwives' training, and interviewed 9-12 months later, was more than 11 percent (more than double the national average).

FOLLOW-UP AND FUTURE PLANS: Project results were disseminated through the International Confederation of Midwives Conference hosted by the GRMA in January 1989. An end-of-project conference was held in May 1990; midwives from other anglophone West African countries interested in replicating the project attended. The American College of Nurse-Midwives, who provided technical assistance and training for the project have submitted a proposal to USAID/Ghana for expansion of the project, and USAID is also considering ways that family planning can be provided through other professional associations, such as the Association of Private Practitioners.

PROJECT NO. GH-03

COUNTRY: Ghana

TITLE: Market Based Distribution of Contraceptives

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: National Council on Women and Development

DATES: February 1989 - June 1990

BUDGET: \$34,724

BACKGROUND AND PURPOSE: The Ghana Contraceptive Social Marketing Program (GSMP) was launched in 1971. This program uses social marketing techniques such as promotion, packaging, market research and distribution to promote private sector contraceptive sales. It has contributed to high levels of family planning awareness but contraceptive prevalence rates have remained relatively low. Program advisors proposed that a positive impact on extending services into the community could be achieved by using teachers, shopkeepers, women's clubs, and others as distributors. A seminar was held by the GSMP and the Zonta Club to discuss market women's needs for health services and the possibility of contraceptive sales by traders. The response was strongly positive and the seminar organizers were urged to initiate a market-based contraceptive distribution project.

DESCRIPTION: A pilot project was undertaken with assistance from the Center for Population and Family Health of Columbia University. Administered by the National Council on Women and Development (NCWD), the pilot involves three of Accra's largest markets. The project was designed to test the acceptability of contraceptive sales by traders in the markets, to determine training needs, and to test a system for supply. Although this was a replication of market projects in Nigeria (see projects #, #, and #) the traders in Ghana were to sell condoms and foam only, and were not trained to provide other health care items. Agents were selected with the collaboration of the market queens, or leaders, and attended a five day training session at the market site. Training certificates and I.D. cards with photo were given to those who successfully completed the training, along with a signboard for their stalls and initial contraceptive supplies. Proceeds from sales were used by the agents to purchase additional supplies from pharmacies near the market willing to serve as sub-depots to re-supply the traders. An MOH health educator implemented a promotion plan, employing handbills, posters, television and radio spots and public address systems in the markets.

STUDY DESIGN AND METHODOLOGY: Research on this demonstration project included pre- and post-training assessments, analysis of sales statistics, a shopper awareness survey, and a study of trader retention of training information. In addition, focus groups were held with agents to discuss family planning communications, agents' attitudes toward the methods sold, and their perceptions of community attitudes regarding family planning and market sales of contraceptives.

FINDINGS AND IMPLICATIONS:

- o Between April 1989 and April 1990, contraceptive sales totaled 2,312 strips of four condoms and 5,250 strips of four foaming tablets.

25

- o Post-training assessment showed appreciable gains in knowledge regarding the benefits of contraception.
- o The shopper awareness survey demonstrated 54 percent were aware that family planning services were available in the markets, but only one of the 121 shoppers interviewed had ever purchased contraceptives from the traders.
- o Of respondents unaware of the traders' activities, 49 percent said they would be willing to buy contraceptives from them.
- o In the training retention study most responses were satisfactory although several areas for refresher training were identified.
- o The designation of the pharmacy to serve as a sub-depot was not successful for all markets. An alternative under consideration is the designation of one trader in each market as the resupplier, and payment of an incentive to that trader.

FOLLOW-UP AND FUTURE PLANS: The project report has been widely distributed and presented at national and international population conferences as one of the major strategies Ghana is using to extend services to the community. Eight months after the project was initiated, the Greater Accra Secretariat of the NCWD assumed responsibility for the project and services were extended to an additional three markets. Although sales had been disappointing in the first few months, the decision to expand was based on the trader's acceptance of the family planning activity, the interest expressed by other markets, and the favorable public response to the idea of traders participating in the national family planning effort.

Future plans include extending the project to three additional markets in Accra, with revisions of the system for resupply, and extension to two rural markets in the Greater Accra Region. Discussions are underway for the NCWD to initiate a similar program in the urban area of Kumasi.

PROJECT NO. IVO-01

COUNTRY: Ivory Coast

TITLE: Promoting Community Participation in a Primary Health Care Program

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: January 1987 - September 1989

BUDGET: \$81,025

BACKGROUND AND PURPOSE: Primary health care (PHC) recently has become a priority in the Ivory Coast but family planning within the context of health program development has not yet received significant attention. Nevertheless, there is growing recognition that inadequate birth spacing and high fertility are detrimental to women's health, especially in the rural areas. A study was undertaken to test an approach to improving the health of mothers and children through the effective integration of family planning into the existing health system.

DESCRIPTION: A pilot project was carried out in 22 villages of the Bouaflé Rural Health Sector, focussed on informing villagers about PHC interventions including family planning. Two traditional birth attendants (TBAs) and one village health worker (VHW) for each village were trained and supplied with a basic medical kit. Training, supervision of their activities and re-supply of drugs over an initial one-year period were undertaken by the PHC Unit of the Rural Health Sector.

STUDY DESIGN AND METHODOLOGY: Baseline and post intervention surveys, collection and analysis of service statistics, and qualitative research (focus groups and in-depth interviews) were undertaken.

FINDINGS AND IMPLICATIONS:

- o Contraceptive prevalence rose from 0.4 percent to 1.4 percent for modern methods.
- o Forty-eight percent of the women not currently contracepting wished to use a family planning method although only condoms and vaginal tablets were available at that time.
- o Full immunization rates rose from 8 percent to 32 percent in the project area. However 40 percent of children had received measles immunization before the age of 9 months, possibility invalidating it.
- o ORT had been used to treat 30 percent of children suffering from diarrhea in the 3 months prior to the post-intervention survey.

FOLLOW-UP AND FUTURE PLANS: Before the end of the OR study, the service delivery model was extended into additional villages in the Bouaflé Health Sector. Results of the study will be presented at the next meeting of regional health directors and/or at a planned national seminar.

PROJECT NO. IVO-02

COUNTRY: Ivory Coast

TITLE: Promoting Family Planning Among High Risk Women

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: University Hospital Center

DATES: October 1987 - September 1989

BUDGET: \$89,644

BACKGROUND AND PURPOSE: The maternal mortality rate in Côte d'Ivoire is 500-800 deaths per 100,000 live births (compared to 10 per 100,000 in industrialized countries.) This results from inadequate services for obstetric emergencies and from the absence of preventive activities such as family planning and pre-natal care for high risk women. An OR study was developed to introduce and test delivery of family planning services to prevent high risk pregnancies.

DESCRIPTION: In a pilot project, midwives at two maternities were trained to deliver family planning services to women at risk of maternal mortality and to provide information and services to all clients. The two maternities, one in a peri-urban area and one in a rural area, both refer their high-risk patients to University Hospital Center (CHU) at Cocody. In the peri-urban maternity, group education sessions were organized. Women screened as high risk were invited to attend weekly information and education sessions.

STUDY DESIGN AND METHODOLOGY: Baseline and post-intervention intercept studies were undertaken to measure changes in family planning knowledge, attitudes and practice, as well as two intercept mini-surveys using abbreviated questionnaires. Focus groups were held with clinic personnel and clients to elicit perspectives on family planning use. Service statistics were used to assess the extent to which high-risk women are reached and served in the project.

FINDINGS AND IMPLICATIONS:

- o Seventy-five percent of all women interviewed at baseline knew at least one method; 6 percent were currently using a method.
- o Twenty percent of women were judged to be at high risk of maternal mortality and 88 percent of these agreed to use a family planning method to avoid pregnancy.
- o At both clinics new contraceptive acceptors and continuers substantially increased. At the urban clinic over a seven month time period new acceptors and those seeking resupply increased from 27 and 24 clients respectively to 105 and 172 per month.
- o The final client survey found that 5 percent of those at risk for pregnancy were using a modern method, 51 percent a natural method.

FOLLOW-UP AND FUTURE PLANS: It is likely that the national IPPF affiliate, AIBEF (Association Ivoirienne de Bien Etre Familiale) will assume responsibility for providing family planning services at the maternities. Assistance is being sought from A.I.D. to help expand this model throughout the Ivory Coast.

PROJECT NO. IVO-03

COUNTRY: Ivory Coast

TITLE: Family Planning IEC and Service Delivery in the Private Sector

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Institute de Formation Continuée de Cadres pour le Développement

DATES: October 1988 - July 1989 **BUDGET:** \$21,088

BACKGROUND AND PURPOSE: In order to measure changes in knowledge and behavior regarding contraception resulting from the introduction of family planning information, a demonstration project was set up in commercial enterprises, such as offices and factories, in the capital of the Ivory Coast, Abidjan.

DESCRIPTION: The project sought to document the impact of introducing family planning information and services into existing health facilities in fifteen commercial enterprises. Results from focus groups held with staff of the enterprises were used to develop a KAP survey questionnaire, and the training and IEC elements for the service delivery component. They also provided a qualitative complement to the survey results. A follow-up survey scheduled for approximately ten months after introduction of IEC and clinical services in the factories was canceled because funds for the service delivery component were suspended prior to initiation of services.

STUDY DESIGN AND METHODOLOGY: Research methods included focus group discussions held with personnel managers, medical personnel and workers, and a baseline KAP survey conducted over one month among 1010 factory workers (366 women and 644 men).

FINDINGS AND IMPLICATIONS:

Focus group discussions established:

- o Both personnel managers and medical staff fully supported the introduction of family planning services into their enterprises.
- o Most workers agreed that, in an urban context, a clear distinction can be made between the social benefits of the extended African family and the disadvantages of too many children in the nuclear family setting.
- o Participants could name most modern methods of contraception but had a poor understanding of their use. Many claimed to have tried one or more methods, and to have discontinued almost immediately; many had tried natural methods unsuccessfully. The need for proper services and counselling was expressed by many.
- o The importance of service providers being empathetic and confidential was stressed.

- o Workers, as well as personnel and medical staff emphasized that management should be briefed about the program so that their support is assured.

FOLLOW-UP AND FUTURE PLANS: The focus group research has been written up and distributed. The baseline survey results were to be distributed in late 1989. Plans have been made to re-establish the service delivery component of this project with a new local coordinating agency, and REDSO/WCA staff have expressed interest in adding a post-intervention study to evaluate the project.

PROJECT NO. KEN-01

COUNTRY: Kenya

TITLE: Mount Kenya East Supervision of CHA's

CONTRACTOR: Johns Hopkins University

PARTICIPATING INSTITUTION: Christian Organizations Research Advisory Trust

DATES: January 1983 - September 1986

BUDGET: \$189,453

BACKGROUND AND PURPOSE: The Anglican Diocese of Mount Kenya East established a community health program in 1980 to serve the rural population living on the eastern and southern slopes of Mt. Kenya in Central Kenya. Community Health Workers (CHWs) are volunteer, lay workers selected by the community and trained by the diocese to provide basic curative services, sanitation, immunization, nutrition and health education, and rehydration and family planning. Eight weeks of training is given by the community health program staff who also provide technical and managerial supervision. Each CHW serves about 200 households totalling about 1000 people. An OR study was undertaken to evaluate alternative approaches to supervision to identify a cost-effective model for the program.

DESCRIPTION: CHWs were assigned to one of two supervision groups, with 15 in each: individual supervision; and group supervision. A single community health nurse was the supervisor for the two sets of CHWs. Monthly visits were made to the homes of the individually supervised CHWs and to central meeting points for those in the group supervision set. Supervisory activities included evaluation, motivation, re-training as needed, problem solving, resupply, review of CHW's records, scheduling next visit, and visits to client's homes with the CHW.

STUDY DESIGN AND METHODOLOGY: Data collection included a baseline survey of households in the project area, information from the CHWs or the records, and a special household surveys in the villages of the CHWs.

FINDINGS AND IMPLICATIONS:

- o CHWs who were group-supervised provided an average of 50 clients with contraceptives. Individually-supervised CHW provided supplies to only 25 clients.
- o Use of family planning was similar for the two areas (39-42 percent). This was substantially higher than reported in the entire area in the baseline survey (15 percent).
- o Current use of modern methods was nearly the same in the group and individually supervised areas (31 and 30 percent).
- o Significantly higher percentages of women reported a visit by any CHW (47 percent to 58 percent) in the special survey, compared to the baseline.
- o There was no difference between the two groups of CHWs in knowledge of health care information.

- o Group supervision cost about half as much as individual supervision (\$6.30 compared to \$11.80 per CHW, respectively).
- o Group supervision proved to be motivational, rather than punitive.

FOLLOW-UP AND FUTURE PLANS: It was recommended that additional trials of group supervision be undertaken in varied settings, and that other elements--frequency, selectivity, style, content--also be studied.

PROJECT NO. KEN-02

COUNTRY: Kenya

TITLE: Nyeri Natural Family Planning: Two Teaching Approaches

CONTRACTOR: Johns Hopkins University

PARTICIPATING INSTITUTION: Christian Organizations Research Advisory Trust

DATES: May 1983 - September 1987 **BUDGET:** \$126,198

BACKGROUND AND PURPOSE: The Nyahururu Parish is in the Catholic Diocese of Nyeri, Kenya and has a population of 180,00 in 3,000 square kilometers. A program to promote Natural Family Planning (NFP) in the context of improving family life, using the ovulation method was devised in coordination with the Kenya Catholic Secretariat. No formal NFP program had previously existed. An OR study was set up to compare the cost and effectiveness of two teaching regimens, to measure cost per NFP acceptor, and to examine use, demand and continuation of NFP.

DESCRIPTION: Training protocols of two durations were set up in twenty randomly selected training sites. Ten sites (Group A) received the standard 15 training sessions. The other ten (Group B) received a simplified and shortened protocol of 9 training and follow-up sessions over one year. Clients were initially recruited through church meetings and then by word of mouth.

STUDY DESIGN AND METHODOLOGY: Data were collected in a baseline survey prior to initiation of NFP training and a follow-up survey 3 years later in both program and non-program sites. Records were kept by trainers and users to assess the impact of NFP training on family planning knowledge, practice and continuation, and on pregnancy outcomes. An anthropological study of the effects of NFP on family life also was undertaken.

FINDINGS AND IMPLICATIONS:

- o There was a sharp increase in the proportion of women who knew of NFP between the baseline and follow-up surveys from 2 to 20 percent in the program area and 14 percent in the non-program sites.
- o Prior to the program, no women used NFP. At the follow-up survey, 32 percent of current users in the program area reported NFP as their method, as did 12 percent in the non-program area.
- o More than 50 percent of all NFP acceptors wanted to limit their family size, while 33 percent wanted to space their pregnancies and 6-11 percent wanted to achieve a pregnancy.
- o There were no statistically significant differences between teaching groups in cumulative pregnancy rates, although analysis suggested that a higher proportion of pregnancies in Group B were teaching related.
- o Promotion of NFP did not result in increased knowledge of other family planning methods.
- o The use of experienced trainers probably has greater impact than the number of sessions undergone.

PROJECT NO. KEN-03

COUNTRY: Kenya

TITLE: Tenwik Hospital Community Health Worker Motivation

CONTRACTOR: Johns Hopkins University

PARTICIPATING INSTITUTION: Tenwik Hospital

DATES: October 1983 - September 1987 **BUDGET:** \$169,000

BACKGROUND AND PURPOSE: About 180,000 people are served by the community health program of the Tenwik Hospital in the western highland of central Kenya. The program trains and supervises 250 community health helpers (CHHs) selected by community committees. An OR study was set up to assess the impact on productivity of three levels of non-monetary incentives to these workers.

DESCRIPTION: The study area was divided into three groups. In the first group, CHHs received token payments plus a newsletter; the second group also received community recognition and lapel pins. The third group received all the incentives received by the first two groups plus diplomas to "healthy" households. "Healthy" was defined as immunization for children under age five, clean water supply, latrine, adequate nutritional status for under-fives, using family planning. Seven program areas were allocated to the three groups referred to as "limited" "CHH" and "all" incentives group(s).

STUDY DESIGN AND METHODOLOGY: The study used a quasi-experimental design. Data collection included a baseline survey carried out in the program areas and a follow-up survey two years after services were implemented. A comparable area not served by the CHHs was included in the final survey to control for the effects of changes over time. In addition, the overall impact and question of effectiveness of incentives were assessed by service statistics.

FINDINGS AND IMPLICATIONS:

- o There were no significant differences in the performances of the different incentive groups, but all incentive group areas showed improvements in health status relative to the control area.
- o The proportion of women who wanted no more children increased in areas served by the CHHs from 22 to 30 percent; in the control area, the figure was 24 percent.
- o Knowledge of any type of family planning also was higher in the program areas (69 percent) compared to the baseline (55 percent) and to the control area (48 percent).
- o Current practice of contraception was similarly greater in the program areas: 12 percent of women were using contraception, compared to 4 percent at the baseline and 7 percent among women in the control area.
- o Mean CYP per CHH was significantly lower in the limited incentive group (6.95), compared to that in the group that received all incentives (13.89).

PROJECT NO. KEN-04

COUNTRY: Kenya

TITLE: Maseno South Community Health Program

CONTRACTOR: Johns Hopkins University

PARTICIPATING INSTITUTION:

DATES: October 1983 - September 1987

BUDGET: \$178,000

BACKGROUND AND PURPOSE: The Anglican diocese of Maseno South developed one of the first church-related community development programs in Kenya. Volunteer community health secretaries (CHSs) provide immunization, MCH care, malaria control and health education to about 1000 people each. Little impact on family planning acceptance had been demonstrated by the program. A renewed program was designed to retrain CHSs to expand their family planning activities to include household distribution. An OR study was undertaken to assess the impact of the CHSs on PHC and family planning and whether systematic selection and visitation of high-risk households improves CHSs effectiveness compared to CHSs who self-select households to visit.

DESCRIPTION: A training program for CHSs was developed covering health promotion, simple curative care and family planning. Households were classified as "high risk" based on maternal and child morbidity and mortality, and use of services in the community. Then CHSs either were assigned a list of households and knew the specific factors for the high risk households or were told to select households to visit as usual.

METHODOLOGY: The study employed a quasi-experimental design. In each of six parishes selected for study, in one congregation the CHS was assigned specific households to cover (area I); in the second congregation, the standard selection of households by the CHS was continued (area II). The impact of the program was tested using a baseline survey and a follow-up survey 3 years later, both carried out in areas with and without the CHS program, and by routine service information.

FINDINGS AND IMPLICATIONS:

- o Contraceptive prevalence was higher in visited households in Area I (12 percent) compared with households visited in the non-selection area (7 percent).
- o There was no change in contraceptive use between the two surveys; only 5-6 percent of ever-married women were contraceptors.
- o About 50 percent of households in both Areas I and II had been visited by a CHS, 25 percent within 30 days of the interview.
- o By the time of the follow-up survey 33 percent of households had ever been visited by a CHS, a substantial increase over the baseline figure (11 percent).
- o A decline in knowledge of family planning was observed at the follow-up survey: from 62 percent of married women at the baseline to 45 percent.

PROJECT NO. KEN-05

COUNTRY: Kenya

TITLE: Development of Contraceptive Guidelines for Providers

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Ministry of Health

DATES: January 1989 - May 1989 **BUDGET:** \$8,000

BACKGROUND AND PURPOSE: The Population Council agreed to assist USAID/Kenya with the development of a systematic set of contraceptive guidelines for clinic service providers.

DESCRIPTION: A consultant was hired to draft the guidelines. Population Council staff provided a medical review of the draft documents

STUDY DESIGN AND METHODOLOGY: Technical assistance only.

FINDINGS AND IMPLICATIONS: A camera-ready brochure and a wall chart with the contraceptive guidelines was delivered to USAID/Kenya, which will be responsible for final printing and distribution.

PROJECT NO. KEN-06

COUNTRY: Kenya

TITLE: Situation Analysis of the Family Planning Program in Kenya: The Availability, Functioning, and Quality of MOH Services

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Ministry of Health

DATES: April 1989 - September 1989 **BUDGET:** \$28,880

BACKGROUND AND PURPOSE: In 1967, the Ministry of Health (MOH) of Kenya implemented a family planning program, integrated with MCH services. The program has frequently been characterized as weak, but recent data suggest that program activity may have triggered a decline in fertility. Between 1984 and 1989 contraceptive prevalence increased in Kenya by more than 50 percent with a decline in the TFR during the same period from 7.7 to 6.7. In light of these changes, the MOH was interested in analyzing its family planning program to identify its strengths and weaknesses.

DESCRIPTION: The specific objectives of the OR study were to: 1) evaluate the availability, quality and functioning of family planning service delivery; 2) develop suggestions for administrative and operations research approaches to strengthening the program; 3) test a field methodology for evaluating family planning programs at the clinic level; 4) inventory family planning/MCH equipment and needs, and assess staffing patterns at service delivery points.

PROJECT DESIGN AND METHODOLOGY: Field research teams visited a stratified random sample of 99 of the MOH's 775 service delivery points. Using primarily observation techniques and some interviewing, researchers collected data on a few indicators of each major family planning sub-system, and on the quality of care provided to a sample of new family planning clients.

FINDINGS AND IMPLICATIONS:

- o Using only a few selected observations for determining the functioning of sub-systems produced useful information for logistics, IEC, record-keeping and possibly referral.
- o The data also were useful for determining the amount of management, supervision and training taking place, but not for assessing the quality of these activities.
- o The process of observing quality of care indicators appeared obtrusive and most likely biased the data toward more positive results.
- o Specific findings on the sub-systems and quality of care indicators were used to develop recommendations for administrative interventions and OR projects:
 - Increase quality and quantity of supervision
 - Improve the distribution of supplies

- Increase initial and in-service training of key nursing and midwifery staff
- Increase educational materials available in the clinics and improve the skills of staff using them
- Increase counseling on permanent methods
- Explore non-clinical ways to serve males, women using non-clinical methods, and other continuing family planning clients
- Reduce number of service delivery points serving no or few clients
- Plan additional evaluations, using alternative research methods to check validity of study findings.

FOLLOW-UP AND FUTURE PLANS: Based on widespread interest, the Population Council is developing a protocol that can be adapted to local conditions in several countries. Analogous studies are being conducted in Zaire, Burkina Faso, and in MOH clinics in Nairobi. Studies are planned in Zimbabwe (June 1991), and in Kenya (in urban clinics outside of Nairobi and in unregistered MOH rural service delivery points). Requests for similar studies have been received from Tanzania, non-MOH agencies in Kenya, and several countries in Asia and Latin America.

PROJECT NO. KEN-07

COUNTRY: Kenya

TITLE: Expanding Health and Family Planning Service Delivery Systems Using Traditional Health Practitioners (Phase I)

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: African Medical and Research Foundation

DATES: July 1989 - August 1990 **BUDGET:** \$153,319

BACKGROUND AND PURPOSE: The principal goal of this project is to use an operations research approach to extend the health and family planning delivery system in rural Kenya to villages inadequately served.

DESCRIPTION: Traditional birth attendants (mostly female) and male herbalists were trained in family planning motivation and AIDS prevention education. The project is being conducted in two high population density and high health risk areas in western Kenya. Phase I of the project was devoted to selecting appropriate study sites, locating TBAs and herbalists, and organizing suitable service delivery outlets. In Phase II, the TBAs and herbalists will be trained and services provided to clients in the project sites.

STUDY DESIGN AND METHODOLOGY: Phase I of the study includes a baseline survey.

FINDINGS AND IMPLICATIONS: Not available.

PROJECT NO. KEN-08

COUNTRY: Kenya

TITLE: Evaluation of the MOH's Maternal and Child Health and Family Planning In-Service Training Activities

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Ministry of Health

DATES: October 1989 - December 1989

BUDGET: \$29,300

BACKGROUND AND PURPOSE: Over the past decade, the Kenyan national family planning program has greatly increased the services available to clients and its geographic coverage. To keep pace with this expansion, the Maternal Child Health/Family Planning (MCH/FP) Training Programme of the Ministry of Health (MOH) has been required to increase its activities. An evaluation of the MOH MCH/FP training programme was undertaken to document the quantity and quality of the training which has already been accomplished, to identify areas needing improvement, and to make recommendations for future activities.

DESCRIPTION: Undertaken in 20 of Kenya's 43 districts, the evaluation focused on providers of services at their workplace, trainers at training centers and practical training facilities, training materials, recordkeeping systems at service delivery points (SDPs), and the supervision process at SDPs.

STUDY DESIGN AND METHODOLOGY: Detailed observations of health workers' job performance were made at 42 SDPs by five field teams using both self-administered questionnaires and observation. Altogether, 13 data collection instruments were used to obtain information for this evaluation.

FINDINGS AND IMPLICATIONS:

- o Of the 5,127 MOH staff trained in family planning since 1972, only 44 percent are estimated to be currently providing MCH/FP services. Of 128 MCH/FP workers interviewed, 80 percent had never received a family planning update course.
- o If current trends in training output continue, it is estimated that an additional 7,050 MOH workers will need to be trained in the five year period between 1990 and the end of 1994. This is more than all the workers trained in the 13 year period between 1972 and 1984.
- o Forty-three percent of MCH/FP staff reported that they receive no supervision, and 60 percent of these workers cannot name their supervisor.
- o Administration appears to be the major job function of the supervisors. Sixty percent of the supervisors have never received any formal preparation in supervision. Ninety percent of the supervisors report that they have no standard supervisory guidelines to follow. Seventy-five percent have not received contraceptive update training.
- o Observation of new client counseling indicated that 100 percent of clients were counseled on the use of orals, IUDs and condoms; 92 percent on DepoProvera; 88 percent on

foaming tablets; 68 percent on natural family planning; 50 percent on the diaphragm; but only 39 percent on sterilization.

- o In 59 percent of 42 service delivery points visited, no contraceptive stock control records were maintained stock-outs of specific methods were observed in from 5 to 83 percent of service delivery points.

Based on the evaluation, a number of recommendations were made to improve the training program. These included: 1) developing a training policy, plan, and information system; 2) improving trainers' skills and developing training of trainers curriculum; 3) developing a specific plan for upgrading/changing existing training centers and strengthening existing outlets; 4) establishing a specific group of trained clinical instructors; 5) offering the contraceptive update course to all former trainers; and 6) developing guidelines for supervisors.

PROJECT NO. KEN-09

COUNTRY: Kenya

TITLE: Computer Workshop on the Use of the Integrated System for Survey Analysis (ISSA)

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: National Center for Population and Development

DATES: January 1990 - February 1990 **BUDGET:** \$29,136

BACKGROUND AND PURPOSE: The overall objective of this project was to conduct a computer workshop in data processing using the Integrated System for Survey Analysis (ISSA), a statistical package developed by the Demographic Health Surveys (DHS) program.

DESCRIPTION: The training was designed to enhance the research and computing capabilities of researchers, particularly those collaborating in Kenya with the Population Council's Africa OR/TA Project. The following aspects of the ISSA package were taught in the workshop: 1) data entry and steps involved in designing data entry programs; 2) designing tables for output; and 3) file utilities in ISSA.

PROJECT DESIGN AND METHODOLOGY: Not applicable.

FINDINGS AND IMPLICATIONS: The workshop drew 13 full-time and three part-time participants from government ministries the National Center for Population and Development (NCPD), NGOs (African Medical and Research Foundation [AMREF], Family Planning Association of Kenya [FPAK]), and the University of Nairobi.

PROJECT NO. KEN-10

COUNTRY: Kenya

TITLE: Evaluation of Family Planning Private Sector Project Activities

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Family Planning Private Sector Project

DATES: May 1990 - May 1990 **BUDGET:** \$6,386

BACKGROUND AND PURPOSE: At the request of the Family Planning Private Sector Project (FPPS, implemented in Kenya by John Snow, Inc.), the Population Council agreed to participate in an end of project evaluation.

DESCRIPTION: The evaluation team consisted of representatives from the Population Council, the National Council for Population and Development (NCPD), the University of Nairobi, and Population Services Research Institute (PSRI).

PROJECT DESIGN AND METHODOLOGY: Not applicable.

FINDINGS AND IMPLICATIONS: A final report of the evaluation has been completed and is available from the Population Council.

PROJECT NO. KEN-13

COUNTRY: Kenya

TITLE: Community Based Distribution Policy Guidelines Workshop

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Ministry of Health, Division of Family Health

DATES: August 1990 - August 1990 **BUDGET:** \$9,410

BACKGROUND AND PURPOSE: Most of the oral contraceptives in Kenya are distributed via community-based distribution (CBD) systems. The National Council for Population and Development (NCPD) is the coordinating agency for non-governmental (NGO) CBD programs in Kenya, while the MOH has the responsibility for providing policy guidance to all organizations involved in CBD. In 1985, the Ministry of Health distributed a memo providing CBD policy guidance. The plan described in the memo required government service delivery points to provide initial medical examinations and medical back-up to family planning clients and to utilize NGO CBD programs for resupply where available. However, the memo was targeted to MOH program managers rather than NGOs. There is general agreement that the various CBD implementing agencies need clarification and an update on policy/practice issues. At the same time it was believed that NGO program experiences in the field could provide assistance to the MOH in developing its policies, and that involvement of NGOs in policy development would facilitate implementation of any new CBD policies.

The Population Council assisted the MOH in conducting a review of NGO policies regarding CBD distribution, and prepared a policy questionnaire for distribution to NGOs. A meeting was held on May 4, 1990 between the MOH and NGOs to discuss information and suggestions from participating NGOs regarding the development of a coordinated national CBD policy. The NGO representatives concluded that a longer meeting, with more intensive discussions, small working groups, and wider representation was needed before adopting policy recommendations.

DESCRIPTION: The CBD Policy Workshop was held August 12-15, 1990 in Nairobi to discuss further and finalize standardized guidelines for CBD in Kenya.

STUDY DESIGN AND METHODOLOGY: Technical assistance only.

FINDINGS AND IMPLICATIONS: An outcome of the meeting will be standardized guidelines for CBD in Kenya.

PROJECT NO. LES-01

COUNTRY: Lesotho

TITLE: Community-Based Distribution Project Evaluation

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Lesotho Planned Parenthood Association

DATES: February 1987 - September 1989

BUDGET: \$35,806

BACKGROUND AND PURPOSE: A CBD project attempted in Lesotho by the Lesotho Planned Parenthood Association (LPPA) was considered unsuccessful by both the MOH and the LPPA. Because of Lesotho's limited experience in family planning service delivery and in anticipation of implementing a national CBD program, an evaluation was planned to identify the lessons learned.

DESCRIPTION: A study was undertaken by the Lesotho Distance Training Center (LDTTC) in collaboration with the LPPA to collect the information necessary to design an expanded CBD program, to identify factors that promote, hinder or have no impact on the goals of the program, and to evaluate implementation of the CBD project in the light of agency agendas.

STUDY DESIGN AND METHODOLOGY: In-depth interviews and focus group discussions were undertaken with CBD agents, field educators, clinic staff, clinics providing family planning to the CBD areas, and one client from each CBD agent interviewed.

FINDINGS AND IMPLICATIONS:

- o Recruitment of CBD agents followed no systematic pattern.
- o The limits of the community to be served and work procedures were never established nor communicated to the CBD agents.
- o No advance community preparation about the program was carried out.
- o CBD agents were inadequately trained and poorly supervised in contraceptive methods, work procedures, reporting and auxiliary skills.
- o No formal scope of work existed for CBD agents.
- o Current incentives (commission on sales) are not consistently applied. Salaries for CBD agents are perceived as the most significant incentive to performance.
- o CBD agents were generally accepted by the community.
- o Family planning for birth spacing is accepted. Major reasons for non-use of contraceptives are due to misinformation or fear of side effects.
- o Improved planning would deal with the range of logistics and management problems experienced.

FOLLOW-UP AND FUTURE PLANS: The report of this study is being distributed by LDTC and has been proposed to the Center for African Family Studies (CAFS) African Family Planning Research Monographs Series. The LPPA has incorporated study results into its CBD program planning.

PROJECT NO. LES-02

COUNTRY: Lesotho

TITLE: Technical Assistance to CBD Project Evaluation and Family Planning Drop-outs Study

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Lesotho Planned Parenthood Association

DATES: February 1989 - September 1989

BUDGET: \$35,806

BACKGROUND AND PURPOSE: In Lesotho, the MOH and the Lesotho Planned Parenthood Association (LPPA) identified the need for research on the high drop-out rate among family planning acceptors, based on reviews of clinic records and discussions with various service providers.

DESCRIPTION: The nature of the records and the sensitivity to family planning made it impossible to identify and visit drop-outs to confirm actual levels of discontinuation. Therefore, a qualitative approach was used to verify the drop-out rate suggested by the service delivery statistics system, to identify the major causes, and to develop recommendations to modify services to increase duration of use.

STUDY DESIGN AND METHODOLOGY: Focus group techniques were used with clinic staff and with groups of drop-outs identified by these staff. The criteria for drop-outs were that they must be married, aged 25 to 40 years, have used contraceptives for at least three months, and discontinued use in the last twelve months.

FINDINGS AND IMPLICATIONS:

- o There was general agreement among focus group participants that the major cause of discontinuation of contraceptive use was unanticipated side effects.
- o Clinic personnel indicated that counselling about side effects (mostly from hormonal methods) was inadequate.
- o Issues of personal privacy were stressed. Women feared family opposition if their use of contraceptives was discovered.
- o Disapproval of family planning by the husband was a disincentive. From the groups' opinions it was apparent that men hold many incorrect attitudes towards family planning, contraception and marital relationships.
- o Clinicians reported that unavailability of supplies caused many women to discontinue contraceptive.
- o Many women who drop out have good reasons for discontinuing use, and intend to start using again when their situation changes. Contraception was viewed positively by many women as an aid to extending the birth interval.

FOLLOW-UP AND FUTURE PLANS: The study document has been produced and distributed by the Lesotho Distance Training Center (LDTC) and has been proposed for the Center for African Family Studies (CAFS) African Family Planning Research Monographs Series. The LPPA has incorporated study results into its training of staff to improve quality of care.

PROJECT NO. LIB-01

COUNTRY: Liberia

TITLE: Evaluation of Natural Family Planning Services in Liberia and Zambia

CONTRACTOR: International Federation for Family Life Promotion

PARTICIPATING INSTITUTION: Ministry of Health

DATES: October 1983 - March 1988 **BUDGET:** \$321,855

BACKGROUND AND PURPOSE: The prevalence of contraceptive use is low in most of sub-Saharan Africa, and there is a need to promote family planning, particularly as a means of child spacing. Although there have been few studies of natural family planning (NFP) in African populations, it is thought that NFP might be acceptable to African women because it is congruent with sexual abstinence or the use of prolonged breastfeeding. This OR study evaluates the potential use-effectiveness and cost-effectiveness of NFP in Liberia. A similar study was conducted simultaneously in Zambia for comparison (see Project No. ZAM-01).

DESCRIPTION: Ten service centers were developed in the capital city of Monrovia, and in provincial towns along the country's main north-south road. The service centers also provided outreach into adjacent rural communities. The program trained three supervisors and 66 NFP teachers, of whom 15 to 20 provided client instruction and follow-up on a regular basis. The program exclusively focused on NFP and was not integrated into other family planning or MCH services.

STUDY DESIGN AND METHODOLOGY: Baseline data were collected from clients, at the time of registration, on sociodemographic characteristics, reproductive history, breastfeeding status, and family planning intervention. Thereafter, client follow-up forms were completed at three-month intervals to record any change in family planning intention and the number of teacher-client contacts during the interval. Acceptors were classified as "autonomous" when a teacher and her supervisor judged that a woman had learned the method, could chart her signs and use NFP without further instruction. Although autonomous users were followed up to ascertain method continuation, follow-up was less intensive than the follow-up of "learning" users. Discontinuations from the program were reported on separate forms which identified the reasons for discontinuation. The use-effectiveness for women using NFP to avoid pregnancy was estimated by standard life tables, and accounting records were kept to determine the cost-effectiveness of the program.

FINDINGS AND IMPLICATIONS:

- o The program registered 1,492 new acceptors, of which 85.6 percent became learning users. The majority of learning users (82.6 percent) adopted NFP to avoid pregnancy.
- o Fifty-eight percent of the learning users progressed to autonomy.
- o The total 12-month discontinuation rate was 12.2 per 100 women years. The 12-month life table discontinuation rate for learning users was 20.7 per 100 women years and 16.4 percent were lost to follow-up over the life of the program.

- o The 12-month life table discontinuation rate due to unplanned pregnancy was 4.3 per 100 woman years.
- o Discontinuations due to change of intention were more frequent during autonomy (6.2 per 100 woman years) than during the learning phase (2.7 per 100 woman years). In contrast, terminations for personal reasons were more frequent during the learning phase than during autonomy. There were no significant differences in the unplanned pregnancy rates or discontinuation rates during learning and autonomy.
- o Users became autonomous at the rate of 54.6 per 100 woman years.
- o The program provided a total of 2,518 Couple Years of Protection (CYP).
- o Costs during learning were much higher than during autonomy. The cost per CYP during learning was \$126.60, compared to \$15.70 during autonomy. As the programs matured, the increasing numbers of autonomous users reduced the cost per CYP.

PROJECT NO. MAU-01

COUNTRY: Mauritius

TITLE: Client Autonomy Among Natural Family Planning Users

CONTRACTOR: International Federation for Family Life Promotion

PARTICIPATING INSTITUTION: Action Familiale

DATES: June 1986 - June 1988

BACKGROUND AND PURPOSE: Natural family planning (NFP) has been a major part of Mauritius' national family program since 1963, when an official NFP provider agency, Action Familiale, was established. In 1985 a contraceptive prevalence survey found that 17% of married women of reproductive age were using the method. By 1985 Action Familiale classified cumulatively 13,000 women as autonomous users: that is they no longer needed the direction of a teacher, which is the goal of the NFP program. An OR study was designed to assess NFP efficacy among autonomous users and to characterize discontinuing autonomous clients so that they could be targeted for intervention and support.

DESCRIPTION: A retrospective study of autonomous users was undertaken by Action Familiale in collaboration with Johns Hopkins University and IFFLP. A study sample of 536 women was selected from women classified as autonomous in 1984-5. The women were visited by trained interviewers and questioned about their NFP use, plans for birth limiting or spacing, breastfeeding, and the date and reason for discontinuation of NFP if they had done so; and subsequent return to NFP use, if this had taken place.

STUDY DESIGN AND METHODOLOGY: Life table methods were used to estimate continuation and discontinuation rates for autonomous use. Women were stratified by family planning intention into "spacers" and "limiters". The rates of discontinuation for unplanned pregnancy and for women planning a pregnancy were compared within and between strata by single decrement rates. Maximum likelihood procedures were used to estimate mean years of autonomous use for the autonomous. CYP for the cohort was estimated by multiplying mean duration of use and the number of autonomous users in the total cohort.

FINDINGS AND IMPLICATIONS:

- o Respondents were almost evenly divided between spacers and limiters.
- o The median NFP learning time for both spacers and limiters was 12 months.
- o Among spacers, planning pregnancy was the most important reason for discontinuing (39.9 per 100 women at 24 months) while for limiters, unplanned pregnancies were the most common cause of discontinuation (11.7 per 100 women at 24 months).
- o Sixty-three percent of women interviewed continued to use NFP from the time they became autonomous to the interview.
- o Women who discontinued NFP for a planned pregnancy were more likely to re-start than those who stopped because of an accidental pregnancy.

- o High use effectiveness among autonomous NFP users wishing to space or limit their births was demonstrated, with substantial estimated mean years of use (2.2 years after three years of observation.)

PROJECT NO. NGR-01

COUNTRY: Niger

TITLE: Family Health Motivation and Referral Project

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Centre National de Santé Familiale

DATES: August 1986 - July 1988

BUDGET: \$60,269

BACKGROUND AND PURPOSE: In 1985 the government of Niger demonstrated its growing commitment to family health services through the establishment of the Centre National de Santé Familiale (CNSF), with the mandate to plan family planning services and research for the entire country. In order to increase awareness of and access to the services being provided in Niamey, CNSF staff conducted a series of community motivation and referral IEC meetings. To increase understanding of the obstacles to family planning utilization and to identify outreach strategies to promote it, CPFH collaborated in and funded the OR component of this IEC activity.

DESCRIPTION: During the first twelve months, 24 meetings were held in half the neighborhoods in Niamey. Knowledge of family planning, of the meetings and whether the meetings or other sources of information had an effect on family planning KAP were probed by surveys of males and females. Quantitative and qualitative evaluation of the meetings was done by trained observers who also conducted focus groups with participants as well as non-participants.

STUDY DESIGN AND METHODOLOGY: In a quasi-experimental study, process data were collected during the meetings through observations and focus group techniques. Male and female KAP surveys were conducted in order to compare KAP levels in neighborhoods which had received the intervention with those which had not. The survey instrument included questions to explore information diffusion effects between neighborhoods.

FINDINGS AND IMPLICATIONS:

- o Over 70 percent of both male and female respondents could name spontaneously at least one modern contraceptive method.
- o Current use by males or their partners of modern methods was 11.6 percent; female use was 8.5 percent with another 16 percent reportedly using abstinence or withdrawal.
- o Radio was cited as the primary source of family planning information, followed by friends and television.
- o The neighborhood meetings had relatively little effect on family planning knowledge and usage. However, further analysis suggests that meetings may be of value in poorer neighborhoods with less access to radio and television.

FOLLOW-UP AND FUTURE PLANS: A dissemination conference was held in September 1988. A detailed final report as well as a conference report were prepared and distributed. The Director of the CNSF during the OR project was appointed to head the newly-created Family Planning Unit within the Secretariat of State.

PROJECT NO. NGA-01

COUNTRY: Nigeria

TITLE: CBD of Low Cost Family Planning and Maternal and Child Health Services in Rural Nigeria (Pilot)

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: University College Hospital, University of Ibadan

DATES: July 1979 - November 1982 **BUDGET:** \$244,593

BACKGROUND AND PURPOSE: In 1979 in most of rural Nigeria, limited resources meant that only one-third to one-half of the population in need was being reached by existing health services. In addition, Nigeria was characterized by high fertility and mortality, and many Nigerians considered family planning to be appropriate mainly for child spacing, not family limitation. Though the government had developed plans for a national Basic Health Services Scheme, it had been only partially funded. Faculty of the University College Hospital at the University of Ibadan wanted to investigate the use of village level workers, including traditional birth attendants, to provide simple health treatments for common ailments and to offer family planning education and selected contraceptives. A pilot project was implemented to build upon the existing network of government nurse/midwives and maternity centers through the mobilization of village volunteers and TBAs.

DESCRIPTION: The pilot project was designed both to introduce a new approach for extending health services to every rural sector and to introduce modern family planning for the first time in the villages. The basic objective was to develop and test the feasibility of a safe, effective, low-cost, and broadly replicable model for door-to-door delivery of basic family health services. Also, the project planned to develop and test appropriate training programs, test specific components of the service delivery package for acceptability and replicability, determine characteristics of effective community agents, train personnel, and explore the feasibility of a self-sufficient drug supply system based on collection of small fees for services. One hundred and sixty five field workers were selected and organized into groups based around seven maternities. In addition to providing health education and referrals to the maternity centers, the CBD workers provided treatment for malaria, diarrhea, worms, cough, and first aid. They distributed vitamin and folic acid pills, and condoms, foam tablets, and oral contraceptives. The staff of the maternities supervised the field workers, resupplied them with drugs and contraceptives, and collected records of their activities.

STUDY DESIGN AND METHODOLOGY: The original design called for experimental variation in the agent/supervisor ratio and in prices. However, because of the close proximity of the centers, the use of the same supervisory personnel and the desire to follow a consistent implementation pattern, controlled variations were not possible. Data collection included a baseline survey on health and nutrition practices, child health, fertility and contraceptive prevalence, in-depth interviews with CBD workers and with selected clients concerning the ability of the workers to carry out their educational and clinical tasks, and service statistics.

54

FINDINGS AND IMPLICATIONS:

- o Positive and practical benefits resulted from integrating family planning with basic health services. Integration makes initiation of the topic of child-spacing acceptable at the village level, and allows family planning to be associated with much appreciated health care services.
- o Villagers can be trained to provide family planning services to their communities and the communities will accept this approach.
- o Dissemination of project information at the local level can have a major impact on project replication. Word-of-mouth communication among health professionals and other officials was of critical importance in securing the interest of the Oyo State Health Council in expanding the project.
- o Small service fees are an acceptable part of the CBD program, although it is unlikely that they can ever totally support program costs.
- o There may be disadvantages to implementation of a service delivery project by an "outside" group. The local university played an important role in initiating the pilot project, but many of the local government nurse/midwives remained aloof from the project and did not become effective supervisors.

FOLLOW-UP OR FUTURE PLANS: The pilot project success was such that the Oyo State Health Council expressed interest in expanding activities to additional areas of the state. Based on the pilot experience, revisions were incorporated into the design for an expanded program (see Project No. NIG-02).

PROJECT NO. NGA-02

COUNTRY: Nigeria

TITLE: CBD of Low Cost Family Planning and Maternal and Child Health Services in Rural Nigeria (Expansion)

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: December 1982 - December 1984

BUDGET: \$237,517

BACKGROUND AND PURPOSE: A CBD project has been in operation since 1980 in Oyo State, Nigeria (see Project No. NIG-01). As a result of word-of-mouth communication among health professionals, television coverage of graduation ceremonies, and positive political feedback from the pilot area, the State Government requested assistance in expanding the program under its own direction. In collaboration with the State Health Council, the Pathfinder Fund, University College Hospital (UCH), and the Center for Population and Family Health (CPFH) of Columbia University, an expanded program in four other local government areas was initiated in 1982.

DESCRIPTION: In each of the four health zones of the expansion area a Primary Health Center (PHC) was identified as the training and supervisory center. Essentially the same CBD program was developed in the expanded area as in the pilot area, modified in light of experience. For example, monthly stipends to CBD workers were eliminated and, because of government policy, no fees were to be charged for services. (This policy was later reversed.) Also, a full-time CBD supervisor was assigned to each zone, rather than relying on individual maternity staff members for supervision. Each of the four zones was limited to 100 CBD workers.

STUDY DESIGN AND METHODOLOGY: Data collection included baseline and post-intervention KAP surveys, along with a village documentation survey to estimate the population of the area to be served. The project also carried out in-depth CBD worker interviews, structured observations of training, mini-surveys, analyses of supervision records and service statistics, along with a case study of the impact of the CBD program in which villagers were interviewed about the educational and clinical roles of the CBD workers.

FINDINGS AND IMPLICATIONS:

- o Although initial family planning acceptance was low, ever use of a modern method has increased from 2 percent to 25 percent in the pilot area.
- o About half of the married women of reproductive ages in the project area are not sexually active at any one time because of postpartum abstinence.
- o Most of the acceptance of modern contraceptives replaces use of traditional abstinence.
- o Male promoters have proved to be an asset to male acceptance of family planning services.

56

- o Individual monetary incentives are not required to motivate CBD workers. However, once incentives are given, difficulties are created if they are stopped as they were in the pilot area.
- o The community-based approach has changed the concept of health care from that of providing services to clients who come to a fixed site to reaching out to provide services to all people living within a particular catchment area.

FOLLOW-UP AND FUTURE PLANS: The expanded project was subsequently expanded further into additional areas of Oyo State by the State Health Council (see Project No. NGA-05). In addition, a conference to discuss the Oyo State project, held in January 1985, was attended by health program managers and policy makers from all parts of Nigeria. The conference stimulated planning by State and Federal Ministries of Health to undertake CBD as a major strategy for primary health care in rural areas.

PROJECT NO. NGA-03

COUNTRY: Nigeria

TITLE: Ibadan Market-Based Distribution Project

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: University College Hospital, University of Ibadan

DATES: October 1985 - September 1989

BUDGET: \$250,292

BACKGROUND AND PURPOSE: Because they are economic and social centers, the markets in West Africa hold great promise for disseminating family planning information and improving the availability of supplies at low cost. Ibadan in Nigeria, with 40 markets and 35,000 traders, was chosen to test an urban model for CBD initiated by the Fertility Research Institute of the University College Hospital (UCH) in cooperation with the Committee on Women and Development (COWAD).

DESCRIPTION: Training as health agents was given to 235 market traders, equipping them to distribute contraceptives, malaria treatment and oral rehydration salts. Supervision was provided by nurses from UCH. Market agents retain 25 percent of the proceeds of sales of project commodities; 75 percent of the proceeds of contraceptive sales is kept by COWAD to develop other market initiatives, and the remaining 75 percent of sales of other commodities goes into a revolving fund for resupply.

STUDY DESIGN AND METHODOLOGY: A multi-dimensional research program was undertaken for this demonstration project, using quantitative and qualitative methods. Quantitative research included market documentation; a random sample survey of the market women, covering health needs, child care and contraceptive KAP; surveys of chemist shops on contraceptive sales in the preceding two months; three shopper awareness mini-surveys; and a random sample mini-survey of traders and shoppers to test knowledge of the agents' presence, purchase of commodities and attitudes toward sales of contraceptives in the market. Sales and cost analyses were undertaken. Qualitative methods included focus groups with market women and with shoppers, and observation of training and agents. In addition, leaders and traders in the market associations were interviewed and 26 agents were observed at their stalls in order to investigate differences in characteristics and behavior which could be related to sales figures.

FINDINGS AND IMPLICATIONS:

- o Results of the survey of market traders suggested that market traders in general could provide a supportive environment for contraceptive distribution.
- o Focus group discussions indicated that traders of packaged goods were seen as optimum candidates for sale of contraceptives, but sales statistics showed no significant difference among traders according to type of goods sold.
- o Monthly sales of contraceptives were about 1,000 on average.
- o Traders suggested that status, not financial gain, would be the primary motive for participating in the project.

- o Chemist shop surveys revealed that market traders may have contributed 10 percent of contraceptive sales over a one month period.
- o Shopper surveys showed growing awareness of the health agents' activities; 25 percent of traders and 15 percent of shoppers had purchased a product; over 50 percent of both samples approved of contraceptive sales in the markets.
- o Agent observation revealed that traders were competent in making sales of contraceptives but rarely initiated conversations about these products.
- o Comparison of agents' sales performances revealed that successful agents also were selling supplies through their homes to family and neighbors.
- o Market associations played an important role in facilitating acceptance of the traders' activities.

FOLLOW-UP AND FUTURE PLANS: Conference and workshop presentations, site visits and a video have disseminated widely the study results. The program has been transferred to the Ibadan Municipal Government for continuation as a component of primary health care. Elsewhere in Nigeria and West Africa (Accra, Ghana, for example,) the program has been replicated, with adaptations for local conditions.

PROJECT NO. NGA-04

COUNTRY: Nigeria

TITLE: Ilorin Market-Based Distribution Project

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Kwara State Ministry of Health

DATES: October 1987 - September 1989

BUDGET: \$42,200

BACKGROUND AND PURPOSE: The city of Ilorin, capital of Kwara State in west central Nigeria, is a "gateway" city, combining in its economy and culture elements of northern and southern Nigeria. Predominately Yoruba-speaking, Ilorin is about 75 percent Muslim. The Kwara State MOH wished to increase the use of modern contraceptives in Ilorin and to improve the availability of treatments for common illnesses. An OR project was designed to test the acceptability and effectiveness of market traders as distributors of contraceptives in a predominantly Muslim population; and to test whether community health aides, acting as motivators and educators, can increase the effectiveness of traders as contraceptive distributors.

DESCRIPTION: Eighty market traders were trained as distributors of contraceptives and selected illness treatments. They sold these commodities along with their wares and retained 25 percent of the proceeds; the remaining 75 percent was returned to the project to help defray costs. Family planning service providers in nearby MCH centers supervised and re-supplied the traders. Community health aides, trained as family planning motivator/educators, were assigned to half the markets in order to compare sales with and without this support. New leadership at the MOH opposed the distribution of malaria treatments by non-professional health workers and decided to exclude malaria treatments from the program. This had a demoralizing effect on both project staff and agents. Some agents dropped out of the program saying that the sale of contraceptives only was negatively affecting the sales of their normal wares.

STUDY DESIGN AND METHODOLOGY: Research methods included documentation of the location, size and characteristics of Ilorin markets; focus group discussions to explore beliefs and attitudes towards distribution of contraceptives and illness treatment by market traders; analysis of service statistics; mini-surveys to assess awareness of project services among shoppers, characteristics of users of project services, and observation of and in-depth interviews with a sample of project agents.

FINDINGS AND IMPLICATIONS:

- o No differences in average total sales per month were found based on religion or sex of the agent. Agents under 30 made slightly over half the average sales of their older counterparts.
- o Unexpectedly, men sold twice the number of oral pills that female agents did; women sold one third more condoms than the men.
- o The presence of the community health educators contributed substantially to the total sales of the agents. Mean total sales per month per agent with the health educators were 7.3, and 4.3 without.

- o Few agents were observed to initiate conversations with customers about contraceptive products, although all claimed to do so.
- o Observation revealed that agents generally gave competent advice about the products when requested.
- o The trader herself was the most effective method of promotion for family planning activities: few people claimed to have been aware of the signboards identifying the traders as project agents.
- o Traders noted that their activities would have been facilitated had they been able to sell malaria prevention in addition to contraceptives.

FOLLOW-UP AND FUTURE PLANS: Based on this project, as well as on the experience of similar projects in Nigeria and Ghana, the State MOH may expand market-based delivery to other urban settings in Kwara State.

PROJECT NO. NGA-05

COUNTRY: Nigeria

TITLE: Oyo State CBD Health and Family Planning Project Phase II

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: October 1987 - September 1989

BUDGET: \$43,100

BACKGROUND AND PURPOSE: The Oyo State CBD project was initiated as an OR demonstration project by the University College Hospital (UCH), Ibadan, in 1980 with CPFH assistance. The Phase II study was designed to investigate the effects of CBD on acceptance of family planning, to document the operation of a revolving fund for the purchase of drugs for the CBD program, and to develop an institutional capability within the MOH for evaluation and OR.

DESCRIPTION: Male and female health workers were trained to bring services to the rural population. These included the supply of contraceptives, the treatment of common illnesses and, where TBAs are involved, to give antenatal care and assist at deliveries. Training, supervision and re-supply were undertaken by State Health Center nurses. Fees for services were collected: workers retained 25 percent and the remainder went into a revolving fund for resupply of drugs. By mid-1988 there were almost 800 village health workers serving a population of about 395,000.

STUDY DESIGN AND METHODOLOGY: A survey of 600 households was conducted to obtain social and demographic family information and to involve the CBD program staff in evaluation activities early on. Other research methods included analysis of service statistics; observations and interviews with program staff, CBD agents and community members to document the process and outcome of the operation of the drug revolving fund; focus group discussions with CBD agents; follow-up interviews with CBD family planning acceptors; and clinic record analysis.

FINDINGS AND IMPLICATIONS:

- o CBD agents recorded more acceptors during the period November 1988 to April 1989, compared with clinics. The CBD program recruited 4,924 acceptors and the clinics recruited 3,625 acceptors.
- o Among the clients of CBD agents interviewed 84 percent gave the agent as their source of information and 85 percent as their source of supply.
- o Among newly registered clients in family planning clinics, almost 25 percent cited the agent as their referral source.
- o Agents' perceptions of community attitudes towards family planning were predominantly negative. Because of this, older men and women expressed reluctance to undertake active promotion.
- o Treatment of other ailments was considered an opportunity to introduce family planning.
- o Using old acceptors to reach new ones was considered an effective strategy.

67

- o Self-sufficiency in drug supply may be unworkable at this time and the revolving fund may require subsidy from government.

FOLLOW-UP AND FUTURE PLANS: Oyo State MOH is expanding the CBD program throughout the state. Replication in other Nigerian states is occurring under the Federal MOH program for the development of primary health care.

PROJECT NO. NGA-06

COUNTRY: Nigeria

TITLE: Lagos Market-Based Distribution Project

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Mushin Local Government

DATES: October 1988 - September 1989

BUDGET: \$17,000

BACKGROUND AND PURPOSE: After two years of providing family planning services in Mushin Local Government Area (LGA) clinics in Lagos, Nigeria, a review of activities in 1987 revealed poor coverage of the target population and a need to seek alternatives to the clinic-based delivery of family planning services. CPFH undertook a feasibility study to determine the acceptability of market traders as contraceptive retailers. This led to a demonstration project to collect cost data to assist with future program planning and replication; and to determine non-research costs per couple-month of protection.

DESCRIPTION: Traders identified by market leaders received four days of training, after which they received an initial supply of contraceptives (pills, condoms, and foam) and began providing services in the markets. Community health educators made regular visits to the markets for promotion and staff nurses undertook supervision and re-supply. Each project agent was interviewed after two months using open-ended questions to verify agents' socio-demographic characteristics and to elicit client characteristics and strategies for effective sales. After three months, 184 shoppers were questioned in the three markets to determine the level of awareness, acceptability and use of the agents' services.

STUDY DESIGN AND METHODOLOGY: A preliminary study of program acceptability was undertaken. This was followed by a shopper awareness mini-survey, agent interviews, a study of inactive agents, and an analysis of sales statistics.

FINDINGS AND IMPLICATIONS:

- o In the first six months, active agents provided 113 couple years of protection or almost 2 CYP per active agent.
- o Surprisingly, male agents were more successful than females: although only 24 percent of agents were male they represented 36 percent of total sales.
- o The shopper awareness survey indicated that knowledge about the project was high: 78 percent of respondents were aware of the agents' presence, and 36 percent of respondents claimed to have purchased products.
- o Agents report that obstacles to the use of services include:
 - inadequate promotion of their services
 - the limited choice of methods they can offer

- opposition from the husband
- fear that the methods are irreversible

FOLLOW-UP AND FUTURE PLANS: A descriptive brochure has been written about the project. After hosting an international workshop on market-based contraceptive distribution in August 1989, the project staff wrote a detailed workshop report, which will be distributed in Nigeria to health officials and the international donor community. The project was designed to enable the LGA to take over its management at the end of the pilot project. Because of the built-in cost recovery mechanism and the direct linkage with the LGA, the likelihood of sustaining this service delivery model is high. Also, teams from each of the LGAs in Lagos State participating in the August workshop have written plans to include CBD activities in their FHC programs in 1990.

PROJECT NO. RWA-01

COUNTRY: Rwanda

TITLE: Promotion and Delivery of Family Planning Services

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Office National de la Population

DATES: May 1987 - September 1989

BUDGET: \$99,066

BACKGROUND AND PURPOSE: The Office National de la Population (ONAPO) was established by the Government of Rwanda in 1974 to promote activities related to population problems. Although ONAPO had achieved many positive results, especially in terms of national IEC efforts, by 1988 there was still a significant unmet demand for contraceptives. The government goal is for all health facilities to offer family planning services by 1991. Because clinical services alone would be insufficient to meet the country's demographic goals, ONAPO undertook an OR project to introduce community-based efforts to complement the clinic-based activities.

DESCRIPTION: The project was designed to study replicable strategies for promoting and delivering family planning services in rural communities. Two groups of community volunteers called abakangurambaga were trained. In one area, the abakangurambaga provided education and motivation for family planning use and referred prospective clients to the health center. In the second area the abakangurambaga distributed condoms, foaming tablets and resupplied oral contraceptives in addition to their educational and referral activities. A third area served as a control. The abakangurambaga began delivering services in March 1988. By June, ONAPO was asked by higher government authorities to find out how well the system was operating and whether it should be generalized to other areas of the country. A "mid-term" evaluation was carried out which suggested that the system of community-based promotion was successful and should be replicated. ONAPO then undertook a nation-wide expansion that included training an additional 17,520 abakangurambaga. It should be noted that the OR project control area was included in the expansion by January 1989, and technically was contaminated. However, because of the training schedule, the expansion was fully operational for only two months by the time of the post-intervention study in June.

STUDY DESIGN AND METHODOLOGY: The study employed a quasi-experimental design. A systems analysis of family planning service provision was conducted within project area health centers. Data also were collected through focus group discussions with community members and abakangurambaga, service statistics, and a post-intervention sample survey of married women.

FINDINGS AND IMPLICATIONS:

- o Contraceptive prevalence for all modern methods rose between March 1988 and June 1989, but the increases were striking in the two experimental areas, compared with the control:
 - Contraceptive prevalence in the area providing education and motivation rose from 4.6 percent to 35.9 percent.

- The education, motivation and distribution area experienced an increase from 2.3 to 11.6 percent.
- Contraceptive prevalence in the control area rose from 6.9 to 9.6 percent.
- o The experimental area with the greatest reported increase in prevalence benefitted from strong support from local authorities. In addition, abakangurambaga in that area performed at a higher level.
- o Focus groups showed that women were aware of family planning and conscious of population pressure but did not link national problems to a need for personal action.
- o Fear of side effects of contraceptives was widespread although women wanted more information and were aware of the benefits to mothers' health.

FOLLOW-UP AND FUTURE PLANS: Principal findings of the project were presented at the 1989 American Public Health Association conference. As indicated, ONAPO has replicated the OR project at the national level through its IEC plan; there are currently more than 17,000 abakangurambaga nationwide providing family planning education and motivation.

PROJECT NO. RWA-02

COUNTRY: Rwanda

TITLE: OR Proposal Development Workshop

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Office National de la Population

DATES: February 1990 - April 1990 **BUDGET:** \$7,000

BACKGROUND AND PURPOSE: The objectives of this workshop were to train a core of people at ONAPO and the Ministry of Health in the steps required to write an operations research proposal; and to produce three complete drafts of OR proposals that subsequently could be implemented in the country.

DESCRIPTION: Participants consisted of family planning researchers, physicians and service providers at ONAPO and the MOH.

STUDY DESIGN AND METHODOLOGY: Technical assistance only.

FINDINGS AND IMPLICATIONS: The following three subjects were developed into draft proposals:

- o Combining Family Planning with Childhood Immunization Services.
- o Strategies to Maintain or Increase the Continued Motivation of Voluntary Community Health Family Planning Educators.
- o Strategies to Improve the Management of Side-Effects of Contraceptive Use: A Clinic-Based Study.

FOLLOW-UP AND FUTURE PLANS: The first two proposals have been submitted to A.I.D./W for review.

PROJECT NO. SEN-01

COUNTRY: Senegal

TITLE: Integration of Family Planning into a Primary Health Care Program - Phases I & II

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: November 1987 - September 1989

BUDGET: \$22,235

BACKGROUND AND PURPOSE: In 1987, Diourbel was one of the regions of Senegal not covered by the Family Health and Population Project, a bilateral project of USAID which supports the joint program of the Ministries of Health and Social Development to introduce family planning services. Diourbel is the center of Moridism, one of the most conservative of the Islamic brotherhoods of Senegal. Before introducing family planning in this area, a diagnostic study was needed to determine the needs, knowledge, attitudes and practice of the population, and to develop appropriate strategies for the introduction of family planning.

DESCRIPTION: Research was undertaken in urban and rural zones of one department of Diourbel. Qualitative data from focus groups with men and women were used to develop the questionnaire for a KAP survey. A plan of action for Phase II that would have tested and implemented strategies for education, motivation and service delivery was not implemented due to delays in approval, and the end of Columbia University's contract.

STUDY DESIGN AND METHODOLOGY: This diagnostic study included an analysis of maternity and MCH clinical records, supplemented by interviews with midwives, focus group with males and females, and a KAP survey.

FINDINGS AND IMPLICATIONS:

- o Although the population is familiar with the notion of family planning, little is known about modern methods. For example, only 36 percent of females and 57 percent of males responded correctly to the question "Are there one or several family planning methods?"
- o About 11 percent of urban women claim to use modern methods, compared with less than 1 percent of rural women.
- o Focus groups revealed that birth spacing to protect the health of the mother is acceptable on religious grounds.
- o The KAP survey showed that only 5 percent of women wished to limit their family to its present size.

FOLLOW-UP AND FUTURE PLANS: The national family planning program has a plan of action for the extension of family planning services into which the Diourbel program already has been integrated.

69

PROJECT NO. SEN-02

COUNTRY: Senegal

TITLE: Patient Records as a Management Tool for Program Planning

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Family Health and Population Planning

DATES: November 1987 - July 1989

BUDGET: \$23,654

BACKGROUND AND PURPOSE: Family planning has been available to the women of Senegal since 1983 through the Family Health and Population Project (FHPP). Since 1986, birth spacing services, the treatment of sexually transmitted diseases and the diagnosis and treatment of sterility have been available. Through this research project the FHPP tested the feasibility of using a microcomputer at field sites to evaluate the characteristics of the active contraceptive clientele of the clinics, in order to improve the management of the program.

DESCRIPTION: At the first stage, a random sample of clinic records was entered to determine the quality of the information, estimate the number of records in each clinic, and derive a definition of "active" client for IUD and pill acceptors. Staff were trained to use the computer and entered and analyzed 11,300 records of women using oral contraceptives or IUDs from 20 family centers in 6 regions of the country.

STUDY DESIGN AND METHODOLOGY: The methodology consisted of a client record analysis of all "active" women with data entry and preliminary frequencies done on a portable microcomputer.

FINDINGS AND IMPLICATIONS:

- o The utility of microcomputers and the ability of FHPP staff to handle this form of data management were demonstrated.
- o Lack of precision in the definition of active and inactive clients presented a problem.
- o Many clinic records had missing or incomplete data.

FOLLOW-UP AND FUTURE PLANS: Recommendations from this project on revising the management information system and equipping the regions with microcomputers will be of considerable use as a basis for upgrading the management of the national family planning program.

PROJECT NO. SUD-01

COUNTRY: Sudan

TITLE: Sudan Community Based Family Health Project (Pilot)

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: University of Khartoum

DATES: February 1980 - October 1983

BUDGET: \$415,224

BACKGROUND AND PURPOSE: In 1976, the Ministry of Health developed plans for implementing primary health care in the Sudan. These plans relied heavily on the development of a new cadre of worker, the community health worker (CHW). However, the program paid little attention to maternal and child health and made no mention of family planning. To redress the lack of attention to family planning and maternal and child health in the national plan, the Department of Community Medicine at the University of Khartoum conducted an operations research study, with technical assistance from Columbia University. The goal of the project was to test the proposition that village-level government midwives could provide basic maternal and child health and family planning services to their communities.

DESCRIPTION: The project tested a model of maternal and child health and family planning service delivery utilizing government trained village midwives as service providers. After a period of field study, community meetings, and curriculum development, midwives in the project area attended a three-week training course. The project design was based on three service delivery strategies: (1) providing a few services well, rather than a large number poorly; (2) delivering services directly to the household; and (3) introducing services in a phased fashion. During March-September 1981, four health interventions - oral rehydration therapy, birth spacing, nutrition education, and immunization - were introduced in the project villages through household visits by the midwives.

STUDY DESIGN AND METHODOLOGY: The project was designed as a pilot demonstration study, to introduce a new approach for improving health services in rural Sudan. Data collection included a health infrastructure survey; baseline and follow-up KAP surveys; field observations; unstructured interviews with community leaders, health practitioners, and village mothers; mini-surveys; pre- and post-training questionnaires; and collection of service statistics.

FINDINGS AND IMPLICATIONS:

- o In the year between the pre- and post-intervention surveys, the percentage of women who had ever used contraception increased from 22 percent to 28.5 percent, while current use rose from 11 to 14 percent. The prevalence of pill use increased from 9 to 12 percent.
- o Women with whom the midwife had discussed family planning were 70 percent more likely to be currently using contraception than were women who had not had such discussions.
- o The midwives apparently devoted more effort to discussing family planning with women thought to be hardest to reach than with other women. For example, 65 percent of women on the West Bank reported discussing family planning with the project midwives, compared with 57 percent on the (more developed) East Bank. Additionally, the

proportion of women with little or no education who had discussed family planning with the midwives (62 percent and 58 percent, respectively) was higher than the proportion of women with at least intermediate schooling who had done so (41 percent).

- o Between the baseline and follow-up surveys there was a decline in the proportion of women who were not using contraception because their religion discourages it, it is harmful, or their family forbids it from 28 to 14 percent.
- o Field observation revealed that each of the interventions was correctly and separately introduced in the village households, and that the phased introduction of services proved a viable means of overcoming the overloading that often results when too many services are introduced at once.
- o The percent of women who reported the use of oral rehydration solutions for child diarrhea increased from 0 to 75 percent.
- o The interventions resulted in a number of improvements related to child feeding and weaning practices.
- o Village midwives also lent support to a mass vaccination campaign organized by the Expanded Program of Immunization (EPI), but achievements in the project area were marginal, with only 17.5 percent of children under 2 years receiving the complete vaccination series.

FOLLOW-UP AND FUTURE PLANS: The Sudan Community-Based Family Health project was replicated in a neighboring area to the north of the original project site (see Project No. SUD-02). Additionally, a dissemination conference for mid-level Ministry of Health officials encouraged interest in similar projects throughout the country. Health professionals from other African countries (Nigeria, Zaire) who visited the Sudan project applied some of the administrative procedures and health intervention strategies within their own projects.

PROJECT NO. SUD-02

COUNTRY: Sudan

TITLE: Sudan Community Based Family Health Project (Expansion)

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: University of Khartoum

DATES: May 1983 - November 1985

BUDGET: \$339,832

BACKGROUND AND PURPOSE: The original project (see Project No. SUD-01) demonstrated that maternal and child health and family planning services can be effectively provided at the community level by government village midwives. It also provided many important lessons concerning the design and operation of a community based program in the Sudan. The expansion project tests a number of modifications to the basic model. For example, in keeping with the movement towards decentralization of Ministry of Health (MOH) programs, both training and supervision of the midwives are decentralized in this study to place more responsibility and activity at the local level.

DESCRIPTION: The primary purpose of the project is to determine whether a community-based program of MCH and family planning services can be effectively integrated into the existing MOH system. The basic service delivery model, where government village midwives provide maternal and child health/family planning services--oral rehydration, family planning, nutrition, and immunization--to mothers in their communities, is the same as in the original project. In the expanded project, phased introduction of services is incorporated into a decentralized program for training the midwives. Under the new system, medical assistants are trained by senior level Ministry of Health personnel. In turn, the medical assistants conduct training within their own communities of those midwives whom they supervise. The expanded project also attempts to improve upon the health interventions provided in the original project. For example, more than one type of oral contraceptive is made available in the expanded project, and growth chart monitoring and local depots for vaccines are included in the nutrition and immunization components.

STUDY DESIGN AND METHODOLOGY: Data were collected through focus groups with village leaders, baseline and follow-up surveys, and mini-surveys conducted at various points during the project. All children under three years of age from a sample of women in the project area were clinically assessed to study the incidence of malnutrition. Also, field observations of the performance of Ministry personnel at senior administrative, community and household levels were conducted on a regular basis.

FINDINGS AND IMPLICATIONS:

- o Contraceptive prevalence increased from 10.7% to 32.3% over the life of the project. The expanded project attained the same contraceptive use levels in three years that required seven years in the original project.
- o Community health team members became the major suppliers of contraceptives in their communities as a result of the project. In 1984, only 1.6 percent of all village women were receiving contraceptive supplies from midwives or community paramedicals. By 1987,

15

over 70 percent of those village women practicing family planning were being supplied by midwives or other health team members.

- o In 1984 (when the expanded project began), 20.6 percent of women reported community health team members, including midwives, to be the primary source of information about family planning. By 1987, this had nearly tripled to 58 percent.
- o The presence of a microcomputer at the project site greatly facilitates the entry, editing and analysis of survey data and its subsequent incorporation into project refinements.

FOLLOW-UP AND FUTURE PLANS: At the National Population Conference held in October 1987, lessons learned from this project were presented and became part of the policy recommendations. Among the recommendations were provision of family planning services by paramedics and use of the community based approach. In 1988, the Population Policy Task Force within the Ministry of Health formulated a Four Year Plan for MCH/FP in Sudan. The specified target for this plan is to increase contraceptive prevalence to 35-40 percent by 1992. One of the principal strategies to reach that target is community based distribution. In the meanwhile, activities in the pilot area and the extension area have become a normal part of Ministry of health operations.

PROJECT NO. SUD-03

COUNTRY: Sudan

TITLE: Paramedic Insertion of IUDs

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: January 1986 - September 1989

BUDGET: \$18,585

BACKGROUND AND PURPOSE: Availability of modern family planning methods in the Sudan is largely restricted to oral contraceptives. IUDs have been inserted only by physicians, with fees generally beyond the means of most women. A demonstration project to show that health visitors (nurses with advanced training) can safely insert IUDs was designed in order to encourage favorable Ministry of Health policy toward adding IUD services to all MCH/FP facilities, including those in remote areas where there are few or no doctors.

DESCRIPTION: Twenty health visitors were trained in IUD insertion. During training they inserted at least 10 IUDs under direct medical supervision and on return to their posts in government health centers they inserted a minimum of 20 more. A panel of gynecologists assessed the quality of the insertions by means of examinations conducted after the first post-insertion menses. Clients were requested to return to the health visitors for examination after three, six and twelve months from the date of insertion. Comparison was made with insertions done by physicians at the health centers. Identical admission and follow-up records were used for health visitor and physician insertions.

STUDY DESIGN AND METHODOLOGY: The research design compared outcomes of health visitor and physician insertions. Physicians evaluated all health visitors' IUD insertions, and record analysis was undertaken of standardized patient admission and follow-up records.

FINDINGS AND IMPLICATIONS:

- o When examined one month after IUD insertion by a health visitor, 99 percent of clients' insertions were found to have been correctly performed.
- o Despite the limited number of cases, the study suggests that carefully trained paramedics can safely insert IUDs.
- o Side effects prompting removal were experienced by 13 percent of physician clients but only 2 percent of health visitor clients. A possible explanation is that health visitors received training in counseling and could have prepared clients to tolerate temporary discomfort.

FOLLOW-UP AND FUTURE PLANS: IUD insertion by health visitors continues in the project areas. Given the results of the research, changes in policy are anticipated for the implementation of training programs for all health visitors.

PROJECT NO. SUD-04

COUNTRY: Sudan

TITLE: CBD Family Health Project: Final Survey

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: October 1987 - March 1988

BUDGET: \$14,902

BACKGROUND AND PURPOSE: The government of Sudan committed itself in 1977/78 to a large-scale effort to improve primary health care, but the plan did not address basic maternal and child health care issues such as family planning. Administered largely through male paramedics, it was unlikely that maternal and child health needs at the village level would be adequately met. An OR research project was designed to assess the feasibility of involving village midwives in the delivery of maternal and child health and family planning services.

DESCRIPTION: The pilot project took place in 90 villages north of Khartoum and was replicated in a further 65 villages. The final post-intervention survey covered both these areas. In the original project the focus was on training, supply and supervision of village midwives to provide contraceptives for birth spacing, information and training in ORT, nutrition education, and in collaboration with Sudan's EPI, vaccination of children. Pre- and post-intervention sample surveys were done. Over a two year pilot period the village midwives proved effective in the provision of MCH/family planning services although major service delivery problems appeared as the University gradually withdrew from the project to allow project activities to be absorbed into the normal MOH system. The replication of the project addressed these problems by giving special attention to community participation, decentralization and supervision.

STUDY DESIGN AND METHODOLOGY: Community and household observation studies were undertaken plus mini-surveys, in-depth interviews, focus group discussions, and random sample KAP surveys.

FINDINGS AND IMPLICATIONS:

- o Contraceptive use by married non-pregnant women in all age groups and educational levels made remarkable gains in both project areas. In the pilot area use rose from 10.6 percent in 1980 to 27.6 percent in 1987. Similarly, contraceptive use in the replication area increased from 10.9 percent to 27.1 percent between 1984 and 1987.
- o The project demonstrated that the village midwife can be an effective family planning agent for more isolated, poorer, non-literate population groups in the Sudan.
- o Even in conservative, rural areas of Sudan family planning services were used once they were made available.
- o Phased training, sequential introduction of interventions, community participation and support, community health team building, and innovative approaches to supervision all contributed to project success.

FOLLOW-UP AND FUTURE PLANS: The final project report has been widely disseminated; several articles summarizing the project have been published in the academic press. Unfortunately, political turmoil during the past two years has delayed efforts to effectively expand family planning services. Nevertheless, the existence of a successful program providing MCH services has influenced policies and programs at a broad level. The concept of CBD has become an integral part of health care improvement plans.

PROJECT NO. SWI-01

COUNTRY: Swaziland

TITLE: Family Life Association of Swaziland (FLAS) CBD Pilot Project Evaluation

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Family Life Association of Swaziland

DATES: October 1990 - October 1990

BACKGROUND AND PURPOSE: The Family Life Association of Swaziland (FLAS), an associate of member of IPPF, provides clinic, industry, and community-based family planning services through a network of three clinics, and through industry and community-based distributors. The Association is the second largest provider of family planning services in the country, supplying approximately 30 percent of all services available. In 1986, FLAS initiated a two-year CBD pilot project in order to demonstrate the effectiveness of an alternative service delivery approach to increase contraceptive availability and use in rural areas. If effective, the model was to be recommended for replication on a larger scale in similar rural settings. FLAS conducted an internal assessment of its activities in 1987. The evaluation found that the project's immediate objectives had been met and the project had community support. However, the future of the pilot project was not adequately addressed in the internal evaluation. Ministry of Health officials determined there was a need for additional information in order to decide the pilot programme's future.

DESCRIPTION: The Population Council conducted the first external evaluation of the FLAS' CBD project.

STUDY DESIGN AND METHODOLOGY: Technical assistance only.

FINDINGS AND IMPLICATIONS: The pilot CBD project successfully demonstrated that the community-based approach of delivering family planning services can increase contraceptive availability and accessibility in underserved rural areas. Success in terms of service use was influenced by the level and quality of supervision, appropriate selection of agents and areas and adequate training. Another area of need in the expanded programme is to broaden the choice of methods given to clients in order to increase service coverage.

FOLLOW-UP AND FUTURE PLANS: Several research topics related to better delivery and sustainability of CBD services were identified, to be followed up by Population Council staff.

1

PROJECT NO. TAN-01

COUNTRY: Tanzania

TITLE: Masai Health Services Project

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Lutheran Synod of Arusha Region/Ministry of Health

DATES: April 1982 - June 1984 **BUDGET:** \$69,208

BACKGROUND AND PURPOSE: The Lutheran Synod in the Arusha Region has long operated dispensaries in Maasailand through its Maasai Health Services Program. In 1975, an examination of this program revealed that the seven operating dispensaries provided no community outreach, had very low attendance (averaging 5-10 patients per day), poorly trained and unsupervised staff, and inadequate supplies and equipment. In addition, vast areas of Maasailand were virtually without health services of any kind. In 1981 the Synod initiated an operations research project to improve service delivery in Maasailand, with technical assistance from Columbia University.

DESCRIPTION: The objectives of the project were to test the feasibility of a community-based health care program and to improve the quality of health and medical care, including family planning, provided by the dispensaries. The project was divided into two phases. During Phase I, detailed implementation plans were completed, project staff recruited, training procedures and materials developed, and evaluation and operations research activities and priorities identified. In addition, project training and services were initiated in the pilot. Phase II included the continuation of activities through the pilot clinic and the initiation of activities in the six remaining sites. Based on observation during Phase I, the target population was divided into the settled and pastoral Maasai areas. Service interventions included home visiting, MCH care, primary health care services, and community development. Child spacing education and services were to be provided in the settled areas. Project activities generally followed a sequence starting with a series of meetings with community leaders and residents in target areas to discuss health problems and potential solutions. Health workers were selected based upon criteria determined by the community. Ongoing supervision was provided by dispensary staff, who were also involved in the training of the community health workers (CHWs).

STUDY DESIGN AND METHODOLOGY: The project was designed as a pilot demonstration study of primary health care services in Maasailand and by extension, in other rural areas of Tanzania. Data collection included needs and resource assessments, mapping of villages, and interviews with CHWs and community residents, pre- and post-training tests, and focus groups with community leaders and married women on family planning attitudes.

FINDINGS AND IMPLICATIONS:

- o Traditional birth attendants with limited training in family planning and MCH services can effectively refer women to dispensaries for those services.

- o The provision of MCH by CHWs on an outreach basis increased clinic attendance and improved MCH coverage. For example, MCH clinic attendance rose from 20 percent of mothers bringing pre-school children on an irregular basis to 86 percent of mothers attending monthly.
- o In the Maasai setting, village acceptance of a training program and trainee selection demands repeated meetings. In those villages where few meetings were held, community support was less evident than in communities where meetings were frequent.
- o Staff found that training should take place in the trainees' own village rather than at a central location. Trainees have other responsibilities to perform daily and would be unable to spend weeks away from their homes. In addition, training is more relevant when done in trainees' own environment where they have immediate opportunities to apply the skills learned.
- o Competency based training is appropriate and effective in training CHWs in the performance of specific skills. Specifically, clinical skills lend themselves to this approach, while education and counseling skills need more attention.
- o Maasai communities are willing and able to provide regular financial and in-kind support to community health workers. In two sites, the community provided health workers with monthly stipends. In another site, food and assistance with domestic responsibilities was provided while health workers were in training or on home visits.
- o After an initial reliance on substantial outside resources, the community provided an increasing amount of financial and human resources to carry out the management, training and supervision functions required for continuation of the project. This occurred in the pilot area in one and a half years.

FOLLOW-UP AND FUTURE PLANS: Project findings regarding both implementation processes and results have national applicability since the project was designed in collaboration with the Ministry of Health to include elements which the Ministry could replicate. The project has served as a field test for selected aspects of a regional program through continuous collaboration on priority setting and implementation. Project staff members were involved in numerous regional and national primary health care seminars, workshops, and conferences both as facilitators and participants. The project has often been highlighted at these meetings because it reflects field implementation of regional and national primary health care priorities. For example, at a workshop jointly sponsored by the Ministry of Health and Columbia University, regional and district program coordinators from five regions were brought together and the project strategy was frequently cited as a resource from which other programs could learn.

PROJECT NO. TAN-02

COUNTRY: Tanzania

TITLE: An Evaluative Study of the Use of Family Planning Services at the Board of Internal Trade (BIT) Clinic

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Board of Internal Trade

DATES: October 1989 - January 1991 **BUDGET:** \$9,813

BACKGROUND AND PURPOSE: The objectives of the BIT evaluation were: 1) to evaluate the reasons why there has been a steady decline in the number of new family planning acceptors since 1982; 2) to evaluate the reasons for low continuation rates among users of family planning methods; and 3) to assess the reasons why men and women working in the parastatal industries that are served by the BIT clinic do not fully utilize the family planning services offered.

DESCRIPTION: A sample of current users of services at the BIT clinic, never users and drop-outs were interviewed to form a comparative study of their views of services. The questions in the interviews and subsequent focus group discussions covered a wide range of quality of care topics such as attitudes of providers and spouses, appropriateness of hours of service, distance from home, privacy issues and competency of providers. The second part of the research activities focused on assessing the providers' competence at the BIT clinic. This assessment was conducted by an experienced senior nurse who observed the providers at the family planning clinic.

STUDY DESIGN AND METHODOLOGY: The study employed interviews, focus groups, and observations.

FINDINGS AND IMPLICATIONS:

- o It was found that the clinic is easily accessible to most potential users. Similarly, the waiting time for the clients is relatively short, with over 80 percent of clients waiting for less than half an hour.
- o Providers of services are friendly to their clients and adhere to standard operating procedures. A major concern for clients on provider competence is a general lack of confidence by the providers in specific areas of service delivery. Insertion of IUDs, counselling on side effects and some methods (such as natural family planning) were identified as weak points of the staff.
- o Sixty-seven percent of dropout clients say they did not like the method they received on their first visit to the clinic. Among current users, only 4.3 percent said they did not like the method they obtained from the clinic.
- o Clinic staff have not had a family planning course update since initial training--about 10 years ago.

Recommendations resulting from the BIT evaluation include integrating the days for providing child health care and family planning services; improving the method mix at the clinic; increasing time

accessibility at the BIT clinic; improving the skills of providers; and introducing a participatory clinic approach. The focus group discussions recommend that the BIT clinic should institute a work place-based educational program which will enable workers to learn more about family planning issues.

PROJECT NO. UGA-01

COUNTRY: Uganda

TITLE: Effect of Health Education on HIV Infection Transmission - Rakai District

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: National AIDS Control Program, Ministry of Health

DATES: February 1988 - March 1990

BUDGET: \$167,759

BACKGROUND AND PURPOSE: The HIV epidemic represents a critical health problem in Uganda. As in the rest of sub-Saharan Africa, transmission in Uganda is primarily heterosexual, the number of males and females who are infected are virtually equal, and infection has spread to a substantial proportion of the general population. Most African data on the HIV epidemic have been collected in urban and clinical settings. However, since eighty percent of the African population is rural, there is a need to examine the transmission of HIV in rural and roadside trading areas in Africa. The objectives of the project were: 1) to determine the prevalence and annual incidence of HIV infection in the Rakai District of Uganda; 2) to determine the natural history of HIV infection among those infected in the study area; 3) to determine attitudes toward condom use; and 4) to assess the effects of AIDS education activities, especially condom promotion.

DESCRIPTION: This project studied non-urban HIV transmission patterns in agrarian villages and towns on the major international trading routes from Tanzania in the south, Rwanda in the west, and Lake Victoria to the east. The data collected in the study were used to design intervention strategies, with particular emphasis on preventive health education and, where appropriate, condom distribution. The project provided an update on AIDS prevention to all health personnel in the district, and also trained 14 community health educators in villages where cluster sites are located. Up to 200 persons participated in the evening health education sessions, which were conducted in all the communities where clusters are located.

STUDY DESIGN AND METHODOLOGY: A baseline behavioral, health and serological survey and three similar follow-up surveys were conducted of men and women from randomly selected roadside and rural clusters. Three sub-surveys of pregnant and recently delivered women were also conducted.

FINDINGS AND IMPLICATIONS:

Baseline Survey: The following results are therefore based on 1,292 adults for whom survey and serological data are available.

- o Ninety-four percent of respondents knew of AIDS and were aware it was transmitted sexually.
- o Seventy-one percent of respondents indicated they had changed their sexual behavior because of AIDS, most frequently by reducing the number of sexual partners. Nevertheless, 20 percent of all adults reported having more than one sexual partner in the last year.

- o Over half of roadside cluster males and 15 percent of rural males had heard of condoms. Current condom use was reported by 2 percent of males in the trading towns and by 0.7 percent in rural clusters; and by 0.6 percent of all female respondents.
- o Nearly 20 percent of respondents were confirmed seropositive by Western Blot (11.8 percent in the rural sample and 35 percent in the trading towns). Peak prevalence was found among women ages 20 to 29 in the trading towns: over 50 percent were HIV positive.
- o Thirteen percent of individuals who reportedly had no or only one sex partner in the last five years were HIV positive, compared to 35 percent for those reporting two or more partners in the same period.

FOLLOW-UP AND FUTURE PLANS: The project is on-going. Further information on this project may be obtained from The Center for Population and Family Health, Columbia University.

PROJECT NO. ZAI-01

COUNTRY: Zaire

TITLE: Increasing the Availability and Acceptability of Contraceptives Through Community-Based Outreach in Bas Zaire (PRODEF Original)

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Communauté Baptiste du Zaire Ouest

DATES: October 1980 - January 1984

BUDGET: \$623,504

BACKGROUND AND PURPOSE: The Tulane Family Planning Operations Research Project in Bas Zaire (known locally as the Programme d'Education Familiale or PRODEF) is intended to increase the availability and acceptability of modern contraceptives in both an urban area (Matadi) and a rural area (Songololo). The urban program is vertical (family planning only), whereas in the rural program, family planning is integrated with three interventions for children under five: anti-malarial drugs, anti-helminthic drugs, and rehydration salts. The project has five objectives: 1) to increase knowledge of modern contraceptives; 2) to improve attitudes toward family planning; 3) to increase the use of modern contraceptives; 4) to decrease "ideal" family size; and (5) to increase the use of appropriate treatment for children under five who are reported to have malaria, intestinal helminths and dehydration due to malaria. PRODEF was the first MCH/family planning operations research project to be launched in sub-Saharan Francophone Africa.

DESCRIPTION: The project tests two alternative strategies for the delivery of family planning services. In treatment area A, dispensaries distribute contraceptives (rural dispensaries also distribute drugs for children under five), and outreach activities are conducted (group meetings, home visiting and household distribution of contraceptives). In treatment area B, dispensaries distribute contraceptives (and drugs for children under five in rural areas), but there are no outreach activities. In the rural area in certain villages an additional source of supplies is the matrone. The matrone is selected by the village and trained by PRODEF to serve as a depot for contraceptives and drugs for children under five in those villages that do not have a dispensary.

STUDY DESIGN AND METHODOLOGY: The OR study employed a quasi-experimental design testing two alternative strategies for the delivery of family planning services. Pre- and post-intervention surveys were conducted in all project areas to measure changes in family planning knowledge and practice and relative effectiveness of the two approaches to service delivery. Service statistics were used to monitor project activity, and a cost-effectiveness analysis was conducted to compare the two systems in terms of cost per couple-month-of-protection.

FINDINGS AND IMPLICATIONS: The promotion of family planning, specifically modern contraceptives, was found to be culturally acceptable in Zaire:

- o The vertical program (family planning services only) proved to be acceptable in the urban area. The percentage of ever-married women who had ever used a modern contraceptive rose from 10 percent at baseline to 48 percent among women in Zone A and to 44 percent among women in Zone B.
- o In the rural program, which included both family planning and child health interventions, the latter greatly enhanced the value of the program in the eyes of the community. Ever

use of modern contraceptives increased from 8 to 34 percent in Zone A, and from 7 to 27 percent in Zone B.

- c The matrones proved to be an efficient and culturally acceptable channel for the distribution of contraceptives and selected drugs for children under five.
- o Simply making modern contraceptives available to the population through existing outlets and the matrones (Zone B) was sufficient to increase contraceptive prevalence. However, the level of contraceptive prevalence was greater in those areas that also received outreach (Zone A). In the urban area, current use of modern contraceptives among MWRA increased from 4 to 19 percent in Zone A, and from 5 to 16 percent in Zone B. Use of modern methods also increased in the rural areas: from 5 to 14 percent in Zone A, and from 2 to 10 percent in Zone B.
- o The percentage of MWRA using a traditional method decreased by 12 percentage points in each zone, from 60 to 48 percent in Zone A, and from 65 to 53 percent in Zone B. Nevertheless, traditional methods are still much more widely used than modern methods, by a factor of 2-to-1 in the urban area and by over 3-to-1 in the rural area.
- o The baseline survey showed 95 percent of both urban and rural women know at least one traditional fertility control method, and about 80 percent had heard of at least one modern method. At follow up, almost all urban respondents (from Zone A or Zone B) knew at least one modern and one traditional method. In the rural area, nine out of 10 respondents knew at least one modern method.
- o Stocking of outlets and outreach combined is more effective, but it is also slightly more expensive. In the urban region cost per CMP in Zone A was US\$7.11 and US\$6.18 in Zone B; in the rural region the respective costs were US\$11.22 and US\$7.95.

FOLLOW-UP AND FUTURE PLANS: The project was continued for the period 1984-1990, and has been expanded to include other areas of Zaire. The project led to establishment of an OR division (Projet des Services Naissances Desirables, PSND) within the Ministry of Health.

PROJECT NO. ZAI-02

COUNTRY: Zaire

TITLE: Nsona Mpangu: Long Term Impact of CBD on Contraceptive Prevalence

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Communauté Baptiste du Zaire Ouest

DATES: October 1984 - December 1989

BUDGET: \$97,000

BACKGROUND AND PURPOSE: This project is an extension of the original Tulane Family Planning Operations Research Project in Bas Zaire (known locally as the Programme d'Education Familiale, or PRODEF). PRODEF was initiated to increase the availability and acceptability of modern contraceptives in both an urban area (Matadi) and a rural area (Nsona Mpangu). The urban program is vertical (family planning only), whereas in the rural program, family planning is integrated with three interventions for children under five: anti-malarial drugs, anti-helminthic drugs, and rehydration salts. The Nsona Mpangu project has three objectives: (1) To increase knowledge and use of modern contraceptive methods among the target population; (2) To assess whether villages having attained 10 percent prevalence tend to plateau once the "predisposed" are already reached; and (3) To determine the effect of time on prevalence: do villages that enter the program later "catch up"?

DESCRIPTION: In treatment areas A and B, health posts began distributing contraceptives and drugs for children under five in 1982; CBD was provided in villages without posts. In area A, three rounds of household distribution were conducted in 1982-83. At the close of the original project (1984), prevalence was 13% in Area A and 10% in Area B. The difference between A and B was not statistically significant, thus household distribution (which proved costly in the earlier project) was discontinued and treatment areas A and B became identical under this cooperative agreement. A third treatment area (area C) was added in 1986 to determine the effect of time on prevalence: do villages that enter the program later "catch up"? Area D served as the comparison.

STUDY DESIGN AND METHODOLOGY: The study employed a quasi-experimental design, with three treatment areas and a comparison area. A pre/post intervention survey was conducted in all four areas to measure changes in contraceptive prevalence; service statistics were monitored to determine trends in contraceptive purchases; and a cost analysis was conducted to measure the cost per couple-month-protection in the program as a whole. An AIDS KAP module was included in the follow-up survey.

FINDINGS AND IMPLICATIONS:

Preliminary findings from follow-up survey:

- o 26.5% of women had ever used a modern method.
- o 80% of women had ever used a traditional method.
- o Among married women of reproductive age, current use of any method (traditional or modern) was 58.3%.

Analysis of service statistics and cost per CYP is still in progress.

CYP decreased from 1985-87 annual average of 1,500 to 278 per year in 1988 due to the appointment of a regional medical officer who was not favorable to CBD.

PROJECT NO. ZAI-03

COUNTRY: Zaire

TITLE: Matadi: CBD vs. Dispensaries

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Communauté Baptiste du Zaire Ouest

DATES: October 1984 - December 1989

BUDGET: \$97,000

BACKGROUND AND PURPOSE: This project is an extension of the original Tulane Family Planning Operations Research Project in Bas Zaire (known locally as the Programme d'Education Familiale, or PRODEF). PRODEF was initiated to increase the availability and acceptability of modern contraceptives in both an urban area (Matadi) and a rural area (Nsona Mpangu, see project 30). The urban program is vertical (family planning only), whereas in the rural program, family planning is integrated with three interventions for children under five: anti-malarial drugs, anti-helminthic drugs, and rehydration salts. The Matadi project has four objectives: (1) To increase knowledge and use of modern contraceptive methods in the target population; (2) To test the cultural acceptability of CBD workers in an urban setting; (3) To determine the preference for type of provider when services are available both through dispensaries and CBD posts; and (4) To measure the cost per CYP over time.

DESCRIPTION: In treatment area A, dispensaries began distributing contraceptives in 1982; three rounds of household distribution were conducted in 1982-83. In area B, dispensaries distributed contraceptives, but there was no household distribution. The residential zone of Kananga served as a comparison. By 1984, prevalence had increased from 4-5% to 19% (in area A) and to 16% (in area B). While this represented a significant increase over the baseline rate, the difference between the two zones was not statistically significant. Thus, household distribution was discontinued in area A, and the two treatment areas became one. From 1986-89, the project consisted of training CBD workers to sell contraceptives from their homes in Matadi. Forty women were recruited and trained; due to attrition, there have been approximately 25 active distributors in the project.

STUDY DESIGN AND METHODOLOGY: The study employed a quasi-experimental design. Prevalence surveys were conducted in 1982 and 1984 under the original Matadi project; the third round of survey data were collected under this cooperative agreement in 1988. Service statistics on contraceptive sales and cost data were collected and analyzed, combined, they will yield data on the cost per CYP in the Matadi project on an annual basis. An AIDS KAP module was included in the follow-up survey.

FINDINGS AND IMPLICATIONS: Preliminary findings of the 1989 KAP follow-up survey show prevalence to be 23% in Areas A and B, the highest in any city in Zaire. Kananga has achieved positive results based on strong clinic services and social marketing, even without CBD. Analysis of choice of service provider is in progress.

PROJECT NO. ZAI-04

COUNTRY: Zaire

TITLE: Sona Bata: CBD vs. Dispensary-Based Distribution of Family Planning Services

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Communauté Baptiste du Zaire Ouest

DATES: October 1984 - December 1989

BUDGET: \$128,000

BACKGROUND AND PURPOSE: This demonstration study compared the relative cost-effectiveness of the revised PRODEF model (establishing a network of CBD distributors and conducting periodic group meetings) with SANRU, a community-sponsored rural health project which provides various services, including family planning. The study also offers an opportunity to compare the effectiveness of the SANRU approach in increasing acceptance of family planning with a more intensive family planning effort designed specifically to increase contraceptive use. The project has two objectives: (1) To increase knowledge and use of modern contraceptive methods among the population of Sona Bata, and (2) To test the cultural acceptability and relative cost-effectiveness of two different strategies to the delivery of family planning services.

DESCRIPTION: In the first experimental group of villages, one woman was selected by the community to be trained in the sale of three contraceptives (pills, condoms and spermicides) and four basic medications (chloroquine, aspirin, vermoz and oral rehydration salts), for which she would receive a percent of the sales as a commission. In the second group, nurses from health centers in selected locations in the zone were trained in basic family planning delivery and supplied with the three contraceptives above, plus the injection (supplied by a non-A.I.D. source). In the comparison area, no attempt was made to deliver family planning services.

STUDY DESIGN AND METHODOLOGY: The study employed a quasi-experimental design. A baseline and post-intervention survey (1986/1988) among women of reproductive age in all villages was conducted to determine the cultural acceptability of the CBD program and its impact on prevalence. The questionnaire for the follow-up survey contained a module on AIDS knowledge, attitudes, and practices.

FINDINGS AND IMPLICATIONS:

Baseline data showed prevalence in the 66 villages (combined) to be 3%, with none of the three treatment areas exceeding 5%.

Data from the follow-up survey are being entered onto microcomputer at Sona Bata and will be analyzed once they become available. Preliminary findings reveal:

- o 19% of women had ever used a modern method.
- o 78% of women had ever used a traditional method.
- o Among married women of reproductive age, current use of any method (traditional or modern) was 64.3%.
- o 92.5% of women had ever heard of a modern method.

CBD was determined to be culturally acceptable. However, based on service statistics, volume of contraceptive sales was low; this was attributed to the size of the communities and the low demand for contraceptive services.

The cost analysis is in progress.

PROJECT NO. ZAI-05

COUNTRY: Zaire

TITLE: Diagnostic Research on the Causes of the Subutilization of the Model Family Planning Clinic and Efforts to Promote its Use

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Project des Services des Naissances Desirables

DATES: January 1985 - June 1987

BUDGET: \$10,000

BACKGROUND AND PURPOSE: The PSND has a model clinic that is underutilized (6-8 visits per day). An operations research study was conducted by the PSND/OR Unit to inform the population of the Center's existence and to combat the negative rumors regarding the contraceptive methods offered by the clinic.

DESCRIPTION: The diagnostic research consisted of a sample survey and 20 focus group interviews which were conducted for people living in the clinic's catchment area to determine their attitudes about family planning and use of the Centre Libota Lilamu. After these data were collected and analyzed, community meetings were held over a 6 month period to educate people about the clinic and family planning.

STUDY DESIGN AND METHODOLOGY: The project contained three phases: (1) diagnosis of the problem; (2) implementation of an intervention designed to resolve the problem; and (3) evaluation of the impact of the intervention. Clinic service statistics were monitored to determine project impact.

FINDINGS AND IMPLICATIONS: A baseline survey and focus groups of men and women in the target population revealed that close to half of this group did not know of the Centre Libota Lilamu. Rumors about the side effects of modern contraceptives contributed to low utilization of the clinic's services. The baseline survey showed that those few who had visited the clinic were generally pleased with the services they had received. However, anecdotal evidence suggests that some women may not have visited the center to avoid being labelled as either a contraceptive user or infertile (the only two services offered at the clinic). There was no increase in use of clinic services as a result of the 6 month IEC campaign.

PROJECT NO. ZAI-06

COUNTRY: Zaire

TITLE: Motivations for Voluntary Surgical Contraception and Barriers for Women

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Project des Services des Naissances Desirables

DATES: June 1986 - December 1988

BUDGET: \$82,000

BACKGROUND AND PURPOSE: This project was conducted in collaboration with the Association for Voluntary Surgical Contraception (AVSC). AVSC provided technical assistance in personnel training, equipping the sites and establishing services; Tulane conducted research on motivations for and barriers to VSC for women in Zaire. The study had two objectives: (1) To identify factors which constitute motivations for and barriers to VSC for women; and (2) To analyze and present the results such that they will be useful to future training efforts of health personnel for VSC.

DESCRIPTION: The project originally consisted of two separate studies: (1) A series of 29 focus groups among three selected categories of the population: women who have undergone VSC, active users of reversible methods who have at least 5 children, and husbands of active users who have at least 5 children; and (2) A follow-up survey among at least 500 acceptors of VSC to learn more about the consequences of VSC in this society. When the results of the focus groups became available, AVSC requested that a third study be added: a survey of the experience and attitudes of health personnel (service providers) regarding VSC. This third study was funded by AVSC directly, but Tulane provided technical assistance on the effort.

STUDY DESIGN AND METHODOLOGY: Focus groups were conducted among VSC acceptors, and active users of reversible methods who have at least 5 children and their husbands. A follow-up survey of VSC acceptors was undertaken to learn more about the consequences of VSC in this society.

FINDINGS AND IMPLICATIONS:

- o Tubal ligation is widely accepted for medical reasons but much less so as an elective contraceptive method.
- o Child limitation for economic reasons is not an acceptable motive for VSC among the population interviewed.
- o 10 percent of VSC acceptors reported that their husbands had tried to have children with other women after they underwent the operation.
- o The husband's consent to the procedure was considered imperative by the population interviewed. Service providers agree that the husband must consent, but they do not feel the extended family should have a strong role in this decision.
- o 52 percent of the service providers believed that the community does not accept the idea of a women having a tubal ligation for contraceptive purposes. A substantial percentage

of VSC acceptors also felt that the community thinks less of a woman who has had a tubal ligation.

PROJECT NO. ZAI-07

COUNTRY: Zaire

TITLE: Mbuji Mayi: CBD with Male Participation

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Project des Services des Naissances Desirables

DATES: September 1986 - December 1989

BUDGET: \$144,000

BACKGROUND AND PURPOSE: Mbuji Mayi is one of the most traditional regions of Zaire, and males in this area are resistant to the idea of family planning. In an effort to lower this resistance, a community-based contraceptive distribution project using male distributors was conducted in Mbuji Mayi.

DESCRIPTION: The original project called for a quasi-experimental design which would compare areas with female distributors and those with both male and female distributors. This was to be done both in an urban health zone in Mbuji Mayi and in a rural health zone on the outskirts of the city. However, the selection of distributors by sex for a specific location did not prove practical at the field level. Instead, both male and female distributors were recruited into the program, and their relative performance evaluated by the volume of contraceptives sold. The urban component of the service delivery program began in November 1987, but a change in the directorship of the program delayed implementation of the project until 1988. Because the service component of the project began later than originally scheduled, it was not possible to conduct the planned follow-up survey among the target population to measure a change in contraceptive prevalence.

STUDY DESIGN AND METHODOLOGY: This demonstration study compares the volume of contraceptives sold by male and female distributors. A baseline KAP survey of a sample of married women of reproductive age was conducted in urban and rural areas. The study included a cost-effectiveness analysis.

FINDINGS AND IMPLICATIONS:

- o Less than one percent of WRA were using a modern method at baseline. Knowledge of modern methods was much lower in this area than in Kinshasa, three areas of Bas Zaire, and Kisangani.
- o CBD was well accepted by the population; the acceptability of distributors seems to be enhanced by the sale of medications for children under five.
- o The average CMP per month per distributor was similar for both sexes.

PROJECT NO. ZAI-08

COUNTRY: Zaire

TITLE: Kisangani: A Test of Two Strategies for Family Planning Service Delivery

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Project des Services des Naissances Desirables

DATES: September 1986 - December 1989

BUDGET: \$116,000

BACKGROUND AND PURPOSE: This project tests the relative cost-effectiveness and impact on prevalence of urban community-based contraceptive distribution vs. clinic-based services, and the relative performance of males and females as distributors.

DESCRIPTION: The city of Kisangani was divided into two treatment zones and a comparison area. A baseline survey was conducted in each of the three zones in December 1986. 40 distributors were subsequently trained and began field work in June 1987. Four months later, project activity was suspended due to: (1) pressures from the medical community in Kisangani regarding the "quality" of CBD services and (2) internal conflicts among the three individuals responsible for the program. A new group of forty distributors was trained and began field work in June 1988. Because of the delays in startup of the program, it was impossible to conduct a meaningful follow-up survey, so the study focus was redirected to examine the factors related to distributor performance in terms of contraceptive sales.

STUDY DESIGN AND METHODOLOGY: The study employed a quasi-experimental design, and included a pre/post intervention prevalence survey. A qualitative distributor evaluation and cost analysis were undertaken.

FINDINGS AND IMPLICATIONS:

- o Use of modern methods was 2.7% at baseline.
- o Average CMP per distributor found to be similar for males and females.

46

PROJECT NO. ZAI-09

COUNTRY: Zaire

TITLE: Continuation of Contraceptive Use and Reasons for Abandoning Contraceptive Methods

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Project des Services des Naissances Desirables

DATES: November 1986 - June 1989

BUDGET: \$10,000

BACKGROUND AND PURPOSE: This study was conducted by the Regional Committee/Kinshasa of the IPPF affiliate, AZBEF. The data collection was funded by the Tulane OR project. Family Health International provided technical assistance.

DESCRIPTION: Family planning clients were interviewed at initial visit, subsequent visits, and follow-up home visits to dropouts in order to: (1) determine percentage of acceptors who remain in the clinic program or are using contraceptives outside of the family planning service 7 months after initiation; (2) discover reasons why clients discontinue use of the Family planning clinic and/or contraceptive method; (3) compare discontinuation rates by clinic and by method.

STUDY DESIGN AND METHODOLOGY: Data was collected from client interviews.

FINDINGS AND IMPLICATIONS: N.A.

97

PROJECT NO. ZAI-10

COUNTRY: Zaire

TITLE: CBD Quality of Care Evaluation Model

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Project des Services des Naissances Desirables

DATES: January 1987 - June 1989 **BUDGET:**

BACKGROUND AND PURPOSE: This project was not funded as a separate subproject under the Tulane agreement with A.I.D., but rather grew out of the need to monitor the quality of care in the various CBD projects which did constitute subprojects. The objectives of this activity were: 1) to assure that women who use the services of CBD workers were properly screened for use of the pill (if that was the method they chose), that they received correct information about the methods and how they were to be used, and that they were referred to other levels in the health system when appropriate; 2) to strengthen the position of existing CBD programs if they were to come under attack in the future over the issue of quality of service; 3) to develop a methodology that could be used in other CBD programs outside of Zaire as well.

DESCRIPTION: The project consisted of a series of activities designed to improve the quality of care in CBD programs, including conducting workshops among project personnel, standardizing medical norms and program procedures, and developing a manual of guidelines for implementing CBD programs. A system for evaluating distributor performance--based on a knowledge test, observation of interactions with clients, and a client survey--was developed and tested in the field.

STUDY DESIGN AND METHODOLOGY: Rather than a study per se, this activity involved the development of basic documentation in support of the CBD service delivery programs, as well as the development and testing of a methodology to assess the quality of care given by distributors.

A guide for implementing contraceptive CBD programs and a manual for training CBD distributors were produced. These two documents served to standardize many of the procedures used in the CBD programs in Zaire, and to give certain norms for service delivery.

A methodology was subsequently developed for evaluating distributor performance which included:

A knowledge test for distributors to assure that they were able to answer basic questions about the contraceptives and other medications they sold (correct use, side effects, contraindications)

An observation guide consisting of a list of points which a distributor should cover during visits to a potential (new) client as well as to a continuing user; also included was a subjective measurement of rapport between distributor and client

A short questionnaire to be administered to clients of distributors in the program, to determine whether the clients knew the correct use of the method chosen and whether they were satisfied with the services of the distributor.

This three-pronged approach to the evaluation of distributor performance was tested at two sites. Kisangani (see Project No. ZAI-08) and Matadi (see Project No. ZAI-03). The knowledge test was also administered in Mbuyi Mayi and Miabi (see Project No. ZAI-07).

FINDINGS AND IMPLICATIONS: While the knowledge test proved to be a quick way to determine whether distributors were informed on key points, the full evaluation approach proved too labor-intensive to be practical as a tool for continuously monitoring distributor performance. Based on experience with the full model, PSND staff developed a supervisory form which included some of the same elements, but was more practical for routine use in the field.

PROJECT NO. ZAI-11

COUNTRY: Zaire

TITLE: Incorporating IEC Activities for AIDS into a Contraceptive CBD Project in Kinshasa

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Project des Services des Naissances Desirables

DATES: March 1987 - December 1989

BUDGET: \$135,000

BACKGROUND AND PURPOSE: AIDS represents a major public health problem in Zaire. Six to eight percent of the adult population of Kinshasa is estimated to be sero-positive. This study assesses the feasibility of incorporating AIDS education activities into community-based contraceptive distribution.

DESCRIPTION: The project encompassed five administrative zones in Kinshasa. In three zones, CBD posts were installed, and community meetings on AIDS were held; two zones served as a comparison. As part of this study, an AIDS KAP survey was conducted city-wide to determine the extent to which the adult population of Kinshasa is aware of AIDS, its modes of transmission, and to what extent they practice behaviors which increase or decrease their risk of contacting AIDS. The survey represents one of the first attempts to collect data on AIDS KAP from a large, probabilistic sample of adults in an African setting, and also served to update the 1982-84 Demographic and Health survey conducted by Westinghouse in Kinshasa.

STUDY DESIGN AND METHODOLOGY: The original study, a controlled field experiment, was to include a pre/post AIDS KAP survey. However, because the baseline survey was expanded to cover all 24 administrative zones of Kinshasa, there was not sufficient time to conduct the planned follow-up survey. With concurrence from AID/W and USAID/Zaire, the study was reoriented toward a diagnostic analysis of the extent of AIDS knowledge and practices among Kinshasa adults. Service statistics on condom sales were collected and analyzed.

FINDINGS AND IMPLICATIONS:

The baseline KAP survey established:

- o 99 percent of men and women have heard of AIDS.
- o 85 percent know four main modes of transmission.
- o 60 percent of males know that condoms block transmission of HIV.
- o 40 percent of men and 21 percent of women believe that AIDS is curable.
- o 33 percent of men and women believe an AIDS vaccine exists.

Service statistics on the sale of condoms are being analyzed.

PROJECT NO. ZAM-01

COUNTRY: Zambia

TITLE: Natural Family Planning Demonstration Project

CONTRACTOR: International Federation for Family Life Promotion

PARTICIPATING INSTITUTION: Family Life Movement of Zambia

DATES: October 1983 - March 1989

BUDGET: \$386,869

BACKGROUND AND PURPOSE: The prevalence of contraceptive use is low in most of sub-Saharan Africa, and there is a need to promote family planning, particularly as a means of child spacing. Although there have been few studies of natural family planning (NFP) in African populations, it is thought that NFP might be acceptable to African women because it is congruent with sexual abstinence or the use of prolonged breastfeeding. This OR study evaluates the potential use-effectiveness and cost-effectiveness of NFP in Zambia. A similar study was conducted simultaneously in Liberia for comparison (see Project No. LIB-01).

DESCRIPTION: The Zambian program had 90 service sites located in Lusaka and in regional centers throughout the country. At many sites, NFP was offered in Ministry of Health clinics, especially in Lusaka, and in clinics of the Zambian Consolidated Copper Mines in the Copperbelt Region. The program trained 25 supervisors and 350 NFP teachers, of whom 150-175 provided client instruction and follow-up on a regular basis, with the majority of teachers working part-time. NFP was integrated with MCH and primary care services.

STUDY DESIGN AND METHODOLOGY: Baseline data were collected from clients at the time of registration. Thereafter, client follow-up forms were completed at three-month intervals to record any change in family planning intention and the number of teacher-client contacts during the interval. Acceptors were classified as "autonomous" when a teacher and her supervisor judged that a woman had learned the method, could chart her signs and use NFP without further instruction. Although autonomous users were followed up to ascertain method continuation, follow-up was less intensive than the follow-up of "learning" users. Discontinuations from the program were reported on separate forms which identified the reasons for discontinuation. The use-effectiveness for women using NFP to avoid pregnancy was estimated by standard life tables, and accounting records were kept to determine the cost-effectiveness of the program.

FINDINGS AND IMPLICATIONS:

- o The program registered 5,536 new acceptors, of which 67 percent became learning users. The majority of learning users (73.2 percent) adopted NFP to avoid pregnancy.
- o Thirty-five percent of the learning users progressed to autonomy.
- o The 12-month life table discontinuation rate for learning users was 27.9 per 100 women years and 35.9 percent were lost to follow-up over the life of the project.
- o The total 12-month discontinuation rate was 28.8 per 100 women years.

- o The 12-month life table discontinuation rate due to unplanned pregnancy was 8.9 per 100 woman years.
- o Discontinuations due to change of intention were more frequent during autonomy (7.9 per 100 woman years) than during the learning phase (3.8 per 100 woman years). In contrast, terminations for personal reasons were more frequent during the learning phase than during autonomy. There were no significant differences in the unplanned pregnancy rates or discontinuation rates during learning and autonomy. There were also no significant differences in total discontinuations between learning and autonomous users.
- o Users became autonomous at the rate of 23.6 per 100 woman years.
- o The program provided a total of 5,231 couple years of protection (CYP).
- o Costs during learning were much higher than during autonomy. The cost per CYP during learning was \$42.40, compared to \$6.40 during autonomy. As the programs matured, the increasing numbers of autonomous users reduced the cost per CYP.

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PROJECT NO. ZIM-01

COUNTRY: Zimbabwe

TITLE: Secondary Analysis of Kubatsirana Project Data

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Computer Information Systems

DATES: January 1989 - March 1989

BUDGET: \$4,350

BACKGROUND AND PURPOSE: The Kubatsirana project was a collaborative activity undertaken by the Zimbabwe National Family Planning Council and the Adult Literacy Organization of Zimbabwe. The objectives of the Africa OR/TA sub-project were: 1) to complete the entry of data from the Kubatsirana Project; 2) to carry out editing and consistency check on the data; and 3) to generate statistical tables for data analysis.

DESCRIPTION: The Kubatsirana project had a number of component activities such as income generation, adult literacy, health and family planning. A baseline and follow-up survey were conducted, but the data were never fully entered on computer, tabulated, or analyzed before the project ended.

STUDY DESIGN AND METHODOLOGY: Technical assistance only.

FINDINGS AND IMPLICATIONS: The data contained so many anomalies and weaknesses that a full analytic report was impossible. In many instances, the interviews conducted at the baseline could not be linked with interviews conducted at the follow-up survey because a common identification number was not used. Based on the data that were available, a descriptive report was produced.

PROJECT NO. ZIM-02

COUNTRY: Zimbabwe

TITLE: Validation of CBD Service Delivery Statistics

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Zimbabwe National Family Planning Council

DATES: August 1989 - November 1990 **BUDGET:** \$14,940

BACKGROUND AND PURPOSE: This project has several primary objectives: 1) to assess the accuracy and completeness of the CBD worker's record books; 2) to calculate contraceptive discontinuation rates and drop-out rates and the reasons for discontinuation; 3) to determine the average amount of supplies provided to clients during each resupply visit and to examine intervals between contraceptive resupply; 4) to assess district and provincial differences in the number of new clients recruited on average each month; 5) to assess the extent to which method switching, particularly from one brand of pills to another.

DESCRIPTION: To assess the accuracy and completeness of reporting by CBD workers, their record books were checked against the reporting forms completed by group leaders, provincial Senior educators, and headquarters. CBD records were used to calculate contraceptive discontinuation rates and drop out rates and the reasons for discontinuation.

STUDY DESIGN AND METHODOLOGY: This diagnostic study employed provincial and national reporting forms, individual CBD workers' records, and service statistics.

FINDINGS AND IMPLICATIONS: A seminar is planned for late spring 1991 to discuss findings and implications.

PROJECT NO. ASIA-01

COUNTRY: Asia

TITLE: Assessment of Asian Family Planning Programs

CONTRACTOR: University of Michigan

PARTICIPATING INSTITUTION: University of Michigan

DATES: January 1983 - January 1985

BACKGROUND AND PURPOSE: This project surveyed the experience of Asian family planning programs over 30 years to identify clear measures of program performance, and to identify and assess the relative weights of the determinants of program performance.

DESCRIPTION: Data on family planning program (FPP) performance variables, and the determinants of program performance variables for 24 Asian countries and 27 areas within India were collected for the 1950-80 period.

STUDY DESIGN AND METHODOLOGY: The above data were analyzed using path analysis, individual case histories and other statistical methods. The relative weights of each program performance determinant on FPP performance were measured.

FINDINGS AND IMPLICATIONS:

- o Program inputs have a greater impact, at less cost, on contraceptive use than do comparable increases in socioeconomic development. For example, raising program staff from 0.5 to 1.0 per 1,000 eligible couples has the same impact on contraceptive acceptors that results from an increase from 40 to 80 percent in the literacy rate.
- o There is a synergistic effect between socioeconomic development and program inputs. The two together have a greater impact on contraceptive acceptance and use than would the simple sum of the two taken separately.
- o Efficiency ratios--program outputs to program inputs-- provide good measures of program performance, which can be used to increase managerial effectiveness:
 - Program acceptors become more costly to recruit as a program matures.
 - Cost per contraceptive user does not increase as a program matures. Contraceptive use represents a continuing return to any one year's investment in family planning, suggesting that annual costs of the program can be discounted.
 - Program efficiency is affected by major socioeconomic conditions in the environment. More developed countries have more staff-efficient, but more expensive, programs than lesser developed countries.
 - When environmental conditions are controlled, programs do not decline in efficiency over time.

- Information, education and communication emphases in a program help those programs that are well directed and well supported, but these emphases are not an effective substitute for the lack of good management.
- Integration of family planning with health programs can help to increase program performance, but only when the integration is carefully planned, with all parties to the integration being involved in the planning.

Source: Ness, G.D., J.T. Johnson, and S.J. Bernstein (1983). *Program Performance: The Assessment of Asian Family Planning Programs*. Final Report to A.I.D. Ann Arbor, MI: University of Michigan, Center for Population Planning.

FOLLOW-UP AND FUTURE PLANS: A second phase of the project was carried out with support from the Population Council, under a grant from the Agency for International Development. Phase II extended the analysis through 1985.

PROJECT NO. BAN-01

COUNTRY: Bangladesh

TITLE: Contraceptive Distribution Project

CONTRACTOR: International Center for Diarrhoeal Disease Research

PARTICIPATING INSTITUTION: International Center for Diarrhoeal Disease Research

DATES: July 1975 - September 1978 **BUDGET:** \$201,700

BACKGROUND AND PURPOSE: Mattab Thana, located approximately 50 miles from Dacca, has been used as a field surveillance area by the Cholera Research Laboratory (now the International Center for Diarrhoeal Disease Research) since 1965. Through the surveillance system, data on vital events (births, deaths, migrations, divorces, cases of diarrhea) were collected on a regular basis. An OR project was designed to assess a household delivery system of oral contraceptives (OCs) and condoms, and to determine the most inexpensive and effective delivery system and fertility control technology for use in developing countries.

DESCRIPTION: The project was designed to evaluate the feasibility of organizing and implementing a CBD system, to assess the demand for contraceptives, and to measure the demographic impact of the new system. The study took place over two years in 150 villages with about 1000 people in each. Two types of field workers were used: Lady Village Workers (LVWs) and male Field Assistants (FAs). Each village had an LVW but there were only eight FAs in the entire area. Half the villages were designated as the distribution area with the other half as the control. The LVWs and FAs were trained in the use of OCs and condoms and side effects. Initial distribution was done by the FAs but women were unwilling to accept condoms from a male worker. The LVWs then took over distribution and FAs played primarily a supervisory role. Contact was made with 81 percent of eligible women (married, 15-44 years of age). Of those contacted 69 percent received contraceptives (six cycles of OCs or 72 condoms). Resupply was through village depots. A separate study was conducted to measure the effect of injectables distributed by specially trained male workers.

STUDY DESIGN AND METHODOLOGY: A baseline KAP survey was undertaken, supplemented by the routine vital events surveillance system, special studies, and service statistics.

FINDINGS AND IMPLICATIONS:

- o Prevalence in the distribution area rose from 1-2 percent to 18 percent in three months, and stabilized at 13 percent after 18 months. Contraceptive use among MWRA in the control area increased from 2.9 percent to 3.6 percent one year after the initial distribution.
- o Fertility declined by about 12 percent during the first year but no effect was observed during the second year.
- o Younger married female field workers appeared to perform better than others.
- o Only about one-fourth of the variation in performance could be explained by known characteristics of field workers.
- o Levels of contraceptive use among women were not affected by their level of education.

FOLLOW-UP AND FUTURE PLANS: It was concluded that overall performance of the CBD project was unsatisfactory due to the limited variety of contraceptive methods offered and the low level of the field staff. Therefore, a modified project was designed and implemented (see Project No. BAN-03).

PROJECT NO. BAN-02

COUNTRY: Bangladesh

TITLE: Small Operations Research Projects

CONTRACTOR: Ministry of Health

PARTICIPATING INSTITUTION: Ministry of Health

DATES: September 1977 - September 1980

BUDGET: \$250,000

BACKGROUND AND PURPOSE: A small grants project was established to support OR focused on ways to make the family planning program in Bangladesh more cost effective through action and evaluation research. Twelve OR projects were undertaken with private and government organizations.

DESCRIPTION: The subjects of the OR studies were:

- o Cost-effectiveness of female depot holders
- o Comparison of job performance and job description of Female Village Workers (FVWs)
- o Effectiveness of intensive family planning promotion
- o Identification of barriers to individual and community acceptance of available contraceptive methods
- o Impact of tetanus toxoid on reduction of infant mortality
- o Household distribution demonstration service program
- o Comparison of three systems to follow-up contraceptive acceptors
- o Comparison of Family Welfare Centers established by Works Dept. and by local committees
- o Identify optimal locations for Family Welfare Centers
- o Follow-up of tubectomy and vasectomy clients
- o Description of bureaucrats and clients
- o Follow-up of IUD users

STUDY DESIGN AND METHODOLOGY: A variety of methods were employed in these studies including baseline and follow-up surveys, and service statistics. The criteria for evaluation of the projects included the number of contraceptive acceptors, the duration of their use and the cost-effectiveness.

FINDINGS AND IMPLICATIONS: Results from several of the projects were absent or unclear. The few results available include the following:

- o In the household distribution demonstration project the KAP survey and acceptance data indicated increases in KAP.
- o In the sterilization follow-up project, results suggested that if high quality sterilization were available, immediate demand would be for over one million additional sterilizations.

FOLLOW-UP AND FUTURE PLANS: Beginning in July 1979, USAID/Dacca assumed full responsibility for the project.

PROJECT NO. BAN-03

COUNTRY: Bangladesh

TITLE: Modified Contraceptive Distribution Project

CONTRACTOR: Johns Hopkins University

PARTICIPATING INSTITUTION: International Center for Diarrhoeal Disease Research

DATES: October 1977 - October 1978

BUDGET: \$94,000

BACKGROUND AND PURPOSE: CBD in Matlab Thana, Bangladesh had been successful during a two year period in raising CPR to 18 percent (see Project No. BAN-01), but prevalence then slumped to a plateau of 13 percent. A modified project was designed to test the effects of: 1) a wider range of contraceptives; 2) higher level, better trained field workers; and 3) providing other MCH services.

DESCRIPTION: To improve service delivery and deploy staff who could deal adequately with matters such as side effects, the field workers of the original project, LVWs and FAs, were replaced. Eighty new field workers of higher educational standard who came from outside the project area were trained in FP and maternal and child health. Contraceptive distribution was expanded from OCs and condoms to include sterilization, Depo-Provera, and a vaginal tablet. MCH services introduced included prenatal and infant nutrition education, tetanus inoculation and iron tablets for pregnant women, hygiene related to delivery, ORT for diarrhea, and other drugs. Expanded contraceptive services were offered immediately but MCH services were phased in irregularly.

STUDY DESIGN AND METHODOLOGY: The study retained the experimental and control areas from the original project. Data collection included a baseline survey, special studies, and service statistics.

FINDINGS AND IMPLICATIONS:

- o After five months of the modified program CPR increased to 26 percent, of which 15 percent was accounted for by Depo Provera.
- o After one year of the modified program CPR increased to 31 percent, one half of which was attributed to injectables.
- o Associated fertility reduction as a result of the project was between 21 percent and 25 percent.
- o In a sterilization follow-up study, it was found that community support and approval were greater for tubectomy than vasectomy.
- o In the early phases of the project, field workers' characteristics were much less important than recipient characteristics in determining acceptance of contraception.

PROJECT NO. BAN-04

COUNTRY: Bangladesh

TITLE: An Integrated Program of Operations Research in Bangladesh

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: International Center for Diarrhoeal Disease Research

DATES: May 1982 - February 1984 **BUDGET:** \$189,031

BACKGROUND AND PURPOSE: The International Center for Diarrhoeal Disease Research (Bangladesh) (ICDDR,B) has engaged in a variety of OR studies to improve the efficiency and acceptability of family planning programs in Bangladesh. Support was provided to enable the ICDDR,B to continue its integrated program of OR and to improve the dissemination and application of study results.

DESCRIPTION: During a 22-month period, ICDDR,B and the Population Council coordinated and participated in a number of activities:

- o In-Service Training to develop staff capacity in OR methods including study design, questionnaire development, data management, field surveillance and demographic and statistical analysis.
- o Supervision and monitoring of the evaluation system.
- o Coordination of research and data analysis to ensure technical interchange in data collection and analysis among the various services and research units that administer the individual projects.
- o Dissemination of results to the Government of Bangladesh and collaboration in the Government's institutional development efforts.
- o Development of computational facilities and capacities.

STUDY DESIGN AND METHODOLOGY: This was primarily a technical assistance project, coordinated by a resident advisor with a computer technician on site.

PROJECT NO. BAN-05

COUNTRY: Bangladesh

TITLE: Improving Performance of Asia Foundation Sub-Projects - Phase I

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Associates for Community & Population Research

DATES: November 1986 - October 1987 **BUDGET:** \$36,821

BACKGROUND AND PURPOSE: Twenty five NGO family planning projects in Bangladesh are supported by The Asia Foundation (TAF). Considerable variation in performance (dropout rate, new user recruitment, contraceptive prevalence, and cost per active user) occurs among the projects. An OR study was undertaken by ACPR to determine if factors could be isolated so that lessons drawn from the more successful projects could be applied to the operation of others.

DESCRIPTION: Activities of project personnel in five high and five low-performing projects were compared.

STUDY DESIGN AND METHODOLOGY: A "client-up" research approach was followed. A survey of MWRA was conducted, and the issues that were identified were examined in-depth through interviews and observation of fieldworkers. This was followed by interviews and observation of supervisors and with central office personnel.

FINDINGS AND IMPLICATIONS:

- o Contraceptive use rate was higher in the high-performing projects than in the low-performing projects although no major difference in couple behavior regarding family planning could be identified.
- o The high-performing projects had greater extent and frequency of field worker contact.
- o Respondents in high-performing projects recalled field workers as informed about method contraindications and side-effects whereas in low-performing projects they were less well-informed and would encourage method change when side effects were reported.

FOLLOW-UP AND FUTURE PLANS: A solution development workshop was held where the study findings were discussed. A research proposal for testing a new strategy was then proposed by the Asia Foundation and ACPR.

PROJECT NO. BAN-06

COUNTRY: Bangladesh

TITLE: Improving Geographical Coverage of Family Planning in the Urban Areas of Chittagong and Dhaka

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Pathfinder

DATES: November 1986 - August 1987

BUDGET. \$38,007

BACKGROUND AND PURPOSE: Family planning services have been provided in the city of Chittagong, Bangladesh by a network of NGOs which often overlapped in their efforts, or left gaps where no services were provided. A workshop was held in 1986, at which a plan to eliminate duplication and achieve other management improvements was developed with the overall objective of improving geographic coverage of family planning. The OR project was undertaken to determine whether the plan to reallocate areas among NGOs was implemented, whether improvements in coverage resulted and whether modifications to the plan were needed. A secondary purpose was to measure the CPR and to assess the need for family planning services in the areas served by the NGOs.

DESCRIPTION: The reallocation plan for Chittagong both reallocated areas to eliminate overlap and expand coverage, and recommended management experiments including reducing the worker-couple ratio, operationalizing a coordinating committee, improving contraceptive and drug supply systems, and developing a standardized record-keeping and reporting system.

STUDY DESIGN AND METHODOLOGY: This was a study of an ongoing natural experiment, involving parallel surveys in Chittagong and Dhaka. Data were collected from service statistics, interviews with staff and key informants and a contraceptive prevalence survey of 2,600 married women of reproductive age in Chittagong and 1,400 in Dhaka.

FINDINGS AND IMPLICATIONS:

Chittagong:

- o As a result of the area reallocation plan overlap was reduced significantly, service gaps were largely filled, and coverage increased. However, some overlap with government workers continued.
- o All of the active NGOs placed field workers in the assigned areas and most set new targets: 20 home visits per day, 10-15 new acceptors per month. Most also reported that the field workers were meeting their targets. Follow-up visits appeared to be made on time.
- o Most of the other management improvements of the plan were implemented by only a minority of the NGOs, and some were not implemented at all. Only five NGOs complete couple registration, but another four had partially registered their target populations. There was no further training of supervisors and little staff development, although five NGOs arranged for some training of field workers. Contraceptive supplies were generally

adequate, but drug supplies remained inadequate and irregular. A standardized recordkeeping and reporting system was not developed.

- o Recruitment of new acceptors in 1986 was almost identical to that in 1985, but there was a wide variation among the NGOs, ranging from an increase of 142 percent to a decline of 38 percent. Because this was a period of readjustment, the fact that there was no change in recruitment is encouraging. The NGOs seem positioned to achieve significant increases in the future.
- o Prevalence in the NGO areas rose from 34 percent in 1985 to 37.3 percent in 1986, but other data on deployment of field workers, coverage and acceptors indicate that NGOs will improve prevalence in the future.
- o The coordination committee was not operationalized, and this had a significant effect on implementation. Without it there was no mechanism to resolve interagency conflicts, clear up confusion about area boundaries, adjust reallocation assignments, or develop standardized recordkeeping and reporting systems.
- o Forty percent of non-users of contraceptives gave husband's opposition or religious grounds as the reason. This indicates that a new set of motivational messages, an innovative IEC campaign, or a different approach to service delivery should be designed to address socio-cultural resistance to family planning.
- o The report recommended that a coordination mechanism be established as soon as possible since lack of such a committee in this project probably constrained its implementation.

Dhaka: Results suggest that the efforts of NGOs should switch from recruitment and resupply to education of current users, and a focused effort to reach under-served and under-protected populations.

FOLLOW-UP AND FUTURE PLANS: A follow-up workshop was held in both Chittagong and Dhaka to review the study findings and a set of recommendations was developed to implement the interventions more effectively. As a result:

- o The Coordination Committee was operationalized by a government circular.
- o Some uncovered areas were reallocated to active NGOs.
- o Government workers were assigned separate areas to avoid overlap with NGOs.
- o The contraceptive supply system was strengthened, and the drug supply system improved.

PROJECT NO. BAN-07

COUNTRY: Bangladesh

TITLE: Evaluating the Effectiveness of Newly Introduced Interventions in Pathfinder CBD Projects

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Pathfinder

DATES: November 1986 - March 1988 **BUDGET:** \$58,612

BACKGROUND AND PURPOSE: In Bangladesh the Pathfinder Fund operates CBD family planning projects in 24 urban areas. In the course of implementing these projects, Pathfinder discovered a number of inter-related operational problems including: inadequate coverage of clients, inaccurate record keeping, and poor planning and supervision of field operations. Three management interventions were introduced in response in 7 project areas, with the overall objective of improving quality and quantity of family planning coverage among married women. An OR study was undertaken by QBL to examine whether the interventions had been implemented as planned and to assess the impact of the interventions on improving coverage, acceptance and prevalence of family planning.

DESCRIPTION: The three interventions introduced in the project areas at different times were: a new work planning system, reduced client-worker ratio, and a simplified record-keeping and control system. The interventions were tested in different combinations or packages in 7 of the 24 areas.

STUDY DESIGN AND METHODOLOGY: A non-experimental design was used, because the program was not set up as a research project, and no baseline data or control groups existed. Data were collected from secondary sources, service statistics, interviews with project staff and key informants, and a representative survey of 1,400 MWRA, 200 from each of the project areas.

FINDINGS AND IMPLICATIONS:

- o A combination of all three interventions is the most effective package, followed by a combination of the workplan and reduced client-worker ratio. The new work plan alone seems to be the most effective single intervention.
- o Contraceptive prevalence was highest in an area when all three interventions were introduced and lowest when only one was introduced.
- o The workplan systematized the workers' activities, ensured regular visits to assigned couples, facilitated supervision, expanded coverage, and improved contact.
- o The simplified record keeping system systematized record keeping, helped promote effective supervision and monitoring, and aided in evaluation of worker performance.

FOLLOW-UP AND FUTURE PLANS: Based on the findings, Pathfinder has introduced the three interventions, namely, the new workplan, reduced couple-worker ration, and simplified record keeping system, in all its CBD project sites. There is potential for replication of these interventions by other NGOs as well as the government program.

PROJECT NO. INS-08

COUNTRY: Indonesia

TITLE: KB Mandiri: Improving Village Family Planning Program

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: National Family Planning Coordinating Board

DATES: July 1988 - June 1990

BUDGET: \$198,852

BACKGROUND AND PURPOSE: The three provinces of Bali, North Sulawesi and Yogyakarta have already achieved relatively high contraceptive prevalence rates. Since family planning has been accepted and institutionalized in these provinces, it provides an ideal opportunity to see how acceptors can be motivated to pay for services and contraceptives. This project was designed to increase the number of contraceptive users making financial contributions towards their family planning needs. The long term goal of KB Mandiri is to create self-sustaining mechanisms which will provide high quality services and effective methods of modern contraception.

DESCRIPTION: The project was carried out in two stages. In Stage I, University Research Corporation (URC), BKKBN-Central, and Provincial BKKBNs engaged in extensive research and discussion to identify effective strategies for achieving the objectives of KB Mandiri, including identification of a private organization for project implementation in each province. The current outreach system was upgraded in each province through improved training, coordination, supervision, management, and logistics. In Stage II, interventions designed to address the specific needs of each province were implemented by private sector agencies under BKKBN guidance.

STUDY DESIGN AND METHODOLOGY: The study employed pre- and post-intervention surveys to evaluate project impact. Throughout the intervention phase, mini-surveys and focus groups were used to measure clients' attitudinal and behavioral changes towards community-supported family planning strategies. A management information system was developed to monitor the performance of project interventions on a monthly basis.

FINDINGS AND IMPLICATIONS:

- o Baseline surveys found that contraceptive prevalence rates were high in all three provinces, and the majority of acceptors relied on effective methods.
- o In January 1989, approximately 20 percent of all new acceptors of family planning services were receiving supplies from private sector sources in Bali. This increased to over 40 percent by June 1989, and stabilized at 40 percent thereafter.
- o The number of clients receiving follow-up services from clinics increased over the life of the project.
- o Knowledge of KB Mandiri in the three provinces varied from limited to moderate; however, this knowledge was not directly related to the use of private family planning service providers. For example, in Bali, knowledge of KB Mandiri is the lowest of the three provinces but ever and current use of providers is the highest of the three provinces.

PROJECT NO. BAN-09

COUNTRY: Bangladesh

TITLE: Copper-T IUD Follow-Up Study

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Bangladesh Fertility Research Programme

DATES: August 1987 - April 1989

BUDGET: \$72,184

BACKGROUND AND PURPOSE: The intra-uterine device plays a vital role in the family planning program in Bangladesh. In 1984 and again in 1985 approximately 400,000 Copper-T 200s (CT-200) were inserted, protecting women against pregnancy for 3-4 years. In order to follow up these women, an OR study was initiated in 1987 by BFRP with the assistance of ACPR.

DESCRIPTION: The primary objective of the OR study was to estimate the number of women who have continued to use the original CT-200 and how many will need removal and/or reinsertion and to determine: how to identify these women, how best to facilitate removal/reinsertion, and how to follow them effectively in the future so as to improve the quality of IUD services. Field work was carried out in two stages. In the first stage, relevant information was reviewed in order to construct a sampling frame. During the second stage the actual data were collected from a nationally representative sample of 3,678 IUD acceptors. Interviews also were held with 244 service providers and 146 workers.

STUDY DESIGN AND METHODOLOGY: A non-experimental research design was used. Data were collected from secondary sources, clinic records and service statistics, provider, worker and client interviews.

FINDINGS AND IMPLICATIONS:

- o The study estimated that 12,510 women should have their IUD removed in 1987-88 and 4,050 in 1988-89. But of those interviewed, nearly all had already had the IUD removed.
- o The major reasons for discontinuation were side-effects, expiration of the life-span of the device, and desire for children.
- o Given the relatively small number of active users, and recent findings that the CT-200 can last up to six years, a crash campaign to locate these women is unnecessary.
- o A large proportion of those interviewed had no follow-up visit after insertion.
- o Although the IUD attrition rate was high, over half were still using a contraceptive method, predominantly the pill.
- o Case finding is a significant problem. The best way to local clients is with the help of local fieldworkers.

FOLLOW-UP AND FUTURE PLANS: A dissemination seminar was held to report findings from rural areas and a final report prepared. In light of the finding that a large number of IUD acceptors do not receive any follow-up, BFRP has developed a follow on OR study to examine ways of improving services, and has received concurrence from the Directorate of Family Planning.

PROJECT NO. BAN-10

COUNTRY: Bangladesh

TITLE: Improving Efficiency of Family Planning Services in Rural Bangladesh

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Society for Project Implementation, Research, Evaluation & Training

DATES: August 1987 - September 1989

BUDGET: \$63,254

BACKGROUND AND PURPOSE: In Bangladesh the Society for Project Implementation, Research, Evaluation and Training (SOPIRET), a rural NGO, has been successful in using part-time fieldworkers (FPVs) for family planning. Great variations in their effectiveness have been reported, however, suggesting the possibility of improving the work of low performers. An OR study was undertaken by DRA with the overall aim of improving family planning efficiency.

DESCRIPTION: The OR study examined the factors accounting for the variations in effectiveness of field workers with the objective of assessing the extent to which the use of part-time workers has contributed to the program goals, to identify the needed interventions to be implemented to achieve these goals, and to measure the effects of the interventions on coverage, contact and the CPR. Interventions included use of a work plan; closer supervision; training on side effects, rapport building, and target setting; and overcoming religious opposition. The initial proposal anticipated that religious opposition might be identified as a major impediment to the program's expansion. Research in Phase I did find that religion had some explanatory power in identifying more and less successful areas; therefore, the influence of religion was probed more deeply.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental study, the project followed three phases: problem analysis, solution development, and implementation and validation of solutions. Data were collected from a review of past experience, environmental factors, direct observation and interviews with 40 high-performing and 40 low-performing FPVs, review of FPV records, and interviews with MWRAs from the experimental area and the control area. Analysis of these data was undertaken during Phase 2 and solutions developed which were implemented and validated during Phase 3. Two research activities were conducted to probe the religious issue more deeply. In-depth interviews were conducted and a survey of husbands identified by their wives as opposed to family planning on religious grounds. The implementation of changes was monitored and a follow-up survey undertaken.

FINDINGS AND IMPLICATIONS:

- o The high-performing FPVs visit their clients more frequently than the low-performers.
- o In low-performing areas three fifths of women reported weekly visits by an FPV, in high-performing areas the proportion was three quarters.
- o High-performers were better equipped than low-performers and spent, on average, 2 more minutes with current users and dropouts and 8 more minutes with new clients and non-users than did low-performers.

- o In low-performing areas 25 percent of women reported religious opposition, in high-performing areas it was 18 percent.
- o 25 percent of women said they would be acting expressly against the wishes of family (usually husband) to practice family planning, although among those (men and women) who believed Islam opposed family planning 50 percent believed it acceptable to use contraception to space births and 33 percent acceptable once desired family size had been achieved.
- o Client contact and coverage increased significantly with the introduction of a new work plan and record-keeping system.
- o The follow-up survey revealed a modest increase in CPR in the experimental area and a slight decline in the control area.

FOLLOW-UP AND FUTURE PLANS: A dissemination seminar was held and completed reports distributed.

PROJECT NO. BAN-11

COUNTRY: Bangladesh

TITLE: Improving Performance of Asia Foundation Projects - Phase II

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Associates for Community & Population Research

DATES: November 1987 - September 1989 **BUDGET:** \$49,359

BACKGROUND AND PURPOSE: The family planning program of The Asia Foundation is implemented in Bangladesh through 24 NGOs which operate 83 sites. An evaluation found wide variations in performance, and an OR project (see Phase 1) was undertaken to identify reasons for the variations and, from the lessons learned, develop strategies for improved performance. A further OR study was undertaken by ACPR to evaluate the impact of those changes.

DESCRIPTION: The first phase OR study identified a broad range of differences (e.g., dropouts, variations in new user recruitment, contraceptive prevalence, and cost per active user) between five high-performing and five low-performing projects. In the second phase OR study it was decided to focus on two differences only: the frequency of home visits and the messages provided. Data were collected on three areas: degree of implementation of the action plan, extent of implementation of the two changes decided upon, and changes in project effectiveness as measured by prevalence rates.

STUDY DESIGN AND METHODOLOGY: The design called for the direct comparison of the changes in performance between twelve experimental sub-projects and two control sub-projects. Four research activities were undertaken: a baseline survey of the performance indicators, monitoring of the execution of the action plan, a survey of the level of achievement of the changes, and a follow-up survey on performance.

FINDINGS AND IMPLICATIONS:

- o The baseline survey revealed that low-performing projects had narrowed the gap with high performing projects by implementing the recommendations of the follow-up workshop.
- o Most of the planned activities in the action plans were executed.
- o Through regular home visits recruitment of temporary method users had increased more rapidly than that of permanent methods.
- o The increase in client contacts was seven times higher in the experimental than the comparison areas.
- o CPR increased from 40.4 to 50.1 in the experimental area compared to from 43.8 to 48.4 in the comparison area, suggesting that the implementation of changes in visit frequency, recruitment, training, supervision and field work procedure can substantially raise the level of contraceptive prevalence.

113

FOLLOW-UP AND FUTURE PLANS: A dissemination seminar was held at which a preliminary report was presented.

PROJECT NO. BAN-12

COUNTRY: Bangladesh

TITLE: Expanding FP Services in Rural Bangladesh Through the Swanirvar Community Development Program

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Pathfinder

DATES: June 1988 - December 1989

BUDGET: \$50,032

BACKGROUND AND PURPOSE: In Bangladesh, an integrated rural development program has been operating in Swanirvar for over a decade. There is no conclusive evidence that CPR has risen appreciably in the area over the period although potential for increased contraceptive use does exist. The Swanirvar Family Planning Services Project (SFPSP) was developed to intensify the family planning effort and expand services in the rural areas. An OR study was undertaken to test the effectiveness of SFPSP.

DESCRIPTION: The OR study was designed to investigate whether intensified family planning efforts within the existing Swanirvar framework can help raise CPR, and if so, by how much. Documentation of the management of the project and monitoring of key activities was undertaken in order to ascertain how best to expand to other areas of the country. Under the intensified program one Family Planning worker was recruited for each village selected, and was required to contact each MWRA in her village at least once a month to discuss various aspects of Family Planning and immunization, to provide supplies to users of temporary methods, and to provide referral services to clients of permanent methods. Workers were recruited from within the locality and were required to have a religious background.

Implementation of the project encountered several delays due to the non-availability of suitable candidates for workers and supervisors (due in part to the requirement of a religious education background), delays in supplying office materials and establishing offices in the upazilas, delays in setting up contraceptive supply systems, as well as the floods of 1988.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental study was undertaken in 4 upazilas where project activities had begun in 1987, 4 upazilas where they had begun in 1988, and control areas where there was no project activity. Data were collected from baseline and follow-up surveys of a representative sample of MWRA, interviews with project staff and key informants, secondary sources including service statistics, quarterly monitoring of project activities, observation of the workers'/supervisors' activities, and a follow-up survey.

FINDINGS AND IMPLICATIONS:

- o The project has ensured regular and frequent visits by village workers and regular supervision and monitoring of fieldworkers' activities.
- o Current use rate is considerably higher in the experimental than the control areas.

- o The quantity of visits made during fieldwork by SFP workers and Union Supervisors is high but not enough consideration is given to the quality of the visits: insufficient attention is given to type of supplies and services needed by clients and inadequate time allowed for discussion and follow-up.

FOLLOW-UP AND FUTURE PLANS: A dissemination seminar was held to discuss the baseline survey. Reports of the quarterly monitoring were completed.

PROJECT NO. BAN-13

COUNTRY: Bangladesh

TITLE: Improving the Effectiveness of a Radio Campaign in Support of the Population Program

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Ministeries of Planning, Health and Information

DATES: October 1988 - October 1989 **BUDGET:** \$65,115

BACKGROUND AND PURPOSE: In Bangladesh radio has emerged as the main source of family planning knowledge and information. Radio Bangladesh, Dhaka has established a Population Planning Cell (PPC) and broadcasts 75 minutes daily of population-related information with a further 25 minutes through its five regional stations. With the objective of improving the effectiveness of the national radio campaign in support of family planning, an OR study was undertaken to investigate whether these programs actually served the intended listeners, and how they could be improved.

DESCRIPTION: The OR study was designed to evaluate the effectiveness of the current radio programs in promoting IEC materials on family planning, identify constraints in reaching the target audience, identify and recommend areas for improvement in program design, and test the effectiveness of the new materials.

STUDY DESIGN AND METHODOLOGY: The study encompassed problem identification and solution development. Problems were identified by reviewing existing literature on family planning dissemination through radio; field research to assess knowledge levels and attitudes; and an evaluation of current programs by conducting listeners' panel discussions in six regions to assess themes, contents, formats and presentation. This information was used to develop priority program messages and to identify the most appropriate formats for those messages.

FINDINGS AND IMPLICATIONS:

- o More than three-fourths of people interviewed listen to radio daily for at least an hour, and over one-third tune to the Population Programs regularly.
- o 36 percent of males and 8 percent of females consider the PPC programs to be reliable.
- o 40 percent of males and 33 percent of females favored the idea of increased family planning programming.
- o The preferred time for programs is the late evening.
- o About one-third of respondents cited drama as the most popular PPC family planning format, followed by family planning related songs (31 percent) and features (22 percent). Other formats such as interviews and women's programs were unknown.
- o Respondents favored simple language and the use of dialects in the programs.

FOLLOW-UP AND FUTURE PLANS: The report of the first phase has been completed and distributed.

PROJECT NO. BAN-14

COUNTRY: Bangladesh

TITLE: Impact of Women's Savings Groups on Contraceptive Use

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Save the Children

DATES: November 1989 - June 1990

BUDGET: \$35,874

BACKGROUND AND PURPOSE: Save the Children has a women's savings program (SAVE), which is an integral part of its comprehensive integrated rural development program. Women's savings groups were introduced in Bangladesh on an experimental basis in 1982. Over the years, these indigenous small groups have evolved from simple "savings" groups to dynamic forums to improve women's economic and social horizons, and to enable them to gain greater control over their lives and those of their children. An OR study was undertaken to examine and document the impact of women's savings groups on contraceptive use.

DESCRIPTION: The study was undertaken in 8 villages in Nasirnagar Upazila where SAVE programs were in operation: five villages where programs were initiated in 1982 (old villages), and three villages (new villages) where programs were begun in 1989. Two comparison villages (without SAVE programs) were also selected at random from among the villages in the same geographic area. The experimental and comparison villages were similar in terms of household size, and age, parity and total fertility of the married women of reproductive age.

STUDY DESIGN AND METHODOLOGY: The study employed a quasi-experimental design. Data were collected using a baseline survey and a mini-contraceptive prevalence survey conducted in both experimental and comparison villages, and two rounds of individual and group interviews with selected savings group members and non-members in the experimental villages. Relevant cost data were obtained from SAVE/Dhaka. Selected variables from the SAVE Project Management Information Systems (PMIS) were also used for comparison with similar variables obtained in the baseline survey.

FINDINGS AND IMPLICATIONS: Women's savings groups, combined with family planning motivation, supplies and services can be an effective strategy of raising contraceptive prevalence in rural Bangladesh:

- o Contraceptive use, both ever and current, was higher in the experimental than comparison villages, and higher in the "old" than "new" villages. Although contraceptive use was higher among savings group members compared to non-members, contraceptive use was higher among the latter group compared with the comparison villages, suggesting that the SAVE program helped raise contraceptive use among both members and non-members in the project villages. Current use at the baseline among members was 30.9 percent and 16.9 percent among members in old and new villages respectively, and 7.3 percent in the comparison villages. Among non-members current use was 17.9 percent in the old villages and 12.9 percent in the new villages.

- o Current contraceptive use declined in the old villages over the life of the project, from 30.9 percent to 25.4 percent. One of the main reasons reported for discontinuation was non-availability of family planning methods.
- o The cultural and religious resistance to family planning use was less pronounced among the members than non-members.
- o The cost per family planning acceptor and cost per family planning contact declined over the life of the project, due to a sharp decline in project and personnel costs between 1986-87 and 1989-90. Thus, cost per acceptor fell from US\$11.59 to US\$5.01 in the maximum cost model (cost for replication by another agency), and from US\$6.54 to US\$2.10 in the minimum cost model (cost for expansion by SAVE to other parts of the country).

PROJECT NO. EGY-01

COUNTRY: Egypt

TITLE: Family Planning Saturation Project

CONTRACTOR: American University in Cairo

PARTICIPATING INSTITUTION: Egyptian Family Planning Association/Ministry of Health

DATES: July 1974 - June 1978

BUDGET: \$224,000

BACKGROUND AND PURPOSE: Egypt has had an active family planning program since 1966, and many characteristics of the country and the people should have encouraged an effective program. The country's population density and flat terrain made communication and transportation less problematic compared to other developing countries. In addition, Egypt had an extensive health infrastructure which facilitated introduction of a family planning delivery system. Because of the density of the population, it was estimated that nearly three-fourths of the population lived within walking distance of a family planning facility. Nevertheless, by the early 1970's, a substantial proportion of couples were still not contracepting. Reasons included minimal clinic outreach, high dropout rates for pill users, lack of knowledge about side effects among both clinic staff and clients, disruption of supplies in clinics, and unavailability of other methods, such as the IUD, especially in rural areas. In 1971, A.I.D. had provided support to the American University in Cairo for a series of related family planning research activities in rural Egypt, including analysis of household fertility survey data, follow-up of women attending family planning clinics, studies of the cultural context of family planning, communication and education studies, and experiments with the implementation of services. In 1974, it was decided that the time was ripe for AUC to put into practice what it had learned during the previous three years. It was agreed that AUC would initiate a demonstration project of a low-cost family planning delivery system.

DESCRIPTION: The objective of the demonstration project was to systematically provide family planning services to all married women in the treatment population through a household contraceptive distribution system. The interventions were implemented in the Shanawan (rural) and Sayeda Zeinab (city of Cairo) communities of Menoufia Governorate. During an initial canvas in November 1974, women 15-49 years of age who were not pregnant or less than three months postpartum and breast feeding, and who were married and living with their husbands were offered four cycles of pills or a supply of condoms. During a second canvas in February 1975, acceptors were provided with an additional four cycles of pills and referred to a local depot for resupply.

STUDY DESIGN AND METHODOLOGY: This was a demonstration project to test the feasibility of free household distribution of contraceptive pills. In carrying out the project, each distribution area was mapped and each housing unit numbered. Data were collected through a canvassing form that consisted primarily of eligibility screening items, and provided numbers of acceptors, refusals, ineligibles, not at homes, etc. A total of two call attempts were made for women not at home to increase coverage.

FINDINGS AND IMPLICATIONS:

Sayeda Zeinab (urban Cairo):

- o Of the 2,493 women canvassed in Sayeda Zeinab, 1713 (69 percent) were eligible to receive contraceptives. Of these, 58 percent accepted 4-6 cycles of pills. At the time of initial household distribution, 45 percent of eligible women were already using oral contraceptives. As a result of the canvass, an additional 5 percent of the women became acceptors.
- o The AUC did not expand the household distribution of contraceptives to other urban areas of Cairo, because women there evidently already had adequate access to family planning information and supplies.

Shanawan:

- o In the 6,915 households canvassed in Shanawan, 1156 of the 1820 married women 15-49 years of age (64 percent) were eligible to receive contraceptives. Of these, 45 percent accepted 4-6 cycles of pills. Twenty-one percent of eligible women were already using oral contraceptives at the time of the initial household distribution.
- o Although condoms were offered, few were accepted, apparently because it was not culturally acceptable for women to either distribute or accept condoms.
- o One year after the initial household distribution, (November 1975), contraceptive use among married women of reproductive age (MWRA) had increased from 18.4 to 31 percent (69 percent increase) and the incidence of pregnancy declined from 19.3 to 14.9 percent. The increased contraceptive use was apparent among all age and parity groups and at all educational and occupational levels.
- o The significant impact of the household contraceptive distribution on contraceptive prevalence was not sustained. Within a period of two years (November 1975 - November 1977), contraceptive prevalence among MWRA in the village declined from 31 to 24.1 percent.
- o Various calculations of cost per new and new/old acceptor were made. It was determined that the actual cost of the delivery system should include all costs associated with the actual delivery system, but exclude research costs. Using that approach, the cost per new acceptor in Shanawan was US\$12.31, and the cost per new and old acceptor was US\$6.50.

FOLLOW-UP AND FUTURE PLANS: The project was expanded to cover 38 rural villages of Menoufia Governorate (see project EGY-02). The design of the expansion project was modified to more directly compare the effects of charging for pill resupply. Although the AUC continued to monitor the target population in Sayeda Zeinab, household distribution of contraceptives was not expanded to cover additional urban areas.

PROJECT NO. EGY-02

COUNTRY: Egypt

TITLE: Expanded Household Contraceptive Distribution Demonstration Project (Menoufia)

CONTRACTOR: American University in Cairo

PARTICIPATING INSTITUTION: American University in Cairo

DATES: July 1976 - June 1979

BUDGET: \$919,440

BACKGROUND AND PURPOSE: This project builds on previous A.I.D.-supported research of the American University in Cairo, specifically the study of household contraceptive delivery in Shanawan (see project EGY-01). Under this project, the Social Research Center (SRC) expanded the household distribution system tested in Shanawan to 38 rural villages in the Menoufia Governorate. The project was designed to test the effectiveness of the household based approach to delivery of family planning services.

DESCRIPTION: Like the earlier project, this study was based on the assumptions that there is an unmet demand for contraceptives, and that this demand can be systematically identified and met in a culturally acceptable way, using lay women as distributors. Once systematically exposed to family planning information and services, a community-based resupply system can effectively meet the ongoing demand for services. The project tests four different family planning systems, where a first round of free household distribution is followed by: 1) free resupply at the clinic; 2) free resupply in village; 3) resupply sold at the clinic; and 4) resupply sold at a village depot. Distribution and resupply agents were local women.

STUDY DESIGN AND METHODOLOGY: The study employed a quasi-experimental design. Villages were matched as far as possible on socio-demographic characteristics, and contraceptive usage, and randomly assigned to one of the four types of delivery systems. Data were collected through a baseline survey conducted at the same time as the household distribution of contraceptives to assess contraceptive behavior. A follow-up survey conducted nine months later with eligible women only (married, fecund, and age 15-44) was designed to evaluate the household delivery system, and focused on contraceptive and fertility behavior.

FINDINGS AND IMPLICATIONS:

- o Prevalence increased from 19.1 percent at the baseline to 27.7 percent eight months after the distribution (relative increase of 45 percent).
- o The delivery system proved to be culturally, logistically, and administratively feasible.
- o There was no significant difference in prevalence between those groups who were charged for a resupply of contraceptives and those who were not. Prevalence increased from 19.5 percent to 28.5 percent in the former group and from 18.7 to 26.9 percent in the latter.

FOLLOW-UP AND FUTURE PLANS: Based on this study, a modified version of the tested delivery system was implemented in collaboration with the Governorate of Menoufia among the entire rural population of 1.4 million (see project EGY-03). The modified system included a wider range of contraceptive methods and included health and community development components.

PROJECT NO. EGY-03

COUNTRY: Egypt

TITLE: Integrated Social Services Delivery System (Menoufia)

CONTRACTOR: Johns Hopkins University

PARTICIPATING INSTITUTION: Department of Health & Social Affairs

DATES: June 1978 - June 1983

BUDGET: \$1,940,000

BACKGROUND AND PURPOSE: The Menoufia Integrated Social Services Delivery System Project represents an action-research program for promoting family planning, health, and social welfare services through an integrated developmental approach covering a rural population of 1.4 million people in 303 villages. The overall project in Menoufia Governate contained four components: an action component that aimed at integrating and upgrading the delivery of family planning, health and social welfare services; a training component directed at upgrading the knowledge and performance of official personnel and community leaders; a family planning and health intervention; and a research component focused on evaluating the other three components and measuring their impact on the efficient operation of the delivery systems, performance of service personnel and utilization of services by community members. This project builds on previous A.I.D.-supported research of the American University in Cairo (AUC), specifically the two studies of household contraceptive delivery in Menoufia (see projects EGY-01 and EGY-02). In this case, AUC was responsible for the family planning and health intervention component, along with the overall evaluation.

DESCRIPTION: The project provided three types of services: (1) family planning, which included distribution and clinic resupply of oral contraceptives and vaginal foam tablets; (2) health, which included oral rehydration salt distribution and clinic resupply; and (3) social welfare, which included community development activities. Referral was made for clinical contraceptive methods. Contraceptives were distributed directly to households and ORS was made available at group meetings of mothers with children under 5 years of age. Pregnant women were given a tetanus toxoid series (this was later dropped from the service program because of indifference among potential participants and logistical problems in the delivery system).

STUDY DESIGN AND METHODOLOGY: Three rounds of socio-demographic surveys (the first in 1979, the second in 1980, and the third in 1983) and four mini-surveys were conducted in the project villages. Service statistics were analyzed and qualitative analyses of field observations were conducted.

FINDINGS AND IMPLICATIONS:

- o Knowledge of correct use of contraception increased from 50.4 percent to 68.1 percent between baseline and endline surveys.
- o Prevalence increased from 19.3 to 21.7 percent over two year period.

- o Knowledge of effective use of ORS among currently married women with children under age 5 in experimental villages increased from 18.4 to 42.8 percent, while use of ORS increased from 17.3 to 21.7 percent.

FOLLOW-UP AND FUTURE PLANS: The project was replicated in the Governorate of Beni-Suef (see project EGY-04).

PROJECT NO. EGY-04

COUNTRY: Egypt

TITLE: Beni-Suef Governorate Integrated Social Services Delivery Systems

CONTRACTOR: American University in Cairo

PARTICIPATING INSTITUTION: Ministry of Health

DATES: March 1982 - September 1985

BUDGET: \$326,402

BACKGROUND AND PURPOSE: The Beni-Suef project was modeled on previous A.I.D.-supported research of the American University in Cairo, specifically the Integrated Social Services Delivery System Project carried out in Menoufia Governate, that included a study of household contraceptive delivery of contraceptives and ORS (see project EGY-03). This project tests a comprehensive system of community-based distribution of family planning, health and social welfare services in the Governorate of Beni Suef. Essential components of the integrated approach include decentralization of the decision-making process, development of an integrated package of village activities, involvement of local community people, introduction of outreach health and family planning services, and upgrading family planning, health and social welfare services.

DESCRIPTION: The project provided three types of services: (1) family planning, which included household distribution and clinic resupply of oral contraceptives and vaginal foam tablets; (2) health, which included oral rehydration salt distribution and clinic resupply; and (3) social welfare, which included community development activities. Referral was made for clinical contraceptive methods. The project was implemented in three phases, with project inputs introduced to different areas of the Governorate at one year intervals.

STUDY DESIGN AND METHODOLOGY: A baseline survey was conducted throughout the Governorate. Follow-up surveys, modeled after the mini-surveys in the Menoufia project, were to be conducted at the end of the first year of the project.

FINDINGS AND IMPLICATIONS:

- o At the baseline, only 8.4 percent of currently married women, ages 15-49 were currently contracepting, although 17.8 percent reportedly had ever used any method of contraception.
- o The pill was the most popular method (70 percent of current users), followed by the IUD (10.3 percent) and female sterilization (9.3 percent).
- o Nearly all respondents (90.8 percent) knew at least one contraceptive method, and virtually the same proportion knew at least one modern method.

PROJECT NO. IND-01

COUNTRY: India

TITLE: Promoting Pill Use in Urban and Semi-Urban Areas of India Through Improved Outreach and Distribution

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Ministry of Health/PVOs

DATES: January 1988 - March 1989

BUDGET: \$14,015

BACKGROUND AND PURPOSE: Historically the Indian population program has placed primary reliance on voluntary sterilization (VSC) for fertility reduction. VSC acceptors have tended to be older, high parity couples, and the resultant births-averted estimates have been disappointingly low. In an effort to attract younger, low parity couples there is now renewed interest in temporary methods, in particular, the oral pill. An OR study was conducted of community outreach and distribution in urban and semi-urban areas to promote the use of oral pills.

DESCRIPTION: The OR study was designed to assist the national program in identifying a viable model for increasing utilization of oral pills (OP) in family planning, by ascertaining strengths and weaknesses of both rural government and PVO pill distribution programs. The government's strategy of free pill distribution was reviewed in a high performance area of one state and the program weaknesses contrasted to a successful PVO pill program. An ideal design for an OP program was constructed and reviewed by government and PVO representatives and a strategy for testing/directly implementing the model developed.

STUDY DESIGN AND METHODOLOGY: Past research literature on the Indian experience in family planning was reviewed to determine the parameters for an Indian oral pill program. This was supplemented by interviews and direct observation of government family planning program personnel, and interviews with acceptors.

FINDINGS AND IMPLICATIONS:

In the government's rural program it was found:

- o Despite the commonly held notion that only literate women readily accept the pill, over half of pill users could neither read nor write.
- o 80 percent of pill users had heard radio messages about the pill program but almost all said they had heard about the pill from a field worker.
- o Only a small proportion of pill users had been informed of potential side effects, possibly because the program targets for fieldworkers emphasize the recruitment of new acceptors over maintaining continuing users.

From the PVO program it was learned that:

- o PVO organizational structure is streamlined and has a greater ratio of field workers to volunteers.

- o PVOs emphasize continuing users as their yardstick of performance.
- o Despite constraints concerning fees charged, all PVO programs under review had achieved increased CPR over the past several years.

For the ideal model it is proposed:

- o Village Health Guides act as the depot for contraceptive supplies.
- o Performance targets should be changed from new acceptors to continuing users with emphasis placed on client education, counseling and resupply.
- o Screening checklists should be provided to the field workers.
- o The program has the infrastructure and political commitment to make community-based contraception widespread.

FOLLOW-UP AND FUTURE PLANS: The study results were presented at a seminar for government, PVOs and donor officials. Research recommendations are being incorporated into ongoing program activities and national training activities.

PROJECT NO. INS-01

COUNTRY: Indonesia

TITLE: Improving Utilization and Self-Sufficiency of YKB Clinics - Phase I

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Yayasan Kusuma Buana

DATES: August 1986 - March 1987 **BUDGET:** \$11,539

BACKGROUND AND PURPOSE: YKB is a private foundation operating 8 FP/MCH clinics in Jakarta. These clinics, which served lower and middle income clients on a fee for service basis, had met with limited success and were under-utilized. The purpose of the study was to determine whether clinic operations could be redesigned to make them more attractive to clients, to reduce costs and to increase income so that they could become self sufficient.

DESCRIPTION: An analysis of clinic utilization was conducted to determine the factors affecting clinic use and self sufficiency. The results were analyzed and reviewed by a solution development committee that proposed operational changes that were to be tested in a follow-on project.

STUDY DESIGN AND METHODOLOGY: Data gathering included a sample survey of past, current and potential contraceptive users, in-depth interviews and observations of family planning providers.

FINDINGS AND IMPLICATIONS: After three years of operation, only 1 of 8 clinics had become self sufficient. The causes included:

- o Limited staff skills, knowledge, opportunities and incentives;
- o Inadequate administrative leadership;
- o Limited services;
- o Competition from other service outlets;
- o Inappropriate location.

FOLLOW-UP AND FUTURE PLANS: YKB developed a strategy to deal with these problems that included closing three clinics and relocating one clinic; improving clinic appearance and increasing clinic hours; emphasizing outreach and promotion; improving the training and education of clinic staff and improving linkages with the communities; and adding staff incentives and expanding clinic services.

PROJECT NO. INS-02

COUNTRY: Indonesia

TITLE: Improving Family Planning Outreach in Three Urban Areas of Indonesia

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Yayasan Kusuma Buana/ Nat'l Family Planning Coordinating Board

DATES: May 1987 - December 1989 **BUDGET:** \$251,940

BACKGROUND AND PURPOSE: The National Family Planning Coordinating Board (BKKBN) has given high priority to the development of strategies to transfer some of the costs of family planning from the government to clients and communities. This project tested the use of a network of semi-commercial outreach workers (NUCDs) to deliver pills and condoms to clients for a small fee and refer them to both public and private providers for other methods. The project sought to increase community contributions for service delivery costs as well as to expand the use of longer acting contraceptive methods.

DESCRIPTION: Project activities included: recruitment and training of NUCDs and supervisors; periodic contacting of all eligible couples by NUCDs; improvement of method specific IEC materials; strengthening of linkages between outreach workers and service providers; and development of a contraceptive supply system for the NUCDs.

STUDY DESIGN AND METHODOLOGY: The project used a quasi-experimental design with experimental and control sites in each of the three urban centers. Pre and post intervention surveys were supplemented with individual in-depth and group interviews of providers and clients. A MIS was designed to monitor the new approach and process analysis was conducted to devise corrective measures for improved implementation.

FINDINGS AND IMPLICATIONS:

- o NUCD contacts with clients increased and referrals to private sector providers rose more than sixfold.
- o The number of clients paying for pills increased steadily, and private sector referrals showed that almost one third of new acceptors were willing to pay for family planning services.
- o Supervision span has increased and the new system employing one supervisor for 12-15 NUCDs has proven more efficient than the previous system of one supervisor for every three distributors.
- o Financial incentives motivated supervisors to provide more support and direction to NUCDs.
- o The project has shown that it is possible to reduce government subsidy to outreach workers by encouraging them to collect service fees and keep part of the proceeds.

FOLLOW-UP AND FUTURE PLANS: A follow-on project will test the use of outreach workers to promote and sell products of the social marketing program.

PROJECT NO. INS-03

COUNTRY: Indonesia

TITLE: Improving Utilization and Self-Sufficiency of YKB Clinics - Phase II

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Yayasan Kusuma Buana

DATES: July 1987 - September 1989

BUDGET: \$23,349

BACKGROUND AND PURPOSE: This project tested strategies for increasing clinic utilization and self sufficiency developed as part of the previous study (phase I). The study purpose was to determine if the strategy leads to clinic self-sufficiency and to identify the components of the strategy that contribute more to increasing clinic utilization. Four of the eight clinics in the original study were examined. One of the eight clinics has become self-sufficient and three clinics were closed because they were not viable.

DESCRIPTION: The strategy tested included: increasing client knowledge of clinics and services they provide, improving clinic staff communication and technical skills, increasing staff motivation to recruit new clients, implementing a new management information system, and upgrading clinic location and appearance.

Two different types of remuneration systems (fixed salary and salary plus bonus) were tested among the outreach workers.

STUDY DESIGN AND METHODOLOGY: Service indicators were analyzed and interviews conducted with clinic professionals, outreach workers and distributors, and a follow-up survey replicating baseline interviews was conducted at the end of the test period. Revisions in the interventions were made as needed to improve the effectiveness of the strategy.

FINDINGS AND IMPLICATIONS:

- o Three of the four clinics achieved self-sufficiency.
- o Although the presence of a physician was believed to be important for clinic utilization, results showed that clients are just as satisfied with a midwife.
- o Clinic location is important, with access to public transportation one of the most important factors in utilization.

PROJECT NO. INS-04

COUNTRY: Indonesia

TITLE: Improving the Acceptance and Quality of Voluntary Sterilization Services Through Screening, Referral and Follow-up of Clients

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Indonesian Association for Voluntary Surgical Contraception

DATES: October 1987 - August 1990 **BUDGET:** \$132,027

BACKGROUND AND PURPOSE: Although the demand for voluntary sterilization (VSC) has increased substantially since it was first introduced in 1974, it has not been considered a formal part of Indonesia's national family planning program. As a result, sterilization has not been promoted by family planning and health personnel, potential clients are not well informed and service points for surgical contraception have been underutilized. This study tested an improved system of VSC screening, referral and follow-up in four project sites.

DESCRIPTION: The project involved three stages: planning, testing and evaluation. In the planning stage, the screening, referral and follow-up system was analyzed and a revised system was designed for testing. The revised system was then implemented and evaluated.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental design was used, with control groups located in Jakarta, the largest site. Project impact was assessed through the use of key quantifiable performance indicators, as well as interviews with family planning and health providers, and VS clients.

FINDINGS AND IMPLICATIONS:

The initial evaluation of implementation strategies showed that:

- o Front line personnel are knowledgeable about VSC and the screening, referral and follow-up system.
- o The screening component working as planned.
- o Frontline personnel need criteria to help them focus on potential acceptors.
- o Consideration should be given to using satisfied VSC acceptors to recruit additional VSC acceptors.

PROJECT NO. INS-05

COUNTRY: Indonesia

TITLE: Improving Participation of Private Nurse Midwives in Delivering Longer Acting Methods in Lampung

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: National Family Planning Coordinating Board

DATES: November 1987 - October 1989

BUDGET: \$27,977

BACKGROUND AND PURPOSE: The Government of Indonesia is committed to expanding family planning delivery through private sector and local community involvement. Over 80 percent of family planning clients receive services through the public sector. This project tested interventions aimed at encouraging clients to utilize private family planning services provided by nurse midwives (NMWs), and also to increase the use of more effective contraceptive methods.

DESCRIPTION: Training, promotion, logistics and monitoring were the core interventions designed to increase the use of NMWs and longer acting methods. NMWs were recruited, trained and supplied with IUD equipment. BKKBN staff were educated about the role of NMWs and trained to recruit and refer clients to them. Informational materials were developed to inform clients about the location and nature of NMWs services, and a logistic system was developed to ensure a continuous supply of pills and condoms.

STUDY DESIGN AND METHODOLOGY: The project entailed three stages: planning, implementation and evaluation. Training of NMWs and outreach workers was designed based on assessments of skill and knowledge. Service statistics from NMWs were regularly collected and monitored to track implementation. The efficacy of the project strategy was evaluated by means of interviews and focus group discussions.

FINDINGS AND IMPLICATIONS:

- o Couple months of protection increased 57 percent over an 18 month period;
- o The proportion of couples using longer acting methods increased from 18.2 percent to 40.8 percent.
- o The average number of couple months of protection per NMW increased from 79 to 121.
- o While IUD use increased, implant use increased even more. NMWs are reluctant to provide the IUD because of the time and skill required for IUD insertion and the loss of return clients who would normally continue to purchase Family Planning services, particularly injectables.
- o NMWs with the greatest potential are those who already are established in the community and provide both public and private family planning services.

PROJECT NO. INS-06

COUNTRY: Indonesia

TITLE: Assessment of Reimbursement Mechanism and Cost Analysis of VSC

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Indonesian Association for Voluntary Surgical Contraception

DATES: December 1987 - November 1988

BUDGET: \$13,358

BACKGROUND AND PURPOSE: The National Family Planning Coordinating Board (BKKBN) has a reimbursement policy to assist service units in providing voluntary surgical contraception (VSC). The purpose of this reimbursement policy is to provide service units subsidies to partially cover their VSC procedure costs and ensure that VSC is an affordable procedure for all potential clients. The study was designed to: 1) clarify the reimbursement system with an emphasis on identifying the implementation obstacles; and 2) determine the unit cost of the VSC procedure.

DESCRIPTION: To help understand the allocation and use of VSC cost reimbursement funds from the national to the VSC service unit levels, information was collected regarding local policies and regulations concerning VSC reimbursement funds, provincial and district use, and flow to and within the VSC service units.

STUDY DESIGN AND METHODOLOGY: The study involved a qualitative analysis of the reimbursement process and a quantitative analysis of service costs for VSC. Sites providing the greatest number of VSC procedures were selected for study. Standardized instruments were used to collect data on both reimbursement and cost variables from documents, records and interviews with personnel.

FINDINGS AND IMPLICATIONS:

- o The VSC providers have been utilizing reimbursement funds for different purposes.
- o Many service units experience delays in receiving reimbursements for procedures already performed, and these delays limit the ability of the provider to meet the current demand.
- o The unit cost of VSC procedures varies and the reimbursement amount does not cover the full cost of the procedure.
- o Without changes in the reimbursement system and increase in the reimbursement amount, service units will not be able to meet the increasing demand for VSC.

FOLLOW-UP AND FUTURE PLANS: After presentation of study results, BKKBN convened a meeting to establish new operational guidelines for provision of VSC in Indonesia. BKKBN-Central also increased the amount of reimbursement.

PROJECT NO. INS-07

COUNTRY: Indonesia

TITLE: Improving Family Planning and Health Services to Urban Working Workers Through Hospital-Based Factory Network

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Atma Jaya Hospital

DATES: January 1988 - May 1990 **BUDGET:** \$103,827

BACKGROUND AND PURPOSE: Contraceptive use in Indonesia has risen dramatically from 25 percent in 1975 to the current estimate of 52 percent. Budget constraints and the still increasing demand for services has led the National Family Planning Coordinating Board (BKKBN) to encourage couples to pay for their own contraceptive methods, and related family planning services. Although individuals are expected to play a major role in fulfilling family planning needs, other sources such as employers, are being encouraged to participate as well. Jakarta and other urban centers in Indonesia have factories with the financial capacity to support basic family planning and health services for their employees and their dependents. Most private companies, however, are unaware of the relationship between family planning, improved employee health status and expenditures for employee benefits, and most factories do not offer family planning services to their employees. The objective of this project was to develop a hospital/factory network that was self-sustaining in the delivery of family planning and health services to small- and medium-sized factories.

DESCRIPTION: Cost-benefit analyses were conducted in five factories, with varying benefits and numbers of employees, to demonstrate to employers that financing family planning services is economically advantageous. Atma Jaya Hospital also conducted an assessment of its service delivery system for the employees to determine the areas that needed to be strengthened. The project team undertook a cost recovery study to determine the unit cost of various family planning and health services which were to be offered under the employment-based program. Family planning and health service modules were designed according to the needs assessed from preliminary surveys among the employees and employers. Employers were offered four service modules to choose from: 1) family planning; 2) outpatient services; 3) prenatal and postpartum care; and 4) medical check-ups. Factories paid a fixed fee per worker to participate. The family planning services were available through: 1) factory-based clinics; 2) factory-based cadres; 3) mobile clinics; and 4) Atma Jaya Polyclinic. The factory-based cadres were used in the participating factories for education, motivation and the distribution of temporary contraceptives to workers. Information, education and communication (IEC) materials were developed and used for marketing, family planning promotion in the factory (i.e., posters) and initial and refresher training for cadres.

STUDY DESIGN AND METHODOLOGY: The project employed a pre- and post-intervention design and the project management information system consisted of both qualitative and quantitative periodic surveys, service statistics and field observations. The major indicators used for impact assessment were the number of factories participating in the system and the percentage of employees receiving their family planning services from the employment-based program. Before launching the marketing campaign, a survey was conducted in five factories to elicit information for the cost-benefit analysis. In-depth interviews and focus group discussions

were held with the employers, workers and project staff to determine satisfaction with the services and possible areas that needed to be strengthened.

FINDINGS AND IMPLICATIONS:

- o Of the 88 factories in the Penjaringan district, 27 signed up with Atma Jaya Hospital, covering approximately 50 percent of the work force in the district. Of these factories, 17 signed up for family planning services, (14 for outpatient service, 7 for medical check-ups and 4 for prenatal and postnatal care.)
- o The contraceptive prevalence rate in participating factories increased from 69.9 percent to 73.1 percent in 6 months.
- o Six months after the project began, the percentage of employees receiving family planning services from public sector outlets dropped from 44 percent to 29 percent.
- o The percentage of employees or their spouses receiving family planning services from Atma Jaya increased from 19 to 44 percent from baseline to endline.
- o The percentage of workers receiving employer-financed services from Atma Jaya increased from almost zero to 43 percent over the project period.
- o The program achieved the break-even point in the first month (i.e., revenues exceeded costs). Over the project life span, the profitability of service provision for Atma Jaya Hospital increased substantially.
- o The cost of contraceptives to the employer was Rp. 250 per month per employee. (The project used BKKBN contraceptives because socially marketed contraceptives were not available when the project interventions were designed. However, if the project utilizes Blue Circle contraceptives, the cost per worker would be approximately Rp. 1,000 per worker per month.)

FOLLOW-UP AND FUTURE PLANS: Several recommendations were made by the project team to Atma Jaya management for the expansion and further development of the employment-based family planning and health care program. The recommendations include:

- o Using Blue Circle contraceptives (instead of BKKBN contraceptives).
- o Enlarging the coverage area by developing a network of providers on a referral and reimbursement basis.
- o Developing a pre-paid insurance plan for employers.
- o Providing technical assistance to the other Indonesian provinces where potential for such services is high.

PROJECT NO. INS-08

COUNTRY: Indonesia

TITLE: KB Mandiri: Improving Village Family Planning Program

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: National Family Planning Coordinating Board

DATES: July 1988 - June 1990

BUDGET: \$198,852

BACKGROUND AND PURPOSE: The three provinces of Bali, North Sulawesi and Yogyakarta have already achieved relatively high contraceptive prevalence rates. Since family planning has been accepted and institutionalized in these provinces, it provides an ideal opportunity to see how acceptors can be motivated to pay for services and contraceptives. This project was designed to increase the number of contraceptive users making financial contributions towards their family planning needs. The long term goal of KB Mandiri is to create self-sustaining mechanisms which will provide high quality services and effective methods of modern contraception.

DESCRIPTION: The project was carried out in two stages. In Stage I, University Research Corporation (URC), BKKBN-Central, and Provincial BKKBNs engaged in extensive research and discussion to identify effective strategies for achieving the objectives of KB Mandiri, including identification of a private organization for project implementation in each province. The current outreach system was upgraded in each province through improved training, coordination, supervision, management, and logistics. In Stage II, interventions designed to address the specific needs of each province were implemented by private sector agencies under BKKBN guidance.

STUDY DESIGN AND METHODOLOGY: The study employed pre- and post-intervention surveys to evaluate project impact. Throughout the intervention phase, mini-surveys and focus groups were used to measure clients' attitudinal and behavioral changes towards community-supported family planning strategies. A management information system was developed to monitor the performance of project interventions on a monthly basis.

FINDINGS AND IMPLICATIONS:

- o Baseline surveys found that contraceptive prevalence rates were high in all three provinces, and the majority of acceptors relied on effective methods.
- o In January 1989, approximately 20 percent of all new acceptors of family planning services were receiving supplies from private sector sources in Bali. This increased to over 40 percent by June 1989, and stabilized at 40 percent thereafter.
- o The number of clients receiving follow-up services from clinics increased over the life of the project.
- o Knowledge of KB Mandiri in the three provinces varied from limited to moderate; however, this knowledge was not directly related to the use of private family planning service providers. For example, in Bali, knowledge of KB Mandiri is the lowest of the three provinces but ever and current use of providers is the highest of the three provinces.

PROJECT NO. INS-09

COUNTRY: Indonesia

TITLE: Complementing Family Planning with Breastfeeding to Improve Maternal and Child Health

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: National Family Planning Coordinating Board

DATES: June 1989 - November 1990

BUDGET: \$60,801

BACKGROUND AND PURPOSE: The objective of this study is to promote optimal breastfeeding and appropriate contraception among lactating women, for birth-spacing as well as for increasing child survival rates. Specifically, the project sought to increase knowledge about postpartum lactational amenorrhea, optimal breastfeeding and appropriate family planning among pregnant and breastfeeding women and among health workers and outreach workers.

DESCRIPTION: The study evaluates the breastfeeding and family planning patterns of a rural population in West Java and an urban slum community in North Jakarta. Based on a problem assessment conducted prior to project implementation, an educational intervention was developed, consisting of IEC materials, training of health providers, outreach workers and traditional birth attendants (TBAs).

STUDY DESIGN AND METHODOLOGY: Baseline and endline knowledge, attitudes and practices (KAP) surveys of women with children under three years of age were conducted in the project areas before and after the project. The surveys were supplemented by in-depth interviews and observations of breastfeeding women, health providers, outreach workers and traditional birth attendants. Meetings of health providers and outreach workers were held monthly to discuss problems and generate solutions.

FINDINGS AND IMPLICATIONS: According to the results of the baseline survey:

- o Prevalence of breastfeeding was high in both the urban and rural areas, although duration of breastfeeding was longer in the rural site.
- o Problems regarding the initiation of breastfeeding were widespread in both urban and rural sites. The most common problems were: delayed initiation (i.e., after the second or third day), feeding of prelacteal foods, discarding of colostrum, and early (within the first three months) introduction of supplementary foods.
- o Contraceptive prevalence among women in the urban area was 55 percent; and 73.3 percent among those in the rural area.

- o There is a high overlap of breastfeeding and combined estrogen-progestin hormonal contraceptives. Among both urban and rural breastfeeding users, the most popular method was injectables, followed by combined estrogen-progestin oral contraceptives. Use of non-hormonal methods was very small, and the use of progestin-only pills was negligible.
- o In general, the health providers were well-informed about appropriate contraceptives for breastfeeding women, as well as about optimal breastfeeding. Despite this, many urban women who had had their babies in the hospital/maternity clinic were not allowed to room with their babies and the babies were fed prelacteal foods (glucose solution).
- o The outreach workers displayed a more uneven level of knowledge about family planning and breastfeeding than the health workers and traditional birth attendants.

PROJECT NO. KOR-01

COUNTRY: Korea

TITLE: Low Cost Delivery of Contraceptives in Rural Areas: Euriyong Gun (Tier I)

CONTRACTOR: East-West Population Institute

PARTICIPATING INSTITUTION: Korean Institute for Family Planning

DATES: May 1975 - December 1975

BUDGET: \$81,000

BACKGROUND AND PURPOSE: The Korean National Family Planning Program began in 1962. In 1964, one full time family planning worker was assigned to each rural myun (administrative subdivision of about 2000 households). This staffing pattern remained unchanged in 1975. Although the government family planning program had been successful in increasing contraceptive prevalence from about 9 percent in 1969 to 36 percent in 1973 (34 percent in rural and 39 percent in urban areas), various surveys showed a large unmet need and suggested that prevalence might be further increased by better distribution in rural areas. A two phase operations research study was planned to make contraceptives more readily available in rural areas. The first phase, conducted in Euriyong Gun, was a small 5-month demonstration to determine the feasibility and acceptance of household distribution. In the second stage, the most workable, acceptable and effective of the three methods was introduced on a large scale in Cheju Province (see Project No. KOR-02).

DESCRIPTION: Three methods of household distribution were compared: (1) household visits by salaried canvassers; (2) household distribution of contraceptives by local contracepting women who were randomly selected from village households and who received a small remuneration for their activities; and (3) household visits by salaried canvassers, preceded by group meetings at the village level. Contraceptives were distributed during the group meetings. For two of these approaches, canvassers served one to three villages (about 50 households), distributing contraceptives and providing referrals for clinical methods. In the third approach which used clients as distributors, each women selected as a distributor was responsible for supplying nine other eligible households.

STUDY DESIGN AND METHODOLOGY: A baseline KAP survey of MWRA and a 10 percent sample of males was conducted. Service statistics were used to monitor project progress, and a cost-effectiveness analysis was undertaken.

FINDINGS AND IMPLICATIONS:

- o Five months after the initial canvass, contraceptive prevalence among all MWRA living with spouse increased from 34 to 41 percent.
- o Little difference was found between the three delivery systems in terms of contraceptive use. Method 1 (household visits by salaried canvassers) was the easiest to implement.
- o Group meetings were unacceptable to many women who did not wish to discuss and accept contraception in front of neighbors and relatives.

- o Household distribution by randomly selected village women was very difficult to administer: the "distributors" worked irregularly and inefficiently, and the method proved to require too much supervision to be replicated on a large scale in a cost-effective manner.
- o The cost per net gain of one user was \$37 for Method 1 (household visits by salaried canvassers), \$38 for Method 2 (group meetings) and \$57 for Method 3 (household visits by randomly selected village women).
- o The cost per acceptor was \$16, \$13 and \$18, for Methods 1, 2, and 3, respectively. (For comparison, the cost in the National Program was estimated at \$12 per acceptor. It was expected that the larger Cheju project would have lower unit costs.)

FOLLOW-UP AND FUTURE PLANS: Method 1 (household visits by salaried canvassers) was introduced on an experimental basis in the largest island province of Korea, Cheju, in 1976.

PROJECT NO. KOR-02

COUNTRY: Korea

TITLE: Low Cost Delivery of Contraceptives in Rural Areas: Cheju Island (Tier II)

CONTRACTOR: East-West Population Institute

PARTICIPATING INSTITUTION: Korean Institute for Family Planning

DATES: July 1976 - June 1981

BUDGET: \$838,837

BACKGROUND AND PURPOSE: The Korean National Family Planning Program began in 1962, and by 1973, the contraceptive prevalence was 34 percent in rural areas and 39 percent in cities. However, various surveys showed a large unmet need and suggested that prevalence might be further increased by better distribution in rural areas. The Euiryong study (see Project No. KOR-01), tested the feasibility of three approaches to household distribution in rural areas. Results from that study indicated that household distribution was culturally acceptable and administratively feasible. The Tier II expansion was developed to test the most successful of the three Euiryong distribution systems (household visiting by salaried canvassers) on a large scale.

DESCRIPTION: In the experimental area of Cheju Island, a cadre of paid 'canvassers' worked under the supervision of government field workers, each providing services to 150-230 potential acceptors and maintaining a registration list of 'at risk' women in their respective villages. After one visit for initial contact, registration and distribution of supplies--a free three months' supply of pills or condoms, or a referral coupon for a free IUD or sterilization--the canvasser operated a resupply depot out of her home. In one of the Cheju myuns, canvassers were salaried; in another myun, canvassers were paid half the standard salary, but collected service fees. In the control area of Hapchun County, services were provided within the existing framework of the National Family Planning Program, where family planning field workers were each responsible for 1500-3700 potential acceptors.

STUDY DESIGN AND METHODOLOGY: The study employed a quasi-experimental design. Service statistics and the results of baseline and interim surveys provided the principal data for project results. A follow-up survey was conducted in conjunction with the 1980 Census. A cost-effectiveness analysis was also undertaken.

FINDINGS AND IMPLICATIONS:

- o Prevalence among MWRA in Cheju Province more than doubled from 18 percent to 38 percent in the first 40 months of project operation. Prevalence increased from 27 percent to 45 percent in the comparison area of Hapchun County during the same period.
- o The total fertility rate (TFR) in rural Cheju declined by 36 percent during the course of the project, from 4.9 to 3.2. (The corresponding decrease in rural Korea was nearly 29 percent, from 4.7 to 3.3.) At the inception of the project, the TFR was higher in rural Cheju than in rural Korea; this situation was reversed by the end of the project.
- o The Cheju project's accomplishments were achieved without an increase in program costs. The average annual costs per capita were similar for both experimental and control areas: \$0.47 for Cheju and \$0.49 for Hapchun.

- o Costs per acceptor were also comparable between Cheju and Hapchun--both at about \$20.
- o The average cost per couple years of protection calculated from the service statistics was slightly higher for rural Cheju (\$9.35) than for Hapchun (\$8.11), due to training for canvassers, and printing materials.

PROJECT NO. MOR-01

COUNTRY: Morocco

TITLE: Household Distribution of Contraceptives (Marrakech)

CONTRACTOR: Family Health International

PARTICIPATING INSTITUTION: Ministry of Public Health

DATES: July 1977 - December 1980

BUDGET: \$2,770,000

BACKGROUND AND PURPOSE: In 1976, the Moroccan Public Health System allowed distribution of contraceptives only through medical prescription, and it was widely believed that only female health workers could speak to women about family planning. The Ministry of Health was interested in incorporating high-quality family planning services into the everyday lives of both urban and rural populations. The MOPH requested an OR study which would assess the impact and cost-effectiveness of CBD activities. This led to the development of a pilot project testing household distribution of contraceptives, the Visites a Domiciles de Motivation Systematique (VDMS) project.

DESCRIPTION: The specific aims of the project included establishing a household-based system of family planning service delivery with community-based resupply, increasing contraceptive prevalence, and assessing the projects' cost-effectiveness. The project used specially trained health care workers, and the logistics and management systems were designed to complement the existing health infrastructure. The project was carried out in Marrakech Province. Two visits were made to each household. During the first visit, the field workers identified women eligible for family planning services and distributed 3 cycles of pills, if desired, or IUDs or other methods were suggested. Referral coupons were provided to women desiring clinical methods. After 3-5 months eligible women were revisited and fieldworkers completed a follow-up questionnaire, provided contraceptive counseling, ensured that pills were being taken correctly, re-supplied those using the pill, and evaluated any side effects.

STUDY DESIGN AND METHODOLOGY: The project used a quasi-experimental design, with observations made of the target group at two points in time: during the first household visit and once again three to five months later during the resupply and motivation visit.

FINDINGS AND IMPLICATIONS:

- o The VDMS project reached 150,000 household and 165,000 women in Marrakech province.
- o Over 60 percent of women who were offered pills at the first visit accepted them; the acceptance rate was 67 percent in urban Marrakech, and 56 percent in the rural areas.
- o Between the first and second household visits, the overall rate of contraceptive prevalence increased from 25 percent to 52 percent (from 49 to 65 percent in Marrakech City and from 11 to 45 percent in rural areas).
- o Nearly 90 percent of urban and 80 percent of rural women who accepted pills at the initial household visit continued to use them at the time of the second visit four months later.

- o The second round of visits also resulted in a substantial number of additional acceptors. Nearly one-fourth of both urban and rural women who initially refused pills accepted a method at the second visit.
- o The incidence of side effects and husband opposition was low. Among acceptors who were not using pills at the time of the second household visit, only 16 percent cited the opposition of the husband as the reason for non-use or discontinuation.
- o The costs per acceptor were \$5.15 in urban Marrakech and \$6.20 in rural areas. The costs per new acceptor were \$10.25 in urban Marrakech and \$7.30 in rural areas.

FOLLOW-UP AND FUTURE PLANS: VDMS laid the foundation for Morocco's first large scale national family planning program. Its method of service delivery was adapted as a framework for family planning and maternal and child health services throughout the country. The program was expanded nationwide in 1980 (see Project No. MOR-02).

PROJECT NO. MOR-02

COUNTRY: Morocco

TITLE: Household Distribution of Contraceptives (11 Provinces)

CONTRACTOR: Ministry of Public Health

PARTICIPATING INSTITUTION: Ministry of Public Health and Medecins Chefs

DATES: May 1982 - December 1984

BACKGROUND AND PURPOSE: The VDMS project carried out between 1977 and 1980 in Marrakech Province (see Project No. MOR-01) demonstrated popular approval of family planning, particularly for home-based delivery of services. Prior to that project, the emphasis of Ministry of Public Health (MOPH) community outreach health activities was on monitoring public health conditions. With the VDMS, project attention focused on direct provision of individual health care services. The MOPH subsequently decided to capitalize on this system by adding further health services.

DESCRIPTION: In the expanded project, geographic coverage was broadened to include 10 provinces the number of services offered were increased, and more emphasis was placed on reaching the needier segments of society, and less on serving those areas with high concentrations of medium- and high-income groups (mainly urban areas with greater access to health services). Two major elements of the original Marrakech project were retained: the use of community health workers to deliver services, and the home delivery of family planning. In addition to family planning supply, health workers were to monitor pregnant and lactating women, and distribute iron folate as needed; maintain surveillance of malnourished children, and distribute weaning flour and oral rehydration salts (ORS); refer non-vaccinated children to dispensaries; and collect blood smears for malaria screening among the households they visited. These services were provided in five annual home visits, rather than the two used in the Marrakech project. In some cases, however, only two to three visits were made each year.

STUDY DESIGN AND METHODOLOGY: A baseline contraceptive prevalence survey was conducted in the first three provinces of Beni Mellal, El Jakida and Meknes. A national contraceptive prevalence survey was conducted in 1984, with over-sampling in all VDMS provinces to provide an indication of project impact. Client records were also maintained.

FOLLOW-UP AND FUTURE PLANS: In late 1985 and early 1986, eight additional provinces and seven prefectures joined the program. At present, nearly 70 percent of Morocco is served by the VDMS program. Recently, VDMS has been withdrawn from areas where private sector sources and fixed MOPH facilities are available, but interest remains in expanding VDMS in the rural of the 30 provinces currently in the program, and expanding coverage to an additional 12 provinces. It is anticipated that 85 percent of the rural population will be covered by 1996.

PROJECT NO. MOR-03

COUNTRY: Morocco

TITLE: OR as a Tool for Improving Family Health Services in 3 Provinces - Phase I

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: November 1987 - June 1988

BUDGET: \$17,937

BACKGROUND AND PURPOSE: Morocco has a strong family planning program: contraceptive prevalence is 27 percent nationwide and contraceptive services and supplies are widely available through health facilities and distribution by health personnel. However, in some regions the number of acceptors is low. Contraceptive continuation has never been studied, nor have the reasons for discontinuation. To address the lack of built-in evaluation, particularly the collection of qualitative data, a training workshop in operations research for MOH personnel was undertaken. Plans were developed for specific family planning OR studies to be conducted in three provinces in Morocco and trainers were trained so that OR could be expanded into other provinces.

DESCRIPTION: As part of a multi-phased approach, a ten day training workshop was organized for 24 staff from the central level and the three provinces. OR goals, research designs and data collection methods were reviewed in detail. Participants conducted field exercises in MCH clinics in which they collected qualitative and quantitative data regarding access to and quality of services. Proposals for specific family planning operations research studies were developed by participant working groups, which were to be implemented during Phase II of this project. However, delays encountered in implementing Phase I of the project precluded the possibility of Columbia University involvement under this contract.

STUDY DESIGN AND METHODOLOGY: Data collection methods used included focus groups, time-motion studies, and client intercept interviews. A draft OR proposal was developed for each province with research ideas focussed on the client and immediate problems, and on designs which were simple, could be implemented quickly, and which would provide rapid feedback to policy makers.

FOLLOW-UP AND FUTURE PLANS: The MOH requested that plans be developed for a subsequent project to expand the OR initiative to additional provinces. A training manual, adapted to Moroccan needs and providing examples of OR applications as well as detailed reviews of data collection methods, was prepared for the workshop and is being distributed by the MOH to other provinces as a means of sensitizing managers to OR.

PROJECT NO. NEP-01

COUNTRY: Nepal

TITLE: Cost Effectiveness Analysis of Family Planning Programs

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION:

DATES: June 1984 - March 1986

BUDGET: \$23,993

BACKGROUND AND PURPOSE: Data from surveys conducted in the late 1970s and early 1980s reveal continuing high levels of fertility and low contraceptive prevalence in Nepal. In order to provide policy makers and program managers with information on the relative efficiency of the existing strategies for delivering family planning services, an OR study was undertaken to provide cost-effectiveness ratios for the services offered by Nepal's four major family planning projects.

DESCRIPTION: The OR study was designed to provide cost-effectiveness ratios for family planning services offered by the Family Planning/Maternal and Child Health project (FP/MCH), the Contraceptive Retail Sales (CRS) project, the Family Planning Association of Nepal (FPAN), and the Integrated Community Health Services Development Project (ICHSDP) during the periods 1974-75, 1979-80, and 1982-83. Comparative cost-effectiveness ratios for individual contraceptive methods, including breakdowns of costs for recruitment of new acceptors and for maintenance of continuing users were also to be developed.

STUDY DESIGN AND METHODOLOGY: Raw financial data and service statistics for the years to be studied were provided by the 4 agencies. The acceptor data were processed using assumptions about continuation rates and contraceptive effectiveness to produce estimates of CYP and births averted, permitting refinement of the cost-effectiveness measures. In order to estimate method-specific cost-effectiveness ratios, more information on time allocation was needed to disaggregate cost data. Fifty-one clinics and health posts were visited by researchers who interviewed personnel and observed operations. This established how much time was spent on family planning versus other health activities, and disaggregation of family planning time by method and by time spent on initial acceptors and continuing users.

FINDINGS AND IMPLICATIONS:

- o The unavailability of disaggregated data on sterilization camps made a detailed analysis of overall cost-effectiveness impossible.
- o It was possible only to relate costs for total integrated (health plus family planning) services to family planning output measures (acceptors, CYP, and births averted). Key findings were:
 - Considering the non-comparable nature of the cost ratios there was surprisingly little variation in cost per birth averted among the 4 agencies in FY 1982-3. The cost ranged only from Rs. 716 for the CRS to RS. 1,085 for the FP/MCH project.

- The cost ratios for the FP/MCH project and the FPAN project declined during the early 1980s, while the cost per birth averted of the ICHSDP project doubled, (probably attributable to increasing emphasis on non-family planning activities.)

FOLLOW-UP AND FUTURE PLANS: If a valid cost analysis is to be conducted in the future, the accounting and record-keeping procedures should be changed or cost-effectiveness analyses should be designed and implemented prospectively, with full cooperation of the family planning agencies involved.

PROJECT NO. NEP-02

COUNTRY: Nepal

TITLE: Improving Family Planning Acceptance Through Panchayat Based Clinics & Outreach Services

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Family Planning Association of Nepal

DATES: August 1987 - March 1990

BUDGET: \$108,362

BACKGROUND AND PURPOSE: In 1986, the CPR among MWRA in Nepal was estimated at 15 percent with the majority of users being sterilization acceptors. Although sterilization has been the main family planning method, its use has been confined primarily to older couples who have completed their families. The Community Based Family Planning and Nutrition Project (CEDPA), operated by the Family Planning Association of Nepal (FPAN), is a pilot project testing an integrated community-based approach to promoting temporary methods of contraception among younger couples through panchayat-based clinics using female volunteers. Nutrition education and income-generating skills training activities are offered by woman volunteers (WVs) along with family planning services. The purpose of the OR study is to document the impact of the integrated approach on family planning acceptance.

DESCRIPTION: CEDPA is in operation in 15 rural areas in Bangladesh, serving some 19,000 women. Three clinics were established with outreach services provided by 68 WVs who make household visits offering nutrition education and income-generating skills training along with family planning services. The objectives of the OR study were to assess the impact of CEDPA on family planning acceptance and CPR, and to assess the impact on field worker performance of the addition of the nutrition education component.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental design was used with a non-equivalent control group. Baseline and follow-up surveys were carried out on family planning and nutrition KAP and on field workers credibility. In addition, two rounds of WV observation were carried out.

FINDINGS AND IMPLICATIONS:

- o The proportion of CMWRA visited by a fieldworker in the previous six months increased from 23 to 33 percent between the baseline and follow-up survey.
- o WVs have become the community's preferred source of information about family planning.
- o Between the baseline and follow-up surveys, CPR in the experimental area rose from 29.9 to 33 percent, and from 19 to 21.2 percent in the control area. Over the entire three year project period, CPR in the experimental area increased by 6.6 percentage points, and by 3.7 percentage points in the control area.
- o The method mix was successfully altered in the project area in favor of spacing methods. Those methods accounted for one-fourth of methods used at follow-up, compared with

about 19 percent at the baseline. The comparable figure for the control area was 17-18 percent at both times.

- o Part time community-based field workers have been found to be an effective source of promotion and delivery of family planning services with a resulting increase in CPR better than that in control areas which had mostly male full time workers from the government program.
- o Total time worked by the WVs increased when nutrition was added to the family planning component of their program, rather than leading to a decrease in time spent on family planning.

PROJECT NO. NEP-03

COUNTRY: Nepal

TITLE: Developing Strategies to Increase IUD Use in Urban Areas

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Ministry of Health

DATES: September 1988 - April 1990

BUDGET: \$33,904

BACKGROUND AND PURPOSE: The contraceptive prevalence rate in Nepal, though still very low, has gradually increased from 3 percent in 1976 to 15 percent in 1986, almost 90 percent of which is voluntary surgical contraception. The IUD, the most popular method during the late 1960s, provides protection to only 0.2 percent of the nation's couples. In order to provide broader access to and utilization of temporary methods, His Majesty's Government of Nepal (HMG) has reiterated its commitment to providing motivation support and services for a range of clinical and non-clinical temporary methods with particular emphasis on the IUD. The objectives of this study are to: 1) identify the reasons for nonacceptance and high dropout rates among IUD users; 2) develop effective strategies to promote IUD services; and 3) implement those strategies in the Kathmandu valley.

DESCRIPTION: Findings from a variety of research activities provided baseline and background data--which were presented and discussed at a solution development workshop in September 1989. Four interventions were selected for testing in the study sites (three clinics and nine adjoining health posts): 1) training of field workers and medical and paramedical clinic staff on IUD management; 2) strengthening of IEC activities; 3) introducing an award system to encourage more recruitment of IUD clients; and 4) enhancing supervision.

STUDY DESIGN AND METHODOLOGY: Data collection included a baseline study on the reasons users have not accepted family planning in general and IUDs in particular, and general knowledge, attitudes and practices; an acceptor's study to identify variables that facilitate and impede both the acceptance and continued use of IUDs; and a practitioner's study to determine the level of competence of clinic and outreach personnel to promote and provide IUD services. In addition, focus groups were conducted with past and current users to determine reasons for acceptance, continuation and discontinuation, and clinic observations were undertaken to assess patient flow, waiting time, bottlenecks, services and materials provided, quality of staff-client interaction and client satisfaction. During the intervention phase, data were collected from client records, interviews with field workers and supervisors, observation of clinics, and focus groups with acceptors. A follow-up survey was conducted to assess impact.

FINDINGS AND IMPLICATIONS: Results from the studies providing data for solution development include the following:

- o Only 4 percent of those who intend to contracept in the future but currently use no contraception gave the IUD as their probable future method. Main reasons for not choosing the IUD were: fear of side effects (60 percent), lack of information (24 percent), and the impression that the IUD is not a reliable method (6.5 percent).

- o Respondents often confused the IUDs common side effects, including pain and bleeding, with the widespread rumor that the IUD perforates the uterus and travels in the body cavity until it pierces the heart and causes death.
- o All of the current and past users agreed that the IUD is easy to use, and most chose the IUD because it is a long-lasting and temporary method. Expulsion and heavy bleeding are the main reasons for discontinuation.
- o Pre-insertion counseling is incomplete. Half the current users had not been shown an IUD and didn't know that counseling was available.
- o Medical check-ups are insufficient. The illiterate and poor women did not recall a pelvic examination, although observations showed that all women were examined. However, medical histories are incomplete. Again, no checklists are used; weight, blood pressure and breast examinations are not done routinely.
- o Although side effects were common, especially among the poor, illiterate women, users stated that information on side effects is inadequate, and providers and outreach workers confirmed that fear of side effects discouraged many potential acceptors.
- o The participants felt that satisfied users would be the best promoters of the device and best able to dispel false rumors and fears of side effects, provided that they belong to the community, are married, and between 25 and 35 years of age. They also believe that radio and TV should be used to disseminate information on the IUD, including the advantages, disadvantages, and side effects of the device.

PROJECT NO. PAK-01

COUNTRY: Pakistan

TITLE: Diagnostic Study of Pakistan's Population Program

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Pakistan Population Welfare Program

DATES: June 1988 - October 1988

BUDGET: \$2,834

BACKGROUND AND PURPOSE: The Pakistan Population Welfare Program (PWP) has operated a national family program for more than thirty years but has succeeded in providing contraceptive services to only a small percentage of the nation's couples. Seeking to boost prevalence rates, the Population Welfare Division (PWD) commissioned an OR study to identify the operating problems that most constrain the performance of PWP.

DESCRIPTION: The OR project entailed a listing of the operating problems that act as constraints on the program, ranked by the degree to which each is holding back program performance, and the development of OR proposals for addressing the most urgent of these.

STUDY DESIGN AND METHODOLOGY: A system analysis was undertaken in a three day workshop. This approach does not analyze specific problems, but attempts to identify problem areas and to determine their relative magnitude.

FINDINGS AND IMPLICATIONS:

Two high priority problems were identified:

- o How to improve effectiveness of male outreach workers.
- o How to improve effectiveness of clinic services.

FOLLOW-UP AND FUTURE PLANS: NIPS submitted proposals for OR studies on these topics but it was not possible to fund them under the current contract.

PROJECT NO. PHI-01

COUNTRY: Philippines

TITLE: Family Planning Hygiene Project

CONTRACTOR: Commission on Population

PARTICIPATING INSTITUTION: Provincial Population Office

DATES: December 1976 - December 1978

BACKGROUND AND PURPOSE: In 1975, a USAID-POPCOM planning team reported that the key problem facing the National Family Planning Program was extending the program beyond its existing network of municipal-based clinics to the surrounding barrios. At that time, the number of new acceptors in the National Program was declining and there was a shift to less effective methods among current users. Because most clinics were urban-based, rural acceptors could not easily access family planning services. The report recommended that supply depots be established in barrios, and that motivators be used to distribute contraceptives and hygiene information and materials. An operations research project was developed to test the feasibility and cost-effectiveness of delivering family planning/hygiene materials directly to households in rural areas.

DESCRIPTION: The Barrio Supply Point (BSP) operators were to visit and make available to every household free family planning and hygiene materials. After the initial visit, BSP operators were to continue to serve as re-supply agents. Although contraceptives were re-supplied free, a nominal charge was required for hygiene materials.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental study design was employed. Pilot tests were conducted to determine what materials might be effectively distributed in addition to contraceptives.

FINDINGS AND IMPLICATIONS: Project support was terminated in December, 1978 before the project was fully implemented, because of the evolution of a national outreach program. Results of the pilot test showed that over 90 percent of households offered free condoms and pills, or free contraceptives and free bars of soap accepted them. No data on use of these items were collected.

PROJECT NO. PHI-02

COUNTRY: Philippines

TITLE: Natural Family Planning in the Philippines

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Research Institute Mindanao Culture at Xavier University

DATES: July 1983 - July 1985

BUDGET: \$53,000

BACKGROUND AND PURPOSE: Despite the fact that it has never been promoted by the government's family planning program, rhythm is one of the most popular family planning methods in the Philippines. Although periodic abstinence is recognized as a family planning method it has not been given the attention afforded to other methods. The development of new strategies to further promote this method has been hindered by a lack of detailed information about the practice. Research findings that existed were all drawn from small scale studies. To determine whether these findings can be generalized to the national level, and to explore further questions, a national survey of periodic abstinence users was conducted in 1984.

DESCRIPTION: The purpose of the survey, called the Natural Family Planning Survey (NFPS), was to provide detailed qualitative and quantitative data on the variations in NFP practice, perceived advantages, disadvantages, use-effectiveness, knowledge, perceptions and attitudes about NFP in relation to other methods. The NFPS was conducted by a consortium of 3 demographic centers located in the 3 major island groups of the Philippines: the University of the Philippines Population Institute (UPPI), the Office of Population Studies at San Carlos University (OPS), and the Research Institute for Mindanao Culture at Xavier University (RIMCU). Each institution administered the collection, processing, and initial analysis of the data for its own island group. Two national-level reports were planned: one focussed on the qualitative results and the other presented data for the Philippines as a whole and for each of the major island groups.

STUDY DESIGN AND METHODOLOGY: The NFPS employed as its sampling frame the respondents from the 1983 National Demographic Survey (NDS) who said that they were using a periodic abstinence method at the time of the survey. In the NFPS, 75 percent of these cases were successfully followed up and re-interviewed 6 to 10 months after the NDS. Combined with the broader qualitative data from the earlier small-scale studies about the ways in which periodic abstinence methods were perceived and used, the NFPS was able to present tightly-focused and highly-detailed results in two national-level reports.

FINDINGS AND IMPLICATIONS:

- o More couples used rhythm than any other method except sterilization (23.7 percent of all contraceptive users).
- o The main reason for using rhythm was avoidance of side effects and health risks believed to be associated with modern methods; religious or moral concerns had little direct conscious effect.
- o Calendar rhythm is nearly universally practiced by couples who report use of natural family planning (NFP) (93 percent versus 6 percent using a combination of NFP methods).

168

- o Nearly all rhythm users rely on rigid methods, many at variance with the Ogino formulation, indicating a need for education on the importance of and procedure for taking cycle variation into account.
- o Most rhythm users do not keep written records on cycle length and are reluctant to use even simple records to track safe and unsafe days.
- o Three-quarters of NFPS respondents reported having unprotected sex. Chance taking was the most frequently cited reason for accidental pregnancy.
- o After chance-taking, calculation error was the main reason reported for accidental pregnancy.
- o About 4 of 10 users felt they needed additional information about NFP; 84 percent had no written NFP materials. Also, more than half of husbands had never received any NFP instructions.
- o Doctors and nurses were cited as a major source of information, which was surprising given the lack of emphasis on rhythm as a program method.
- o Nearly half of respondents had attended classes or other group training sessions but these were usually brief with no individual counseling, little follow-up and few printed materials.
- o Use effectiveness analysis revealed low continuation and high failure rates. Lower failure rates were observed when withdrawal was combined with rhythm, indicating the value of back-up methods.

FOLLOW-UP AND FUTURE PLANS: A report of the project has been distributed by the Population Council as part of its Regional Paper Series.

PROJECT NO. PHI-03

COUNTRY: Philippines

TITLE: Introduction of an IEC Package for Rural Women of Maguindanao (Pilot)

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Commission on Population

DATES: October 1983 - November 1985

BUDGET: \$30,489

BACKGROUND AND PURPOSE: The Province of Maguindanao in the southern part of the Philippines is characterized by a mixed Christian and Muslim population. Family planning has been widely accepted in the Christian community but there has been resistance, particularly to the more effective clinical methods such as sterilization, in the Muslim community. A contributing factor may be that IEC materials appropriate for the Christian community are unsuited to the cultural norms and values of the Muslims. In order to strengthen the IEC capability of the Commission on Population (POPCOM) for promoting modern family planning methods, particularly female sterilization, an OR study was undertaken to test the introduction of an IEC package specially designed for a group of rural Muslim women, the Maguindanao.

DESCRIPTION: The purpose of the study was to strengthen the IEC capability of POPCOM for promoting modern clinical methods among special ethnic groups with distinct cultural values. In consultation with secular and religious leaders a package of culturally sensitive IEC materials and training curricula for field personnel was developed, including a brochure, flip chart and training materials, and distributed to outreach and religious leaders. The study was designed to test the hypotheses that consultation with religious leaders and education about family planning concepts would reduce their opposition, and that a correctly designed IEC package will bring about more positive Muslim attitudes to contraceptive practice. As a result, awareness, interest, knowledge, motivation and practice of family planning, especially modern methods, will increase.

STUDY DESIGN AND METHODOLOGY: The study, a modified experimental design, was conducted in two phases. In the first phase, data from a small-scale survey of 40 non-contracepting Muslim couples, and from meetings with local leaders and in-depth interviews with 50 representatives of key sectors of the target population were used to develop IEC and training materials. In the second phase the materials were used in two study areas for one year, while no materials were to be distributed in two similar control areas. Full-time Outreach Workers (FTOWs) were to carry out the motivational work in the experimental areas assisted by Village Volunteer Workers (BSPOs). Data were collected in a baseline survey of 400 randomly selected respondents from each of the experimental and control areas and a follow-up survey a year later. Service statistics on sterilization acceptance were monitored for trends.

FINDINGS AND IMPLICATIONS:

- o Personal contact by FTOWs was infrequent in both experimental and control areas. Only 23 percent of respondents in the experimental areas, and 13 percent in the control area had been visited by an FTOW.
- o Imams did not play the active role in promoting family planning that was expected. Only 10 percent of respondents in the experimental area reported having heard family planning

mentioned at a religious assembly. This cannot be attributed to the intervention, however, because the same proportion in the control area also reported hearing the Imam discuss family planning.

- o Only 34 percent of respondents in the experimental area had seen the special promotional brochure, 13 percent had received a copy, and only 5 percent claimed to have read the brochure. The figure for the control group who had seen or reviewed the brochure were not much lower and the proportion who had read it was higher even though the brochure had not been distributed in that area.
- o Awareness of contraceptive methods declined in the experimental area and increased in the control area.
- o Contraceptive practice declined significantly in the experimental areas (from 17 to 10 percent) and increased significantly in the control area (from 10 to 15 percent). However, changes were attributable almost entirely to changes in the use of less efficient methods; there were no significant changes in the prevalence of more effective methods in either area.
- o The number of sterilizations increased over the year in both experimental and control areas but the magnitude of the increase was greater in the control areas.
- o An itinerant medical team in the control area was seen as the reason for the upsurge of sterilizations there.
- o A number of logistical and supervisory factors were identified as responsible for the poor performance of the FTOWs and hence of the intervention.

PROJECT NO. PHI-04

COUNTRY: Philippines

TITLE: Introduction of a Promotional Package on the Use of Combination of Methods to Improve Contraceptive Effectiveness

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Commission on Population

DATES: October 1983 - November 1985

BUDGET: \$30,037

BACKGROUND AND PURPOSE: In the Philippines there is a much greater reliance on relatively ineffective, non-clinical contraceptive methods than in most other countries with similarly active family planning programs and comparable overall prevalence levels. Both the 1978 National Fertility Survey and the 1980 Community Outreach Survey revealed that more than half of all contraceptive practice consisted of the rhythm and withdrawal methods. Concern among family planning program managers about the widespread use of less effective methods (LEMs) led to attempts to improve the quality of LEM use by promoting these methods in combination with each other. Combining condoms or withdrawal with the rhythm method, for example, is more effective than the use of one LEM alone. An OR study was undertaken in order to establish the impact of a deliberate effort to promote the use of a rhythm in combination with another LEM on method mix and the effectiveness of LEM use.

DESCRIPTION: Ten municipalities in Region 12 (Central Mindanao) with large numbers of LEM users were selected for a one-year pilot project. Materials developed for the intervention included a brochure promoting practice of a simplified calendar rhythm formula, and recommending reduced sexual frequency, coupled with either withdrawal or condoms during unsafe days; a flip chart based on the brochure for field workers to use in home visits; and a training program for the Full-time Outreach Workers (FTOWs) who would be responsible for promoting the use of combination methods together with unpaid village level workers (BPSOs). The objectives of the study were to test whether there would be significantly greater use of LEM combinations after the campaign than before, whether there would also be greater reliance on improved patterns of LEM practice, and whether LEM knowledge and attitudes would be positively associated with exposure to the intervention.

STUDY DESIGN AND METHODOLOGY: The study employed a separate sample, pre-test/post-test design without a control group. Five areas were selected from each of the ten municipalities and an enumeration of all married couples undertaken. Couples who had used one or more LEMs were included in the sampling frame, from which a sample of 500 respondents was drawn. The process was repeated after one year and a second survey administered. Qualitative data were obtained through informal discussions with managers and field personnel, through direct observation in the field, and from a mid-term forum for FTOWs and their supervisors.

FINDINGS AND IMPLICATIONS:

The campaign reached only about half (57 percent) of the post-test survey respondents. Overall, 42 percent had been visited by a FTOW and 39 percent by a BPSO, 42 percent had seen the brochure and 34 percent had received a copy.

172

- o Twenty-three percent of all couples in the second round of interviews (representing all couples who reported LEM use during the intervention period) claimed they had tried following the brochure instructions for calculating safe days; 19 percent reported trying to follow the instructions for combining other methods with the rhythm method.
- o The prevalence of the rhythm method alone rose by three points, while the prevalence of rhythm combinations decreased by six points.
- o Little change was observed in knowledge and attitudes.
- o Exposure to the campaign was positively associated with willingness to use combinations and negatively associated with use of rhythm alone.
- o The results from the survey seemed to be contradicted by the prevalence data. However, the positive findings from the survey concerning the intervention's influence suggest that the development of an effective strategy for promoting the use of rhythm combinations is feasible and worthwhile.
- o At the same time, the failure of the intervention to affect rhythm prevalence in the hypothesized manner suggests a need to redesign the intervention and to supervise its implementation.

PROJECT NO. PHI-05

COUNTRY: Philippines

TITLE: Mobilizing Satisfied Users for Promoting FP: A Pilot Study

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: University of the Philippines

DATES: February 1984 - November 1985

BUDGET: \$14,621

BACKGROUND AND PURPOSE: The Eastern Visayas region of the Philippines has consistently reported family planning acceptance at below national average levels, particularly of the more effective methods (MEM). One method to increase contraceptive practice may be to have more program workers. At the time of this project, the full-time outreach worker (FTOW) covered an area with an average of 2000 married couples of reproductive age (MCRAs). FTOWs were expected to establish and manage village level Barangay Service Points (BSPs) managed by volunteer BSP officers (BSPOs) who were to help with motivation. However, BSPOs often covered only a small proportion of couples. An OR study was undertaken to evaluate whether additional volunteer auxiliary staff, recruited from MEM-users and known as "Satisfied MEM-user Volunteer Motivators" (SMVMs), could strengthen the family planning motivation program in the region.

DESCRIPTION: Sixty SMVMs from 40 BSP areas (two from each of 20 BSP areas, one from each of the other 20 areas) with large population size, low population density and relatively low CPR (especially of MEMs), were selected and trained. Over an eighteen month period their work in the field was monitored. The project attempted to increase overall contraceptive prevalence and prevalence of MEM by utilizing the SMVMs for motivational activities, to test whether prevalence would increase further when two SMVMs were active in an area, and to examine the impact on cost per additional MEM-user following deployment of trained SMVMs.

STUDY DESIGN AND METHODOLOGY: The study incorporated an experimental pre-test/post-test design with two treatment groups and a control group. The sampling unit was the Barangay Service Point (BSP) and 20 of these were randomly allocated to each group. A complete enumeration of the contraceptive practice of each MCRA was undertaken before the intervention and another a year later. In-depth interviews were conducted with field workers in 10 randomly-selected BSPs with one SMVM and 10 with two SMVMs six months after the project began and the findings used to develop a revised training program. This process was repeated in the remaining 20 experimental BSPs four months later to assess the extent of changes following the first round of observation. The combined data provided the basis for identifying strengths and weaknesses of the intervention.

FINDINGS AND IMPLICATIONS:

- o Comparison between experimental and control areas provides no evidence that deployment of SMVMs had any effect on either MEM prevalence or overall prevalence.
- o Comparison between the two experimental groups provides no evidence that two SMVMs in an area had greater impact than one working alone.

- o When prevalence was cross-classified with measures of SMVM activity level, knowledge level or contraceptive method, a slight positive impact on MEM prevalence and a negative effect on overall prevalence were suggested (indicating a tendency for more knowledgeable SMVMs to promote MEM use, but an even greater tendency to inhibit use of less effective methods).
- o Cost-effectiveness analysis could not be undertaken in the absence of a proven effect on prevalence by the intervention.
- o Problems with selection of trainees, training, coordination, supervision, and resources were seen as responsible for the lack of impact of the intervention. Particularly important was the lack of coordination with the BSPOs, although the work of the SMVMs was intended to complement their efforts.

PROJECT NO. PHI-06

COUNTRY: Philippines

TITLE: Use of Social Network Analysis for Increasing and Improving Family Planning in Region VI

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Central Philippines University

DATES: February 1984 - March 1986

BUDGET: \$30,096

BACKGROUND AND PURPOSE: In the Western Visayas region of the Philippines prevalence of the more effective family planning methods has long been notably low in comparison with the prevalence of other methods. In May 1983, service statistics indicated that only 18 percent of rural couples were using the more effective methods (MEMs) while 25 percent were using methods such as rhythm and withdrawal. The Regional Office of the Commission on Population (POPCOM) had some success in mid-1981 in raising prevalence by providing the Full-Time Outreach Workers (FTOWs) with management skills training. One strategy that was particularly successful was Social Network Analysis (SNA), used by FTOWs and Volunteer Barangay Service Point Officers (BSPOs). SNA enabled them to identify satisfied users of MEMs to act as "linkers" to motivate friends and relatives targeted as potential MEM acceptors. An OR study was undertaken to test an improved and standardized SNA training program.

DESCRIPTION: With the objective of increasing both overall and MEM prevalence more uniformly than earlier training, the new training program focussed solely on SNA rather than on a wider range of management skills as in the previous training program. High-performing FTOWs were interviewed to ascertain their use of SNA and the findings incorporated into the standardized training program. In the second phase, the 20 lowest performing districts in terms of prevalence were randomly assigned to treatment and control areas. In the treatment areas, the FTOWs received the SNA training and were instructed to train their BSPOs in turn and implement SNA during a one-year period.

STUDY DESIGN AND METHODOLOGY: The project employed a true experimental design with random assignments of districts to experimental and control areas. In each of the 57 FTOW territories within the 10 experimental districts, and in each of the 54 FTOW territories in the 10 central districts one BSP area was randomly selected for pre- and post-intervention enumeration to measure contraceptive prevalence levels. In addition, program statistics were collected for all experimental and control BSP areas, and during the eighth and ninth months after training all the experimental districts were visited for observation and interviews with District Population Officers, FTOWs, and a sample of BSPOs.

FINDINGS AND IMPLICATIONS:

- o The prevalence data indicated at best a weak positive effect of SNA on MEM prevalence and a similar negative effect on LEM prevalence. The net effect on overall prevalence was therefore slightly negative but close to zero.
- o Qualitative assessment revealed that the SNA approach did not receive a valid test. Six months after training, most of the FTOWs had not begun to train their BSPOs or attempted

to implement the intervention because of logistical failures in supplying revised training manuals and forms.

- o After a second round of training in the eighth month of the project, FTOWs and BSPOs in the experimental areas were instructed to place special emphasis on implementing SNA. Any gains observed in MEM prevalence therefore may be a result of extra pressure to meet targets at this time, rather than to the careful implementation of an approach calling for enumeration of the areas identification of satisfied users to serve as linkers, motivation of persons to play the linker role, and the time required for the linkers and program staff to motivate target couples to accept a MEM.
- o Nevertheless, field workers reported that the SNA approach was an improvement over past approaches to increasing contraceptive prevalence, suggesting that further testing would be worthwhile.

PROJECT NO. PHI-07

COUNTRY: Philippines

TITLE: Evaluation of the Cebu Male-Specific Campaign

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Center for Regional Development Operations

DATES: April 1984 - July 1985

BUDGET: \$12,000

BACKGROUND AND PURPOSE: In the Philippines as elsewhere, family planning programs have been addressed primarily to women, particularly information, education and communication (IEC) efforts. Questioning whether this fact may have contributed to prevalent male attitudes about family planning and childbearing, and to significantly low levels of vasectomy acceptance, an OR study was undertaken. Its objective was to test and evaluate an IEC strategy to encourage rural males to become active participants in the family planning program, especially with regard to vasectomy acceptance.

DESCRIPTION: The objective of the study was to assess the effects of the campaign on husbands' family planning awareness, knowledge, attitudes and practice (AKAP), especially with regard to the more effective contraceptive methods (MEM). The campaign, conducted during an eleven-month period, consisted of direct promotion by Full-Time Outreach Workers (FTOWs) and volunteer village level workers (BSPOs), a mobile IEC team that promoted vasectomy, radio publicity, and the production of IEC support materials for potential vasectomy acceptors and field workers.

STUDY DESIGN AND METHODOLOGY: A baseline survey of 800 respondents (husbands from couples of reproductive ages) was undertaken. An independent sample of 800 was used for a post-test survey one year later. Program service statistics were gathered for an analysis of trends over time on acceptance of clinical contraceptive methods.

FINDINGS AND IMPLICATIONS:

- o Significant but small increases in awareness of MEMs, including vasectomy, were found in the post-intervention survey.
- o Approval of more effective family planning methods for the wife, and support of her use of contraception, declined significantly.
- o Contraceptive prevalence did not alter significantly, nor did prevalence of vasectomy; a decrease in the use of condoms was noted.
- o Vasectomy acceptances began to rise during the last two months of the campaign and continued to rise subsequently. This may have been influenced by the campaign, but the increase is fully consistent with a long-term increase in vasectomies that was already occurring independently of the campaign.
- o Weaknesses in the research design (such as the absence of a control group, and the fact that the campaign was the third phase of a larger effort to influence the attitudes and

behavior of men) as well as logistical, management and supervisory failures severely affected the impact of the IEC campaign to the extent that the study did not provide an adequate test of the feasibility of a male-specific campaign as originally envisioned.

PROJECT NO. SRI-01

COUNTRY: Sri Lanka

TITLE: Improving the Delivery of Oral Contraceptives

CONTRACTOR: Family Health International

PARTICIPATING INSTITUTION: Family Planning Association of Sri Lanka

DATES: September 1977 - June 1981

BUDGET: \$433,463

BACKGROUND AND PURPOSE: An OR study was undertaken to evaluate the impact of a home delivery service on acceptance and continuation rates of contraception in rural Sri Lanka and to study the effectiveness of vitamin supplementation in influencing acceptance, continuation and the reduction of reported side effects of oral contraceptives (OCs).

DESCRIPTION: The CBD project, taking place in two rural areas, entailed household distribution of OCs and condoms, the provision of injections and referrals for sterilization by a team of eight motivators assisted by a physician, two nurses, and a male and female attendant in each area. The evaluation of vitamin supplementation was conducted over a one year period through an urban clinic where 500 clients were offered one of two types of oral contraceptives with either a vitamin supplement (Vitamin C, B1, B6, B12 and folate) or a placebo.

STUDY DESIGN AND METHODOLOGY: Baseline studies were undertaken in the two rural areas and a final survey four years later. About 800 married females 15-49 were interviewed with husbands present. The clinical trial involved randomized double-blind study of high-dose and low-dose oral contraceptives cross-classified with and without vitamin supplements. Service statistics were collected including an acceptor record, partial or completed physical exam records and a symptom grid for months 1,3,6,12. Each of the rural areas was allocated a control area where all OC acceptors were given the high dose pill with neither vitamin supplement nor placebo.

FINDINGS AND IMPLICATIONS:

- o The provision of the vitamin supplement taken in conjunction with either high- or low- dose OCs made no difference in either continuation or side effects associated with OC use.
- o For both contraceptives incidence of nausea, vomiting, dizziness and headache in the first cycle were highly intercorrelated and highly predictive of later discontinuation. Menstrual problems were less correlated with other symptoms and not predictive of discontinuation.
- o The CBD system was effective in recruiting acceptors but had no demographic effect due to limited coverage and high discontinuation rates.
- o Delays in provision of supplies affected the implementation of the project.
- o Pre-testing of data collection would have avoided problems during the project implementation period.

PROJECT NO. SRI-02

COUNTRY: Sri Lanka

TITLE: Operations Research on the Social Marketing of Contraceptives

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Family Planning Association of Sri Lanka

DATES: April 1980 - March 1983

BUDGET: \$154,015

BACKGROUND AND PURPOSE: The Family Planning Association of Sri Lanka (FPASL) was founded in 1953. When the government became active in providing clinical contraceptive services in the late 1960's, the FPASL focused increasing effort on research, training and supplementary services, such as social marketing. By the early 1980's, through its commercial sales program, the FPASL was distributing 90 percent of the condoms and 40 percent of the oral contraceptives used nationally. This OR study compares the effectiveness and cost-effectiveness of an alternative to the existing social marketing scheme and develops an income-generating mechanism to help the social marketing program move toward self-sufficiency.

DESCRIPTION: The original social marketing program of the FPASL, to which this project was added, was based on the use of a nationwide commercial network. The FPASL supplied contraceptive products to a principal agent in Colombo. The agent then supplied contraceptives as well as a large line of other products to wholesale distributors in each district. These distributors then supplied contraceptives to retail outlets. The FPASL had no involvement in the distribution system. The project design called for the continuation of the original (principal agent) system in five of the 10 sales districts, and the development of an experimental (commission agent) system in the other five districts. In the commission agent system, the FPASL assigned its staff as marketing officers in each district and selected wholesale distributors in these districts to distribute contraceptives to retail outlets. FPASL marketing officers were to meet regularly with the commission agents, accompany them to retail outlets, and establish new outlets. In all 10 districts, FPASL staff carry out promotional and educational activities, and village level projects. In 1980, the principal agents for oral contraceptives withdrew, but the research design was maintained for condom distribution.

STUDY DESIGN AND METHODOLOGY: The study is a comparative analysis, wherein existing and new distribution systems are evaluated and their results compared for efficiency, effectiveness, and cost-effectiveness. Research methods included analysis of sales records, dealer and client surveys, and a cost analysis.

FINDINGS AND IMPLICATIONS:

- o Sales of both pills and condoms in the project increased through late 1981. There was a small decline in sales in late 1981 and early 1982, due to a major increase in sterilizations and the sale of low-priced products by other suppliers.
- o The comparison of condom sales between the principal agent system and the commission agent system did not show major differences. The commission agents were successful in opening rural outlets, but these outlets did not have many sales.

- o The FPASL was able to recover a larger proportion of its operating costs through the commission agent system than through the principal agent system.
- o Personnel turnover and sales force vacancies were reduced in this project. The FPASL developed a system of compensation (commissions and allowances) which is more competitive with private sector practices, in an effort to retain workers.
- o The FPASL established and managed an effective contraceptive delivery system. It also developed a practical record system for monitoring this program. By improving the monitoring and management of the distribution network, the FPASL was able to try out additional products, promotional campaigns and distribution strategies.

FOLLOW-UP AND FUTURE PLANS: Because this was a nationwide project, the replication of its findings took place as the project developed, and as natural experiments provided opportunities to improve the design. The improved capacity of the FPASL to monitor small area costs and sales will continue to allow better evaluation and modification of the design.

PROJECT NO. SRI-03

COUNTRY: Sri Lanka

TITLE: An Experimental Field Research Study to Increase IUD Acceptance

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Family Planning Association of Sri Lanka/MOH

DATES: February 1983 - October 1985 **BUDGET:** \$56,187

BACKGROUND AND PURPOSE: Although remarkable progress has been made in the last few years by the Sri Lankan national family planning program, with substantial increases in the number of new acceptors between 1975 and 1980, an examination of the statistics indicates some problem areas. The 1981 CPR survey indicated that use for all methods had increased, with the exception of the IUD, which showed a decline from 4.7 percent to 2.5 percent between 1975 and 1981. Emphasis on sterilization and the introduction of injectables may have contributed to this decline but a Sri Lankan FPA study indicated a range of reasons associated with problems of IUD insertion, side effects, and inadequate counseling and follow-up. An OR study was designed by the Family Health Bureau (FHB) of the Ministry of Health and the Sri Lankan FPA to test ways of increasing IUD acceptors, and at the same time, encouraging the use of temporary, effective spacing contraceptive methods.

DESCRIPTION: The OR study was designed to: 1) identify and use satisfied IUD acceptors as recruiters, counselors, motivators, and follow-up personnel for new IUD clients; 2) encourage women to switch from less effective methods to the IUD; 3) train midwives and satisfied IUD users as a recruitment, counseling, motivation, and follow-up team; 4) train Public Health nurses in IUD insertion, particularly in areas where physician services are lacking or infrequently available; and 5) retrain medical practitioners in insertion techniques.

The above agenda, it was proposed, would achieve enhanced IUD acceptance as this method would be seen as appropriate both for short and longer-term contraception. The study lasted two years. Satisfied IUD users were teamed with government midwives and trained in IUD motivation and recruitment. Physicians and medical practitioners were re-trained in insertion techniques and nurses trained for the first time. Rural clinics were upgraded to provide hygienic facilities.

STUDY DESIGN AND METHODOLOGY: Experimental and control sites were selected in all nine provinces of the country, which are divided into Medical Officer of Health (MOH) areas. Six MOH areas were designated as experimental sites and six as matched comparison areas. In the experimental sites half of the midwives were randomly chosen to be teamed with satisfied IUD acceptors, four acceptors to each midwife. The remaining half worked alone. Data on new IUD acceptors were collected in both experimental and control areas through a monitoring system established by the study. In addition, a post-intervention survey was undertaken at the completion of the study with women who had received an IUD in the preceding twelve months.

FINDINGS AND IMPLICATIONS:

- o The experimental areas showed a marked increase in IUD acceptance during the study period: 17.3 percent of Sri Lanka's total new IUD acceptors during the study period while the control areas contributed only 7 percent.

- o In the experimental areas an average of 117 new IUD acceptors a month were recruited over and above the number recruited in the control areas.
- o Midwives working with IUD acceptors recruited on average 16 new acceptors during the study period, a midwife alone recruited on average 10 in the experimental area, and in the control area an average of 6.
- o Teaming Government Midwives with satisfied users succeeded in greatly increasing the number of new acceptors, but did not decrease the termination rate for IUD users.
- o Termination rates were affected by other aspects of the program, such as the training in insertion techniques. Overall, the termination rate for both experimental areas was 17.6 percent compared to 25.4 percent in the control area.
- o Public Health Nurses proved to be competent in inserting IUDs, with termination rates no higher than for IUDs inserted by a physician. This suggests that availability of IUD services can be greatly expanded by using Public Health Nurses to do insertions.
- o Satisfied users of IUDs proved willing and acceptable as promoters of the method.

FOLLOW-UP AND FUTURE PLANS: At a post-study seminar where the study results were presented, the Ministry of Health agreed to allow nurses to insert IUDs. He also wanted to expand the satisfied acceptor idea island wide.

PROJECT NO. SRI-04

COUNTRY: Sri Lanka

TITLE: Satisfied Users as Family Planning Motivators for Pills and IUDs

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Family Planning Association of Sri Lanka

DATES: January 1988 - July 1990

BUDGET: \$47,050

BACKGROUND AND PURPOSE: Contraceptive use in Sri Lanka is heavily skewed toward permanent methods (VSC) on the one hand, and traditional methods on the other. There is relatively little use of modern temporary methods. A prior OR study used satisfied acceptors (SAMs) to motivate acceptance of the IUD (see project SRI-03). The experiment was successful: Public Health Midwives (PHM) aided by SAMs recruited more IUD acceptors than did other midwives. This project builds on that earlier experiment. It develops and tests a model for utilizing SAMs to recruit and retain IUD and pill users, within the budgetary and administrative capacity of the national family planning program.

DESCRIPTION: The research design called for the testing of four alternatives, derived from a combination of variations in training and work schedules. Half of the SAMs were trained in family planning only while the other half were trained in both family planning and MCH. Two work schedules for the PHM and SAM were planned: 1) SAM would spend half of their time with the PHM and half doing home visits by themselves; and 2) the SAM would go with the PHM for the first 3 months and then work on their own with regular follow-up with the PHM. However, the establishment of two types of work schedules did not prove feasible. Monthly management meetings were established for PHMs and SAMs, and their supervisors. In addition to their expected activities, SAMs developed an IEC role, actively promoting IUDs and pills at group meetings, and consequently have been provided with IEC materials.

STUDY DESIGN AND METHODOLOGY: The project began by undertaking an examination of the structure of the previous OR project. A quasi-experimental design was used to test alternative models for using SAMs. Data were collected by a baseline survey of contraceptive prevalence, 12 months of continuous monitoring of the experiment, and a follow-up survey.

FINDINGS AND IMPLICATIONS:

- o Eighty percent of the SAMs trained under the previous OR project were still contacted by the PHMs for family planning assistance.
- o Central monitoring meetings with PHMs provided additional family planning education for the SAMs.
- o None of the 60 SAMs reported problems in working with the PHMs.
- o The average time spent in family planning activities was 4 days a week, 2 hours per day.
- o Community status was enhanced through participation in the PHM/SAM relationship.

- o PHMs considered SAMs were useful for motivating acceptors.
- o The baseline survey indicated that 48 percent of MWRA were not currently using any contraceptive method. Current use by method was 35.7 percent traditional, 35.4 percent tubectomy, 9 percent pill, 7.9 percent IUD, 4.3 percent condom, 3.8 percent injectable, and 0.1 percent Norplant.

PROJECT NO. SRI-05

COUNTRY: Sri Lanka

TITLE: Strengthening Ayurvedics' Role as Family Planning Providers

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Population Services Lanka

DATES: February 1988 - February 1989

BUDGET: \$22,873

BACKGROUND AND PURPOSE: Ayurveda has been practiced as the indigenous health care system throughout Sri Lanka for the past 2,500 years and Ayurvedic practitioners (AP) still play an important role in the provision of preventive and curative health care. With their ready accessibility and high community standing APs have the potential to make a significant contribution as providers of family planning services, particularly as the emphasis in Sri Lanka has shifted away from sterilization and towards the promotion of temporary methods. Population Services Lanka (PSL) has trained over 2000 APs to provide family planning but participation has not occurred at the expected levels. An OR study was undertaken with the overall aim of increasing the effectiveness of APs.

DESCRIPTION: The OR study was designed assess the AP family planning service delivery system supported by PSL and to examine the reasons for AP participation, non-participation, and dropout from the PSL program; to examine the PSL logistic and support system and identify shortcomings; to analyze the relationship between long-term versus short-term training, and AP performance and participation; and to develop and test alternative strategies for recruiting, training and supporting APs.

STUDY DESIGN AND METHODOLOGY: Data were collected through interviews with APs and a sample of MWRA. Qualitative data were obtained from in-depth interviews with a sub-sample of APs. Open-ended questions were used with the MWRAs to collect attitudinal data.

FINDINGS AND IMPLICATIONS:

- o Younger, better educated APs are more likely to have an active family planning practice.
- o Unlike drop-outs and non-participants, active practitioners expressed clear support for Western medicine and the concept of family planning.
- o The majority of clients are female; many APs provide counselling only and report a high level of client satisfaction.
- o Offering family planning is useful for expanding practice and enhancing credibility, rather than increasing profit.
- o Dealing with side effects was the most commonly identified area requiring greater emphasis during training.
- o There were significant problems with contraceptive supplies and supervisory visits.

- o Lack of motivation, problems in supply and supervision, and retirement were important reasons for drop-out and non-participation.

FOLLOW-UP AND FUTURE PLANS: A series of recommendations was formulated, including screening of APs during recruitment, improving training course content, reorganizing the supervisory system, providing refresher courses, and improving the contraceptive logistical system. PSL is now using key APs as sub-distributors in 3 regions. Information from these three regions will be used to determine the feasibility of an expanded AP delivery system. In the expanded AP program APs providing family planning will receive refresher training.

PROJECT NO. TAI-01

COUNTRY: Taiwan

TITLE: Feasibility of Distributing Contraceptive Supplies to Encourage Family Planning Practice

CONTRACTOR: Johns Hopkins University

PARTICIPATING INSTITUTION: National Health Administration

DATES: January 1974 - December 1978 **BUDGET:** \$300,000

BACKGROUND AND PURPOSE: Taiwan's official family planning program has been aggressive and successful. Contraceptive prevalence was 50 percent among married women of reproductive age in 1974. In order to further improve on this success, the National Health Administration launched an operations research study in 1974 to test the feasibility and effectiveness of a contraceptive inundation approach, i.e., distributing contraceptive supplies through systematic door-to-door canvass of each and every household in the study areas.

DESCRIPTION: A total of 24 townships participated in the study: 12 in the experimental group and 12 in control townships. The study began with distribution of contraceptive supplies to all postpartum women who had registered a live birth during the three months prior to the initiation of the project (post partum approach, or PPA). Follow-up visits for reinforcement of motivation and replenishment of supplies by field workers took place approximately three months after the initial visit and at six month intervals, thereafter. Ten months after the project began, contraceptive distribution in six of the experimental townships was expanded to include all MWRA (all women approach, or AWA). The family planning workers in the study areas conducted a door-to-door canvass to offer a standard package of contraceptive supplies to each and every target woman (postpartum women or all MWRA) in the study areas. Every effort was made to leave the supplies with the women, unless the women were strongly opposed to having the supplies. No attempt at follow-up was made in AWA townships; instead, contraceptive supply depots were set up in convenient locations. In the control townships, the regular family planning activities, which were themselves intensive, continued without interruption.

STUDY DESIGN AND METHODOLOGY: This quasi-experimental field study employed a matched-pair study design to compare the effects of study inputs with the regular intensive family planning activities. A baseline survey of a sample of postpartum women and two sample surveys (one interim, and another final) were conducted in the all women approach townships and their control townships.

FINDINGS AND IMPLICATIONS:

- o Life table analyses revealed that continuation rates for both pills and condoms were substantially poorer in the study area. The average duration of use for pills was 24 months in the study area, vs. 54 months in the control area. The corresponding figures for condoms were 35 months vs. 90 months.

- o Despite the lower continuation rates of use in the experimental area, the prevalence rates in the two areas did not differ significantly. Baseline prevalence among MFWA 15-49 years of age was 47 percent in both experimental and control areas. Prevalence increased to 62.7 percent in the experimental area and to 66.2 percent in the control area.
- o Fewer couples in the experimental area (39 percent) than in the control area (45 percent) remained in a non-use state over the course of the study, and proportionately more shifted from non-use or traditional methods to pills or condoms.
- o Prevalence rates for the pill and condom, the methods promoted by the inundation approach, were significantly higher in the experimental area than in the control area. Prevalence rates for the IUD and sterilization were higher in the control area than in the experimental area.
- o Ninety-seven percent of the target women in the experimental area were aware of at least one contraceptive method at the time of the final survey, compared with 88 percent of women in the control areas.
- o Both the official program and the inundation approach systems recruited equally small proportions of very hard-to-reach women, 12.8 percent. However, the inundation approach recruited more women having a latent or "unmet" demand for family planning (women who do not want any more children yet are not contracepting). Inundation satisfied nearly 60 percent of demand among these women compared to the official program, which left more than 60 percent of the demand unsatisfied.

PROJECT NO. THA-01

COUNTRY: Thailand

TITLE: Family Planning Health and Hygiene

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Community-Based FP Service of
Population/Community Development Association

DATES: June 1977 - September 1981

BUDGET: \$1,313,955

BACKGROUND AND PURPOSE: The Community-Based Family Planning Service (CBFPS) was organized in 1974 to increase family planning service delivery to the rural poor. The CBFPS used shopkeepers, farmers, teachers and housewives to distribute contraceptives and provide information. Although CBFPS provided contraceptives even in very small communities it did not emphasize household visiting. The Family Planning Health and Hygiene (FPHH) Project was a continuation and expansion of CBFPS activities, which emphasized household distribution.

DESCRIPTION: The target population was MWRA and sexually active men in 80 districts in four largely rural areas. Four contrasting community-based social marketing schemes were to be compared:

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| Model A: | Only contraceptives provided by CBFPS, for sale at low prices. |
| Model B: | As above, but with two months' free introductory supply of pills and condoms distributed to those eligible and willing to try their use. |
| Model C: | As in Model A, but combined with household drugs and orientation for health services/referrals. |
| Model D: | As in Model C, with initial free distribution of contraceptives as in Model B. |

Agents under models B and D were requested to visit every household in their area.

STUDY DESIGN AND METHODOLOGY: Evaluation of this community-based social marketing project was based on service statistics, cost data, pre-, interim, and post-intervention client surveys, and analysis of client records.

FINDINGS AND IMPLICATIONS:

- o The initial free distribution of contraceptives did not produce an increase in contraceptive sales.
- o According to the February 1980 evaluation, the project sold oral contraceptives and condoms to a modest portion (3-7 percent) of MWRA in the 80 program districts.
- o The inclusion of household drugs in the program increased both the distributors' training costs and the cost of program maintenance, without generating additional income. Cost per acceptor was 46 bhat in models A and B compared with 97 bhat in models C and D.
- o The program expense per current contraceptive was about \$19 during the first year of the project, then declined to \$11 per contraceptive for the subsequent two years.

FOLLOW-UP AND FUTURE PLANS: Two years after project initiation (December 1979), a "Model E" service delivery system was designed and implemented. Model E used village distributors to provide family planning and health services, and to promote breastfeeding and economic development activities, and to make referrals for immunization and sick care. A re-training program was instituted to implement Model E in all CBFPS areas, including FPHH project areas.

PROJECT NO. THA-02

COUNTRY: Thailand

TITLE: Increasing Family Planning Acceptance Through Development Programs in Northeast Thailand

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Population & Community Development Association

DATES: April 1982 - September 1983 **BUDGET:** \$57,910

BACKGROUND AND PURPOSE: Northeastern Thailand contains one third of the country's population and is characterized by low per capita income, high fertility rates and the lowest level of contraceptive prevalence except for the South. Over 80 percent of households are engaged in agriculture, and insufficient credit opportunities, diminishing land resources, inefficient land utilization, poor crop yields, and lack of marketing opportunities are all limiting growth in the agricultural sector. A Community-Based Integrated Rural Development Program was initiated in late 1981 in selected villages by the Population and Community Development Association (PCDA). An OR study was undertaken to assess the impact of the program's development inputs on CPR and continuation.

DESCRIPTION: The community development program aimed to introduce income-generating opportunities which would increase skills and productive capacity in agriculture and livestock. Through the benefits gained from these activities family planning acceptance levels and continuation rates would be raised. Forty villages were randomly selected from 3 districts. Thirty were designated as experimental and divided into 3 areas with 10 villages in each. The remaining 10 villages comprised the control area. Households in the experimental areas were offered a choice of inputs, the range and availability of which were graded into 3 groups: A, B and C with A as the highest and C the lowest.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental design, the study focussed on data collection from currently married couples with females 15-44 years of age. A baseline survey collected data on social, economic and demographic factors and family planning. The follow-up survey was a modified version of the baseline survey and was matched with the baseline to obtain a panel of couples who had spent the whole year in the study area. Community-level data on family planning and development activities were obtained from village headmen in all area at the end of the study period.

FINDINGS AND IMPLICATIONS:

- o All areas experienced an increase in CPR over the study period with no effective percent difference between the experimental and control areas.
- o Within models B and C (but not A) acceptors of development inputs showed a greater effective percentage change in contraceptive prevalence than non-acceptors.
- o For models B and C (but not A) acceptors showed a greater effective percentage change in contraceptive prevalence compared with the control area.

- o In all 3 model areas there was a slightly greater use of more effective and coitus independent methods between the beginning and the end of the study than in the control area.
- o Within all experimental areas family planning users who accepted a development input demonstrated consistently higher family planning continuation rates than non-acceptors.
- o Family planning users in models B and C (but not A) showed higher continuation family planning rates compared with the control area.

PROJECT NO. THA-03

COUNTRY: Thailand

TITLE: Collecting Village Level Data for the Analysis of the Impact of Contraceptive Availability and Accessibility on Reproductive Change (1969-1979)

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Chulalongkorn University

DATES: February 1983 - February 1984

BUDGET: \$8,258

BACKGROUND AND PURPOSE: During the period 1969-1979 contraceptive prevalence in rural Thailand increased from approximately 10 percent to 50 percent of married women. Rural fertility declined during the same period by approximately 40 percent. This period also saw the establishment and expansion of the national family planning program. Analysis of the contribution of increased accessibility and availability resulting from government and private efforts to change reproductive behavior in Thailand has practical as well as theoretical significance. The relative importance of supply vs. demand factors has implications both for program strategies and for a general understanding of the determinants of fertility change. An OR study was designed to assess the impact of increased accessibility and availability of family planning on reproductive behavior.

DESCRIPTION: The study addressed the issue of whether contraceptive prevalence is higher when family planning services are more accessible. Methodologically, the study addressed the issue of the measurement of accessibility. The study defined accessibility as the length of time contraceptives have been available, the methods available, the number of sources and the distance to the sources. Data were gathered on these variables in 64 villages.

STUDY DESIGN AND METHODOLOGY: Data were gathered on the accessibility variables in 36 villages where prevalence had been measured two or three times previously and in 24 where only one, the most recent survey had been completed. Village-level variables were collected through group interviews with qualified village informants and contraceptive providers. These data were then added to the data tapes from the three existing surveys.

FINDINGS AND IMPLICATIONS:

- o The effect of accessibility on contraceptive use varied depending upon the operational definition of accessibility employed and the control variables introduced into the multivariate equation.
- o The simplest measures of accessibility (time or distance) did not demonstrate that greater accessibility was associated with higher CPR.
- o The more complex measures that included both time and distance with the type of service available indicated that where family planning was more accessible, contraceptive prevalence was higher.

PROJECT NO. THA-04

COUNTRY: Thailand

TITLE: Implementation of Contraceptive Counseling Services as a Strategy to Induce Contraceptive Use

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Khon Kaen University

DATES: October 1983 - November 1985 **BUDGET:** \$28,651

BACKGROUND AND PURPOSE: Fear about the potential side-effects of contraception, is considered one reason why there remains a relatively large unmet need for family planning among Thai women. Although almost all 15-49 year old females in Thailand know at least one method and where to obtain it, in the Northeast region, for example, 44.9 percent of currently married women are at risk of an unwanted pregnancy. Unmet need includes those women wishing to space births as well as those who wish to prevent additional births. An OR study was undertaken to assess the impact of providing counseling services on contraceptive method use by village-level couples.

DESCRIPTION: The project was designed to test whether a training program given to village health workers coupled with a village level counseling program can decrease people's fears and concerns about contraceptive use, increase prevalence rates and continuation rates, and shift couples away from the use of less effective methods to more effective methods. Based on focus group discussions to determine people's fears and concerns about contraceptive use, a training program in counseling techniques was designed for village health workers, and a program of counseling services was implemented for six months.

STUDY DESIGN AND METHODOLOGY: The study employed an experimental design with six treatment and six control villages. A baseline survey collected data from 930 women in all 12 villages on socio-economic status, pregnancy and children, family planning knowledge, attitudes towards contraceptives and knowledge of sources of supply. A post-intervention follow-up survey was conducted with a sample of 940 women. Qualitative data on family planning was also collected through focus group sessions and informal discussions with village headmen.

FINDINGS AND IMPLICATIONS:

- o No relationship was demonstrated between the counseling program and increased use or continuation of contraception.
- o There was no evidence that counseling reduced the fears and unfounded beliefs about contraception.
- o No shift was observed from less effective methods to more effective methods as a result of the counseling.
- o Problems were experienced in isolating the control areas from outside influences. A family planning promotion program was in operation in the central villages during the study, and

the trained midwives did, in fact, visit the central villages and provide some services and information.

- o Midwives in the experimental areas conducted group counseling sessions, not individual counseling as planned.
- o The researchers attributed their results, in general, to inadequate implementation of the program in the experimental villages; they had little authority or other means to induce the health workers and midwives to actually go out and counsel potential clients.

PROJECT NO. THA-05

COUNTRY: Thailand

TITLE: Comparative Analysis of Government and Private Programs in Southern Thailand

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Prince of Songkhla University

DATES: October 1983 - September 1985

BACKGROUND AND PURPOSE: Thailand's active national family planning program, complemented in most areas by private organizations, has resulted in high levels of contraceptive prevalence, but regional differences persisted in the early 1980s. In particular, the southern region had the lowest prevalence rates, along with the highest fertility rates in the country. This may have been partly due to greater resistance to contraception by Muslim couples but other factors, such as the organization and management of service delivery activities by both government and private organizations may have played a role. An OR study was undertaken to compare the performance of the government family planning services with the Population and Community Development Association (PDA).

DESCRIPTION: The aim of the research included identifying and comparing the organizational and managerial structures of the two delivery systems, and comparing the cost effectiveness of the government and PDA delivery systems in recruiting and maintaining family planning acceptors. In addition, the study examined the factors which influence couples to select a method and supply source, or switch to another.

STUDY DESIGN AND METHODOLOGY: Documentary records of both government sector and the PDA were a source of data for analysis. In addition, head office and branch officials of PDA were interviewed, as were government provincial, district and community health station health officers. Also, interviews were conducted with a sample of 1,800 women who were living with their husbands and were acceptors of services from the government or private sector. One-third of the sample was drawn from areas where only government services were offered; the remaining two-thirds lived in areas served by both government and PDA family planning services.

FINDINGS AND IMPLICATIONS: Examination of the structures, operations, and work results revealed a number of differences between the government and PDA delivery systems:

- o PDA uses only village-level volunteers for service delivery and operates only at the village level. The government service operates at all levels and family planning service is one of many activities provided by government staff in their routine work.
- o PDA relies on person-to-person communication while the government uses many different channels, much of which tends to be one-way mass communication.
- o Staff training procedures are similar for both organizations.
- o PDA staff have the direct incentive of money payments deducted from the sale of contraceptives. Government staff only gain indirect benefits for their centers.

105

- o Reporting procedures are similar for both organizations.
- o Cost-effectiveness comparisons could not reliably be made with the available data.
- o Concerning method switching by couples, the general trend was to begin using less reliable methods and later switch to more effective methods.
- o The survey showed that relatively few respondents relied on PDA service outlets, most relied on government centers such as hospitals and MCH centers.

PROJECT NO. THA-06

COUNTRY: Thailand

TITLE: Effectiveness of Village Health Volunteers on the Family Planning of Muslim and Buddhist Couples

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Prince of Songkla University

DATES: October 1983 - March 1985 **BUDGET:** \$27,500

BACKGROUND AND PURPOSE: The village health volunteer (VHV) and the village health communicator (VHC) programs were introduced in Thailand in 1977 by the Ministry of Public Health. These programs were intended to provide primary health and family planning services in rural areas. However, many villagers did not know about these programs or the role of the VHV and VHC. A study conducted in southern Thailand showed that 81 percent of the sample had never received services from the VHV and 96 percent of the sample stated they have never been visited by the VHC. Southern Thailand lagged behind other regions of the country in terms of contraceptive prevalence. In addition, substantial differences were found in prevalence between the Muslim and Buddhist populations. This study was designed to test a strategy for increasing the effectiveness of the VHVs and VHCs in Southern Thailand.

DESCRIPTION: VHVs and VHCs in 15 villages were given a two-day training program which focussed on family planning. They were also given permission to distribute pills and condoms in their assigned areas. Following the training program, a series of village meetings was conducted to introduce the VHVs and VHCs to the villagers and to outline the range of services these workers provide.

STUDY DESIGN AND METHODOLOGY: The study employed pre- and post-intervention surveys in the experimental and control areas, and interviews with VHVs and VHCs.

FINDINGS AND IMPLICATIONS:

- o Contraceptive prevalence and use increased significantly in the experimental villages. Prevalence increased from 15 to 49 percent in Muslim villages and from 62 to 70 percent in Buddhist villages. CPR also increased in control areas, from 27 to 41 percent in Muslim areas, and from 50 to 60 percent in Buddhist control areas.
- o These results on CPR suggest that differences in contraceptive prevalence between Muslim and Buddhist areas can be reduced by increasing educational services and service delivery in the Muslim areas.
- o The results suggest that the simple strategy of holding group meetings can have a major impact on family planning knowledge and use of VHV and VHC services.
- o The village meetings increased villagers' knowledge about the role of the VHVs and VHCs and about contraceptive methods.

130

- o VHV and VHC in the experimental areas were more likely than their counterparts in the control villages to make home visits, discuss family planning with couples, hold village meetings, and advise people to receive family planning.

FOLLOW-UP AND FUTURE PLANS: A similar project was conducted by Prince of Songkla University through a subcontract with University Research Corporation in the northeastern and southern regions of Thailand from 1986-1988 (see Project No. THA-08).

PROJECT NO. THA-07

COUNTRY: Thailand

TITLE: Reasons for Family Planning Method Switching in Northeastern Thailand

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Khon Kaen University

DATES: November 1983 - September 1985

BUDGET: \$27,458

BACKGROUND AND PURPOSE: According to the 1982 Contraceptive Prevalence survey, many contraceptive users in the Northeast frequently switch from one method to another or use inappropriate methods, thus exposing themselves to the risk of unintended pregnancy. A survey conducted by Khon Kaen University corroborated these findings, showing that large numbers of users in the Northeast had used at least two methods of contraception in the previous year. This operations research study was undertaken to study women's reasons for using inappropriate contraceptive methods or switching methods. The study also tested alternative approaches to encourage women to adopt appropriate contraceptive methods.

DESCRIPTION: A survey was conducted in 12 high prevalence villages among MWRA to identify target women, i.e., frequent method switchers and those using less effective traditional methods. In six of the villages (selected randomly), three small group inducement meetings were held over a period of six weeks. In addition, a focal person visited women at home to give advice when they had problems choosing an appropriate method. The other six villages served as the control. Six months after the final small group meeting, a follow-up survey was conducted in all 12 villages. The study examined changes in the method mix, increases in continuation rates, and frequency of method switching.

STUDY DESIGN AND METHODOLOGY: This study employed a true experimental design with random assignment of villages to treatment and control groups. Pre- and post-intervention KAP surveys were carried out to determine changes in method mix and continuation rates among the target population.

FINDINGS AND IMPLICATIONS:

- o Significant factors that affect women's change of contraceptive method were found to be couples' satisfaction with the former method, number of contraceptive methods known, length of use of former method, women's age, number of living children, desired family size, desire for additional children, annual household income, and women's occupation.
- o Major reasons for switching contraceptive method were personal health problems, side effects, worries, duration of contraceptive use and influence of neighbors.
- o Reasons for continuance of inappropriate method use were comfort with the method used, long period of use, lack of time and additional cost.
- o The experimental group had increased knowledge of and a more favorable attitude toward family planning, and adopted more appropriate methods than the control group.

- o In the experimental villages 31 women said they wanted to delay their next pregnancy but were either using no method or using a traditional method of contraception. All of them adopted a modern method subsequent to the meetings. In the control villages there were 54 such women and only 33 percent of them had adopted an appropriate method by the end of the study period.
- o Among women who said they wanted no more children but were using either a temporary method, a traditional method or no method at all, 17 percent in the experimental villages (N=156) and 2 percent in the control villages (N=124) adopted a permanent method of contraception subsequent to the intervention.

PROJECT NO. THA-08

COUNTRY: Thailand

TITLE: Improving Contraceptive Prevalence Through Village Volunteers

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Prince of Songkhla University

DATES: August 1986 - April 1988

BUDGET: \$110,872

BACKGROUND AND PURPOSE: Population growth rates are higher and CPR is lower in two regions in Thailand: the southern region and the provinces in the north east inhabited by Khmer-speaking Thais. Prince of Songkhla University undertook an OR project in collaboration with the MOPH, building on a previous project that used village volunteers to promote family planning, to test whether a similar approach would succeed in increasing CPR in these areas.

DESCRIPTION: The OR study tested the village volunteer approach in provinces in the south that are largely Muslim and in predominantly Buddhist and Khmer-speaking provinces in the north east. The study evaluated two approaches to increasing CPR: the distribution of pills and condoms by trained volunteers, and distribution by volunteers plus small group meetings at village level. Secondary objectives were to measure the impact of the strategy on the volunteers themselves, and to compare Muslim and Buddhist responses to the interventions. The interventions included a training program for religious leaders and volunteers, village level meetings to discuss family planning, and distribution of condoms and oral contraceptives by the volunteers.

STUDY DESIGN AND METHODOLOGY: The study had a simple quasi-experimental design with pre- and post-intervention surveys in the two experimental areas, and a control area where no intervention took place. Baseline and follow-up surveys of 900 MRWA were conducted in each province. In the Muslim area a panel of 33 religious leaders were surveyed focussing on maternal and child health, nutrition and family size and omitting mention of family planning.

FINDINGS AND IMPLICATIONS:

- o By strengthening the role of community volunteers, contraceptive prevalence can be increased significantly, even among hard to reach sub-populations.
- o Approval of family planning rose from 82 percent to 94 percent in the Muslim area.
- o The proportion of couples using contraception in the Northeast rose from 57 percent to 77 percent.
- o MRWAs' knowledge of volunteers and the number in the community receiving a visit increased dramatically in the Muslim area.
- o The volunteers increased the level of their family planning efforts significantly as a result of the interventions.

2011

- o Villages where community meetings accompanied the volunteer activity demonstrated a pattern (though not consistent) of higher CPR performance.

FOLLOW-UP AND FUTURE PLANS: A final report has been presented at a dissemination seminar.

PROJECT NO. THA-11

COUNTRY: Thailand

TITLE: Testing Elasticity of Contraceptive Prices in Thailand

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Ministry of Health

DATES: April 1987 - June 1990

BUDGET: \$242,416

BACKGROUND AND PURPOSE: Recent decreases in desired family size, increases in income, and other changes in household behavior in Thailand make reduction of government subsidies of family planning possible. This study will develop and test contraceptive repricing schemes in Thailand. The study will determine how the current subsidies of family planning services can be reduced and reallocated to maintain or even increase contraceptive prevalence.

DESCRIPTION: Existing cross-sectional data sets were analyzed to estimate price, income and cross-elasticities of demand for oral contraceptives, injectables, IUDs and sterilization. A simulation model was used to estimate the consequences of increasing prices and/or reducing subsidies on contraceptive prevalence. Two repricing scenarios were examined: 1) minimizing family planning budget subsidies holding effective protection constant at the current level; and 2) maximizing effective protection holding subsidy constant. Several pricing schemes were then tested in clusters of experimental districts in four regions.

STUDY DESIGN AND METHODOLOGY: Baseline and follow-up surveys were conducted to collect data on changes in prices paid for contraceptives, prevalence, method mix and utilization of various methods in experimental and control districts. A simulation model was used and an analysis of existing cross-sectional data was conducted.

FINDINGS AND IMPLICATIONS:

- o A report on elasticity estimates was prepared using data from the Third Contraceptive Prevalence Survey. Results of this study show that approximately 20 percent of the subsidy could be saved through price restructuring. Results also found that the demand for all forms of contraceptives is fairly insensitive to price changes.
- o The optimization results indicate that: 1) it is possible for the MOPH to save substantial subsidy budget through price restructuring. Specifically, the subsidy budget can be reduced from Baht 62 million (US\$2.5 million) to Baht 51 million (US\$2 million) per month without affecting effective protection; and 2) the potential increase in effective protection through price restructuring is very limited. This is because of the insensitivity of contraceptive use to price changes. Contraceptive use would be minimally affected when government increases contraceptive prices, and it also holds true when the government reduces prices.

PROJECT NO. THA-12

COUNTRY: Thailand

TITLE: Developing IEC Strategies for STDs and AIDS Prevention

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Population & Community Development Association

DATES: June 1987 - September 1989

BUDGET: \$46,684

BACKGROUND AND PURPOSE: Commercial sex workers (CSWs) are among the highest risk groups for sexually transmitted diseases (STDs) and HIV disease and AIDS. In order to prevent the spread of HIV in Bangkok and Pattaya, Thailand, an OR project was undertaken to determine appropriate strategies for IEC and motivation among male and female commercial sex workers and vocational school students.

DESCRIPTION: The OR project developed and tested innovative STD and AIDS education and condom promotion strategies. The effectiveness of these strategies among high risk groups was evaluated by measuring changes in knowledge, attitudes and practices regarding STD and AIDS prevention. The project reached 3,860 CSWs and 3,600 vocational school students with interventions including educational brochures, an AIDS information card, a telephone hotline, condom distribution, AIDS IEC presentations, and training of selected volunteers about STD/AIDS prevention. The project also tested the feasibility of using community-based volunteers as information and condom distributors.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental design was used: the experimental CSW group in Bangkok was exposed to nine interventions, while the control CSW group received only leaflets provided by the MOPH. Structured questionnaires were used pre- and post-intervention with both the CSWs and vocational students to measure the effects.

FINDINGS AND IMPLICATIONS:

- o Over 90 percent of CSWs were aware of AIDS.
- o Of the interventions the lecture and video received the highest recognition, the least recognized were the training of selected volunteers and the posters.
- o CSW volunteers were not effective as condom distributors but they were effective at distributing information to CSWs in their establishments.
- o CSWs named television as their first source of AIDS information. Other sources such as magazines, radio and foreign clients were considered minor sources of AIDS knowledge.

207

- o In both the baseline and the follow-up surveys, more than 90 percent of CSWs knew AIDS could be contracted through sexual intercourse and contaminated needles, but misinformation about other sources of transmission was widespread. CSW knowledge about HIV/AIDS transmission modalities rose slightly in the experimental area from pre-test to post-test.
- o Most CSWs viewed condom use as acceptable, but only about 1 out of 3 believed condoms were acceptable to clients.
- o CSWs risk unemployment or a reduced income by trying to insist on condom use.
- o Most CSWs believe the risk of contracting HIV/AIDS is low.

FOLLOW-UP AND FUTURE PLANS: The study resulted in a set of recommendations underscoring the need for continued AIDS prevention activities focused on high-risk groups, male clients of CSWs, and the general population.

PROJECT NO. THA-13

COUNTRY: Thailand

TITLE: Developing AIDS Prevention Strategies for High-Risk Populations

CONTRACTOR: University Research Corporation

PARTICIPATING INSTITUTION: Khon Kaen University

DATES: August 1987 - December 1988

BUDGET: \$7,985

BACKGROUND AND PURPOSE: Health officials in Thailand expressed concern that the country's large sex industry could accelerate the spread of HIV disease and AIDS into the general population. In order to introduce AIDS prevention strategies into the high risk group of commercial sex workers (CSWs), an OR study was in the provincial capital, Khon Kaen.

DESCRIPTION: The OR study was undertaken to determine the general level of knowledge about AIDS among CSWs employed by massage parlors. CSWs from 3 massage parlors were selected, with one group designated as the control. The experimental groups were screened for HIV, provided with condoms and education about AIDS, and then monitored over the life of the project. Two education interventions were developed: group orientation plus education materials and condom supply with and without counselling. Participants completed self-administered questionnaires to provide a baseline survey and subsequently completed them again to evaluate the impact of the educational interventions.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental study, the project uses a multi-round KAP survey in two experimental and one control site. Two post-intervention surveys plus discussions with CSWs during counseling were used to determine the effect of interventions.

FINDINGS AND IMPLICATIONS:

- o Educational interventions combined with media publicity about AIDS increased CSWs' awareness and concern about AIDS. This did not achieve greater condom use, primarily because clients refused to use them. No CSWs in the study regularly asked clients to use a condom.
- o The financial benefits of prostitution outweigh the risk of STD/AIDS.
- o CSWs viewed STDs as a necessary risk associated with prostitution and saw the risk of contacting AIDS as very small.

FOLLOW-UP AND FUTURE PLANS: The study findings were developed into a set of recommendations for AIDS prevention education.

LD1

PROJECT NO. TUN-01

COUNTRY: Tunisia

TITLE: Household Distribution of Contraceptives

CONTRACTOR: Office National de la Population et du Planning Familiale

PARTICIPATING INSTITUTION: Office National de la Population et du Planning Familiale

DATES: January 1976 - March 1979

BUDGET: \$145,352

BACKGROUND AND PURPOSE: The National Family Planning Program in Tunisia initially provided family planning services in centers throughout Tunisia, located predominantly in urban areas. IUDs were the principle method until the early 1970s when oral contraceptives gained in popularity. Because nearly four-fifths of Tunisia's population was living in rural areas in 1975, they likely were inefficiently served by the clinic-based delivery system. This project was designed to test the acceptance, efficacy and feasibility of household distribution of contraceptives in a sparsely populated rural area of Tunisia with the ultimate goal of developing a low-cost service delivery model to complement the existing program. Because the project was located in an area with a traditional population and a dispersed settlement pattern, results were expected to represent a minimum of what could be achieved through household distribution in Tunisia.

DESCRIPTION: The delivery system consisted of free household distribution of oral contraceptives (6 cycles) to all eligible women aged 15-44 in the target area by specially trained local lay women. Coupons for IUD insertions and tubal ligations were given to women requesting these methods. Resupply was provided through regular follow-up visits and ultimately through dispensaries and mobile teams.

STUDY DESIGN AND METHODOLOGY: Pre- and post-intervention cross-sectional surveys and intermediate follow-up interviews of MWRA were conducted in this demonstration service delivery project. A cost analysis was also undertaken.

FINDINGS AND IMPLICATIONS:

- o Contraceptive prevalence increased from 6.6 to 21 percent.
- o More than half of all the women practicing contraception had a tubal ligation.
- o Continuation rates for pill users were 80 percent at the end of three months and 54 percent at the end of six months.
- o A decline of nearly one-third (from 25.4 to 17.6 percent) was reported in the proportion of women at risk of pregnancy, while the pregnancy rate declined by one-sixth (from 20.3 to 17.0 percent) over the two year project period.

- o Nearly 80 percent of women in the final survey reported that they had first learned about family planning through the PFAD field workers. Virtually all of the respondents were familiar with the three program methods (pills, IUDs and tubal ligation), and half of them had received a family planning method.
- o Seventy-eight percent of respondents reported that the PFAD project was their first source of contraceptive supply.
- o The cost per project acceptor was \$64. The cost per continuing user in this project was \$267. Such high figures are reflective of the unusually heavy personnel costs associated with a pilot, experimental activity. These costs have been greatly reduced in subsequent household and community-based contraceptive distribution projects in rural Tunisia.

FOLLOW-UP AND FUTURE PLANS: As a result of this demonstration study, several larger household and community-based contraceptive delivery projects were launched in other parts of Tunisia.

PROJECT NO. TUN-02

COUNTRY: Tunisia

TITLE: Family Planning for Couples in Rural Areas

CONTRACTOR: Office National de la Population et du Planning Familiale

PARTICIPATING INSTITUTION: Office National de la Population et du Planning Familiale

DATES: January 1977 - July 1980

BUDGET: \$96,181

BACKGROUND AND PURPOSE: This project builds on the PFAD feasibility study (see Project No. TUN-01) but was designed to be larger, and more cost-effective with the potential for nationwide replication. The project tests three different types of resupply systems and compares the results of offering family planning services only vs. offering both family planning and MCH services.

DESCRIPTION: Specially trained local workers conducted an initial household canvass offering free contraceptives (oral contraceptives, condoms, or foam) and IUD and tubal ligation referrals to MWRA in the three project areas. Follow-up visits to determine contraceptive use and reasons for non-use or discontinuation, to provide free resupplies, and to recruit new acceptors were carried out in two of the three areas. In one of these two areas, health interventions were also introduced. After completion of the household visits, different permanent resupply mechanisms were tested in all of the project areas, with emphasis on free distribution by itinerant health workers. The study also compared the cost-effectiveness of offering family planning services alone (two areas) with a system of integrated family planning and MCH services (one project area).

STUDY DESIGN AND METHODOLOGY: The study employed a quasi-experimental design that examined the impact and relative cost-effectiveness of a family planning only delivery system versus an integrated family planning/MCH delivery system. A baseline survey on contraceptive use, a one-year follow-up survey, an analysis of the results of the special condom distribution, two mini surveys, a qualitative assessment and a cost-effectiveness analysis were undertaken.

FINDINGS AND IMPLICATIONS:

Family planning acceptance and use varied considerably among the three project areas. Performance was best where only family planning services were offered: 83 percent of the at-risk population accepted a method, and prevalence increased from 16 to 28 percent after 12 months and two household visits. Where integrated family planning/MCH services were introduced, prevalence rose from 24 to 29 percent.

Overall, in all three project areas, prevalence increased from 26 to 33 percent. There was an overall decrease of 27 percent in MWRA at risk of pregnancy.

The cost per new family planning user was US\$32 under PFPC, less than half the corresponding cost under the PFAD demonstration project.

PROJECT NO. BBD-01

COUNTRY: Barbados

TITLE: A Test of Two Strategies for Delaying Second Pregnancy in Teenagers

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Ministry of Health

DATE: January 1983 - March 1985

BUDGET: \$58,186

BACKGROUND AND PURPOSE: Barbados currently has one of the lowest crude birth rates and total fertility rates of any developing country. However, these statistics mask a serious problem of adolescent pregnancy. In 1983 teenage pregnancies constituted 24.8 percent of all births at Barbados' major hospital. Given the severe negative social, economic, health and demographic consequences of teenage childbearing, the occurrence of a second pregnancy before a girl has reached 20 years of age is of particular concern. In collaboration with Tulane University the MOH designed an OR study to compare the effect of two strategies on increasing knowledge and use of contraceptive methods among young mothers.

DESCRIPTION: The OR study compared two strategies: special counselling for teen mothers during ante-natal clinic visits, and post-partum home visits. All teens in Barbados who gave birth over an 18-month period were assigned to one of three groups. The first group received special family planning counseling at the hospital and 3 home visits (10 days, 5 weeks, and 12 weeks after delivery.) The second group received special family planning counseling at the hospital and one home visit (10 days after delivery.) The control group received the standard pre-natal care at the clinic and the hospital but no additional counseling or home visits.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental design, the study compared two treatment groups and a control group. All respondents were interviewed six months after delivery by a trained female interviewer and questioned about their knowledge and use of contraceptives, sexual activity since delivery, pregnancy status and attitudes to counseling and home visiting.

FINDINGS AND IMPLICATIONS:

- o A single home visit appears to be as effective as the three-visit intervention in terms of increasing family planning knowledge and use.
- o Because the single visit was about one-third as expensive as three visits, the single visit was more cost-effective.
- o Teens in the two treatment groups were more likely to report that they always used contraception (approximately 79 percent) than those in the control group (66 percent).
- o At the follow-up survey 2.7 percent of all teens reported they were pregnant. As this was done after only six months it is difficult to assess the impact of the intervention on delaying a second pregnancy.

FOLLOW-UP AND FUTURE PLANS: As a result of this project, the nursing staff at the hospital reorganized their work to permit them to routinely make a single home visit to all teen mothers.

2/13

PROJECT NO. BBD-02

COUNTRY: Barbados

TITLE: Strategies for Delivering FP Services in an Industrial Setting

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Barbados Family Planning Association

DATES: September 1987 - September 1989

BUDGET: \$65,030

BACKGROUND AND PURPOSE: Since 1970, the Barbados Family Planning Association (BFPA) has provided family planning services to factory workers in a number of the larger industrial plants in Barbados. However, service has been hampered by plant closures, increased cost of providing services and problems convincing managers of the utility of the approach. The study addressed the need to provide more efficient and effective family planning services through testing a modified version of the nurse-distributor service delivery strategy.

DESCRIPTION: The study compared the relative cost effectiveness of two contraceptive distribution methods in the work place. Fifteen factories received on-site distribution of contraceptives by factory workers trained as peer distributors and sixteen factories received on-site distribution services by a BFPA educator who made monthly visits to the factories. IEC and promotion programs were conducted in all factories by the same BFPA educator. In addition, special seminars were organized to sensitize plant management and ensure their continued cooperation in the project.

STUDY DESIGN AND METHODOLOGY: A non-equivalent quasi-experimental research design was used. In this design, an experimental group of factories was compared with a similar but not equivalent group in which another intervention was introduced. Research methods included pre and post-intervention surveys, an analysis of service statistics and cost data.

FINDINGS AND IMPLICATIONS:

- o The BFPA educator was more effective than trained factory workers in recruiting new acceptors of family planning. However, the cost per new contraceptive in the project as a whole was extremely high.
- o Contraceptive distribution services to current users were markedly more cost effective when delivered by peers in the factory (approximately 30 percent lower cost per user and a 50 percent lower cost per CMP).
- o IEC activities were an important component of the program, representing approximately 60 percent of staff efforts and costs. It was also the aspect of the project best received by factory workers and was reasonably cost-effective.

FOLLOW-UP AND FUTURE PLANS: The BFPA is continuing to provide family planning and family life education activities in the 31 factories that participated in the project and is seeking assistance to expand services within the manufacturing sector in Barbados. The primary concern of the continuation and expansion phase is to achieve self-sufficiency through increased management involvement and contribution to the program.

PROJECT NO. BBD-03

COUNTRY: Barbados

TITLE: Determinants and Quality of Condom Use

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Barbados Family Planning Association

DATES: October 1988 - July 1989

BUDGET: \$15,885

BACKGROUND AND PURPOSE: There is renewed interest in the Eastern Caribbean in condom use as a major source of protection against unwanted pregnancy and as a protection against STDs, especially AIDS. Relative to other contraceptives used in the Eastern Caribbean in 1988, the condom ranked third, but there is considerable variation among countries. In the two years preceding this study, reports indicated an increase in demand and sales of condoms, but little was known about the attitudes of men and women towards use of condoms. The study was undertaken to provide information on the acceptability of condoms as well as the quality of protection provided by the method.

DESCRIPTION: Barbados and St. Lucia were selected to participate in the study, based on prior experience with condom promotion. In both, the condom has been aggressively promoted through the Caribbean Contraceptive Social Marketing Program (CCSPM), and more recently through the Ministries of Health and AIDS committees' promotion of "Safe-sex" practices. In addition to describing the existing condom market, the study examined: the primary motivations for use and non-use, the attitude of users to use of the condom, the frequency and consistency of condom use, the quality of condoms used, user satisfaction with the product, user awareness of media promotion of "safe-sex," and the effectiveness of condoms in preventing the spread of AIDS. The study also sought to develop specific suggestions of ways decision makers could improve condom promotion and use in the region.

STUDY DESIGN AND METHODOLOGY: Methods utilized in this largely diagnostic study included: 1) interviews with decision makers involved in condom promotion and/or distribution; 2) focus group interviews with men and women who either were currently using or had used condoms; and 3) a panel study of male condom users which included a sub-study on the quality of condoms used.

FINDINGS AND IMPLICATIONS:

- o Most of the men in the panel began condom use in their late teens as a contraceptive; less than a third reported protection against STDs as a primary motive for initial use.
- o Although most men currently still use condoms as a contraceptive, more than half also use condoms as protection against AIDS and other STDs.
- o Decision makers also attributed the increased sales of condoms to the presence of the HIV virus.
- o Retailers reported a change in the profile of condom purchasers: in addition to mature

male purchasers, a small but growing number of women of all ages and young men are now purchasing the method.

- o The experience of friends, advertising, and packaging are the most important factors influencing purchase of specific brands of condoms.
- o Condom breakage was reported at rates much higher than those observed during quality control testing in the U.S. before and after human testing: between 10 percent and 13 percent compared with the expected less than 5 percent. Neither the use of a lubricant nor the location and length of storage was considered a significant contributor to the breakage.

FOLLOW-UP AND FUTURE PLANS: The study recommended a reassessment of criteria applied during quality control testing. It also recommended the promotion of the condom as an effective contraceptive and prophylactic for married couples as well as for less formal relationships, and the introduction of IEC activities designed for women and young men as they have become important groups in the purchase and use of condoms. A second study of other issues (information and storage) affecting condom use and effectiveness will be conducted in 1990 in the same countries.

PROJECT NO. BOL-01

COUNTRY: Bolivia

TITLE: Industrial Setting and Family Planning Promotion and Services

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Bolivian Center for Social Studies

DATES: October 1982 - June 1984

BUDGET: \$93,901

BACKGROUND AND PURPOSE: At the time this project was planned, the Bolivian Government offered no family planning services; the crude birth rate was over 40; and the proportion of married women of reproductive age who used contraceptives was estimated to be under 20 percent. Further, the proportion of women in the labor force in Bolivia was over 20 percent but had been decreasing through the early 1980s. Discussion with some employers indicated that the frequent pregnancies of female employees, coupled with legally enforced maternity benefits, discouraged the hiring of women. The Center for Social Studies (CIS) proposed to carry out an operations research study to demonstrate that education, promotion and counseling for family health and birth planning were both feasible and acceptable to urban factory and office employees in La Paz.

DESCRIPTION: In approximately 30 selected factories and offices (experimental group) in La Paz, CIS met with unions or workers' committees to obtain their suggestions and approval for a series of seminars on family life. CIS offered educational seminars, counseling, and family planning services for employees of these factories and offices. Workers could request individual counseling after the sessions, and could be referred for family planning services, if they wished. Ten factories and offices with characteristics similar to the experimental group served as a comparison. In these, CIS conducted only evaluation activities.

STUDY DESIGN AND METHODOLOGY: A sample survey of women of reproductive age who work in offices or factories in La Paz was conducted at baseline to determine family planning and health practices, knowledge and attitudes. In-depth interviews with employers and industrial managers, pre/post seminar surveys of participants, and interviews with a control group of non-participants were conducted. The project also undertook a prospective study of pregnancy costs in 11 industries.

FINDINGS AND IMPLICATIONS:

- o Almost one-third of seminar participants (whether married or not) visited one of the two family planning clinics and received services. Over 80 percent of these received either an IUD or underwent female sterilization.
- o Of the participants interviewed, 46 percent of married participants of reproductive age visited a clinic and received family planning services after the seminars.
- o About two-thirds of the seminar participants requested counseling sessions after the seminars to discuss personal problems. A large majority of these requested more information about health and family planning and referral to a clinic for services.

FOLLOW-UP AND FUTURE PLANS: The La Paz Police requested education and information, contraceptives and assistance from CIS to offer family planning services. Also, the Banco Central and the Banco del Estado have begun to provide family planning services in their own medical centers.

PROJECT NO. BOL-02

COUNTRY: Bolivia

TITLE: A CBD Program for Union Groups in La Paz

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Centro de Investigación, Educación y Servicios

DATES: September 1987 - April 1989

BUDGET: \$69,694

BACKGROUND AND PURPOSE: The Centro de Investigación, Educación y Servicios (CIES) is a multi-disciplinary group of professionals engaged in research, education and service delivery in family planning and maternal and child health (MCH). CIES began working with trade unions in La Paz when they opened their first family planning/MCH clinic for union members in 1986. The clinic functioned in a central location and suffered from low attendance due to a number of problems including lack of proximity to the target population, and lack of promotion. CIES wished to determine if union members could make successful CBD distributors and referral agents for clinics established in union facilities. The organization also wished to test its assumption that the provision of non-family planning services would attract women who would later return for family planning.

DESCRIPTION: Clinics were established in the headquarters of four unions: the Factory Workers, Teachers, University Students, and Peasants. They functioned one day per week. CBD promoters were recruited from the rank-and-file of each union. During the first period of the study, all promoters were unpaid. During the second period, promoters from the Peasants' Union were paid about \$40 per month to determine the effectiveness and cost-effectiveness of paid promoters versus volunteer promoters.

STUDY DESIGN AND METHODOLOGY: The project was a demonstration using service statistics data to evaluate the effectiveness of the model. A simple before and after comparison of promoter performance was utilized to measure the impact of payment on promoter performance. A survey of female union members was conducted prior to initiation of service delivery to obtain a baseline measure of reproductive behavior.

FINDINGS AND IMPLICATIONS:

- o The baseline survey found that use of modern contraceptive methods (hormonals, barrier methods, sterilization) was very low for all unions, ranging from 0 to 15.9 percent of married women aged 15-44.
- o Overall attendance at the four weekly clinics was modest, with an average of 5.3 visits of all types per three hour session (range 4 - 6.7). There was an average of only 1 family planning visit per session (range 0.5 - 1.1), but visits increased over time. By program end, the monthly average of family planning visits had increased to 2.1. The most successful clinics were located in Peasants' and Teachers' Union facilities; the least successful in the University Students' and Factory Workers' Unions.

- o Unpaid promoters were unsatisfactory CBD workers, distributing an average of 0.5 CYP and making only 3.9 clinic referrals per month. In addition, volunteer distributor drop-out rates over a 13-month period ranged from .66 - 1.0.
- o Paid promoters performed better than volunteers, distributing an average of 1.9 CYP and making an average of 21.2 clinic referrals per month. During the five months that they were paid, no promoters dropped out.
- o The assumption that women who first visited a clinic for non-family planning service would later return for a family planning service was verified. About 20 percent of eligible women (married, ages 15-44) who first came to CIES for a non-family planning medical service returned within one year for a family planning service.
- o The major implications of the study are: (1) Bolivian trade unions will support family planning activities; (2) clinics located in union facilities perform modestly, but show improvement over time; (3) the offer of non-family planning services attracts some women who later return for contraception; and (4) hiring a smaller number of paid CBD workers may be more effective and cost-effective than recruiting a larger number of volunteer distributors.

FOLLOW-UP AND FUTURE PLANS: CIES continues to operate clinics in collaboration with local trade unions. By early 1990, the facility operated for Peasant Union members had become highly successful, providing family planning services to large numbers of rural and peri-urban women.

PROJECT NO. BRA-01

COUNTRY: Brazil

TITLE: Collaborative Operations Research Project in Piaui

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Sociedade Civil Ben Estar Familiar

DATES: April 1979 - June 1983

BUDGET: \$1,542,166

BACKGROUND AND PURPOSE: The site of this operations research project is Piaui, a large, thinly-populated State in the Northeast of Brazil. Socioeconomic indicators rank it as the poorest, least developed State in Brazil. From 1979 to 1983 Piaui served as a "laboratory" for a series of operations research studies conducted by BEMFAM, with technical assistance from Columbia University.

DESCRIPTION: The main study examined ways of choosing the best location for a CBD post from among several alternative sites. This was an important operational question for BEMFAM, which sought to maximize cost effectiveness by identifying strategic locations for posts before program launch, thus limiting the total number of posts required in any given region. Other issues studied in this project included: 1) testing the use of distribution posts located in isolated rural areas normally excluded by the BEMFAM program; 2) examining the effects of adding other methods to BEMFAM's pill-only program; 3) testing the impact of reducing the frequency of supervisory visits from monthly to quarterly; 4) a post-partum/post-abortion education and motivation project; 5) evaluating non-conventional post locations for serving rural populations; and 6) a study of the feasibility of using traditional birth attendants (parteiras) to distribute contraceptives.

STUDY DESIGN AND METHODOLOGY: The study conducted time series and areal comparisons of monthly performance data from CBD administrative districts that had been matched and randomly assigned to the control or experimental group. Other research methods used in the study included: 1) before and after sample household surveys; 2) a cost analysis; 3) mapping and analysis of traffic patterns and road networks; 4) a mail survey of physician willingness to offer clinical contraceptive methods and to assess physician demand for training; and 4) program prevalence and client continuation estimates taken from the BEMFAM service statistics system.

FINDINGS AND IMPLICATIONS:

- o Contraceptive prevalence in Piaui increased by about 5 percent (net) during the course of the project.
- o Distribution posts in health facilities are more cost-effective than posts located in non-health facilities, primarily because they attract more clients. Non-health posts averaged about 18 new clients a year, compared to an annual average of 100 new clients for all posts. Non-health posts were also more costly to supervise and experienced higher rates of distributor turn-over than posts located in health facilities.
- o Health posts and non-health posts, when situated in the same small communities, are competitive rather than complementary.

222

- o Retainer fees for local physicians are not a cost-effective means for providing medical backup to CBD posts.
- o The addition of clinical methods to BEMFAM's pill-only program substantially increased the number of new clients.
- o Reducing the frequency of supervisory visits from monthly to quarterly had no harmful impact on program performance. Total savings from the adoption of the quarterly visit system were estimated at \$100,000 per year. In Piauí, quarterly supervision also made such innovations as the post-partum and clinical services projects possible without increased staff.
- o The post-partum/post-abortion project recruited 324 new acceptors in 11 months, a rate more than three times that of the average Piauí post. Between 70 and 80 percent of the women attending educational lectures accepted modern methods. Only 24 percent of acceptors were former BEMFAM clients, indicating that the project reached a group of women different from that reached by the regular program.
- o Service statistics indicated that posts located in non-conventional urban locations frequented by rural people (bus stations, restaurants, food stores and hotels) recruited few clients. Providing integrated services in mini-posts and locating posts in large markets appeared to be the most cost-effective means of providing services to those residing in low-density rural areas.
- o Based on information contained in the Piauí parteira registry and interviews with Piauí health department staff active in parteira training, parteiras would not make good BEMFAM distributors. Major disqualifying factors include their age, lack of literacy and a passive approach to client recruitment.

FOLLOW-UP AND FUTURE PLANS: Based on the OR study results, the frequency of supervisory visits was reduced from monthly to quarterly statewide in Piauí (as well as in three other state programs). Partially as a result of these measures, the average cost per couple year of protection in Piauí State was reduced from \$42.49 to \$24.71. This increased cost-effectiveness also reflects 11,197 acceptors of barrier methods, only 377 of whom switched from pills. The Piauí program also developed a new service statistics and inventory system designed to reduce the amount of time spent by supervisors on unnecessary paperwork. The findings from operations research projects in Piauí have been applied in Piauí and in other state programs. Some of the materials developed in Piauí projects have been used in Morocco, Indonesia, and Guatemala.

PROJECT NO. BRA-02

COUNTRY: Brazil

TITLE: Household Delivery of Family Planning Information and Condoms

CONTRACTOR: Johns Hopkins University

PARTICIPATING INSTITUTION: Centro de Pesquisas de Assistencia Integrada a Mulher e a Crianca

DATES: October 1981 - March 1983 **BUDGET:** \$178,665

BACKGROUND AND PURPOSE: Centro de Pesquisas de Assistencia Integrada a Mulher e a Crianca (CPAIME) conducted this operations research project with technical assistance from Johns Hopkins University to gather empirical data about the feasibility and effectiveness of household delivery of contraceptives in slum areas of Rio de Janeiro.

DESCRIPTION: CPAIME established six mini-health posts, each staffed by an auxiliary nurse who provided primary health care. In 600 homes around each post, and in a similar favela where no post was established, a baseline survey was conducted with all married women ages 15-44. In two mini-posts, interviewers also promoted family planning and distributed condoms. For another two mini-posts, interviewers promoted family planning, but did not distribute condoms. Around the remaining mini-posts no promotion or distribution was attempted. In the area with no mini-post, both household distribution and family planning promotion were carried out. Two months after the initial visits, a second promotional visit was made to the homes.

STUDY DESIGN AND METHODOLOGY: Pre- and post-intervention surveys were conducted in this quasi-experimental study.

FINDINGS AND IMPLICATIONS: Promotional visits with or without condom distribution did not result in increased contraceptive prevalence or knowledge of methods compared to the effect of only conducting an initial interview:

- o Contraceptive prevalence among MWRA was 70 percent at baseline. Prevalence increased to about 75 percent in all three experimental areas and the control area in seven months.
- o Knowledge of contraceptive methods increased in both experimental and control areas. This suggests that the pre-intervention interviews were as powerful as the home promotion and distribution in conveying knowledge of family planning.

224

PROJECT NO. BRA-03

COUNTRY: Brazil

TITLE: Assessing Cost-Benefits of Incorporating Family Planning Services into a Prepaid HMO Plan

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Asistencia Medica a Industria e Comercio Ltda.

DATES: August 1985 - November 1986

BUDGET: \$26,202

BACKGROUND AND PURPOSE: HMOs provide medical care to 7 percent of Brazilian married women of reproductive age but they do not currently provide family planning services in this coverage. The introduction of family planning services as part of HMO care could result in shifting large numbers of women from government and international donor supported programs to self-supporting sources. Asistencia Medica a Industria e Comercio Ltda. (AMICO), the largest HMO in Brazil, proposed an OR project to conduct a cost-benefit analysis so that management could make an informed decision about whether or not to add family planning to the services it currently offers.

DESCRIPTION: The study represents the first step in a 2-stage management decision process. The purpose of the first stage is to determine: 1) the need for and interest in receiving family planning services on the part of program clients; 2) interest in providing family planning and the need for training on the part of program service providers; and 3) costs and benefits associated with delivering family planning services. The product of this stage is a set of alternative service delivery models. The final step is to determine whether any of the models appear sufficiently attractive to test as a pilot. The components of the service delivery model included the mix of methods to be offered, the service promotion, and the clinical setting.

Cost factors included training, commodities and staff costs, while benefits were conceptualized in terms of cost reduction from births averted, abortions averted, and service substitution.

STUDY DESIGN AND METHODOLOGY: The project was a case-study diagnostic cost-benefit analysis. Eight sources of data were used including three routine service statistics forms, specially designed research instruments, and administrative data on costs.

FINDINGS AND IMPLICATIONS: Results of the analysis indicate that:

- o Provision of family planning services by AMICO would lead to modest increases in contraceptive prevalence (from 67.5 to 75 percent) and to an improved method mix among users.
- o An AMICO family planning program could result in small decreases in fertility (from a Total Fertility Rate (TFR) of 3.15 to a TFR of 2.75), and major reductions in the rate of induced abortions and caesarean section delivery.
- o Family planning would return a favorable cost-benefit ratio within two to three years.

FOLLOW-UP AND FUTURE PLANS: The results of the study were presented at a regional meeting of ABFIAMAGE, the Brazilian Association of Health Maintenance Organizations in 1987 and again in 1988. While AMICO itself did not implement family planning because it sold off the Belo Horizonte affiliate, a number of other Brazilian HMOs did express interest in offering family planning services. Pilot projects were begun in eight HMOs in 1988 with financing from the Pathfinder Fund, and in 1989 the number of participating HMOs was expanded to 17. The AMICO cost-benefit methodology became the basis for the TIPPS project methodology, which has been applied in five projects in Latin America, Africa and Asia.

PROJECT NO. BRA-04

COUNTRY: Brazil

TITLE: Effect of Mass Media Promotion on Vasectomy Services

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Promoçao da Paternidade Responsável

DATES: August 1985 - April 1987 **BUDGET:** \$104,239

BACKGROUND AND PURPOSE: Despite relatively high contraceptive prevalence throughout Brazil, vasectomy remains under-utilized as a family planning method. This appears to be more a function of limited access to the method than intrinsic unpopularity. Promoçao da Paternidade Responsável (PRO-PATER), a vasectomy clinic in Sao Paulo, during its four years of operation had relied on personal recommendations to recruit new clients. An OR study was undertaken to test the impact of a mass-media promotion campaign on clinic operations.

DESCRIPTION: The OR study monitored clinic operations during and following a three-month promotional campaign. The objectives were to test the use of mass media promotion to increase awareness of male methods of family planning, to increase the number of new PRO-PATER clients and of vasectomies performed, and to measure the costs and cost-effectiveness of mass-media promotion. Weekly and monthly magazines were used for the advertisement campaign. A public relations campaign of press and television features was developed prior to the advertising launch.

STUDY DESIGN AND METHODOLOGY: The study design was a before-and-after time-series analysis utilizing a single clinic and a single intervention. Baseline data were gathered from service statistics. The impact of the mass-media campaign was evaluated by new client intake interviews. Performance was continuously monitored during the intervention period and for a 12-month post-intervention period.

FINDINGS AND IMPLICATIONS:

Mass media proved to be an effective and cost-effective means of improving clinic operations:

- o The mean daily number of new clients doubled in the campaign period compared to precampaign and remained 60 percent higher in the post campaign period.
- o The mean daily number of vasectomies rose 76 percent from precampaign to campaign period and stabilized at a level 54 percent higher in the post campaign period.
- o Assuming a one-year period for second-generation multiplier effects from the magazines, the cost of each additional vasectomy was \$39.
- o Cost per CYP would be \$2.68, assuming the same one-year return period.

FOLLOW-UP AND FUTURE PLANS: The enhanced data processing capability enabled PRO-PATER to incorporate other OR activities as an ongoing component of program operations. In 1989, PRO-PATER coordinated a television campaign to promote vasectomy in Sao Paulo and the Northeast cities of Salvador and Fortaleza, with similar positive results.

PROJECT NO. BRA-05

COUNTRY: Brazil

TITLE: Seminar on Alternatives to Expand Family Planning Services

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Associação Brasileira de Entidades de Planejamento Familiar

DATES: February 1986 - April 1986 **BUDGET:** \$14,840

BACKGROUND AND PURPOSE: Family planning agencies in Brazil generally lack knowledge of research techniques and skills and this is a major barrier to the utilization of operations research (OR) as a management tool. To improve these skills the Associação Brasileira de Entidades de Planejamento Familiar (ABEPF), the largest Brazilian family planning organization, requested a training course on OR.

DESCRIPTION: A seminar was conducted on OR for 29 representatives of ABEPF affiliates. The objectives were to train ABEPF's affiliate professionals in OR concepts, methodology and application to family planning in order to: 1) enable participants, with adequate technical assistance, to incorporate OR into their daily activities and maximize program success; and 2) help ABEPF identify those affiliate institutions capable of implementing an OR project with technical and financial support from The Population Council's INOPAL project.

STUDY DESIGN AND METHODOLOGY: The seminars provided technical assistance. Pre- and post-tests were conducted to evaluate the effectiveness of the seminar in transferring information about OR.

FINDINGS AND IMPLICATIONS:

- o The seminar was successful in increasing the knowledge of OR techniques.
- o The seminar also helped to identify program priorities. The most commonly cited priorities were the need to increase agency self-sufficiency and to increase program efficiency.
- o Research proposals were not developed during the seminar as planned. The major barrier to developing a common proposal during the seminar was the participants' initial lack of familiarity with research methodology and the wide diversity of services offered by their institutions. Nevertheless, one affiliate went on to develop and fund its own OR project as a result of the seminar.

FOLLOW-UP AND FUTURE PLANS: This was the first of a number of training activities supported by the INOPAL program and served as a pilot for training courses conducted by the Population Council in Latin America and the Caribbean during the following three years.

225

PROJECT NO. COL-01

COUNTRY: Colombia

TITLE: Household Distribution of Contraceptives and the Rural Health Promoter: A Case Study of Boyaca

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Fundación para la Educacion Superior/Ministry of Health

DATES: September 1977 - December 1982

BUDGET: \$662,628

BACKGROUND AND PURPOSE: In 1975, the Ministry of Health (MOH) in Colombia sought to strengthen its primary care program by upgrading the status of rural health promoters from volunteers to paid employees and enlarged their role from health education, promotion and referral to include services providing elementary health care. Although theoretically the promoters were authorized to distribute drugs and carry out some direct health services, their actions continued to be primarily oriented toward education and health promotion. In October 1978 the Maternal-Child Health Division of the MOH, with technical assistance from the Population Council, initiated a pilot project to study the feasibility of using promoters to distribute antihelminthics and oral contraceptives to rural households without a preliminary medical checkup.

DESCRIPTION: Specially trained promoters were divided into four intervention groups covering similar populations. The first group delivered antihelminthics and oral contraceptives; the second group distributed antihelminthics only; the third, contraceptives only; and the fourth group, which served as the control, did not distribute medicines or contraceptives. Promoters in groups 2 and 4 referred potential users of contraceptives to Health Centers.

STUDY DESIGN AND METHODOLOGY: A service statistics system was developed in this quasi-experimental study to document the nutrition and family planning activities of each promoter. Promoters also conducted baseline and follow-up censuses to determine contraceptive prevalence and nutritional status of children age 2 and younger. A follow-up contraceptive prevalence survey was conducted three years after service delivery began with a sample of women inside and outside the study areas.

FINDINGS AND IMPLICATIONS:

- o Household distribution of contraceptives by promoters was found to be feasible, even in a conservative rural community such as Boyaca.
- o Contraceptive prevalence among MWRA increased from 16 to 44 percent in the four experimental areas between 1979-81.
- o Prevalence rose from 18 to 47 percent (161 percent) in those areas with household distribution of contraceptives. In the other areas, prevalence increased from 14 to 41 percent (193 percent).
- o Where drugs were distributed (either contraceptives or antihelminthics or both), prevalence increased from 17 to 47 percent (176 percent). In the control area, prevalence increased from 12 to 37 percent (208 percent).

229

- o The gain in percentage points (absolute increase) was similar for all groups while the relative increase was larger for the control area, because the control area had a lower initial prevalence rate.
- o The effect of household distribution was minimal compared to the combined effect of the new training and supervision system, which was associated with an increase of 14 percent (49 to 63 percent) in contraceptive use.

FOLLOW-UP AND FUTURE PLANS: As a result of this study, the national health policy was modified to permit household delivery of contraceptives and antihelminthics by field workers nationwide. Also, Boyaca state health authorities decided to use registered nurses rather than auxiliary nurses as supervisors because of study results that showed that promoters supervised by registered nurses were better trained and provided more services.

PROJECT NO. COL-02

COUNTRY: Colombia

TITLE: Community Distribution of Contraceptives in Rural Areas

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Asociación Colombiana Pro Bienestar de la Familia

DATES: September 1980 - December 1984

BUDGET: \$1,055,773

BACKGROUND AND PURPOSE: During 1975-1980, the USAID mission in Colombia supported an Extended Medical Supervision Project (EMS) that was carried out by the Population Council and Profamilia. An OR study was set up to build on the EMS project and provide contraceptive services, and test alternative service delivery strategies designed to lower costs and generate cost data. The project was expected to produce evaluation strategies and methodologies applicable elsewhere in Colombia and other Latin American countries.

DESCRIPTION: The OR project tested the impact on contraceptive prevalence and unit costs of replacing all promoters in an area with a two-person team (one male, one female) who would promote contraception through group rather than household visits and re-supply distributors every three months instead of once a month as in the traditional system. After a short period of intensive activity, the area was left on a maintenance phase of re-supply and collection of service statistics only. In maintenance areas, a second test was carried out comparing re-supply by mail, bus, and central distributors from whom outlying distributors would receive supplies.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental design was employed with experimental and control areas in the two study provinces. The team modality was introduced in the experimental areas while the traditional EMS promotion services were implemented in the control areas. Pre- and post-test surveys were carried out to measure contraceptive knowledge and CPR, and service statistics records were kept to document new acceptors and sales.

FINDINGS AND IMPLICATIONS:

- o In the two experimental areas, contraceptive use increased from 34 to 43 percent, and from 19 to 33 percent. In the control areas the use of effective family planning methods remained the same or exhibited a slight decline.
- o Knowledge of at least one modern method was almost universal at the outset in one province. In the other it rose significantly in both the experimental area and control areas to reach 99 and 98 percent, respectively.
- o The best re-supply system appeared to be the use of mail or public transport, rather than reliance on a centrally located individual to collect and deliver supplies.
- o Costs per new acceptor were lower for the team modality than the traditional EMS delivery system. The costs in experimental areas ranged from \$14 to \$23; corresponding costs in the central area were \$23-28.

- o Overall, costs per CYP are dependent on the number and proportion of new acceptors who select sterilization.

PROJECT NO. COL-03

COUNTRY: Colombia

TITLE: Provision of Natural Family Planning Methods Through Comprehensive Health Care Systems

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Fundación Santa Fe de Bogota

DATES: January 1984 - February 1987

BUDGET: \$172,995

BACKGROUND AND PURPOSE: The Community and Health Division (CHD) of the Fundación Santa Fe of Bogota sponsors an urban primary health care program in Northeast Bogota in which poor inhabitants receive care and are referred to the proper health outlet through volunteers selected from their own neighborhoods. The availability of the volunteers and their coordination with area health posts provided CHD with the opportunity to promote family planning services and to test alternative low cost strategies to provide natural family planning (NFP) in an integrated MOH health post setting. An operations research project was implemented to: 1) increase contraceptive use among MWRA in an urban-marginal areas of Bogota; 2) identify a cost and use-effective strategy for NFP within the context of an integrated health program; and 3) examine user satisfaction with NFP methods and the service delivery methods tested.

DESCRIPTION: Eleven communities in northeast Bogota were randomly assigned to two experimental groups (I and II). Five communities in a nearby area served as a control group. In both experimental groups, community health volunteers were trained to disseminate information on the complete range of contraceptive methods--including NFP--through household visits and group sessions. Interested couples were referred to the health post where they received a general orientation on contraception from the MOH nurse. This nurse, who had received special training in NFP, also provided training to Group I couples interested in NFP. Couples in Group II were referred to a special NFP coordinator for training, motivation and follow-up for six months. No services or information were provided in the control areas.

STUDY DESIGN AND METHODOLOGY: The project used a non-equivalent control group design with two experimental groups. Data collection included baseline and endline KAP surveys, service statistics, accounting records, client records and follow-up client interviews.

FINDINGS AND IMPLICATIONS:

- o Comparison of the base and endline surveys showed a slight but significant improvement in the mix of contraceptives used, as well as in the use of NFP (from 0.4 to 1.7 percent in experimental area I and from 0 to 1.2 percent in experimental area II).
- o A very large increase in knowledge of NFP methods was observed in both experimental groups (from about 10 percent to nearly 60 percent) but not in the control group. These results suggest that the health volunteers were effective communicators but that community residents chose not to use NFP.
- o Contraceptive use among married women of fertile age decreased in communities in Group I and remained the same in Group II. This suggests that training volunteer health

promoters and MOH personnel in family planning will not necessarily lead to increased use when contraceptive prevalence is already high (67 percent of MWRA in these communities were contracepting at baseline).

- o Although aware of the ineffectiveness of the method, NFP users were more satisfied with the method and more willing to recommend it to friends and relatives, compared to IUD, pill or barrier method users. Only 11 percent of NFP users rated their degree of satisfaction as fair or bad; comparable figures for IUD, pill and barrier users were 17, 21 and 51 percent, respectively. NFP users appreciated the fact that the method is not harmful to their health, and many enjoyed the experience of learning about their own bodies, as well as the increased communications between spouses.
- o The cost per new NFP acceptor was \$12.70 and the cost per CYP of NFP protection was \$18.12. No significant difference was observed between the two experimental groups. These costs accounted for only the exact time needed for service delivery and the cost of supplies given to users. If total wages and benefits of the NFP instructor are included in cost calculations, the cost per NFP acceptor was \$223 and the cost per CYP of NFP protection was \$335.

FOLLOW-UP AND FUTURE PLANS: Two main recommendations were made: 1) that NFP services be offered in all health centers, since 14 percent of all persons requesting contraceptive services would be interested in trying the method; and 2) that one specialized NFP instructor be hired for every 10-20 health centers to provide this service.



PROJECT NO. COL-04

COUNTRY: Colombia

TITLE: Private Sector CBD and Commercial Social Marketing Strategies

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Asociación Colombiana Pro Bienestar de la Familia

DATES: September 1984 - September 1987

BUDGET: \$728,865

BACKGROUND AND PURPOSE: PROFAMILIA has been providing family planning services in Colombia since 1965 and offers a wide range of contraceptive methods through 31 clinics located throughout Colombia through its CBD and social marketing programs. PROFAMILIA conducted six OR studies with the general objective of improving the cost-effectiveness of its contraceptive marketing programs.

DESCRIPTION: The first OR study tested the cost-effectiveness of replacing PROFAMILIA's community-based distribution (CBD) program with a contraceptive social marketing (CSM) strategy in rural and marginal urban areas with high contraceptive prevalence. In the province of Santander, PROFAMILIA discontinued the CBD program and enlarged the CSM program there to include rural and semi-rural areas. In Cundinamarca, the CBD and CSM programs continued operating as usual, except for the introduction of incentives to the CBD instructors for sales above goals. Given the successes and shortcomings (see findings below) of the first OR project, a second OR project tested the cost-effectiveness of a new community marketing (CM) strategy that incorporated the main features of both CSM and CBD. This study also was conducted in the provinces of Cundinamarca and Santander. The third study used two national sample surveys to measure CBD distributors' knowledge of contraception and to assess the effectiveness of a training program to improve knowledge. About half of the distributors were trained in one to three-day courses, and most of the rest in briefings during resupply visits. The fourth OR study was a survey of men in the city of Cali to measure knowledge, use and purchases of condoms. The survey, which was conducted in 1987, was conducted to determine the long-term effects of a 1984-85 generic condom radio advertising campaign. The fifth study obtained basic information on contraceptive marketing to allow PROFAMILIA to compete more effectively in the commercial drugstore market. The sixth study focused on how the indirect costs of central administration and the shared costs of assets and services should be distributed among the service programs.

STUDY DESIGN AND METHODOLOGY: Studies 1 and 2 employed baseline and endline KAP sample surveys among MWRA, service statistics, and cost data to determine the changes in use prevalence rates and the cost per couple years of protection (CYP) for each service strategy. Study 3 used pre- and post-training tests of a sample of distributors to determine gains in distributor knowledge. A sample survey of condom users was used to evaluate the long-term effects of the radio advertising campaign in Study 4. In Study 5, information was collected on market size, market share, inventory levels, average prices and stock-outs in drugstores. Cost data were used in Study 6.

FINDINGS AND IMPLICATIONS:

Study 1

Almost all respondents in the baseline survey could name at least one contraceptive method. Fifty-seven percent of MWRA in Santander and 64 percent in Cundinamarca were currently using a family planning method, and about one-fourth of users were relying on traditional methods at the time of the baseline survey.

After two years, the CSM strategy achieved a net profit per (CYP) of US\$1.18, compared with a cost per CYP of US\$4.20 for the wage incentive CBD program in Cundinamarca. The main reason for this discrepancy was operating costs. Contraceptive knowledge and prevalence did not decrease in either case. However, PROFAMILIA was forced to cancel its CSM program due to a number of factors, including government regulations regarding the sale of donated contraceptives, and increased competition from local contraceptive manufacturers.

Study 2

In Cundinamarca, a cost of US\$1.52 per CYP was achieved. The cost per CYP in Santander was US\$0.43, lower than in Cundinamarca, but less favorable than the profit per CYP observed in the first study. In both provinces, contraceptive knowledge remained at approximately the same levels, and contraceptive prevalence increased, from 63 to 72 percent in Cundinamarca, and from 58 to 67 percent in Santander. Based on the results of this second OR study, PROFAMILIA extended the CM strategy to the remainder of the country.

Study 3

Improvements in knowledge of contraception were correlated with training, but no significant difference was found between distributors trained in courses and those trained in briefings. There were large improvements in the knowledge of certain critical items regarding oral contraceptive use, but knowledge of other important items, including contraindications for pill use, remained low. Knowledge of barrier method use was high. Vasectomy was the least known method.

Study 4

The pool of condom users remained approximately the same size after three years, but condom use increased because of more frequent and continued use by condom ever-users. The most important long-term effect of the radio advertising campaign was apparently to increase the frequency of repeat purchases.

Study 5

The results showed that PROFAMILIA held over 50 percent of the market share in pills and condoms; that their distribution network covers a large majority of drugstores in Colombia, and that they achieve social objectives by selling the least expensive contraceptives in the commercial market.

Study 6

By taking costs into account, the community marketing program's cost per CYP increased by 59.7 percent, and the clinical program's cost increased by 17 percent. The surgical program was the least affected, with the cost per CYP increasing by only 7.3 percent.

PROJECT NO. COL-05

COUNTRY: Colombia

TITLE: Cost-Effective Promotion and Distribution of IUDs Among Private Physicians

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Sociedad Médico Farmacéutica

DATES: September 1987 - February 1989

BUDGET: \$85,255

BACKGROUND AND PURPOSE: Until recently, the IUD has been the most popular form of birth control in Colombia (now second to sterilization). For the most part, IUDs are supplied in Colombia by large institutions that concentrate their services in a few large urban areas. SOMEFA (Sociedad Médico Farmacéutica), a private non-profit organization that supplies IUDs and other medical products, has used two delivery systems to extend its services to private physicians located in small towns and cities: postal mailings and detail men. SOMEFA implemented an OR study to examine the effectiveness of these methods in distributing materials and information as well as their relative cost effectiveness.

DESCRIPTION: The study had four objectives: 1) test which of the two promotional systems (postal mailings and detail men visits) is more acceptable and cost-effective among private physicians; 2) increase IUD use and promote the TCU 380A through a self-sufficient contraceptive supply system; 3) arrive at a profile of physicians who purchase products under each promotional system; and 4) provide training/refreshers courses to physicians interested in offering IUDs to their clients. Three detail men were responsible for visiting the medical-visit group. Visits consisted of a ten-minute structured interview to inform doctors about the services offered by SOMEFA and the technical characteristics of the contraceptives available. These personnel gave physicians brochures and promotional materials, took orders, delivered IUDs and other products, and collected amounts due. They also invited physicians to training courses offered as part of the project.

Physicians in the postal-mailing group received information on the different contraceptive methods and IUDs available through SOMEFA through brochures especially designed for this project. They also received a product order form and an envelope containing a pre-paid commercial response card and information on training course offered by SOMEFA.

STUDY DESIGN AND METHODOLOGY: In large cities, a post-test-only control group experimental design was used; a non-equivalent control-group design was employed in the other cities. Methodology included a cost analysis, an endline survey, as well as a mini-survey with a sub-set of the physicians.

FINDINGS AND IMPLICATIONS:

- o Visits from detail men was the most effective method in increasing product acceptance independent of the type of contraceptive (roughly twice as effective as the mailing and more than three times as effective as the control group). Visits were generally more effective in smaller cities than larger ones.
- o Postal mailings (\$ 1.56 per IUD unit) were more cost effective than visits (\$19.68 per IUD unit).
- o Physicians did not receive more information about the TCU 380A through visits than they did through mailings. Both promotional techniques were equally effective in promoting a new product.
- o There was no significant difference in the level of knowledge of the TCU 380A among physicians in the detailman-visit group (58 percent) and those of the mailing group (60 percent), but members of both these groups knew more about the TCU 380A than did members of the control group (44 percent).
- o Neither of the two strategies seemed to be very successful in promoting the adoption of the TCU 380A. The percentage of physicians in the detailman-visit and postal mailing groups that had had experience inserting the TCU 380A (36 percent and 32 percent, respectively) were only slightly higher than that of the control group (29 percent).
- o Few physicians were able to attend the training; only about one third of those who expressed an interest were able to attend.

FOLLOW-UP AND FUTURE PLANS: The study recommended that SOMEFA implement a number of policy changes regarding the optimum use of detail men and promotional mailings, the information to be included in promotional mailings, and the design of training courses for physicians. SOMEFA has used the mail strategy to promote the use of NORPLANT[®] and invite physicians to attend insertion training sessions.

PROJECT NO. COL-06

COUNTRY: Colombia

TITLE: IEC Services to Promote Condom Use for AIDS Prevention

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Asociación Colombiana Pro-Bienestar de la Familia

DATES: January 1988 - April 1989

BUDGET: \$97,262

BACKGROUND AND PURPOSE: Family planning associations have been very successful in changing sexual behavior by providing reproduction-related services and education. Because of this PROFAMILIA, an agency offering family planning services through clinics and field workers in Colombia, was asked by several international agencies to participate actively in AIDS prevention programs. PROFAMILIA had reservations about participating in AIDS interventions because of doubts about CBD workers' effectiveness as communicators of AIDS information, the impact these new activities would have on their ability to maintain current services, and concern about potential negative effects on PROFAMILIA of the campaign on public perceptions of condoms.

PROFAMILIA decided to carry out three activities: 1) informative talks by CBD instructors to the general public as well as members of high-risk groups; 2) the establishment of condom-distribution posts in the meeting places of members of high-risk groups; and 3) mass media information and publicity campaigns on AIDS prevention. However, because doubts remained about the advisability of such actions, they undertook an OR study to test these strategies.

DESCRIPTION: The OR study examined the effectiveness of CBD instructors in communicating new messages to a new population, the effects of the new obligations on current contraceptive sales, issues concerning security and supply of condoms to new condom-distribution posts and the effect of an AIDS publicity campaign on public perceptions of PROFAMILIA.

To test the CBD instructors' effectiveness in AIDS related activities, 25 instructors working in 15 different cities were divided into two groups. In the experimental group instructors dedicated 20 percent of their time to the new activities. In the control group instructors were told that they did not have to dedicate any fixed percentage of their time to AIDS-related activities but did have to take care of spontaneous demands for lectures on AIDS and STDs, and to take advantage of any opportunities to establish condom distribution posts. To determine the effect of mass-media publicity campaigns, a three-month radio campaign on condom use as a way to prevent AIDS was carried out.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental design was employed in testing CBD worker effectiveness, relying primarily on service statistics. The radio campaign used a single intervention in one city; and collected data in baseline and end line surveys.

FINDINGS AND IMPLICATIONS:

- o Instructors who devoted 20 percent of their time to AIDS and STD-related activities were more active in both family planning and in AIDS IEC activities than the control group. For example, AIDS instructors averaged 3.8 AIDS talks per month, compared with 1.3 talks for controls.
- o No significant difference in overall contraceptive sales was noted between the two groups of instructors. However, instructors in the experimental group were much more likely to establish condom distribution posts and sold three times as many condoms there: 15 percent of the condom sales of the experimental group were made in high risk areas, compared to 5 percent for the control group.
- o Family planning instructors who only received training on AIDS and STDs prevention received a large number of requests for information on AIDS from their regular audiences. However, these field workers had minimal contact with members of high-risk groups.
- o After the radio campaign on AIDS prevention there was a large increase in the proportion of people who mentioned the use of condoms as a way to prevent AIDS (from 23.1 to 47.3 percent) and the public generally had a more positive attitude about condoms.
- o Attitudes about PROFAMILIA did not change as a consequence of the radio campaign.

FOLLOW-UP AND FUTURE PLANS: All field workers have been trained on AIDS and STDs prevention and provide information to their family planning audiences. AIDS videotapes are shown in waiting rooms of all clinics. Condom distribution posts continue to function in motels but not in other AIDS risk sites. IEC materials on AIDS continue to be distributed to family planning audiences.

PROJECT NO. COL-07

COUNTRY: Colombia

TITLE: Strategies for Provision of Vasectomy Services

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Asociación Colombiana Pro-Bienestar de la Familia

DATES: June 1988 - July 1989

BUDGET: \$152,225

BACKGROUND AND PURPOSE: PROFAMILIA offers vasectomy services through traditional female clinics and through "male" clinics. The male clinics, which have been more successful in attracting vasectomy clients than traditional clinics, offer a variety of male-oriented services in addition to vasectomies, provided by specialized personnel in an exclusively masculine context, and promote these services through mass media IEC campaigns. In order to avoid the cost of building exclusively male centers, PROFAMILIA conducted an OR study to determine which characteristics of the male clinic model are essential to its success in attracting vasectomy clients.

DESCRIPTION: The elements of the male-clinic model tested in the study included use of specialized personnel, provision of male-oriented services, and an active IEC campaign. Specialized personnel included a urologist, a full-time counselor and a full-time nurse's aide. In addition to vasectomies, the male-oriented services offered were STD treatment, general medical services, urology services, and minor out-patient surgery. The mass media campaign for the project included radio spots, advertisements in local newspapers, and leaflets distributed to the general public.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental, time series analysis was used to compare two service delivery strategies: 1) providing services in traditional female-oriented clinics through a special promotional program; and 2) providing male services in traditional clinics during special male hours ("segregated schedule") in traditional clinics or by providing service in a male clinic. Under both strategies, the clinics hired specialized personnel, offered a variety of male-oriented services, and conducted promotional IEC campaigns. The provision of male services in female oriented clinics was tested in two clinics. The segregated schedule and the separate male clinic were tested in one clinic. Two other PROFAMILIA clinics served as control groups.

FINDINGS AND IMPLICATIONS:

- o Clinics with male-only sessions performed a higher monthly average of vasectomies (11.7) than traditional female-oriented clinics (9.1), though the difference was not statistically significant.
- o Experimental clinics performed an average of twice as many vasectomies per month (10.3) as did the controls (5.2).
- o Productivity (measured in terms of number of vasectomies performed) increased by 120 percent in experimental clinics and 59 percent in control clinics during the twelve-month project period, compared to the preceding twelve-month period.
- o User satisfaction was similar for all delivery models tested.

- o The characteristics of acceptors at experimental clinics were not different from those of acceptors during the pre-project period.
- o Contrary to pre-survey hypotheses, clients of male-context clinics were not more satisfied with services or vasectomy as a method, compared with clients of the female-context or control clinics, nor did employees of the male context clinic, compared with the other clinic employees, rate vasectomy as a more important method.

FOLLOW-UP AND FUTURE PLANS: PROFAMILIA has expanded the male clinic service delivery model to four additional cities and promotes vasectomy more intensively in traditional clinics.

PROJECT NO. DMA-01

COUNTRY: Dominica

TITLE: Strategies for Reducing Male Opposition to Family Planning

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: November 1983 - December 1985

BUDGET: \$33,124

BACKGROUND AND PURPOSE: Male attitudes towards family planning have often been considered a major barrier to the more widespread use of contraceptives in the Eastern English speaking Caribbean. In the 1980s, family planning administrators began to recognize the need to design programs to reach men in order to foster more responsible behavior in the family planning decision making process. An OR project was designed by Tulane University in 1983 in consultation with the MOH in Dominica to focus attention on males and their roles in the use of family planning.

DESCRIPTION: The primary goal of the project was to decrease male opposition to the use of male or female contraceptive methods. The specific objectives were to increase awareness of the benefits of family planning and knowledge about types and availability of contraceptives, to dispel rumors about contraceptive methods, and to increase the use of contraceptives among men and/or their female partners. A family planning educational outreach program was planned for the target audience of men 18-44 years of age. One urban and four rural areas were selected as treatment areas to receive the program, with matching control areas where no special activities took place. Over 18 months a male promoter conducted group meetings on four topics: reproductive physiology and anatomy, contraceptive methods, sexually transmitted diseases (STDs), and child growth and development. The promoter also visited the communities to do outreach and distribute condoms.

STUDY DESIGN AND METHODOLOGY: Focus group discussions took place among men 18-44 years of age in the target communities. The information revealed a positive attitude towards family planning and led to the design of the four sessions in the educational program. Pre- and post-tests were designed to give some indication of knowledge about the topic prior to and immediately after the presentations. A follow-up survey was conducted after 12 months to determine whether knowledge and attitudes in the treatment areas differed from those of men in the control areas. On selected variables data already collected in the 1982 CPS on male family planning was used as a comparison. Service statistics were compiled on men attending the meetings and numbers of condoms distributed.

FINDINGS AND IMPLICATIONS:

- o As the male promoter became known in the community the number of condoms distributed increased.
- o Men in the treatment area were more knowledgeable about reproductive physiology and STDs than those in the control area, although men in the control area were more knowledgeable about when ovulation occurs.

243

- o There was no difference in the two areas about number of methods known but the treatment area respondents were more knowledgeable about specific methods.
- o Over 75 percent of respondents said the decision by a couple to use a contraceptive should be a joint one.
- o Over 66 percent of all men approved of family planning to prevent unwanted children and to plan family size.
- o About half of all respondents reported use of a method at last intercourse: 58.9 percent in the control area, but only 41.4 percent in the treatment area.
- o Use of contraception related to educational status: 48 percent of men with primary education or less were users compared to 61 percent with a secondary education and 58 percent with post secondary education.
- o Fifty percent of respondents had heard of the male promoter; of these 29 percent attended at least one meeting. The average number of meetings attended was 3 and respondents were virtually unanimous in finding them useful and informative.

PROJECT NO. DMA-02

COUNTRY: Dominica

TITLE: Feasibility of Operating Adolescent Clinics

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: January 1984 - June 1985

BUDGET: \$17,326

BACKGROUND AND PURPOSE: Teenage pregnancies have been a major health concern in Dominica. Although fertility rates were declining overall, 26 percent of all live births in 1984 were to teenagers 19 years and under, the majority of whom were unmarried. Family planning services were available on request to teens at most clinics but the Ministry of Health (MOH) initiated plans to make contraception more accessible to this age group by establishing youth clinics. The MOH initiated plans to establish special youth clinics in collaboration with the UNFPA and IPPF. Tulane University was asked to design and implement an OR study to test the feasibility of operating these clinics with the objective of reducing teenage pregnancy by providing sex education and making contraceptives readily available.

DESCRIPTION: The project was designed to test two alternative strategies for the establishment of teen clinics. Six communities were chosen. One rural and one urban community were assigned to each of two treatment groups, and a further urban community and rural community formed the control group. Treatment group one had a separate youth clinic facility established, open two days a week to teen clients. Services provided included family life education, family planning counselling, distribution of contraceptive methods and general health care. Group two had youth clinics which operated from the existing health centers, with different hours for the teen clients. In the control group there were no special services provided for the younger age group although family planning services were provided at the local health center or clinic. Although the four clinics were established, there was official reluctance to publicize the fact that contraceptives were among the services available. As a result, the project was terminated early.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental design, the OR study was to be based on pre- and post-intervention surveys and the collection of service statistics. Due to curtailment of the program this was not done although the baseline survey produced some useful findings, indicated below.

FINDINGS AND IMPLICATIONS:

- o Knowledge about the reproductive process was higher among older teens but 90 percent of all respondents did not know the most fertile time for a woman.
- o Knowledge of family planning methods increased with age among both males and females. Over 90 percent of all teens knew at least one contraceptive method.
- o Seventy-eight percent of males claimed to have had sex, 46 percent of females.
- o The reported use of contraceptives during their first sexual encounter was significantly higher for females than males.

- 245 -

- o Over 50 percent of the males who claimed to have had sex said they disapproved of premarital sex, as did nearly 66 percent of the females.
- o More than three-fourths of respondents wanted more information on STDs and contraceptive methods and thought sex education should be taught in schools.

PROJECT NO. DOM-01

COUNTRY: Dominican Republic

TITLE: Strengthening Human Resources for CBD Program Expansion

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Asociación Dominicana Pro-Bienestar de la Familia

DATES: January 1987 - April 1988

BUDGET: \$79,477

BACKGROUND AND PURPOSE: Although fertility has declined significantly in the Dominican Republic in the last 20 years, the National Family Planning Program has had to undergo a major expansion to adequately cover women of reproductive age. One of the two agencies comprising the program, PROFAMILIA, wished in particular to expand its CBD program. The purpose of this project was to foster this expansion by improving the current system of supervision of promoters and by modifying the training and reinforcement provided to promoters to encourage them to expand their role from mere distributors to reproductive health and family planning promoters. Another purpose was to increase the use of reversible methods among users.

DESCRIPTION: The project comprised two experiments. The first introduced a system of selective supervision of promoters whereby visits to promoters varied with their performance, rather than the existing system in which all were visited with the same frequency. The second experiment tested an effort to modify the promoters' behavior through retraining so that they would require less supervision and assume their promotional tasks. This intervention also aimed at increasing the use of reversible methods through a change in the existing system of incentives for referrals and a mass-media campaign.

STUDY DESIGN AND METHODOLOGY: The study design included two separate interventions: two interrupted time series sharing the same non-equivalent no-treatment control group. Data were collected from promoters' records of sales, visits and referrals, statistics on new users, monthly supervisors' reports, pre- and post-test measures of knowledge in the special training group, and supervisors' records of promoter progress and knowledge of family planning in the special supervision group.

FINDINGS AND IMPLICATIONS: The results of the special supervision project showed that:

- o The new system proved more effective and efficient than the traditional approach.
 - The special supervision group provided 33 percent more Couple Months Protection (CMP) than the control group.
 - It also provided more promotional and follow-up visits than the control group (3882 versus 980).
 - The special supervision group made 198 more referrals than the control group (479 versus 281).
- o Users served by promoters in the experimental group received more effective orientation on reproductive health issues.

Results of the retraining test revealed:

- o Scores on tests of knowledge were significantly higher among the experimental group than among the control.
- o The experimental group had superior performance in terms of CMP and number of visits and did a better job in orienting their clients on family planning and promoting PROFAMILIA in general.
- o The experimental group significantly reduced the percentage of pill users with contraindications, from 9.9 to 2.4 percent.

FOLLOW-UP AND FUTURE PLANS: The two approaches tested under this project will be institutionalized in the same areas in which they were tested. The other regions served by PROFAMILIA will slowly be incorporated as well, with the strategies being modified according to the characteristics of each area.

PROJECT NO. DOM-02

COUNTRY: Dominican Republic

TITLE: Testing Counseling Options for Provider-Dependent Contraceptive Method

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Asociación Dominicana Pro-Bienestar de la Familia

DATES: January 1988 - August 1989

BUDGET: \$65,151

BACKGROUND AND PURPOSE: According to the 1986 Demographic and Health Survey, 67 percent of female contraceptive users in the Dominican Republic are sterilized. PROFAMILIA has a strong voluntary sterilization program that functions through a network of associated physicians to whom male and female sterilization clients are referred. A 1985 follow-up survey of sterilized women showed that most women obtained initial information from friends and relatives who had been sterilized, but that 82 percent of sterilization clients received no information about the procedure either from the attending physician or nurse. PROFAMILIA plans to introduce NORPLANT[®], and is currently promoting the use of the IUD. These methods, and surgical contraception, are provider-dependent and require counseling. The OR project was designed to determine the most effective format to counsel patients.

DESCRIPTION: The OR study tested different types of counseling in two different settings: 1) large, high caseload clinics; and 2) low caseload clinics. In large, high caseload clinics, only group counseling was feasible. Three combinations of counseling and information were tested and compared in that setting. All three treatment groups received the information component, consisting of a 20-minute video on the methods available shown to groups of 15 to 20 women at a time. After the video, three types of counseling were provided. One group was asked if they had questions, but was not drawn into discussion (information alone). In the second group, the counselor employed group dynamic techniques to ensure that all women participated in the discussion, which covered all methods of contraceptives available at the clinic (multiple-method counseling). The third group was divided into smaller groups by method desired, and the subsequent discussion covered only the method of choice (method-specific counseling). The methods included in this study were orals, IUD, implant and sterilization. In four low caseload clinics, where only sterilization is provided, small group (5 clients) counseling was compared with individual counseling. In the smaller clinics, no video was employed.

STUDY DESIGN AND METHODOLOGY: The study employed two quasi-experiments to examine the different counseling strategies in the two settings. Research methods included pre- and post-counseling tests of contraceptive knowledge, client satisfaction surveys, and follow-up surveys of users to measure continuation rates and satisfaction with the method.

FINDINGS AND IMPLICATIONS: Results on effectiveness measured by knowledge acquired between pre- and post-counseling tests, and user satisfaction with method showed that:

- o Multiple-method counseling was most effective for orals and the IUD.
- o Method-specific counseling was most effective for the implant.
- o Both methods were equally effective for sterilization clients.

- o Cost analyses show the information only approach to be the least expensive (DR\$0.05 per client), but it is also the least effective. Multiple-method and method-specific counseling costs 4.5 times as much as information only, but are much more effective.
- o In low caseload clinics, small group counseling was significantly more effective than individual counseling.

PROJECT NO. ECU-01

COUNTRY: Ecuador

TITLE: Delivery of Family Planning and Health Services in Campesino and Indigenous Communities

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Centro Médico de Orientación y Planificación Familiar

DATES: April 1986 - July 1989

BUDGET: \$96,408

BACKGROUND AND PURPOSE: Non-Spanish speaking groups in the Andean region display some of the lowest rates of family planning use in Latin America, and programs to deliver services have met with only limited success. The purposes of this project were to: 1) demonstrate the feasibility of delivering family planning in indigenous communities; 2) determine the effect on acceptance of family planning of integrating ORT with family planning services; and 3) study the impact of home visiting on family planning use.

DESCRIPTION: The project was carried out by promoters and volunteers associated with local clinics. The promoters educated the community through talks on health and family planning, and made home visits; the volunteers distributed contraceptives and ORT salts, and made clinic referrals. The clinics provided family planning, Ob-Gyn, and pediatric services. An initial fear of resistance from community leaders proved unfounded. On the other hand, difficulties caused by terrain, climate, and slow community political processes resulted in delays, which, combined with staff turnover, necessitated modification of the research design.

STUDY DESIGN AND METHODOLOGY: A diagnostic survey of the indigenous communities was carried out before service delivery began to determine clinic and CBD client characteristics. The test of service delivery employed a quasi-experimental design in the first 6 months of the project: the CBD program in one group of communities distributed only family planning, while the program in the other group carried out only ORT activities. During the second 6 months, the two interventions were combined in both groups. For the home visiting experiments, one group received home visits from promoters, while the other did not; all other promoter tasks were the same for both groups. The study compared family planning output, and included a cost-effectiveness analysis.

FINDINGS AND IMPLICATIONS:

- o Results showed that adding ORT to existing family planning service delivery negatively affected volunteer contraceptive distribution, and that adding family planning to ORT also reduced the distribution of ORT packets. Specifically, the number of new clients fell from 167 to 63; and the number of ORT packets distributed dropped from 1360 to 569. Removal of ORT from the service delivery model was estimated to save about 10 percent of total costs.
- o Home visiting resulted in higher numbers of recruits and clinic referrals (544 for the home visiting group versus 468 for the control group).
- o Home visiting also resulted in higher continuation rates for new users: 53.8 percent of

- 251

clients recruited by the home visiting approach were still in the program three months after date of entry versus 41.4 percent in the no-home visiting group. Costs per output were similar among the two groups.

These results suggest that: 1) there is demand for family planning in indigenous communities if services are delivered in a culturally appropriate way; 2) it is unnecessary to offer other services to make family planning acceptable in these communities; and 3) home visiting has a positive effect on continuation and clinic use.

FOLLOW-UP AND FUTURE PLANS: The program is being expanded to more indigenous communities with USAID mission and IPPF funding. Home visiting will be continued, but ORT distribution has been discontinued.

PROJECT NO. GRE-01

COUNTRY: Grenada

TITLE: Strategies for Promoting Contraceptive Use Among Women in High Risk Groups

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Grenada Planned Parenthood Association

DATES: September 1987 - August 1989

BUDGET: \$51,946

BACKGROUND AND PURPOSE: Awareness of contraceptives is high in Grenada (more than 90 percent of women know at least one method) but use prevalence in 1985, particularly among women 20-24 years old, is low. Fewer than one in five are sexually active teenagers and one in three of women 20-24 years old were using a contraceptive. The Grenada Planned Parenthood Association (GPPA) undertook an OR project to increase contraceptive use among women for whom the risks of pregnancy are grave.

DESCRIPTION: The objective of the OR study was to measure the effectiveness of a community education strategy for encouraging the use of effective contraceptive methods for child spacing or limitation among two groups of women: Normal Risk (those in the 20-30 years age group who had 4 or fewer children) and High Risk (those younger than 20 years, those over 34, and those who had more than 4 children). Six field workers were recruited and trained to provide family planning/MCH education and services during post-partum home visits to all women who had an in-hospital delivery after November 1987. Women in the normal risk category (54 percent) received one visit within 7-14 days after delivery and those considered high risk (46 percent) received four programmed visits within 6 months after their babies were born. The control group consisted of women who had in-hospital deliveries during May to October 1987 and who were exposed only to the existing pre- and post-natal MCH services. Women in the two experimental groups were provided with intensive post-partum counseling on family planning, breastfeeding, immunization and other MCH topics. The GPPA established a coupon system for tracking contraceptive acceptors through its clinics.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental design was used. Research methods included analysis of service data collected during each home visit, interviews with women during home visits and a 12-month follow-up survey of a sample of project participants.

FINDINGS AND IMPLICATIONS:

- o Post-partum contraceptive use, measured after 12 months, was significantly higher among women who had received the education intervention—66 percent of the experimental groups versus 45 percent of the control group had used a method during that time.
- o Current use also differed between those in the intervention group (50 percent) and those who did not receive any visits (39 percent).
- o The intervention with one home visit was as effective in changing contraceptive knowledge and behavior as was the one with four home visits.
- o In general, women exposed to the interventions were less likely to use an ineffective method or no method. These women were more likely to continue to use the method introduced by the community worker during the home visit.

252

- o The community education intervention had a significant effect on increasing awareness about contraceptive methods with the exception of the condom, vasectomy and natural family planning.
- o Contraceptive users' knowledge of how to use their current method was also significantly improved by the intervention.

FOLLOW-UP AND FUTURE PLANS: The GPPA is continuing to provide one post-partum home visit within the first month after delivery to new mothers in two parishes in Grenada. Participants in an end-of-project seminar recommended closer collaboration between the GPPA and the Ministry of Health to strengthen the outreach services. It was also recommended that women participating in the project should be followed-up after 3 or 4 years to assess the long-term effect of the intervention on reproductive behavior.

PROJECT NO. GUA-01

COUNTRY: Guatemala

TITLE: Federation of Regional Cooperatives (FECOAR)

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Association for Family Welfare

DATES: July 1977 - June 1979 **BUDGET:** \$53,000

BACKGROUND AND PURPOSE: In Guatemala in 1977 the Federation of Regional Cooperatives (FECOAR) had a membership of 13,000 living in 560 villages in the rural interior. Members were organized into 300 local groups, mostly engaged in food production. An OR study was undertaken to assess the impact of training volunteers for CBD.

DESCRIPTION: Through FECOAR 183 volunteer contraceptive distributors were recruited, trained and supervised by the Guatemalan Association for Family Welfare (APROFAM). The distributors were supplied with condoms, foaming tablets and foam, plus analgesic tablets and cough medicine. The supplies were sold by the distributors who retained a commission for themselves. Records were maintained of the sales and meetings were held by the regional directors and promoters with FECOAR Members.

STUDY DESIGN AND METHODOLOGY: Essentially a demonstration project, there was no explicit research design. Evaluation was based on service statistics and a series of field interviews with regional directors, promoters and a sample of the distributors.

FINDINGS AND IMPLICATIONS:

- o The project recruited 3,108 new acceptors: 1950 for OCs, 584 for condoms, 267 for foaming tablets and 307 for foam.
- o Distributor performance was not appreciably affected by provision of non-contraceptive medicines.
- o Performance was affected by ethnic status, education (Ladino vs. indigenous), gender, assistance from spouse, personal use of contraception, extent of training, and whether selection of distributor was made by FECOAR or by APROFAM.

PROJECT NO. GUA-02

COUNTRY: Guatemala

TITLE: APROFAM Cotton Growers Project

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Asociación Pro Bienestar Familiar

DATES: June 1978 - June 1979

BUDGET: \$28,000

BACKGROUND AND PURPOSE: In Guatemala in 1978 a migrant population of some 33,000 Indians from the central highlands came to the west coast each summer for the cotton harvest. Their pay was low, working and living conditions poor and medical services very limited. Family planning services were not available in their home communities, and previously had not been provided on the plantations. An OR study was undertaken to assess the impact of CBD of contraceptives by trained volunteers. A smaller program was also implemented for the permanent plantation workers, whose standard of living is higher.

DESCRIPTION: Plantation owners at 11 sites selected distributors from among their permanent employees, usually women who were already using contraception. A three-day training course gave instruction on the distribution of OCs, condoms and foaming tablets on a commission basis. Distribution took place where the workers received their pay. Supervision and promotion was undertaken by another four volunteers. A professional APROFAM employee managed the project and arranged for referrals for surgical contraception.

STUDY DESIGN AND METHODOLOGY: A demonstration project, there was no formal research design. Service statistics were analyzed to provide a retrospective analysis of distributor performance.

FINDINGS AND IMPLICATIONS:

- o Virtually no acceptors were recruited from the migrant population.
- o There were 402 acceptors among the permanent employees of the plantations including 178 who had sterilizations.
- o During the project poor results led APROFAM staff to bring in Indian distributors from another project who could communicate in the plantation workers' own languages to provide contraceptive education.
- o Free distribution replaced the charge for the contraceptives in an unsuccessful effort to improve acceptance rates.

25

PROJECT NO. GUA-03

COUNTRY: Guatemala

TITLE: Characteristics of Successful Distributors in Contraceptives CBD

CONTRACTOR: University of Chicago

PARTICIPATING INSTITUTION: Asociación Pro Bienestar de la Familia

DATES: June 1979 - August 1979 **BUDGET:** \$4,700

BACKGROUND AND PURPOSE: In Guatemala, CBD of contraceptives has been coordinated since 1975 by the Guatemalan Family Planning Association (APROFAM). In 1981 some 500 distributors were operating in both urban and rural areas with greatly differing records of success. In order to establish the characteristics of the successful distributors an OR study was undertaken in the form of a survey of field staff.

DESCRIPTION: In all the CBD programs distributors provide OCs and barrier contraceptive methods at a standard price and commission. The survey looked at agent performance in terms of variations in agent characteristics, in the CBD programs and in the communities they served. It was carried out in six rural and one urban CBD projects and a total of 487 distributors were interviewed.

STUDY DESIGN AND METHODOLOGY: As a diagnostic project there was no formal research design. A questionnaire was developed to obtain socio-demographic data as well as information about the agent's training and performance. Indicators of distributor performance were average number of active users in the past six months, number of new acceptors in the past two months and level of contraceptive sales over the past 12 months drawn from service statistics. Data were analyzed using multiple regression.

FINDINGS AND IMPLICATIONS: Based on results of the multiple regression the following factors were associated with successful performance in rank order:

- o For urban distributors:
 - number of months in program
 - post location other than home or store
 - display of family planning poster
 - supervisor organization of group meetings
 - distributor organization of group meetings

- o For rural distributors the factors were:
 - receiving assistance from spouse
 - presence of competing sources of contraceptives
 - visits to neighbors to promote family planning
 - education
 - frequency of supervision

- o No significant correlation with successful performance was found for any other socio-demographic characteristic, current or past contraceptive use, or several variables relating to training.

- 251

PROJECT NO. GUA-04

COUNTRY: Guatemala

TITLE: Integrated System of Nutrition and Primary Health Care (SINAPS)

CONTRACTOR: Institute of Nutrition of Central America

PARTICIPATING INSTITUTION: Ministry of Health/Pan American Health Organization

DATES: June 1979 - June 1981

BUDGET: \$842,170

BACKGROUND AND PURPOSE: Delivery of health care and family planning services in Guatemala through the Ministry of Health initially was virtually limited to a clinic-based system. The Guatemalan Family Health Project, also known as the Integrated System of Nutrition and Primary Health Care (SINAPS), represented a modification of the existing MOH system. The primary agent to be used was the community health volunteer--the Rural Health Promoter (RHP)--trained and supervised by a Rural Health Technician (RHT). An OR study was undertaken to evaluate the SINAPS delivery system.

DESCRIPTION: The study took place in Eastern Guatemala. Three districts were chosen as the experimental area and three districts with a similar population size were designated as the control area. The goals of the program were expressed quantitatively in terms of the impact of 12 months of service delivery on the following parameters: 1) infant mortality: 30 percent reduction 2) incidence of neonatal tetanus: 90 percent reduction 3) incidence of low birth weight: 30 percent reduction 4) prevalence of malnutrition in children under 5: 30 percent reduction 5) incidence and mortality of immunizable diseases: 80-90 percent reduction 6) prevalence of modern family planning methods: 10 percentage point increase. The services provided by the RHPs and some trained traditional birth attendants (TBAs) included family planning, immunization, nutritional assessment, ORS, and referrals to the clinic system. A systematic canvass was undertaken of all households, during which contraceptives and ORS were offered; immunizations and nutritional assessment were conducted through community meetings.

STUDY DESIGN AND METHODOLOGY: Baseline and evaluation surveys were undertaken in the experimental and control areas. The comparison between the MOH and SINAPS delivery systems was to be expressed in terms of the six parameters listed above, also incorporating a cost analysis. Cost analysis was to be based on health-center specific data collected from both experimental and control areas.

FINDINGS AND IMPLICATIONS:

- o CPR in the study area rose from 13.6 percent to 23.1 percent, in the control area it rose from 15.1 percent to 18 percent.
- o In the study area use of OCs rose from 3.6 percent to 6.6 percent; in the control area it was stable (7.3 percent to 7.9 percent)
- o No significant change in infant mortality could be demonstrated.
- o In the study area use of ORS rose to 35 percent; in the control area it was less than 1 percent.
- o No significant difference in nutritional status could be demonstrated.

255

- o The cost analysis produced the figure of \$1.19 for service delivery. Cost per visit of household contraceptive distribution was estimated at \$0.52.

PROJECT NO. GUA-05

COUNTRY: Guatemala

TITLE: Project to Investigate Training of Rural Health Promoters (PRINAPS)

CONTRACTOR: Johns Hopkins University

PARTICIPATING INSTITUTION: Ministry of Public Health and Social Assistance

DATES: September 1979 - March 1982

BUDGET: \$379,200

BACKGROUND AND PURPOSE: Beginning in 1971, the Ministry of Health (MOH) in Guatemala and several private voluntary organizations began to train unpaid volunteers to serve as rural health promoters in their communities. However, the program did not include a substantial family planning component, nor were there systematic arrangements for supervision, logistics, retraining, gathering of service statistics, or evaluation. The MOH believed that the health of the rural populations could be improved through rural health promoters trained and carefully supervised by the MOH. Thus, a large OR project was prepared for the western highlands, a poor area populated by 23 different tribes of Indians. Contraceptive prevalence was particularly low in the area, and the population afflicted with the usual health problems of poverty, including malnutrition, diarrhea, and respiratory diseases.

DESCRIPTION: The project goals were to establish and study a system of rural health care delivery using volunteer promoters; and to establish educational and supervision systems that could be applied nationally. Approximately 400 rural health promoters were to be trained in 5 departments on resupply of oral contraceptives, provision of condoms and barrier methods, oral rehydration, parasite treatment, first aid, nutrition evaluation and education, assistance in immunization campaigns, clinic referrals and hygiene. The training was to be provided by local Rural Health Technicians (TSRs), who would then supervise the same group of promoters in the field.

STUDY DESIGN AND METHODOLOGY: The project prospectively examined two variables. Half of the promoters were to be trained in a conventional 4 week training course; the remainder for 1-2 days per week, with training supplemented by self-instruction materials. The second variable was a comparison between the traditional single promoter (usually male) and male-female pairs (usually married), which were regarded as single agents. Thus, there were four distinct categories of agents based on the two variables. The evaluation proposed to use contraceptive prevalence rates, and several measures of health service delivery. Data were compiled from pre and post population-based surveys to determine use of medication for diarrhea and intestinal parasites, and vitamins during pregnancy, knowledge and use of contraceptives, and promoter health activities; service statistics; supervisor reports; and anthropological community interviews.

FINDINGS AND IMPLICATIONS:

- o Only 3.5 percent of couples were using any form of contraception at baseline. OC was the most popular method with 1.6 percent, followed by sterilization at 1.2 percent. Only two women out of 1,400 interviewed reported use of condoms, only one reported use of the IUD, and none reported use of vaginal tablets.
- o According to 1981 service statistics, prevalence of use of temporary methods doubled.

260

- o Another 981 users obtained supplies from municipal pharmacies, but it is unclear what proportion of these reside in project communities since the pharmacies are located in towns that are not served by rural health promoters.

PROJECT NO. GUA-06

COUNTRY: Guatemala

TITLE: Training and Supervision of Volunteers (CAPSVO)

CONTRACTOR: Ministry of Health

PARTICIPATING INSTITUTION: Ministry of Health

DATES: December 1983 - December 1984

BUDGET: \$150,000

BACKGROUND AND PURPOSE: An OR project on Rural Health Promoter Training (PRINAPS) was carried out from 1979-1983 in five provinces in Guatemala (see Project No. GUA-05). That project was designed to compare the effectiveness of two training models for male rural health promoters, compare the effectiveness of promoters working individually versus jointly with a female, and determine the coverage and quality of health activities carried out. The training and supervision components of the delivery system were identified as problem areas in the final report. A further OR study entitled Programa de Capacitacion y Supervision de Personal Voluntario (CAPSVO) was designed to evaluate a revised version of the PRINAPS model in one health district.

DESCRIPTION: The revised PRINAPS training, which was given to 150 promoters and 22 supervisors focused only on family planning, ORT and antihelminth treatment. The objectives of the study were to develop a methodology and information system to identify problems of PHC delivery and guide research on solutions, improve the referral and supervisory system, and transfer the methodology to other PHC projects of the MOH. Project activities were aimed at documentation of problems related to the supervisory system and promoter-related issues on family planning and ORT delivery. A workshop was organized for project personnel on supervision of health care delivery and administration of ORT. A plan of action was to be presented to the MOH after six months. However, the project was curtailed by INCAP's decision to withdraw. Nevertheless, two progress reports were prepared during the first months: the first an assessment of the management system of the MOH's PHC program, the second a revision of PRINAPS training and supervisory manuals, service statistics/information system forms and the results of delivery system component studies of the country drugstores and promoters.

STUDY DESIGN AND METHODOLOGY: Data collection included a baseline KAP, a study of country drugstores and a survey of promoters on service activities, re-supply practices, and supervision prior to re-training. A second survey intending to measure the sources of the problem-solving approach by examining changes in residents' ORT and family planning practice was not carried out. Other data were gathered through pre- and post-intervention surveys distributed to workshop participants (nurses, a social worker, supervisors, and country drugstore managers) to evaluate changes in knowledge about ORT.

FINDINGS AND IMPLICATIONS:

- o The most significant factor affecting coverage is the number of hours worked by the promoter. Because it was not possible to increase hours worked, it was recommended that the project search for ways to improve efficiency (e.g., better supervision and planning, stimulus).

762

- o Knowledge of ORT improved after the workshop for all groups attending except the country drug store managers.
- o Detailed documentation of OR projects in terms of research proposal and implementation plans are vital to project management.

PROJECT NO. GUA-07

COUNTRY: Guatemala

TITLE: Improving Performance of Distributors in APROFAM's CBD Program in Indigenous Areas

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Asociación Pro Bienestar de la Familia

DATES: January 1988 - June 1989

BUDGET: \$35,007

BACKGROUND AND PURPOSE: Guatemala has the lowest rates of contraceptive prevalence in Central America (23.2 percent, according to a 1987 report). Further, there is a wide disparity in contraceptive use between non-indigenous Ladinos (34 percent) and indigenous Mayan Indians (5.5 percent). Low family planning acceptance in Mayan areas is due to cultural factors and to inadequate program design. APROFAM conducted an OR study to test new training and supervision strategies in an effort to improve the performance of its distributors in indigenous areas.

DESCRIPTION: APROFAM distributors typically undergo a three-day training program, after which they receive monthly supervisory visits emphasizing administrative activities and logistics. The OR project employed a competency-based supervision system that used a structured instrument to measure the distributor's knowledge and competence as a guide for providing immediate on-site training and reinforcement. Within the project, a new training strategy also was tested. Course material was provided in three one-day sessions given once a month in locations closer to the community, in an effort to reduce absenteeism and to increase knowledge acquisition and retention. A total of 293 distributors participated in the project; 152 remained with the project throughout.

STUDY DESIGN AND METHODOLOGY: The study employed a quasi-experimental design. Two experimental groups of distributors received competency-based supervision; one group underwent the revised training program. The control group of distributors received APROFAM's standard training and supervision.

FINDINGS AND IMPLICATIONS:

- o Phased training sessions had higher attendance rates (93 percent) than routine training sessions (74 percent), but had no impact on knowledge acquisition.
- o Number of courses attended and level of education were important predictors of pre-training knowledge and post-training test scores.
- o Competency-based supervision increased distributor knowledge, and reduced deficiencies resulting from the training, bringing both experimental groups to a similar level of knowledge after six months.
- o Language spoken had no effect on pre-training knowledge but had a negative effect on post-training test scores; i.e., native Mayan speakers were found to have lower post-test scores. Language spoken posed an impediment in training, but this was minimized by the one-to-one relationship established during supervision.

- o Knowledge was positively associated with contraceptive sales. Distributors who scored above the mean on the post-test sold an average of 5.0 CYP per month, compared with 3.8 CYP for low scorers.

The results suggest that supervision must include knowledge reinforcement for that knowledge to be maintained, and that on-the-job training is more effective than training in formal sessions, is less time consuming because it can be done during supervision and, therefore, is less costly.

FOLLOW-UP AND FUTURE PLANS: APROFAM plans to implement the study results immediately. They are completing a final version of the supervision instrument, and also are developing a special on-the-job training instrument to be used with new distributors.

PROJECT NO. GUA-08

COUNTRY: Guatemala

TITLE: Client-Designed, Culturally Acceptable Family Planning Service Delivery Systems for Indigenous Populations

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Asociación Guatemalteca de Educación Sexual

DATES: March 1988 - May 1989 **BUDGET:** \$13,984

BACKGROUND AND PURPOSE: Guatemala has the lowest rates of contraceptive use in Central America. Moreover, there is a wide disparity in contraceptive use between the nonindigenous and indigenous populations. The Asociación Guatemalteca de Educación Sexual (AGES) has been providing sex education to both adults and children in indigenous areas since 1987. Although AGES intends to satisfy any demand for family planning resulting from its programs, it decided to conduct research to determine what the content and structure of these services should be in the rural Mayan areas. Another purpose of the research was to provide AGES with some management tools to increase its program management capability.

DESCRIPTION: The project had two phases: the development and testing of a diagnostic instrument to provide information on the services desired by each community, and the implementation of one of the service options recommended by the diagnoses in two different communities for six months. The implementation phase was designed to refine and validate the diagnostic instrument, and to allow AGES to anticipate the logistical difficulties it would encounter in implementing the strategies selected by the communities. In addition to the diagnostic instrument, the management tools developed included a computerized management information system and small, specialized databases for each program for internal evaluation and decision making.

STUDY DESIGN AND METHODOLOGY: The diagnosis was carried out in six villages: two where AGES offered both sex education and scholarships to schools belonging to the national bilingual program, two where it provided sex education alone for one year before the scholarship program was introduced, and two that received sex education alone. The diagnosis used two approaches - semistructured interviews and focus group discussions. Since the results of this phase of the project revealed strong interest in obtaining information about the methods available, the second phase included a set of talks on reproductive health and family planning.

FINDINGS AND IMPLICATIONS: The project gave AGES the opportunity to systematize and institutionalize its strategy to provide information in indigenous areas. Because full-time AGES staff developed the material, the experience gained remains with the institution. The project showed staff that research need not be complicated to be useful.

The most important result of the project was that it helped break down barriers to open discussion of family planning in indigenous areas. The study demonstrated that:

- o These populations are willing to discuss family planning as long as it is approached cautiously and openly.
- o Some people are interested in spacing and limiting births provided they have access to information beforehand.

- o Religiosity need not be a barrier to family planning education or services.
- o To be successful, a family planning project must be nurtured on a continuing basis, and the voluntary nature of participation must be stressed.

FOLLOW-UP AND FUTURE PLANS: Study results were disseminated through end of project seminars and at INOPAL's regional OR conference in November 1988.

PROJECT NO. HAI-01

COUNTRY: Haiti

TITLE: Household Distribution of Contraceptives

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Direction d'Hygiene Familiale et Nutrition, MOH

DATES: October 1977 - January 1982 **BUDGET:** \$239,181

BACKGROUND AND PURPOSE: The Division d'Hygiene Familiale et Nutrition (DHFN) was established in 1971 to coordinate all MCH and family planning services in Haiti. Its programs began in 1973 and were initially hospital and clinic-based. In 1978, the DHFN developed an operations research project to test non-clinical delivery of contraceptives in rural areas and to study community interest in family planning.

DESCRIPTION: The project comprised three different rural areas, each covering 4-6 villages. In Area I (Fond Parisien) there had been ongoing family planning MCH activities since 1971. In both Areas II (St. Marc) and III (Leogane), there had been little or no prior MCH or family planning activity, and community members distributed selected medicaments in addition to contraceptives. Three rounds of household distribution were conducted at four month intervals. (A fourth round was later added in Area III.) Oral contraceptives or foam were to be distributed free of charge to all women aged 15-49, regardless of marital status, who had no medical contraindications and who were interested in receiving contraceptives. A box of 100 condoms was left with men aged 15-59 if they or their wives agreed. Surgical methods were explained although transportation to the nearest clinic/hospital was not generally provided. As the project developed, different approaches to contraceptive distribution were used. In Area I, contraceptives were offered only to women interested in using them immediately. In Area II and particularly Area III, there was widespread distribution to all eligible couples.

STUDY DESIGN AND METHODOLOGY: Although the project was originally designed to test the relative effectiveness of household distribution of contraceptives only vs. contraceptives and simple medicaments, due to delays in ordering, shipment and political considerations concerning MOH guidelines, the medicaments were not introduced as planned. Baseline, interim and follow-up client surveys, client interviews, and a cost-effectiveness analysis were used to monitor project progress and impact.

FINDINGS AND IMPLICATIONS:

- o Use of oral contraceptives and foam increased from less than 3 percent to almost 10 percent in Fond Parisien; from less than 2 percent to over 15 percent in St. Marc; and from less than 1 percent to over 50 percent in Leogane. Acceptance rates for condoms by both women and their partners were also high.
- o Pregnancy prevalence decreased 5 percent in Fond Parisien and over 35 percent in St. Marc and Leogane.
- o The annual average program cost per capita was \$2.93. The cost per female acceptor of oral contraceptives and foam averaged \$27.50.

FOLLOW-UP AND FUTURE PLANS: The success of this pilot effort is largely responsible for new DHFN program directions and an increasing emphasis on the use of innovative channels-- community organizations, commercial outlets, women's groups, factories, agricultural cooperatives and Red Cross workers--to expand family planning and maternal and child health services to the urban and rural poor. DHFN, with continued assistance from Columbia University, developed a follow-on project to initiate and evaluate various non-clinical approaches to service delivery in the South Region of Haiti (see Project No. HAI-03).

PROJECT NO. HAI-02

COUNTRY: Haiti

TITLE: Low Cost Delivery of Maternal and Child Health and Family Planning

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Direction d'Hygiene Familiale et Nutrition of MOH

DATES: October 1981 - September 1984

BUDGET: \$495,166

BACKGROUND AND PURPOSE: This project is a follow-on to the Haiti Household Distribution Project (see Project No. HAI-01), and was developed to provide for the initiation and evaluation of various non-clinic-based approaches to service delivery in the South Health Region of Haiti.

DESCRIPTION: The initial phase of the project was designed to institutionalize DHFN capability to carry out operations research activities by providing opportunities for its personnel to participate in the selection and design of projects. A series of workshops was conducted, during which participants identified MCH/FP priorities on which to focus operations research activities. As a result of these workshops, a study was developed to test the feasibility of integrating family planning services into the SNEM (malaria control) community volunteer program. Health workers in the SNEM network were trained in family planning and distributed contraceptives in the Miragoane District of the South Region.

STUDY DESIGN AND METHODOLOGY: Data were collected for this demonstration project from a number of sources. A KAP survey of community health workers, supervisory and training personnel, and participants in nutrition rally posts was conducted. Baseline and follow-up household surveys also were conducted to determine changes in contraceptive acceptance and use, and to provide basic demographic and MCH information on women visited by distributors. Finally, surveys of the volunteer distributors were used to determine their attitudes toward the program, and to draw a profile of characteristics influencing volunteer performance.

FINDINGS AND IMPLICATIONS:

- o Contraceptive use (pills and condoms) increased from less than 6 percent among women of reproductive age at baseline to over 33 percent at follow-up.
- o Pregnancy prevalence declined from over 13 percent to less than 10 percent in the target population over the project period.
- o Over 50 percent of couples accepted condoms or pills during the first round of home visits.

FOLLOW-UP AND FUTURE PLANS: Community-based contraceptive distribution using SNEM volunteers was expanded in 1985 to cover a population of about 200,000 people. In addition, another experiment was planned for the Transverse region to compare volunteer door-to-door distribution with depot distribution.

PROJECT NO. HAI-03

COUNTRY: Haiti

TITLE: Alternative Family Planning Delivery Programs in Cite Simone

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Haitian Arab Center

DATES: July 1983 - December 1984 **BUDGET:** \$58,000

BACKGROUND AND PURPOSE: This project tests alternative delivery systems of health and family planning in Cite Simone, an urban slum. The objectives of the project are to develop a model for making family planning services available to the urban poor and to evaluate the role that traditional birth attendants (matrones) may play in increasing family planning acceptance and continuation.

DESCRIPTION: Three levels of intensity of matrone effort were tested following a public advertising campaign to promote family planning in Cite Simone. In group I, family planning services are provided in the Complex Medico-Social, a clinic in Cite Simone. In group II, specially trained matrones will conduct household visits to MWRA to deliver family planning messages and refer interested women to the Complex for services. New users will be resupplied at the Complex. In group III, matrones will deliver family planning messages and make referrals as in group II, and will additionally attend the session at the Complex to which they have referred women in their neighborhood. Resupply is provided by the matrones in group III.

STUDY DESIGN AND METHODOLOGY: This project employs a quasi-experimental study design. One of the unusual features of this project is the fact that the entire target population is known and registered, thus it is possible to accurately compare the performance of the two groups of matrones and of individual matrones as well.

FINDINGS AND IMPLICATIONS: in preparation

PROJECT NO. HAI-04

COUNTRY: Haiti

TITLE: Improving Contraceptive Continuation and Access to Family Planning Through Community Based Outreach

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Centres pour le Developpment et la Sante

DATES: February 1986 - March 1988 **BUDGET:** \$88,000

BACKGROUND AND PURPOSE: A series of public health initiatives have been undertaken since 1974 in Cite Soleil, a slum area with a population of 150,000 in Port-au-Prince, the capital of Haiti. In 1983, the Center for Population and Family Health (CPFH), building on these initiatives, began a five year OR project for the provision and improvement of community-based family planning services, utilizing community health workers (CHWs) and traditional birth attendants (TBAs).

DESCRIPTION: Three zones were established in Cite Soleil, each with a supervisor to support the efforts of TBAs and other collaborating agents promoting family planning in the community. The agents were given a five-day training in contraceptive technology, counseling and administration related to the project. A family planning service delivery center was established on a centrally-located street. A computerized service statistics system was developed to facilitate rapid identification of discontinuing users. In one zone counseling only was provided by the agents during the follow-up home visit. In the second, counseling plus contraceptive supplies were provided. The third zone served as a control. From the beginning, the project faced a series of difficulties, including continuing political turmoil resulting in frequent disruptions of clinic services as a result of strikes and "mouvements populaires." In addition, problems within the project, such as excessive supervisory loads, inability to locate discontinuers for follow-up, and expectations of agents for regular payments were never satisfactorily resolved. As a result, the research could not be implemented as originally designed.

STUDY DESIGN AND METHODOLOGY: Methodology included a qualitative assessment of service delivery at the family planning service center and in the community, analysis of service statistics, and pre- and post-intervention assessments of knowledge, attitudes and practices of women in Cite Soleil based on survey data.

FINDINGS AND IMPLICATIONS:

- o Despite political disruptions the client rate per month doubled during 18 months of the project, from 300 clients per month in January 1986 to 600 clients per month in June 1987.
- o Over the same period a shift in methods used took place: from 90 percent using pills and condoms to 75 percent using injectables.
- o Modern method contraceptive prevalence was 8.4 percent. Fully 63 percent of women did not wish to have additional children, suggesting a strong latent demand for family planning services.

212

- o While weaknesses in clinic service delivery were attributable to inadequate training and facilities, failure in the CBD program must be placed in the context of local and national political constraints.
- o Computerization of the service statistics system rapidly improved the reporting of service provision data.
- o Recommendations included retraining clinic staff and changing the CBD program from one using a large number of volunteer TBAs and CHWs to one employing a small number of full-time paid promoters.

FOLLOW-UP AND FUTURE PLANS: The Cite Soleil Family Planning Center has been replicated in four other locations in Haiti.

PROJECT NO. HAI-05

COUNTRY: Haiti

TITLE: Using Community Health Workers and Rally Posts for Family Planning Outreach

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Haitian Organization of Voluntary Health Institutions

DATES: March 1986 - December 1988

BUDGET: \$75,969

BACKGROUND AND PURPOSE: The Haitian Organization of Voluntary Health Institutions (AOPS) was created in 1982 as an umbrella organization to mobilize the private health sector to support the National Health Plan. AOPS devised a strategy to assist its members in the implementation of community health programs that included a total population registration in its project areas and multipurpose longitudinal surveillance of priority health problems. Studies to assess the impact of selective interventions, such as growth monitoring, immunization, and family planning were included. In order to increase prevalence and continuation rates of modern contraceptives, an OR study was carried out to test a CBD program that utilized the "rally post" approach and special family planning promoters.

DESCRIPTION: The study was carried out in a rural area 80 miles from Port-au-Prince with a total population of 50,000, of whom 20,000, the target audience, are registered in rally posts, a system of mobile health teams which travel to fixed locations on an established schedule. Satisfied contraceptive users, known as "aides-promotrices" were trained to educate and motivate others in family planning. A supervision tool of pictographs to collect service statistics data from non-literates was developed. Three areas were designated. In the first a nurse and seven aides-promotrices made home visits for resupply of contraceptives. In the second a nurse and seven aides-promotrices conducted group meetings for information and education on family planning. The third area was the control with only the usual rally posts.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental study design was used. Data were collected by a minisurvey of the target population, along with analysis of service statistics, focus group discussions and follow-up with contraceptive users.

FINDINGS AND IMPLICATIONS:

- o Home visits and contraceptive re-supply conducted by non-professionals can be an efficient strategy. Contraceptive use increased from 5 to 17 percent during the 30 months of the project.
- o Few women were willing to attend group meetings. Among those who did attend, acceptance afterwards of a modern contraceptive method was high.
- o With the opening of a family planning center in the control area, the contraceptive utilization rate exceeded that of the second experimental area. The utilization rate was 9.5 percent in the control area and 7.2 percent in experimental zone B.

FOLLOW-UP AND FUTURE PLANS: Dependent on the results of the cost-effectiveness analysis, the strategy of home visits and resupply by satisfied users will be replicated in all private organizations affiliated with AOPS.

274

PROJECT NO. HON-01

COUNTRY: Honduras

TITLE: Program for the Promotion of Breastfeeding and Family Planning

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Proyecto de Apoyo a la Lactancia Materna

DATES: September 1986 - July 1989 **BUDGET:** \$109,750

BACKGROUND AND PURPOSE: In the past 20 years, there has been a noted tendency among women in Honduras to reduce the period of lactation, coupled with a failure to adopt contraception during the first 6 months postpartum. In order to reverse these tendencies, an OR project was designed to educate women postpartum about breastfeeding and family planning, to increase the duration of breastfeeding and the prevalence of contraceptive use after lactation ceases, and thus ultimately to increase the spacing between births and reduce the level of reproductive risk.

DESCRIPTION: Educational materials and messages were developed for women postpartum and their spouses about lactation and family planning, as were new approaches to providing services in the Honduras Institute of Social Security (IHSS)'s hospital. Specifically, hospital practices were modified to support family planning and breastfeeding, staff were trained, couples in the experimental groups were educated, family planning services were improved, and referral networks were strengthened.

STUDY DESIGN AND METHODOLOGY: The design was quasi-experimental. About 600 couples were placed in two groups: the control group consisting of couples postpartum before initiation of the new services; and the experimental group, exposed to the services immediately postpartum and during a 6-month follow-up. Qualitative data were collected to determine the acceptability of these services both to couples postpartum and to the health system.

FINDINGS AND IMPLICATIONS: The follow-up showed significant improvements among the experimental group compared with the control group:

- o Women in the experimental group received more comprehensive and practical information about breastfeeding and contraception.
- o Duration of breastfeeding was longer--72.4 percent of those in the experimental group were still breastfeeding at 6 months postpartum compared with 57.6 percent of those in the control group.
- o Contraceptive prevalence was 7.5 percentage points higher in the experimental group--77.7 percent of those in the experimental group were using contraceptives at 6 months postpartum versus 70.2 percent of the controls.
- o A higher proportion of acceptors (65.3 percent in the experimental groups versus 21.6 percent of the controls) used the Honduras Institute of Social Security (IHSS) as a source of supply.
- o Health implications included a significantly lower prevalence of diarrhea among children in the experimental group as compared with those in the control group, four times as many

225

infant deaths in the control group, and 3.5 times more new pregnancies in the control group.

- o There are important economic implications as well: a 1 percent difference in prevalence of breastfeeding and contraceptive use represents a marginal cost of US\$ 750.

FOLLOW-UP AND FUTURE PLANS: As a result of this project, family planning and breastfeeding promotion are provided both postpartum and as part of routine health services. In terms of policy changes, a request has been made to include family planning and breastfeeding services for all women up to 6 months postpartum.

PROJECT NO. HON-02

COUNTRY: Honduras

TITLE: Distributing IUDs to Private Physicians and Pharmacies

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Asociación Hondureña de Planificación Familiar

DATES: November 1987 - August 1989

BUDGET: \$26,399

BACKGROUND AND DESCRIPTION: New methods of contraception are slow to reach poor urban and rural areas of Latin America, principally because existing distribution systems are slow to adapt to the changes in IEC strategies and target groups. In Honduras, Asociación Hondureña de Planificación Familiar (ASHONPLAFA), wanting to expand the range of family planning options available, attempted such adaptation by an OR project which combined training physicians in IUD insertion with promoting IUDs through pharmacies.

DESCRIPTION: In the OR study IUDs were sold directly to physicians at a lower cost in an effort to expand the range of methods offered by the existing CSM system. The objectives were to test the marginal impact of making IUDs available in pharmacies, then the direct sale of IUDs to private physicians by a pharmaceutical salesperson, and finally, the impact of a mass media promotion of the IUD throughout Honduras using television and radio. IUDs and educational pamphlets were distributed to pharmacies. A data base was developed to manage the list of physicians needing training as well as sales information by outlet. Nineteen physicians were trained in IUD insertion, and information seminars organized for them. Unfortunately, several problems during the last quarter of 1988 led to termination of the project as originally designed. Large turnover in CSM sales staff; a powerful mass media campaign in Honduras attacking family planning, particularly the IUD; and organizational difficulty in the pharmaceutical company in charge of the CSM program were among the problems. Remaining project funds were used to conduct a seminar for staff of ASHONPLAFA and other Honduran family planning service providers on data utilization and interpretation.

STUDY DESIGN AND METHODOLOGY: The original project employed a simple time-series design which included three distinct stages of intervention: the sale of IUDs through pharmacies; subsequent sale through pharmacies and directly to physicians; and finally, the mass media promotion of IUDs through radio and television.

FINDINGS AND IMPLICATIONS: During the period of distribution of IUDs, 554 were sold; 61 sold to private physicians.

217

PROJECT NO. HON-03

COUNTRY: Honduras

TITLE: Reproductive Risk: A Strategy to Implement Family Planning Services in the IHSS

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Instituto Hondureño de Seguridad Social

DATES: July 1988 - August 1989

BUDGET: \$115,360

BACKGROUND AND PURPOSE: The Honduran Social Security Institute (IHSS) has adapted a model pioneered by the Mexican Social Security System (IMSS), which seeks to increase quality of care and contraceptive prevalence by focusing on a set of socio-demographic, obstetric, and personal medical risk factors. Using these factors, the strategy classifies the population as low or high-risk, and offers counseling and family planning methods accordingly. The purposes of this project were to: (1) design and implement such a strategy in the IHSS medical units, and (2) measure the impact of the strategy on use of family planning, particularly among those identified as high-risk.

DESCRIPTION: The reproductive risk strategy was tested by a 13-month operations research study conducted in Tegucigalpa, Honduras. The study included training of health personnel on the concept of reproductive risk, assessing individual risk with the evaluation form, providing education to high-risk IHSS clients, followed by an intensive educational campaign on reproductive risk, as well as the integration of family planning services.

STUDY DESIGN AND METHODOLOGY: This documentation project employed a pre- and post-intervention survey. Data were collected in baseline and endline surveys from outpatient and postpartum and post-abortion clients at two outpatient clinics and one hospital managed by the IHSS in Tegucigalpa.

FINDINGS AND IMPLICATIONS:

- o Knowledge of reproductive risk factors increased significantly among IHSS users over the study period from 13.3 percent at baseline to 70.4 percent at follow-up.
- o The impact of the program was felt in particular among users of hospital services (postpartum and post-abortion), as opposed to outpatient services, with a significant increase in contraceptive prevalence from 8.8 percent to 9.6 percent.
- o Overall method mix broadened from a 100 percent reliance on tubal ligation to a situation in which approximately 50 percent of the clients elected the IUD and 50 percent elected sterilization.
- o The program also was successful in prompting IHSS physicians to increase their promotion of family planning methods. Specifically, 18.5 percent of women reported that they were offered a contraceptive method postpartum at baseline, compared with 45.6 percent after the intervention.
- o Concern that a reproductive-risk focus could limit access to contraception for women of normal risk was not confirmed by either the Mexican or the Honduran experience. In the IMSS experiment, contraceptive prevalence increased among both high- and normal-risk

women; in the IHSS experiment, a significant increase in contraceptive acceptance was noted among normal-risk users of hospital services.

FOLLOW-UP AND FUTURE PLANS: A gynecologist with the IHSS has been designated to supervise promotional and logistical aspects of the program. The IHSS has requested continuing technical assistance from the Population Council to ensure successful institutionalization and a more long-term evaluation of the strategy. In addition, several IHSS medical personnel from San Pedro Sula have incorporated the reproductive risk concept in their program.

23

PROJECT NO. JAM-01

COUNTRY: Jamaica

TITLE: Cost Effectiveness of Two CBD Approaches: Volunteer Distributors vs. Outreach Workers

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Jamaica Family Planning Association

DATES: February 1984 - December 1985

BUDGET: \$41,315

BACKGROUND AND PURPOSE: In Jamaica family planning services are available through the Jamaican Family Planning Association (JFPA) via clinical services and outreach workers. Outreach programs, giving access to family planning services to women who had difficulty reaching the clinics, had proved successful although their cost was a constraint. The JFPA in collaboration with Tulane University designed an OR project to identify a low cost community-based model of service delivery which would maintain or even increase contraceptive use in the target area.

DESCRIPTION: The objectives of the OR study were to establish a replicable model and to test whether it would maintain, and preferably increase, CPR while reducing service delivery costs. Also, the project aimed to determine relative cost effectiveness of two community-based distribution approaches. The feasibility and cost-effectiveness was tested by designating two treatment areas. In the first area outreach services continued as before with workers making home visits to eligible women, initiating new acceptors, resupplying continuing users and referring women with side effects. In the second area individuals from 30 communities were identified and trained as volunteer community distributors. They were instructed in contraceptive methods and their side effects as well as communication, counseling and record keeping, and given supplies of pills, condoms and spermicides for free distribution from their homes.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental design, the OR study used a baseline survey of the whole area to determine levels of contraceptive use. A follow-up KAP survey was undertaken 13 months later. Monthly service statistics were compiled to ascertain CMP. Costs were coded on a quarterly basis.

FINDINGS AND IMPLICATIONS:

- o At the time of the baseline survey there was no significant difference in contraceptive use between the two treatment areas: 46 percent in Area A (outreach) and 50 percent in Area B (volunteers).
- o By the time of the follow-up survey, contraceptive use had increased in Area A (59 percent) and decreased in Area B (41 percent).
- o During the first 8 months of the project, 60 percent of CMP was provided by the outreach workers and 37 percent by the community volunteers. However, the amount provided by volunteers steadily increased over the project period.
- o The average cost of providing one CMP for the entire project was US\$0.79. The cost for the outreach workers was US\$0.76 and US\$0.84 for the volunteers.

208

- o Findings suggest that using community volunteers is a viable option. Although the outreach workers provided more CMP at a lower cost, the volunteer program should not be dismissed, because the difference in cost per CMP during the last year of the project was less than US\$0.10 and costs were expected to continue to decrease over time as more people become aware of the project.

PROJECT NO. JAM-02

COUNTRY: Jamaica

TITLE: Evaluating the Effect of Continuing Education on Teen Mothers

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Jamaica Women's Centre

DATES: May 1988 - May 1989

BUDGET: \$30,765

BACKGROUND AND PURPOSE: The Jamaica Women's Centre Programme for Adolescent Mothers was started in 1978, designed to assist girls who became pregnant while in school to continue their education and re-enter the school system after the birth of their child. An OR study was undertaken by the Center in 1988 as a comprehensive evaluation of the impact of its programs.

DESCRIPTION: The study was designed to determine the short-term effect on women and their children of providing continuing education for young mothers, to assess participants' perceptions of the long-term benefits derived, to estimate the costs of the program, and to assess the community's perception of the Women's Centre and teenage pregnancy in Jamaica. The evaluation focused on the short-term impact of two Centres: Kingston and Mandeville. An experimental group of women who had participated in the program between 1985 and 1987 was compared with a matched sample of teenage mothers who had not been exposed to the Centre's or any other program. The long-term impact also was measured with graduates of the Centre.

STUDY DESIGN AND METHODOLOGY: To measure the short-term effects a static-group comparison design was used. To measure the long-term effects a non-experimental design was used, and women who had participated in the program between 1982 and 1985 were interviewed. Data collection included surveys, focus group discussions, financial records from the Centre, and an intercept survey of community members.

FINDINGS AND IMPLICATIONS:

- o While only 15 percent of women in the control group returned to school, 55 percent of recent graduates in Kingston and 73 percent in Mandeville returned.
- o Eighty-five percent of recent graduates in Kingston were using contraception, compared with 81 percent in the control group. Contraceptive use was similarly high in Mandeville (89 percent).
- o Of recent graduates, 15 percent had a subsequent pregnancy by the three year follow-up; in the control group the figure was 39 percent.
- o More than 95 percent of recent graduates and 87 percent of the control group would have chosen to postpone their pregnancy until they were older. Centre graduates were more willing than the control group to have another baby.
- o Graduates' satisfaction with the Centre's program was very high: More than 90 percent of the graduates interviewed felt that the program had helped to improve their self-image, self-esteem, and self-confidence.

282

- o Ninety-one percent of the general public thought the Centre's services valuable and recognized teenage pregnancy as a problem in Jamaica. Forty percent believed the solution was the distribution of contraceptives to teenagers.

FOLLOW-UP AND FUTURE PLANS: The Jamaica Women's Centre Programme for Adolescent Mothers continues to operate islandwide. The results of the evaluation have been helpful in improving the image of the Women's Centre Programme as an important contributor to solving problems associated with teenage childbearing. As another outcome of the evaluation, important administrative and management changes have been made in the operations of all the centres--changes which will be especially important for the new centres opened in 1990.

PROJECT NO. MEX-01

COUNTRY: Mexico

TITLE: Community Based Family Planning Demonstration Program in San Pablo Autopan

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Universidad Autónoma de Mexico

DATES: May 1976 - October 1977 **BUDGET:** \$27,202

BACKGROUND AND PURPOSE: In 1975, Columbia University at the invitation of the Autonomous University carried out a baseline anthropological study in San Pablo Autopan, a community of approximately 8,000 located 10 kilometers north of the capital city of Toluca in the state of Mexico. The major objective of the research was to provide data for use in the design and implementation of a community-based MCH/FP program in the area. A report of this research was submitted to the Autonomous University, and, as a result, a collaboration began with Columbia University on the design of a program which would serve as an experimental model of integrated MCH/FP service delivery for consideration at the national level.

DESCRIPTION: In San Pablo Autopan prior to the beginning of the project, family planning services were offered sporadically through an existing health post. In June 1976, the five health promoters associated with the health post were trained in the household delivery of MCH services and contraceptives, as well as in the insertion of IUDs in the local health posts. In addition, five traditional practitioners, supervised by the more highly trained promoter, supplied information, condoms and oral contraceptives. One of the traditional practitioners also administered injectables. Medical supervision was provided by a medical student assigned to the health post.

STUDY DESIGN AND METHODOLOGY: Pre- and post-intervention prevalence surveys were conducted by the promoters during household visits. Service statistics were also analyzed.

FINDINGS AND IMPLICATIONS:

- o The project recruited 365 new acceptors (an average of 26 acceptors per agent per year). Eighty percent of acceptors were recruited by health promoters, 13 percent by traditional practitioners, and 7 percent by student doctors.
- o Prevalence increased from 6.6 to 25 percent after 21 months of the project.
- o Attributing 100 percent of the salaries to family planning activities, the costs per acceptor were US\$28, and costs per active user were US\$36. Comparison figures for a medical model of contraceptive distribution were approximately US\$9 per acceptor and US\$12 per active user. Thus, the evaluation team concluded that although San Pablo may be as effective as the medical model it was less efficient.
- o The evaluation report concluded that other models not favored with the high proportion of agents to population, and with lower salaries and less frequent supervision offered the possibility of similar or better results.

284

FOLLOW-UP AND FUTURE PLANS: Based on the lessons learned in the San Pablo project and the favorable experience with Columbia University, the Mexican government asked the CPFH to provide technical assistance in the development of family planning and MCH service efforts for villages and urban slums. This collaboration resulted in a CBD project under which community agents furnished contraceptives and simple medicines to their neighbors in rural areas and urban slums (see Project No. MEX-02).

PROJECT NO. MEX-02

COUNTRY: Mexico

TITLE: New Strategies for Delivery of Maternal and Child Health and Family Planning Services

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Dirección General de Salud Materno-Infantil, MOH

DATES: September 1977 - June 1981

BUDGET: \$1,587,673

BACKGROUND AND PURPOSE: Soon after enacting its population policy (in December 1973), the Mexican government initiated a nationwide program of family planning services. The Maternal and Child Health Department of the Ministry of Public Health (DGS) was given major responsibilities in carrying out the delivery of maternal and child health and family planning services in both the rural and urban areas of the country. The DGS developed an innovative program, the Rural Health Program (PSR), to provide integrated community-based MCH/FP in rural areas. Due to the growth of major urban areas in Mexico, the program of community-based integrated MCH/FP was expanded to include marginal urban areas. The DGS, recognizing the problems in serving these communities, requested technical assistance from the Center for Population and Family Health at Columbia University in the development of this program. A pilot OR project was conducted to provide the Mexican government with information useful in the development and expansion of MCH/FP services throughout the country.

DESCRIPTION: The urban component of the project involved an initial canvass of all MWRA in the selected marginal communities by community agents (CAs). The CA provided all eligible women with family planning information, supplies, and referrals for clinical methods (IUD and sterilizations). CAs also gathered service statistics on new FP acceptors and continuing users. Agents were visited by a supervisor at least twice per month. Beginning in August, 1978 three physicians were assigned to the urban program to provide medical back-up, visiting each agent a minimum of once a month. The principal research variables tested were different types of compensation to community agents. The delivery system included OCs, condoms and injectables, as well as referrals for IUDs and sterilizations. In the rural component of the project, the CAs also provided basic medicines as well as contraceptives.

STUDY DESIGN AND METHODOLOGY: The project tested different strategies of providing family planning and MCH services in rural areas of three states and of providing family planning services in four semi-urban slum areas of Mexico City. The project was evaluated using service statistics, a baseline and final client survey, agent surveys, supervisor interviews, and a cost-effectiveness analysis.

FINDINGS AND IMPLICATIONS:

- o In rural areas, each agent had an average of 12.9 active clients (compared with 11.8 in the PSR program). The urban agents were serving an average of 20 active clients (compared with only 13 for the General Urban Program).

- o In the rural areas, each agent recruited an average of 19.7 clients (compared with 15.5 in the PSR Program). In urban areas, agents recruited an average of 1.5 clients per month (compared with 1.2 in the General Urban Program).

154

- o The New Strategies Project was more successful than other programs in rural areas in recruiting younger clients, and both rural and urban components recruited those who were less educated. Twenty-four percent of rural users were 15-24 years of age (19 percent of users of the same methods in other programs were of that age group). New Strategies users were nearly twice as likely to have never attended school as were users of other programs.
- o The cost per acceptor was \$53.79 for rural areas and \$40.59 for urban areas. A large part of the costs of the project were attributable to supervision.

FOLLOW-UP AND FUTURE PLANS: During the course of the project, the government incorporated a number of lessons dealing with supervision, compensation of agents, and project implementation into its national programs.

PROJECT NO. MEX-03

COUNTRY: Mexico

TITLE: Alternatives for Reinforcing Rural Community-Based Maternal and Child Health, and Family Planning Services

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Ministry of Public Health

DATES: November 1981 - December 1981

BUDGET: \$19,407

BACKGROUND AND PURPOSE: This project was developed in late 1980 in response to problems of training supervision, and logistics for rural family planning/health workers and the widespread malnutrition and infant diarrhea common to rural areas of Mexico. (Columbia University was involved in the development of the project and provided both financial support and technical assistance.) The project sought to reinforce current family planning and maternal/child health activities in the rural areas of Mexico's largest state (Chihuahua) and to develop models for application throughout the country.

DESCRIPTION: The project was to implement and evaluate alternative approaches to training and supervision of rural health workers. It also proposed to modify and assess changes in the logistics and service statistics systems of current family planning and maternal/child health activities. In addition, the project was to assist the Ministry of Health in evaluating the introduction of new health services, including oral rehydration therapy for diarrhea.

STUDY DESIGN AND METHODOLOGY: The project design assigned each of Chihuahua's health service modules to one of three groups: two groups for the testing of different systems of training and supervision, and a comparison group. Data collection methods included a three-part baseline survey of WRA, community health agents and their supervisors. Service statistics also were to be analyzed.

FINDINGS AND IMPLICATIONS: The project began November 1, 1981 but was canceled by the Ministry of Health on December 31 of the same year, due to financial constraints and internal political problems. During this short period, the baseline survey was completed. The survey was subsequently analyzed and the results forwarded to the State of Chihuahua Coordinated Public Health Services. Those results identified the main problems facing the health program, including poor acceptance of family planning, a decreasing number of home visits, and weak training, supervision and logistics systems.

260

PROJECT NO. MEX-04

COUNTRY: Mexico

TITLE: Comparison of Contraceptive Distribution Systems

CONTRACTOR: Family Health International

PARTICIPATING INSTITUTION: Patronato Pro-Orientación Familiar

DATES: November 1981 - November 1983

BUDGET: \$66,051

BACKGROUND AND PURPOSE: This project tested alternative administrative strategies of a community-based distribution system in Matamoros, Mexico. The objectives of the research were to determine which system of contraceptive distribution at the community level produces the highest levels of contraceptive use, and to determine the cost effectiveness of both systems.

DESCRIPTION: In system A, leading women in the community were used to supervise volunteer distributors. In system B, the subgrantee directly recruited and trained the supervisors of community level distributors.

STUDY DESIGN AND METHODOLOGY: The study employed a quasi-experimental design comparing two strategies. Data collection included a baseline needs survey, and a post-intervention prevalence survey. Service statistics were to be analyzed, and a reproductive risk factor survey was conducted to determine the prevalence levels of known risk factors for contraception and childbearing in the target population.

FINDINGS AND IMPLICATIONS: Preliminary results indicate that the area directly controlled by the subgrantee performed distinctly better than the area controlled by the community, and that this was due to the inability to establish effective community organization in the latter.

The reproductive risk factor survey established that: 1) no new element of health risk was introduced; 2) current pill users, regardless of source, tended to be healthier than never-users in terms of some 40 indicators of reproductive health; 3) women examined by a physician tended to be less healthy, in terms of those indicators, than women not examined, probably indicating some degree of self-selection; 4) in this poor, urban population, women tended to be fairly accurate reporters of their own health, in modern medical terms; and 5) while the methodology was not effective in obtaining valid prevalence rates for most conditions, it did prove to be an effective tool for assessing the safety of a CBD program.

208

PROJECT NO. MEX-05

COUNTRY: Mexico

TITLE: Integrated Development of Young Adults in the Community

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Pro-Superación Familiar Neolonesa

DATES: June 1985 - September 1987

BUDGET: \$97,948

BACKGROUND AND PURPOSE: Pro-Superación Familiar Neolonesa (PSFN), a private nonprofit family planning agency, has an ongoing CBD program in marginal urban areas of Monterrey, Mexico, that includes sex education and family planning services to young adults. Because of cultural barriers and program design, the program has attracted very few young adults in the past. The purpose of this project was to increase the access of young adults in marginal areas to these services, and to increase contraceptive use among sexually active young adults who wish to delay pregnancy.

DESCRIPTION: The project compared three different strategies for delivering family planning services to young adults in the marginal areas in terms of coverage and cost-effectiveness. One strategy was the existing CBD program. The first alternative modified the existing program to include specially trained young adults as distributors. The second alternative established two integrated youth centers offering a variety of services in addition to family planning, including dental hygiene, physical fitness, and individual counseling.

STUDY DESIGN AND METHODOLOGY: The study used a quasi-experimental design. Data were collected from service statistics, project financial records, and a mini-survey of young adults.

FINDINGS AND IMPLICATIONS:

- o There were large and consistent increases in the number of users in the two experimental groups, whereas the number of users in the control group remained relatively stable. The number of users increased from 233 to 898 in the community youth program area and from 236 to 711 in the youth center program. The number of users increased by only 14 percent in the control area.
- o The integrated youth centers were significantly more effective than the alternative using trained young adults as distributors, both in reaching young adults for sex education and in serving users of contraceptive methods.
- o Cost-effectiveness analysis shows that the existing CBD program remains the least expensive. The cost per year for each user in the CBD program was \$ 5.00. The community youth alternative is more cost-effective than the youth center alternative, reaching young adults, particularly males, at about half the cost (\$13.40 versus \$22.78 per user).
- o An important policy implication is that youth programs seem to reach a heretofore underserved group of younger, unmarried adults, evidenced by the fact that PSFN's CBD program now reaches more young couples as a result of the promotion conducted under this project.

FOLLOW-UP AND FUTURE PLANS: With funds from the A.I.D. Mission in Mexico, PSFN is now trying to refine the intervention models to expand the coverage of community youth programs along the Mexican border. Because of the close relationship developed between the CBD distributors and the community coordinators, PSFN decided at the end of the project to place special services for youth under the management of the CBD program, simplifying administration and potentially providing greater continuity in IEC efforts. Also being explored is the idea of training sons and daughters of CBD distributors in the community as promoters in youth programs.

PROJECT NO. MEX-06

COUNTRY: Mexico

TITLE: Family Planning Service Delivery Strategies in an Industrial Setting

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Materno-Infantil y Planificación Familiar

DATES: February 1986 - January 1988

BUDGET: \$47,865

BACKGROUND: The Materno-Infantil y Planificación Familiar de Ciudad (MIPFAC) provides family planning services for factory workers in Ciudad Juarez, Chihuahua. The purpose of this project was to evaluate both costs and effectiveness of alternative strategies for delivering these services.

DESCRIPTION: Two alternative strategies were evaluated in eight plants (four for each strategy): one employing plant clinic personnel to deliver the services, and the other volunteer plant workers serving as promoters. For the first (clinic) strategy, MIPFAC trained and supervised plant clinic personnel, and supplied them with contraceptives and educational materials. For the second (promoter) strategy, MIPFAC identified and trained plant workers to serve as volunteer promoters, supervising and supplying them as in the clinic strategy. To identify promoters, group talks were given in the plants, and those showing interest were approached. One plant closed after project start-up, and three others verbally agreed to participate but did not allow any activities.

STUDY DESIGN AND METHODOLOGY: The design was a simple interrupted time series with a non-equivalent comparison group time series. A contraceptive prevalence mini-survey was conducted in the original eight plants to establish prevalence prior to service delivery. Other data collected included: basic information on users, monthly clinic staff reports, supervisors' reports, qualitative evaluation of clinic staff and promoters; a short survey of all promoters and nurses; focus group discussions with samples of users; and information on program costs.

FINDINGS AND IMPLICATIONS:

- o Overall, the promoter program was found to be more effective (431 CYP distributed compared to 265 CYP distributed in the clinic program). However, part of this effect was due to the greater number of providers in the promoter program.
- o Worker turnover was found to have no effect on the growth of the clinic program. Factories with lower turnover in the promoter strategy showed more rapid program growth.
- o The promoter program had a greater perception of male users, slightly more educated users, and greater proportions unmarried.
- o Interviews with users revealed they felt more comfortable with the promoters, from whom they felt less social distance. However, all felt both promoters and clinic staff needed to be more informed on family planning and give users more information.
- o The promoter program was more expensive (overall costs were 33 percent greater for the promoter program), but also more effective than the clinic program. The promoter program was 22 percent more cost-effective than the clinic program (cost per CYP was \$16.37 in the promoter program versus \$20.29 in the clinic program).

This project has shown that the provision of family planning services at the work place is viable; that factory workers are willing to provide the services; that labor turnover is not a major deterrent to service delivery; and most of all, that management sees the benefit of the services and is willing to cover all or part of the costs.

FOLLOW-UP AND FUTURE PLANS: MIPFAC's role in designing and providing family planning service to factory workers, funded by the factories, will both give access to these services to the working population and increase MIPFAC's self-sufficiency. On a national level, there is interest in applying the promoter model more broadly, particularly in the border zone.

25/3

PROJECT NO. MEX-07

COUNTRY: Mexico

TITLE: Operations Research as a Management Tool

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Fundación Mexicana para Planificación Familiar

DATES: February 1986 - June 1988

BUDGET: \$57,861

BACKGROUND AND PURPOSE: Organizational changes experienced by MEXFAM identified the need for improved management systems and more efficient ways of organizing and providing services. The study applied OR tools to help develop or improve: service delivery models; ways of delineating priority areas for service; procedures for defining and allocating costs and a cost-effectiveness monitoring system.

DESCRIPTION: Project activities included: 1) redefining service models including a description of type of service, intended user, geographic area served for each type of service provided; 2) refining planning tools to determine priority areas for service and optimal location for service sites; 3) revising cost accounting and logistic systems; and 4) training managers to use data on costs and users to manage their programs.

SURVEY DESIGN AND METHODOLOGY: The initial quasi-experimental design was replaced by a process-oriented management consultation approach which emphasized the design of management procedures and systems; the development of program materials; and the training of key managers in the use of information for management decision making.

FINDINGS AND IMPLICATIONS:

- o Most programs involved in the OR project over time experienced a decrease in costs and increases in new users and contraceptive methods distributed.
- o Managers gained an understanding of how to use data from a management information system to control costs and increase program effectiveness.
- o The project achieved improvements in timeliness of data collection and reportings and increased confidence among managers in terms of the validity and how to use it.
- o Cost-effectiveness analysis has become an on-going part of MEXFAM's management system.

FOLLOW-UP AND FUTURE PLANS: MEXFAM is using its own funds to continue to test, refine and strengthen its management systems.

PROJECT NO. MEX-08

COUNTRY: Mexico

TITLE: Delivery of Family Planning on the Basis of Reproductive Risk

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Instituto Mexicano de Seguridad Social

DATES: July 1986 - May 1988

BUDGET: \$185,214

BACKGROUND AND PURPOSE: The Mexican Social Security Institute (IMSS) has developed a strategy to increase the quality of care and contraceptive prevalence based on a set of factors that affect a woman's reproductive health. By evaluating women according to the presence of socio-demographic, obstetric, and personal medical risk factors, IMSS classifies women as low or high-risk, and provides counseling and family planning methods accordingly. The purpose of the project was to test the Reproductive Risk Program.

DESCRIPTION: The project was conducted in two delegations in central Mexico and included training of IMSS staff on the concept of reproductive risk and its implementation, assessment of individual risk, the education of IMSS users on the concept of risk, and a system to monitor the operation of the strategy.

STUDY DESIGN AND METHODOLOGY: The study employed a quasi-experimental design. A baseline diagnosis and an endline survey were conducted. In addition, service implementation was measured, both following the training session and at routine intervals after onset of the new services.

FINDINGS AND IMPLICATIONS:

- o Postpartum and post-abortion women in the hospital experimental group were 54 percent more likely than those in the hospital control group to accept a method after being educated about risk factors.
- o There was a significant increase in acceptance among high-risk women in the experimental area, from 47.3 percent at the baseline to 61 percent at the endline survey. In the control area there was essentially no change (19.3 percent and 21.3 percent prevalence at the baseline and endline respectively.)
- o The strategy also had a positive effect on acceptance of effective methods in the IMSS family medicine clinics.
- o The strategy produced increased user awareness about risk and reproductive health, and also contributed to an increase in the number of physicians and paramedical staff who promote family planning because they perceive it as a health intervention.
- o While some feared that a program directed at high-risk women might exclude women with normal risk, the study revealed that contraceptive prevalence increased among both groups.

295

FOLLOW-UP AND FUTURE PLANS: While the training received under the project increased knowledge of procedures for managing reproductive risk, the commitment made by the director and supervisors of the IMSS services produced a significant change in service delivery procedures. For example, as a result of the project, not only are materials now available to inform the public about reproductive risk, but the detection and referral of high-risk women is becoming routine practice at all levels of the health care system. Arrangements also have been completed to add messages on reproductive risk to the broadcast programming of public radio.

PROJECT NO. MEX-09

COUNTRY: Mexico

TITLE: Marketing Low and Moderate-Priced Condoms in Supermarkets

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Promotora de Planificación Familiar

DATES: July 1986 - September 1987

BUDGET: \$25,969

BACKGROUND AND PURPOSE: The prevalence of condom use has traditionally been low in Mexico and the National Family Planning Program wished to increase the availability of condoms to couples of reproductive age. Promotora de Planificación Familiar (PROFAM) initiated the sale of condoms in 8 supermarkets in Mexico City; nearly 11,000 condoms were sold within the first three months. An OR study was undertaken to test the effectiveness on sales of locations within the supermarkets, and to test the effect of the cost of the product on sales.

DESCRIPTION: The OR study evaluated whether the optimum location for the sale of condoms within the supermarket is at the cashier or on the shelves. Eight supermarkets in matched socio-economic neighborhoods were randomly assigned to one of the two conditions. In one condition both high and low priced condoms were sold in four supermarkets in the two locations. In the other four stores the two brands were displayed only on the pharmacy department shelves. In all 8 stores an educational pamphlet on condom use was available next to the displays.

STUDY DESIGN AND METHODOLOGY: The project employed a true experimental design. Data on the volume of sales of both brands in all stores was provided by supermarket records over the nine month period. Focus group techniques were used to gather attitudes of potential customers and supermarket personnel. Interviews with cashiers and managerial personnel of the stores and with actual purchasers were undertaken. The profile of purchasers was developed using a self-selected sample of consumers who completed a questionnaire contained in each box of four condoms and returned it in the enclosed envelope.

FINDINGS AND IMPLICATIONS:

- o Sales in the shelf/cashier condition were nearly four times greater than in the shelf

297

FOLLOW-UP AND FUTURE PLANS: The participating supermarket chain has arranged contraceptive sales in thirty additional stores. PROFAM prepared IEC materials for store managers and personnel to be introduced to the sale of condoms. Results of the study have been widely disseminated in the academic press.

PROJECT NO. MEX-10

COUNTRY: Mexico

TITLE: Determining a Cost-Effective Strategy for Expanding Services to Young Adults

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Centro de Orientación para Adolescentes

DATES: October 1986 - July 1987

BUDGET: \$13,522

BACKGROUND AND PURPOSE: In Mexico City the Centro de Orientación para Adolescentes (CORA) provides family planning services and sex education to young adults by means of multiple programs: through multi-service centers and CBD programs in schools, factories and the community. An expansion of services was planned but CORA, given limited resources, wished to expand only the most cost-effective services. A prospective cost-effectiveness study of programs was undertaken of CORA's different service delivery models to enable them to design a reasonable expansion strategy.

DESCRIPTION: The project examined the cost-effectiveness of existing models for sex education and contraceptive distribution in factories, schools and in the community. Data were analyzed from an 8-month period to assess both the cost of CORA's programs and their effectiveness. Effectiveness was calculated for each of the three models as a whole (rather than for specific services), using information from the monthly reports of the center supervisors on how many new and subsequent users received contraceptives as well as the types and volumes of methods used. Three groups of high school students were interviewed in the sex education survey. The first group had attended a one-week course of basic sex education in their schools; the second had no active program but was located near one of CORA's multi-service centers; the third group's school received no services.

STUDY DESIGN AND METHODOLOGY: Cost-effectiveness analysis, with effectiveness estimated as the total number of active users and the volume of contraceptives distributed per program. A mini-survey was conducted in schools to estimate the proportion of young adults exposed to CORA's sex education program who became active users of contraception.

FINDINGS AND IMPLICATIONS:

- o The factory model was determined to be the most expensive model (US\$3.65 per user per month).
- o Community- and school-based models appear to be the least expensive (US\$1.29 per user per month), possibly due in part to the fact that they yield a much higher number of users than the factory model.
- o Students who received sex education through CORA courses were more knowledgeable than those who received it from other sources. For example, about 20 percent more students who had taken a course from CORA reported knowing how to use each method than students who had not received CORA instruction.
- o Of those students who reported sexual intercourse during the last month, 72 percent of the males and 89 percent of the females claimed to have used contraception.

2014

- o The difference in sexual activity between males who had received sex education and those who had not was minimal. For females it was significant: 9 percent of those who had received sex education were sexually active, compared with only 3.8 percent of those who had not.
- o Initiation of sexual activity may lead to an increased interest in sex education. 82.2 percent of young people indicated they would use contraception when asked about future sexual activity.

FOLLOW-UP AND FUTURE PLANS: CORA plans to include information about the methods and results of this study in its training program for personnel working with young adults. With the aid of a computer-based management information system, cost-effectiveness and evaluation have been integrated into CORA's record-keeping system.

PROJECT NO. MEX-11

COUNTRY: Mexico

TITLE: Use of Mass Media in AIDS Prevention

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Comité Nacional para Prevención del SIDA

DATES: July 1987 - February 1989

BUDGET: \$192,271

BACKGROUND AND PURPOSE: AIDS has been identified as a priority health problem in Mexico, and as a result CONASIDA (the National Committee for the Prevention of AIDS) has initiated a major public information strategy at the national level to contribute to its prevention. The general objectives of this project are to determine the process, costs and short term impact of CONASIDA's mass media communication strategy for AIDS education and prevention.

DESCRIPTION: The study was carried out in six cities covering five population subgroups, i.e., general public 15-49 years of age, university students, medical personnel, male and female prostitutes and homosexual males. The first and second phases of this project--information and communication campaign--used radio, television and newspaper. The third phase of the campaign was designed to induce the public to adopt safer sex practices. The latter phase employed a more direct approach and was completed through conferences and group discussions.

STUDY DESIGN AND METHODOLOGY: The research used a pre- and post-test design. Data were collected through baseline and follow-up surveys of the five target groups, and mini-surveys among health service providers and the general public in Mexico City, to determine the level of knowledge, attitudes and practices.

FINDINGS AND IMPLICATIONS:

- o The mass-media campaign generated public controversy and fueled extensive news coverage--over 1,500 articles were published in the national press within a year. Thus, the results of the controversy were positive because attention was brought to the AIDS prevention campaign and "condom" became a household word.
- o The percentage of the general public who knew that AIDS is preventable increased from 74 to 80 percent, and those who knew that using condoms can prevent AIDS increased from 61 to 78 percent.
- o The percentage of respondents who believed that casual contact can transmit AIDS was reduced from 40 to 31 percent.

- o The prevalence of condom use during the previous month increased for all groups between the baseline (September 1987) and endline (May 1988) surveys; specifically, university students from 21 to 33 percent, health personnel 12 to 21 percent, female prostitutes 44 to 57 percent, homosexual men 27 to 43 percent, and other sexually active adults in the general public 9 to 12 percent.
- o The surveys document that the general population, as well as several important subgroups, are aware of the mechanisms of transmission of HIV. Nevertheless, myths about transmission still persist and the stigmatization of individuals in groups at greater risk is still a problem.
- o Young adults need education to assist them in adopting preventive measures; and male homo/bisexuals, despite their adequate knowledge about the prevention of HIV, still have to adopt the routine use of the condom.

FOLLOW-UP AND FUTURE PLANS: Despite these important achievements, actions to prevent AIDS in Mexico must increase their coverage and effectiveness, requiring both social mobilization and community participation.

From the perspective of an IE&C manager, the results of the OR study suggest the need for more prolonged campaigns, as well as the use of complementary channels of communication (e.g., professional or labor associations for health personnel), and perhaps more detailed information for prostitutes and homosexual males through interpersonal communication.

The actions taken to date will be consolidated through the Program for AIDS Prevention and Control 1990-1994. The results from the OR conducted contributed significantly to the direction and focus of this program. Moreover, the results of this project have been utilized in the decentralized design and evaluation of educational materials, the needs and evaluation of counselling centers, and the development of new OR topics in AIDS.

PROJECT NO. MEX-12

COUNTRY: Mexico

TITLE: Effectiveness of Social Marketing Strategies in the Implementation of a Male-Only Clinic

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Promotora de Planificación Familiar

DATES: July 1987 - June 1989

BUDGET: \$48,987

BACKGROUND AND PURPOSE: Despite relatively high prevalence of use for all contraceptive methods, vasectomy remains a little known and vastly underutilized method in Mexico. The 1978 Mexican CPR survey indicated that prevalence of vasectomy was 0.1 percent. In 1986, Mercadotecnia Social Aplicada (MSA) opened a male clinic in a middle- and upper-class suburb of Mexico City. At the same time, they undertook an OR study to develop an IEC campaign for the general public.

DESCRIPTION: The study was designed to test the effectiveness of a social marketing strategy using billboards to promote the male-only clinic, and specifically voluntary surgical contraception (VSC). The effectiveness of newspapers and magazines to promote services also was tested, along with the effectiveness of a male promoter of vasectomy in the workplace who distributed leaflets, posters and pamphlets.

STUDY DESIGN AND METHODOLOGY: The OR study was originally designed as an intervention study, comparing the MSA clinic approach with the interventions tested in two other male-only clinics (CIFE and MEXFAM). However, the CIFE clinic failed to attract vasectomy clients, so the experiment with comparison groups devolved into a demonstration of the effectiveness of a strategy. Data were collected through interviews with clinic clients.

FINDINGS AND IMPLICATIONS:

- o Of 886 men who contacted the clinic during the campaign, 40 percent requested information about vasectomy, but only 29 percent ultimately underwent VSC.
- o Outdoor advertising is the most effective method of attracting clients: 66 percent of men mentioned billboards as their source of information.
- o Outdoor advertising had the best cost-benefit ratio: this approach attracted 586 clients at a total cost of \$ 24,240, for a cost-benefit ratio of 4:1.
- o The workplace promoter had the worst cost-benefit ratio: only 5 people attended the clinic as a result of having heard a promotional talk, for a cost-benefit ratio of 96:6.

FOLLOW-UP AND FUTURE PLANS: Preliminary results of the project were presented during the OR Conference held in Mexico in November 1988. Largely as a result of the project, MSA is planning to develop a nationwide campaign to promote vasectomy.

- 333

PROJECT NO. MEX-13

COUNTRY: Mexico

TITLE: Effectiveness of Private Physician and Male Promoter in Implementation of Male-Only Clinic

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Centro de Investigaciones sobre Fertilidad y Esterilidad

DATES: July 1987 - July 1989 **BUDGET:** \$39,736

BACKGROUND AND PURPOSE: The Centro de Investigación sobre Fertilidad y Esterilidad (CIFE) in Mexico City wished to generate greater demand for vasectomy as a family planning method and to expand the role of the private physician in family planning provision. An OR study was undertaken to test the effectiveness of using male promoters to visit offices and factories within the vicinity of a male-only clinic in order to recruit clients.

DESCRIPTION: The objectives of the OR study were to provide family planning services, particularly vasectomies through private physicians, to develop IEC about vasectomy for the general public, to evaluate the effectiveness of male promoters in reaching potential clients, and to describe the characteristics and motivation of those who adopt the vasectomy method. A male-only family planning clinic was established and eight promoters were hired and trained over five days to give talks and distribute brochures, posters and pocket calendars advertising the clinic's services. During 10 months of promotional activities the promoters gave talks to 166 organizations and distributed brochures to a further 55, which represented only about one-fourth of organizations approached.

STUDY DESIGN AND METHODOLOGY: The study used a multiple time-series analysis, and also planned to conduct a static comparison with three non-equivalent groups. The experimental group consisted of those visited by the promoters. The first comparison group consisted of male family planning clients of a private physician. The second and third comparison groups were provided by clients of two male family planning clinics operated by other organizations. Data collected included clinic records, promoters' logs of their travel and promotional activities, interviews with those who attended the talks, and a follow-up survey of 50 new vasectomy clients.

FINDINGS AND IMPLICATIONS:

- o The promotional strategy failed to generate demand for the clinic's services: only 2 vasectomies were done as a direct result of promoters' activity during the first twelve months of the project, and only five project-related telephone inquiries were received.
- o Despite changes in promotional tactics and literature, results did not improve.
- o The follow-up survey indicated that vasectomy acceptors are: aged between 28 and 45, relatively well educated, with a small number of children, previous users of contraception and have a stable marital situation.
- o That profile is in marked contrast to the characteristics of those who attended project related talks, and typically were not eligible for a vasectomy: age under 24 or over 52 years, had fewer than 2 living children, not married or in union, female, and respondent or spouse already sterilized.

304

- o Given the results, it is not recommended to promote vasectomies in the workplace. Rather, the mass media should be used, and other strategies, such as the use of vasectomized men as promoters, should be tested.

FOLLOW-UP AND FUTURE PLANS: The limitations of workplace promotional strategies for VSC were discussed by a working group of vasectomy service providers in Mexico City. CIFE is no longer providing services.

205

PROJECT NO. MEX-14

COUNTRY: Mexico

TITLE: Increasing Male Participation in Family Planning: A Test of Three Strategies

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Federación Mexicana de Asociaciones Privadas de Planificación Familiar

DATES: September 1987 - May 1989 **BUDGET:** \$66,506

BACKGROUND AND PURPOSE: In Chihuahua, Mexico, statistics show that there is only one vasectomy performed for every 15 tubal ligations. The Federación de Asociaciones Privadas de Planificación Familiar (FEMAP) believes that it is not adequately reaching the male population. FEMAP has affiliates in 18 Mexican states and the imbalance is even greater in some of these than in Chihuahua. With the objective of achieving greater involvement from the male population in family planning an OR study was undertaken by FEMAP.

DESCRIPTION: The OR study tested three different strategies designed to increase male participation in family planning: the effects of a radio campaign focussing on male services; the effects of modifying clinic environments to be more inviting to men; and the effects of service promotion on an individual basis employing primarily male promoters. The project was implemented in 3 FEMAP affiliates. All three study sites had a radio campaign lasting four months with spots focusing on different themes, each motivating men to accept vasectomy or participate more actively in family planning. In one affiliate the radio campaign was complemented by a modification of the clinic environment, with posters and information about male participation in family planning available. In the third affiliate the radio campaign was complemented by both clinic modification and a network of male promoters recruited and trained in contraceptive technology, distribution methods, record keeping and clinic referrals.

STUDY DESIGN AND METHODOLOGY: The project employed a multiple interrupted time series design. Repeated observations were made before and after the intervention to provide an estimate of the baseline and of the effect of the intervention. Data were collected by a KAP survey of men and women in the 3 study areas, a household questionnaire, a shorter questionnaire for women in the households, and monthly service statistics.

FINDINGS AND IMPLICATIONS:

- o The radio campaign was most successful in attracting men to the clinic, but the high cost of the campaign makes it prohibitively expensive to continue.
- o Even after the end of the campaign, men continued to go to the clinics for methods and counseling.
- o Although no more competent than females, male counsellors appeared to be more acceptable to men.
- o The most cost-effective component was the use of male promoters. Although they contributed to only 5 vasectomies, they distributed thousands of condoms to men who may eventually become vasectomy acceptors with continued counseling.

FOLLOW-UP AND FUTURE PLANS: The study has provided FEMAP with a base of knowledge about both male and female attitudes, and has provided a framework for promoting male participation in family planning in future activities.

PROJECT NO. MEX-15

COUNTRY: Mexico

TITLE: Impact of Incorporating Educational Strategies for AIDS Prevention and Control into FP Services

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Fundación Mexicana para Planificación Familiar

DATES: May 1988 - May 1989 **BUDGET:** \$79,971

BACKGROUND AND PURPOSE: Fundación Mexicana para Planificación Familiar (MEXFAM) carries out educational programs and provides services in the areas of family planning and reproductive health. A trend of increasing new cases of AIDS in Mexico during the 1980s led to a decision by MEXFAM to confront the epidemic. However, rather than develop a new program and disrupt routine operations, the agency preferred to incorporate prevention activities within the framework of its current programs.

DESCRIPTION: Two ongoing programs, the "Área de Promoción Intensiva" (API) and the "Gente Joven" (GJ) were considered most appropriate for the integration of AIDS activities. Four API sites and two GC sites were selected as experimental centers in which systematic educational activities took place. By involving these programs the project attempted to reach two groups potentially vulnerable to the ravages of AIDS: an open adult population in poor urban areas, mostly women (API program), and teenagers and young adults (GJ program). Six additional program sites were selected as a comparison group and received no educational activities.

STUDY DESIGN AND METHODOLOGY: This study used an experimental design. Baseline and endline questionnaires measured changes in AIDS knowledge, attitudes and practices between an initial survey (pre-test) and after the intervention period (post-test). MEXFAM's service statistics were also analyzed to observe changes in the number of clients and the method mix by those clients.

FINDINGS AND IMPLICATIONS:

- o Of concern to MEXFAM was the possible negative effect on its image as a family planning institution of participating in AIDS activities. This study showed that clients who discontinued service did so for reasons other than the organization's involvement with AIDS
- o Pre-intervention knowledge of AIDS transmission and prevention was high (approximately 90 percent). As a result, changes in AIDS knowledge and practices over time were low in both the intervention and control sites. The concurrent launching of AIDS information campaigns during the intervention period by the government as well as individual communities responding to the epidemic contributed to this high degree of consciousness.
- o Attitudes towards AIDS and those affected became more accurate and accepting after exposure to the educational campaign.

- o While confirming data from a study by the National Commission for the Prevention and Control of AIDS (CONASIDA) that condoms are perceived as primarily a family planning method, there were indications from this study that AIDS education is beginning to increase their use for the prevention of STDs.

FOLLOW-UP AND FUTURE PLANS: MEXFAM has incorporated AIDS Information, Education, and Communication (IE&C) activities into all of its program models. In addition, individual counseling on AIDS is now being offered. The educational materials produced as part of this project--a video and pamphlets--continue to be used to support outreach activities by MEXFAM and are being utilized by other institutions for AIDS information and prevention activities.

PROJECT NO. MEX-16

COUNTRY: Mexico

TITLE: Development and Testing of Family Life Education Program for Young Adults

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Instituto Mexicano de Investigacion de Familia y Población

DATES: July 1988 - July 1989

BUDGET: \$62,660

BACKGROUND AND PURPOSE: As in most of Latin America, adolescent pregnancy in Mexico represents an important public health problem: about 12 percent of all live births are to women ages 15-19 years. Both adolescent males and females are poorly informed about the use of contraception or the reproductive system. Few sex education programs in Latin America have been developed based on systematic research about the needs and concerns of young people, and even fewer have been adequately evaluated. The adolescent sex education program known as *Planeando tu Vida* was derived from a diagnostic study carried out in Mexico City.

DESCRIPTION: This study designed and implemented a family life education program for young adults in two secondary schools in Mexico City. The project addressed the acceptability, sustainability and estimated cost of expanding the program to other schools. Adult sex educators and psychologists were trained prior to working with the students in participative techniques, course contents, and information on sources of counseling and contraceptive methods.

STUDY DESIGN AND METHODOLOGY: The evaluation of the program employed randomly assigned high school classrooms of two public high schools. One group received the course and another, which did not, served as a control. Baseline data were collected prior to the students participating in the course and a post-course test measured changes in sexual and contraceptive knowledge and attitudes. A follow-up survey measured changes in communication, personality characteristics, sexual and contraceptive attitudes, and knowledge and behavior.

FINDINGS AND IMPLICATIONS:

- o The course had no effect on the level of sexual activity among adolescents.
- o If the course was provided before the adolescent started having sexual intercourse, the likelihood of contraceptive use was increased. Among those who took the course, 82 percent of females and 55 percent of males who had begun sexual activity by the follow-up were using contraception, compared with 75 percent of females and 32 percent of males in the control group.
- o Adolescents who took the course had increased sexual and contraceptive knowledge compared to the control group.
- o There was a positive change in attitudes towards contraceptive use and sexuality.
- o Previous non-coital sexual experience and perceived access to contraception were found to be the best predictors of sexual and contraceptive behavior among adolescents.

- o The costs of implementing the course for the first year were U.S. \$584 per teacher and \$13 per adolescent trained. These costs could be reduced if the expenses of teacher or instructor training were assumed by the Secretariat of Education.

FOLLOW-UP AND FUTURE PLANS: The Fundación Mexicana para la Planeación Familiar (MEXFAM), the IPPF affiliate in Mexico has adopted **Planeando tu Vida** as part of their education programs for young people. In addition, the Pan American Health Organization has purchased 500 books on **Planeando tu Vida** and is distributing them throughout Latin America.

PROJECT NO. NIC-01

COUNTRY: Nicaragua

TITLE: Community-Based Distribution of Contraceptives and Selector Health Supplies

CONTRACTOR: Centers for Disease Control

PARTICIPATING INSTITUTION: Ministry of Health

DATES: September 1976 - April 1979

BUDGET: \$391,000

BACKGROUND AND PURPOSE: According to a baseline survey conducted in several rural areas in central Nicaragua, 35 percent of the most recent pregnancies were unwanted and 75 percent of couples were interested in limiting family size. However, knowledge of modern methods was limited and only 8.7 percent of respondents had used contraceptives at any time. Of the non-acceptors, 43 percent were interested in practicing family planning, but nearly half did not know where to go for assistance. Experience with the use of traditional birth attendants in family planning in Latin America was virtually non-existent. An OR study was designed to test the feasibility and effectiveness of using TBAs in village distribution of contraceptives and drugs.

DESCRIPTION: Indigenous midwives received 5 days of training in the use of a basic health kit comprised of contraceptives, basic pharmaceuticals, and simple obstetrical equipment. The initial kit was free. Midwives sold medicaments in their communities at a subsidized price and retained a commission. They obtained resupply at a local MOH clinic. Health clinic nurses provided first line supervision.

STUDY DESIGN AND METHODOLOGY: The project was an innovative service delivery project with no formal research design. In order to measure impact, the project included a baseline prevalence survey, review of routine inventory records, and special household and TBA surveys. A planned evaluation survey did not take place.

FINDINGS AND IMPLICATIONS: The project was terminated by widespread political unrest in 1979.

- o Even-use of oral contraceptives rose from 4.3 percent to 8.3 percent over the first year.
- o The truncated experience proved the TBA program to be feasible but its effectiveness is not known.

13/12

PROJECT NO. PAR-01

COUNTRY: Paraguay

TITLE: Improved Worker Utilization: A Path to Expand Family Planning Coverage

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Centro Paraguayo para Estudios de Poblaciones

DATES: March 1987 - September 1988

BUDGET: \$50,518

BACKGROUND AND PURPOSE: Centro Paraguayo de Estudios de Población (CEPEP), an IPPF affiliate, is the only institution in Paraguay offering all legal family planning services. This project had two primary purposes: 1) to test whether certain efficiency and effectiveness problems in CEPEP clinics could be solved by means of promotional campaigns and establishment of community posts in marginal neighborhoods; and 2) to determine whether the community post strategy would facilitate reaching previously unserved users with less education and more children.

DESCRIPTION: The project carried out an intensive promotional campaign that consisted of household visits and group talks given by volunteers and field workers, as well as the use of posters and brochures. In addition, some clinics opened community posts that operated out of the homes of women living in marginal neighborhoods. Doctors offered family planning and gynecological services at the community posts two specific afternoons per week.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental design was used to test the impact of the community posts. Data included clinics' daily and monthly activity records, interviews with service personnel, and a survey of community residents.

FINDINGS AND IMPLICATIONS:

- o The promotional campaign increased demand for gynecological services in the traditional clinics. However overall demand for family planning did not seem to be affected.
- o The study did not yield conclusive evidence that the establishment of community posts in marginal areas increased the effectiveness of the clinics in terms of gynecological visits, overall family planning services, or contraceptive sales. However, clinics in the experimental group showed significantly higher increase in the number of new family planning users than did clinics in the control group.
- o Cost per CYP was significantly higher for the community posts than for the clinics (\$12.33 compared to \$8.49).
- o Three factors influence the success or failure of community posts: the attitude and characteristics of the doctors serving them (successful posts were generally serviced by young women doctors with a positive attitude), the extent of publicity penetration into the area, and characteristics of the local population.
- o The results also suggest that CEPEP could improve its performance more through development of a CBD program in marginal neighborhoods than through community posts.

FOLLOW-UP AND FUTURE PLANS: A CBD program covering metropolitan Asunción has been established.

PROJECT NO. PAR-02

COUNTRY: Paraguay

TITLE: Improving Family Planning Service Delivery in Rural Paraguay

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Centro Paraguayo para Estudios de Poblaciones

DATES: November 1987 - April 1989

BUDGET: \$59,715

BACKGROUND AND PURPOSE: Low CPR in the rural interior of Paraguay appeared to be more the result of factors adversely affecting the supply of family planning services than of factors related to demand. (26 percent of the sexually active women of fertile age who were not pregnant and did not wish to be were not using family planning.) The Paraguayan Center for Population Studies (CEPEP) runs rural family planning clinics but discovered that, despite considerable unmet need for contraceptive services, the clinics were under-utilized. This was attributed to the inaccessibility of the clinics. A CBD program was set up to remedy the problem but marked differences in productivity of promoters was observed. An OR study was undertaken to find a service delivery model that would provide more extensive coverage in the remote rural areas. Additionally, the objective was to improve the cost-effectiveness of its services through a more efficient utilization of existing clinics and personnel, and to expand the CBD program.

DESCRIPTION: The objective of the OR study was to test the effect of using paramedical clinic personnel to deliver services to previously unserved rural communities through a community post strategy, compared to a strategy employing clinics alone. Nurse-obstetricians provided maternal care and family planning services in rural areas on two days a week. Each paramedic visited four community posts once every two weeks on a specific day. The community posts were set up in volunteers' private homes. The volunteer promoted the services the paramedic would be providing (MCH, family planning services, including IUD insertion) and received 50 percent of all revenues from each session. The nurse-obstetrician also was responsible for recruiting, training, supervising and re-supplying CBD agents in the rural areas. CBD agents also made home visits to promote family planning and referred patients to the community posts.

STUDY DESIGN AND METHODOLOGY: A time series quasi-experimental design was used to evaluate the strategy. The effectiveness of the clinics for 11 months prior to the study was compared to that of the 11 months following. The effectiveness and cost-effectiveness of the three service delivery mechanisms--the clinic, the community posts, and CBD--were evaluated. Data were collected from daily and monthly clinic and post records, supervision forms, interviews with rural medical supervisors, and a survey of users of community posts. The CBD program was extended to five additional rural clinics and posts were used to resupply CBD distributors.

FINDINGS AND IMPLICATIONS:

- o The clinics experienced a 17.8 percent increase in CYP sales.
- o Community posts provided 21.4 percent of the first time family planning users and were responsible for 35 percent of IUD insertions for new users.
- o CBD sales of condoms went up 150 percent and pill sales increased 26 percent during the project period.

- o Community posts provided services to people who would otherwise be unreached and who found the quality of services good but logistical difficulties prevented 20 percent of programmed sessions taking place.
- o Successful posts, often less accessible than some unsuccessful posts, were serviced by motivated, younger, nurse-obstetricians.
- o CBD agents over 40 years of age who worked out of the home were more successful than younger housewives.

FOLLOW-UP AND FUTURE PLANS: CEPEP closed the clinic with the poorest performance and continues to offer services through 6 community posts. The expanded CBD program provides more CYPs than clinics, and the strengthening of the rural CBD program has become an institutional policy.

PROJECT NO. PER-01

COUNTRY: Peru

TITLE: Maternal and Child Health and Family Planning in the Mid-South Region of Peru

CONTRACTOR: Columbia University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: January 1979 - May 1980

BUDGET: \$650,000

BACKGROUND AND PURPOSE: When the Mid-South project began, Peru had a long history of governmental hostility towards family planning, and almost no provision of family planning services. The Director of the Mid-South Health region had visited CBD programs in Colombia and Mexico and become convinced that a similar approach could work in his region. In 1978, USAID/Peru asked the Center for Population and Family Health (CPFH) at Columbia University to work with the Mid-South Health region in developing an operations research project that would include the provision of family planning services. The object of this project was to expand the existing national health infrastructure by recruiting lay personnel to serve as volunteer health promoters. The project targeted pregnant and postpartum women, and children under age five.

DESCRIPTION: The existing MOH program was modified by training community volunteers to provide health education, make referrals, assist in vaccination campaigns, provide first aid and ORT, distribute iron tablets to pregnant women, and in one-third of the region, distribute oral contraceptives and barrier methods. Family planning services, including sterilizations, were introduced in 13 MOH clinics.

STUDY DESIGN AND METHODOLOGY: The project was essentially a demonstration project. Evaluation of the extent and impact of program services was based on baseline and evaluation surveys, supplemented by the service statistics system.

FINDINGS AND IMPLICATIONS: Responsibility for the project was assumed by USAID/Lima and involvement of Columbia University and AID/W terminated before the training program for volunteers began. The MOH instituted a major reorganization during the planning phase of the project. Efforts to improve the working relationship between the involved institutions were underway for only a short time before the project was absorbed into a newly developed national program.

Despite administrative delays, 928 volunteers were trained and in 1982 they were serving 4,139 active users.

FOLLOW-UP AND FUTURE PLANS: The project, as originally planned, appears to have progressed slowly after the termination of CPFH involvement. Nevertheless, many components and strategies of the project were eventually successfully adopted by the Ministry of Health throughout the country.

PROJECT NO. PER-02

COUNTRY: Peru

TITLE: Experimental Study on Effectiveness and Efficiency of IUD-CBD Posts

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Instituto Peruano de Paternidad Responsable

DATES: April 1985 - April 1987

BUDGET: \$67,329

BACKGROUND AND PURPOSE: INPPARES operates a large CBD program in urban marginal communities in Lima, Peru. An OR experiment was conducted to determine the most efficient and cost-effective frequency of functioning for medical back-up posts for this program.

DESCRIPTION: Medical back-up to INPPARES CBD distributors is provided by physicians who offer IUD insertion, pap tests, and other reproductive health services in posts established in the homes of distributors. The back-up component was seriously underutilized. Probable causes were low visibility (posts functioned irregularly and their location often varied from session to session) and a reluctance by distributors to make IUD referrals. To overcome these difficulties, post sessions were held at fixed locations on a fixed schedule and CBD distributors were trained in IUD counseling and received a small fee for referrals. Finally, an experiment was conducted to determine the most efficient and cost-effective frequency for post functioning. Three frequencies of post functioning, monthly, twice per month, and weekly were selected as the experimental treatments.

STUDY DESIGN AND METHODOLOGY: The experiment employed a randomized block experimental design with 42 back-up posts. The study was continuously monitored using service statistics. The three groups were compared on IUD insertions, family planning services, and total visits. Cost-effectiveness analyses were performed.

FINDINGS AND IMPLICATIONS:

- o Programmatic changes resulted in a 214 percent per session increase in IUD insertions and a 24 percent per session increase in all family planning services.
- o Total number of services provided increased linearly with frequency, but the variable did not appear to influence program efficiency. There were no significant differences in family planning output per session among treatments.
- o The twice per month frequency was the most cost-effective, with a cost of US\$2.45 per visit of all types and US\$4.94 per family planning visit.

FOLLOW-UP AND FUTURE PLANS: INPPARES selected the twice per month frequency for all posts. The success of the post-program led to its adoption by other Peruvian family planning agencies. By 1990 there were approximately 140 posts functioning in Lima, and several more were in operation in five other Peruvian cities. The CBD back-up post system was also adopted by the city of Quito, Ecuador which maintains over 40 posts functioning at a frequency of twice per month.

PROJECT NO. PER-03

COUNTRY: Peru

TITLE: Integrating Family Planning Services and Women's Development Activities

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Asociación para el Desarrollo de la Mujer

DATES: May 1986 - March 1988 **BUDGET:** \$61,350

BACKGROUND AND PURPOSE: The Asociación Para el Desarrollo de la Mujer (ADIM) is a women's development organization in Lima, Peru. Among its activities is a program of small loans for street vendors and market women. Anecdotal evidence suggested loan recipients had many family planning problems, including limited contraceptive use and frequent abortion. It was also felt that loan recipients could make successful CBD agents because of their work in high traffic areas. An OR study was undertaken with the overall objective of integrating family planning services and women's development activities.

DESCRIPTION: The project consisted of two OR studies: the first to determine if a family planning clinic at ADIM headquarters could raise contraceptive prevalence among loan recipients; the second to test market women as CBD agents for family planning. The first study compared contraceptive use among women who had visited ADIM two or more times with use among women making their first visit to ADIM at the time the project began. In the second study, market women were trained as promoters and received their first supplies of contraceptives free. Resupplies were purchased with their profits. A service statistics system recorded the type and volume of contraceptives purchased during each resupply visit. CYPs were calculated by promoter and method.

STUDY DESIGN AND METHODOLOGY: Data among loan recipients were gathered in a baseline and two follow-up surveys over one year, and through service statistics. In the second study data were collected through a service statistics system and a survey of non-returning distributors.

FINDINGS AND IMPLICATIONS:

The first study found that:

- o Fifty-seven percent of clinic visits were family planning visits.
- o Overall CPR among MWRA attending the clinic increased from 44.9 percent to 70.6 percent.
- o Virtually all prevalence change can be ascribed to the increase in use of modern methods offered by the clinic: from 22 percent to 48.2 percent over the project period.
- o Prevalence was 18 points higher after a one year period among clients who had visited ADIM two or more times.

The second study indicated that:

- o Recruitment was affected by market women's fear that contraceptive sales would harm their businesses.

- o Although 131 distributors were trained, only 51 returned for resupply.
- o The typical market woman was no more effective as a CBD distributor than any other woman.
- o Four distributors accounted for 81 percent of CYPs sold, suggesting they were engaging in wholesale rather than retail sales.
- o Results suggest that the possible advantage of market women resides in their potential to serve as wholesalers to vendors in the large informal sector.

FOLLOW-UP AND FUTURE PLANS: An end of project seminar was held and a final report completed. ADIM has continued the clinic with other funds, and has tried to broaden its clientele beyond its own loan recipients by entering into cooperative agreements with other groups.

PROJECT NO. PER-04

COUNTRY: Peru

TITLE: Testing Individual vs. Group Training of CBD Distributors

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Instituto Peruano de Paternidad Responsable

DATES: July 1987 - April 1989

BUDGET: \$100,706

BACKGROUND AND PURPOSE: Survey research in several Latin American countries revealed important deficits in CBD distributor family planning knowledge. In an OR project conducted by INPPARES and the Population Council in Lima in 1987, researchers found that INPPARES distributors did not learn all the information taught in their initial family planning training course and/or forgot part of the acquired information. A typical strategy to correct deficiencies in CBD distributors' family planning knowledge is to follow-up initial training with a two to three day full-time refresher course five to six months after the basic course. However, this strategy often results in high absenteeism and increases program costs. This OR project developed and tested a new system of continuous, individual retraining of CBD workers by their supervisors in the field.

DESCRIPTION: The study compared a new system of continual, individual retraining of distributors by their supervisors in the field with the traditional system of initial group training followed by group retraining. The project developed 1) an Individual Diagnostic and Feedback Instrument (IDFI), which the supervisor uses to provide systematic and flexible retraining to distributors, making intensive use of feedback and 2) a Standardized Test of CBD Distributor Family Planning Knowledge (STDFPK), a reliable and valid measure of learning outcomes. The IDFI is an instrument of programmed instruction which the supervisor can use individually with each distributor. It allows the supervisor to adjust training content, speed and duration to the ability and prior knowledge of each individual distributor. The IDFI is organized into four topic areas paralleling those of the STDFPK: hormonal contraceptive methods, barrier methods, reproduction and the IUD.

STUDY DESIGN AND METHODOLOGY: Six cities with new INPPARES CBD outlets were matched on population size and assigned to experimental and control groups. All distributors (N=205) received the same basic training course. Scores on a standardized knowledge test indicate that the distributors in both groups began with equivalent knowledge levels. Individual, on-site retraining began 2.5 months after basic training for distributors in the experimental CBD outlets. The traditional refresher course was held 5 months after basic training for workers in the control outlets.

FINDINGS AND IMPLICATIONS:

- o Distributors in the experimental group were tested using the STDFPK five months after initial training. They exhibited an increase of 33 percent above what they had learned during initial training.
- o Distributors in the control group, who were also tested using the STDFPK five months after initial training, showed a loss of 21 percent of what they had learned during the basic course. The traditional group refresher course resulted in a recovery of the losses plus a 2 percent improvement.

3/22

- o Mean retraining time of the experimental group was 3.25 hours, distributed over 5.3 sessions while retraining of the control group took more than 19 hours. More distributors were trained under the experimental than under the traditional systems, because many workers did not attend the group retraining course.
- o Twelve months after initial training, cumulative program desertion of distributors (three months without report) was 44 percent for the control group and 27 percent for the experimental group.
- o The IDFI is more cost-effective than the traditional group refresher course. The IDFI cost \$0.41 per percentage point of knowledge recovered and/or gained per distributor above that learned during initial training compared to \$0.84 for group retraining.
- o Retraining in the field by supervisors prevents loss of knowledge over time. Because the IDFI allows the supervisor to focus on individual deficiencies, on-site retraining is less time consuming for the distributor, and is more cost-effective than group retraining.

FOLLOW-UP AND FUTURE PLANS: The IDFI is being used at INPPARES as an alternative to group retraining. The IDFI and family planning knowledge test has been adapted for use at other CBD programs in Peru, Ecuador and Guatemala.

The next step is the development of an individualized, on-site initial training system as an alternative to the Basic Course. Such a system could be particularly valuable in rural CBD programs.



PROJECT NO. PER-05

COUNTRY: Peru

TITLE: Operations Research to Improve Ministry of Health's Family Planning Services

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Ministry of Health

DATES: November 1987 - March 1989 **BUDGET:** \$77,898

BACKGROUND AND PURPOSE: The Ministry of Health (MOH) is the largest provider of family planning services in Peru. Almost all of these services are provided through integrated reproductive health outpatient clinics. Often, because of extreme over-crowding there is neither time or resources to provide family planning. Vecinos Peru, a local private community development organization wished to extend its collaboration with the public sector to include assistance to family planning activities. This project tested: 1) the effectiveness and cost-effectiveness of single vs. multipurpose family planning workers; and 2) the effectiveness and cost-effectiveness of morning vs. afternoon clinics. A subsidiary experiment to test the effectiveness and cost-effectiveness of training nurse midwives to provide family planning services in small rural communities was abandoned because of political violence in the study areas.

DESCRIPTION: Exclusive outpatient family planning clinics were set up in MOH hospitals in the cities of Ayacucho, Huancavelica, and Huanta. The clinics provided both AM and PM services. Training of family planning nurse midwives and equipment for the family planning clinics was arranged by Vecinos Peru. Project monitoring and dissemination of results was also provided by Vecinoa.

STUDY DESIGN AND METHODOLOGY: Baseline data were collected for each hospital integrated reproductive health clinic for the two years preceding the experiment, and compared with results for the exclusive clinic from the year of the experiment. The production of AM and PM services was also compared. No special efforts were made to publicize the new services, and no changes were made in the hospitals' logistic systems.

FINDINGS AND IMPLICATIONS:

- o The exclusive family planning services clinics produced from three to nine times as many new clients as the integrated clinics. Moreover, the opening of the exclusive clinics tapped a previously neglected population—men.
- o In the larger 100 bed hospitals in Ayacucho and Huancavelica the exclusive family planning clinics costs were 19-26 percent lower per new client than in the integrated clinics. In the smaller, 40 bed Huanta Hospital the exclusive clinic cost \$8.68 per new client compared with \$4.60 in the integrated clinic.

321

- o The study comparing morning and afternoon exclusive family planning clinics produced mixed results. In Ayacucho morning and afternoon clinics attracted about equal numbers of clients. In Huancavelica and Huanta, morning services were more successful. However, more men attended afternoon clinics than morning services.
- o Major implications of the study are: 1) exclusive outpatient family planning services may be much more productive than integrated services; 2) in health facilities serving large populations, exclusive services may be more cost-effective than integrated services; 3) separating family planning from other maternal and child health services helps to attract male clients; and 4) public and private sector agencies can collaborate effectively to improve access to family planning services on the local level.

FOLLOW-UP AND FUTURE PLANS: When the project ended, health authorities continued exclusive family planning clinics in all three locations. The MOH passed a resolution supporting public and private sector collaboration to improve ministry family planning services. USAID/Peru incorporated the exclusive clinic model into its new private-sector bilateral project.

PROJECT NO. PER-06

COUNTRY: Peru

TITLE: Evaluating the Impact of Rezoning Three Family Planning Agencies

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: APROSAMI/INPPARES/PROFAMILIA

DATES: November 1987 - March 1989

BUDGET: \$71,208

BACKGROUND AND PURPOSE: An initiative was taken to rationalize the delivery of services and standardize three of the largest family planning agencies in Lima, Peru--APROSAMI, INPPARES and PROFAMILIA. Inefficient geographic distribution of services resulted in frequent duplication of effort. The Population Council's INOPAL project agreed to evaluate the impact of the re-zoning agreement on the effectiveness, efficiency, cost-effectiveness and quality of the three agencies' services. Each agency would work in a single assigned zone.

DESCRIPTION: The OR activities included evaluating the three agencies before and after the zoning agreements; determining the effects of re-zoning on access to clinic services; and evaluating the impact of paying IUD referral fees to CBD program agents. In carrying out these activities, the project also sought to implement an information and evaluation system for two agencies; design forms, records and a computerized information system; and strengthen the research and evaluation capacity of the three institutions.

STUDY DESIGN AND METHODOLOGY: Cost effectiveness analysis based on data collected from available records in each institution, including service statistics, and accounting data.

FINDINGS AND IMPLICATIONS:

- o The additional investment involved in re-zoning improved the effectiveness of all three programs: the number of new clients, CYPs distributed, and IUDs inserted increased in each.
- o Cost-effectiveness per CYP improved between 4 percent and 72 percent in the different programs despite the fact that estimated costs of each program rose by more than 25 percent.
- o Payment of IUD referral fees to CBD distributors improved the quality of the CBD program services.
- o Duplication of effort by the three agencies was reduced but not eliminated.

FOLLOW-UP AND FUTURE PLANS: The rezoning agreement remained in effect as of 1990.

PROJECT NO. PER-07

COUNTRY: Peru

TITLE: Comparison of Male and Female Community Based Distributors of Contraceptives

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: PROFAMILIA/CENPROF

DATES: November 1987 - August 1989 **BUDGET:** \$44,155

BACKGROUND AND PURPOSE: In Latin America the traditional emphasis on maternal and child health to justify family planning has limited the development of services for men. Today, few agencies have staff, recruitment, or information activities specifically for men. PROFAMILIA in Lima and CENPROF in Trujillo, Peru collaborated to determine if the use of male CBD distributors would result in increased condom distribution and greater recruitment of male clients.

DESCRIPTION: The participating agencies were selected to maximize generalizability of results. Although both agencies had CBD programs, they differed in location, client characteristics, and method mix. Since one of the purposes of the study was to demonstrate a cost-effective way of reaching male clients no special strategies, materials, or distributor training were included in the project. The study tested three hypotheses: 1) that male distributors would sell more condoms and female distributors would sell more pills; 2) that male promoters would recruit more male clients and that female promoters would recruit more female clients; and 3) that men would sell fewer total CYP than women would sell. Male and female distributors were recruited during the same period of time, and trained in the same courses. Distributors of both genders sold the same contraceptives and had the same client education materials. Both groups were supervised by the same supervisors.

STUDY DESIGN AND METHODOLOGY: An experimental design with one independent variable--distributor gender--was utilized. Data were collected from service statistics, agency personnel records, interviews with supervisors, and records of recruitment activities.

FINDINGS AND IMPLICATIONS:

- o Two of the three hypotheses were confirmed. In both programs, men sold about twice as many condoms as women who sold about twice as many pills as men sold.
- o In both agencies, men serviced more male than female clients and women serviced more female clients.
- o Contrary to expectations, men sold more total CYP than women in both programs.
- o Male distributors were more difficult to recruit than women, especially in Lima.
- o Female supervisors were reluctant to include men as CBD distributors.
- o Gender appears to influence distributor performance independent of other factors (age, education, marital status, and living children).
- o The major implication of this study is that CBD programs can increase condom use by recruiting male workers. Moreover, recruitment of males as distributors does not harm overall program output.

2/27

FOLLOW-UP AND FUTURE PLANS: CENPROF continues to utilize a large group of male distributors. In PROFAMILIA the number of male distributors declined substantially, apparently because of the opposition of program supervisors to male CBD workers.

PROJECT NO. PER-08

COUNTRY: Peru

TITLE: Immediate Post-Partum and Post Abortion Family Planning

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Instituto Peruano de Seguridad Social/PROFAMILIA

DATES: November 1987 - July 1989

BUDGET: \$72,398

BACKGROUND AND PURPOSE: Throughout the Latin American region, public sector capital-expansion budgets have all but disappeared, requiring program administrators to provide more services to ever-larger populations within existing facilities. The Instituto Peruano de Seguridad Social (IPSS) conducted an experiment to determine the impact and cost-effectiveness of providing post-partum/post-abortion family planning services to its clients.

DESCRIPTION: The study was conducted in the Rebagliati Hospital in the city of Lima. Postpartum and post-abortion women were assigned randomly to experimental and control groups. Women assigned to the experimental group received family planning education and the offer of free family planning services, including IUD insertion or barrier methods. Controls received only regular hospital services, not including family planning.

STUDY DESIGN AND METHODOLOGY: The study employed a true experimental design with random assignment of postpartum and post-abortion women to experimental and control groups. The contraceptive prevalence of the groups was compared at 40 days and six months postpartum.

FINDINGS AND IMPLICATIONS:

- o Almost 90 percent of the women who were offered postpartum family planning accepted a contraceptive method, and one quarter received an IUD.
- o Sixty-eight percent of post-abortion patients accepted a method, 43 percent IUDs.
- o Both at 40 days and six months women offered contraception in hospital were significantly more likely to be using a method than controls.
- o At six months, IUD use was almost 50 percent higher, and non-use almost 40 percent lower.
- o Contraceptive prevalence was 13 points higher in the experimental than the control group. The difference in prevalence was due to higher IUD use in the experimental group.
- o Every woman who accepted an IUD in hospital rather than from an outpatient family planning clinic saved on average 2 outpatient visits.
- o The study demonstrated the acceptability of postpartum family planning services. More importantly, these services also represented significant cost savings for IPSS.

FOLLOW-UP AND FUTURE PLANS: Implementing postpartum family planning services on all maternity wards in the hospital could save 3 percent of the annual IPSS family planning budget for Lima and free up 7 percent of current outpatient family planning service delivery capacity. As a result of the project, postpartum family planning services have been extended to all maternity wards in the Lima hospital and will be extended to several larger provincial hospitals.

PROJECT NO. PER-09

COUNTRY: Peru

TITLE: Involving Family Planning Workers in an AIDS Prevention Campaign

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Ministry of Health

DATES: November 1987 - May 1989

BUDGET: \$141,098

BACKGROUND AND PURPOSE: According to the Department of Epidemiological Surveillance of the Special Program for the Control of AIDS, there were 210 confirmed AIDS cases in Peru as of June 30, 1989. Ninety-two percent of these cases are in the capital city of Lima and its adjacent port, El Callao. The Peruvian Ministry of Health officially recognized AIDS as a public health problem in 1985, when it created the National Commission to Fight AIDS. In 1987, the Population Council and the Population Communication Service (PCS) of The Johns Hopkins University approached the commission to explore the possibility of conducting various collaborative AIDS prevention activities in Peru. An OR project was developed with the following objectives: 1) to increase AIDS awareness and knowledge among regional and national leaders to stimulate their involvement in and cooperation with AIDS prevention activities; 2) to increase the quantity and quality of news coverage on the medical, social and ethical issues of the AIDS epidemic in Peru; and 3) to increase the public's knowledge of the routes of transmission of AIDS and its prevention, emphasizing the importance of safer sexual practices and condom use.

DESCRIPTION: To fulfill the above objectives, project activities included:

- o Seminars for national and regional leaders, and media professionals.
- o An AIDS information center to collect, interpret and distribute information about AIDS to media professionals, the medical community and the general public.
- o A mass-media campaign on AIDS information aimed at the middle and lower class population of Lima.
- o An experiment using family planning workers to deliver AIDS information and distribute condoms.

STUDY DESIGN AND METHODOLOGY: Content analysis was used to measure the impact of the information center on AIDS coverage in Lima newspapers. A pre- and post-campaign survey was carried out to evaluate the mass-media campaign. The number of condoms distributed by the family planning workers was also monitored to evaluate the media campaign.

FINDINGS AND IMPLICATIONS:

- o As a result of the first seminar, the Minister of Health for AIDS prevention activities actively supported the project, and specifically supported the mass-media campaign.
- o Over 130 journalists, editors and communications experts attended the second seminar and expressed their commitment to improve the quality of AIDS reporting and to collaborate with the project's educational efforts.

3731

- o According to the news content analysis, the media often emphasized the scientific and sensational aspects of AIDS before the project, giving little attention to prevention messages. After the project, however, the tone of AIDS news reporting became less sensational.
- o The post-campaign survey found that AIDS knowledge was high and adequate in certain aspects, while it was poor and full of misconceptions in others. Namely, people know the primary modes of transmission and means of prevention, but mistakenly believe that AIDS can also be transmitted through other means as well. In addition, there is uncertainty concerning who is at risk for AIDS.
- o A moderate increase in the number of people reporting condom use for AIDS prevention was detected between the pre- and post-campaign surveys. However, the number of condoms distributed by the commercial sector and the public, private and informal systems did not increase following the campaign.
- o Family planning workers trained to deliver AIDS information and condoms failed to distribute more prophylactics than did the control group.

FOLLOW UP AND FUTURE PLANS: A major achievement of this project was the creation of an infrastructure of both physical and human resources, that will allow the Peruvian MOH to continue AIDS prevention efforts. PAHO, the European Economic Community and the AIDSTECH program will provide resources to continue the work begun under this project.

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PROJECT NO. PER-10

COUNTRY: Peru

TITLE: An AIDS Prevention and Reproductive Health Project for Prostitutes in Callao

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Universidad de San Marcos

DATES: December 1987 - August 1989 **BUDGET:** \$99,258

BACKGROUND AND PURPOSE: Acquired Immune Deficiency Syndrome (AIDS) is a health problem in Peru. Almost 300 cases have been diagnosed since 1983. HIV antibody surveys suggest that Peruvian prostitutes are at high risk of HIV infection, and many use inappropriate contraceptives. A large number of prostitutes in Peru are licensed and receive regular STD examinations. The University of San Marcos is conducting an operations research project to assess the effect of an educational program on STD prevalence, high-risk sexual behavior, condom use, and adequacy of contraceptive choice.

DESCRIPTION: The intervention study included a cohort of over 600 registered prostitutes in El Callao, Peru. An education and service program was established in the health center where prostitutes update their registration cards. Main program components included group talks and individual counseling sessions on STDs, AIDS and family planning, free condom distribution, and provision of family planning services by a doctor and a nurse practitioner.

STUDY DESIGN AND METHODOLOGY: The design was a cohort study that included a baseline and two impact surveys, as well as three serology surveys and other tests for STDs. Condom distribution, participation in educational activities, and use of the reproductive health clinic were continuously monitored through service statistics.

FINDINGS AND IMPLICATIONS:

- o Over 96 percent of the 600 women attended at least one educational session.
- o Over 1.1 million condoms were distributed in slightly more than one year, and the cohort reported increases in condom use.
- o A major remaining barrier to condom use is that many clients refuse to use the prophylactics.
- o It appears that the interventions were successful in reducing STD incidence and prevalence. Annual incidence of gonorrhea decreased from 20 to 3 percent, but two women sero-converted to HIV positive during the intervention period.

FOLLOW-UP AND FUTURE PLANS: Major implications of the study are that prostitutes respond positively to interventions, including condom distribution, education, and the offer of reproductive health services designed to protect their health.

Activities initiated by the project have been continued by San Marcos University.

333

PROJECT NO. PER-11

COUNTRY: Peru

TITLE: Collaborative Introduction of the Clinical Performance and Acceptability of Norplant[®] in Peru

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Universidad Peruana Cayetano Heredia

DATES: January 1990 - July 1990 **BUDGET:** \$13,495

BACKGROUND AND PURPOSE: INOPAL funded the extension of the pre-introductory trial being conducted by Cayetano Heredia University as part of the The Population Council contraceptive introduction program. The purpose of the trials is to assess the acceptability of NORPLANT[®] among the local medical community and target population, as well as to provide practical experience with the implants.

DESCRIPTION: Objectives of the study included assessing clinical performance of NORPLANT[®], the acceptability of the method, and the characteristics of acceptors. The study was undertaken in three clinics in Peru. A total of 475 implants were inserted. Physicians and caretakers were monitored to assess their response to the method.

STUDY DESIGN AND METHODOLOGY: Information on user characteristics was collected as was survival data on method continuation and removals.

FINDINGS AND IMPLICATIONS:

- o The twelve month method continuation rate was 83.7 percent. The most common reason given for requesting removals was headache, followed by personal reasons, with bleeding irregularities third.
- o The typical NORPLANT[®] acceptors were middle class women, relatively young (median age 25-29), well educated (mode equals high school graduate), and of low fertility (median < 2 living children). About 86 percent were previous users of contraception.
- o Acceptors tend to be limiters: 54 percent do not plan to have another child; one out of two have had at least one abortion.
- o Meetings held with participating physicians and counselors found women to be very positive about the efficacy, ease of implantation, and acceptability of the method.

FOLLOW-UP AND FUTURE PLANS: NORPLANT[®] appears to be an acceptable method to health care providers and middle-class women in Peru.

PROJECT NO. SKT-01

COUNTRY: St.Kitts/Nevis

TITLE: Effect of Family Life Education on Knowledge Onset of Sexual Activity and Contraceptive Use

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Ministry of Health and Community Affairs

DATES: April 1983 - March 1985

BUDGET: \$17,270

BACKGROUND AND DESCRIPTION: The negative health, social and economic consequences of teenage pregnancy have been a growing concern in the Caribbean. High fertility rates among adolescents are not a new phenomenon but the problem assumed larger proportions in recent years with the increasing number of women entering the fertile age group each year. Family life education (FLE) including sex education has been advocated as a means of controlling the problem although there is debate as to whether parents or school should provide it. Efforts to include FLE in the school curriculum have been ongoing in the Caribbean for the last decade: critics suggest in-school education will encourage teenagers to initiate sexual activity. In St. Kitts and Nevis some of the less sensitive components of the subject have been taught in high school since 1978 but never evaluated. An OR study was designed by Tulane University in collaboration with the Ministry of Education, Health and Community Affairs in 1983 to assess the effect of exposing high school teens to FLE including sex education.

DESCRIPTION: The objectives of the study were to measure what effect FLE including sex education would have on the onset of sexual activity, increasing knowledge about contraceptives and increasing use of contraceptives among sexually active teens. The six government high schools in St Kitts and Nevis were assigned either to the treatment group or the control group. Students 12-15 years in the treatment schools received 30 weeks of instruction. The curriculum covered human reproduction, physical growth and development, emotional development and issues and values in adolescent sexuality.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental design, the study compared a treatment group of three schools with a control group of the same number. Selected students from the six schools completed a self-administered questionnaire prior to the education program, designed to assess students' knowledge about puberty, reproduction and contraception, their attitudes to dating, relationships and childbearing, and their behavior in terms of sex and contraceptive use. The same questionnaire was administered to the same group of students at the end of the school-year—June 1984.

FINDINGS AND IMPLICATIONS:

- o In the treatment group the most significant changes in knowledge after one year of instruction were in reproductive anatomy, physiology and contraceptive methods.
- o Exposure to the education did not seem to influence the onset of sexual activity. Overall, from both groups between 82 percent and 89 percent of the boys reported having had sex, compared with 8 percent of the girls.
- o No significant difference in contraceptive behavior was observed in the treatment group, suggesting that education did not affect use of contraceptives.

- Between 14 percent and 23 percent of the sexually active students in treatment and control groups reported using a contraceptive the first time they had sex.
 - Approximately one-third of sexually active students in both groups reported using a contraceptive at their most recent sexual contact in both the pre- and post-intervention surveys.
- o Both groups of students reported the condom as the most widely used contraceptive.

PROJECT NO. SKT-02

COUNTRY: St. Kitts

TITLE: Strategies to Increase Men's Involvement in Family Planning Decision Making

CONTRACTOR: The Population Council

PARTICIPATING INSTITUTION: Ministry of Health

DATES: December 1987 - July 1989

BUDGET: \$11,498

BACKGROUND AND PURPOSE: The Ministry of Health of St. Kitts-Nevis has been involved in providing integrated FP/MCH service since 1976. Over the years, services have been provided mainly to women in the reproductive age group; men in the society have not been served in any organized way although the data indicate that they are influential in women's contraceptive and childbearing decisions. The Ministry of Health wanted to provide men with factual information to assist them in making informed family planning choices. The overall objectives of the project were to increase knowledge, awareness and use of contraceptives by men in St. Kitts and to further strengthen their support of their partners' use of contraceptives.

DESCRIPTION: In 1987, an OR project was implemented to test new approaches for increasing the use of contraceptives among men and to encourage their involvement in family planning related matters. A program of education and community outreach and motivation was planned for men between 15 and 24 years of age. A national survey and a series of focus groups were conducted among men in this age group. The data would serve as the baseline to measure the impact on men's groups of an 8-week education program alone or combined with the intervention of male motivators trained to provide family planning/family life information and contraceptive supplies. The interventions were to be carried out on a serial basis--the first set of men's groups would receive the education intervention and, after a period of 8 weeks, another set of groups would receive the education and motivation intervention. A third round of service delivery should have been implemented two months after completion of the second treatment model. The men's groups selected in that round would have been exposed to whichever treatment, on the basis of the pre- and post-test evaluations, was shown to be more successful in achieving the project objectives.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental, non-equivalent control group design was proposed to test the interventions. The short-term effect of each intervention was to be assessed immediately after exposing groups to the intervention. The overall effect of the interventions was to have been measured by comparing data from baseline and endline surveys conducted 12 months apart.

FINDINGS AND IMPLICATIONS: Local administrative and personnel difficulties prevented implementation of the planned interventions. The fact that this project was not completed must be seen as a major setback for the Caribbean region. The project would have represented one of the few systematic efforts to identify strategies for increasing male participation in family planning and family life.

PROJECT NO. STV-01

COUNTRY: St. Vincent

TITLE: Increasing Contraceptive Prevalence and Improving Continuation Rates Using Community Health Aides

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: November 1982 - May 1984

BUDGET: \$37,956

BACKGROUND AND PURPOSE: In St Vincent and the Grenadines family planning services have traditionally been provided within a clinic-based system, with prospective users registering at a government health center for initial and subsequent supplies. Community Health Aides (CHAs) paid women reminder visits if they missed follow-up appointments. The drop out rate from the clinics was high and 40 percent of drop outs discontinued contraception. In most cases side effects and the clinic location or routine were the reasons given for discontinuation. An OR study was undertaken by the MOH and Tulane University to test the effect on continuation rates of increased availability of family planning methods and information, combined with better management of side effects.

DESCRIPTION: The objectives of the study were to compare the relative effectiveness of two new approaches compared to the current system for achieving increases in: 1) knowledge of methods and side effects to reduce drop-out rates.; 2) awareness that switching brands is preferable to discontinuation; 3) continuation rates among current users; and 4) prevalence among the population at risk. In group 1, CHA's were trained to screen women and introduce oral contraceptives, condoms, and spermicides, and to continue to resupply their users as well as other active users of these methods in their area. CHA's in group 2 were responsible for resupplying users in the national program. In the control group, CHAs continued to follow-up women who had missed clinic appointments.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental design, three medical districts were assigned to each treatment group and another to a control area which continued to function in the traditional way. Monthly service statistics were collected to assess the impact on CPR and continuation. After 13 months a post-intervention follow up KAP survey was conducted in every household in 23 randomly selected villages and every eligible female 15-44 years of age was interviewed. A questionnaire and group discussion were used to obtain the views of community workers and supervisors.

FINDINGS AND IMPLICATIONS:

- o Performance in terms of new acceptors, volume of contraceptives distributed and percentage of women in unions using contraceptives was better in group 1 compared to group 2 and the control area.
- o CPR in women 15-44 years of age in unions rose from 40 to 54 percent in group 1 (initiation and resupply), remained the same in group 2 (resupply only) and increased from 35 to 41 percent in the control area between the 1981 Contraceptive Prevalence Survey and 1984.
- o In the experimental areas 49 percent of the CMP was provided by the community workers.

- 328

- o Knowledge of contraceptive methods increased significantly in the two treatment areas and declined in the control area.
- o Interventions had little effect on increasing continuation: more than 80 percent of women who began contraception were using 12 months later and had not become pregnant.
- o Both providers and recipients were supportive of the service.

PROJECT NO. STL-01

COUNTRY: St.Lucia

TITLE: Two Strategies for Contraceptive Distribution in Factories in St. Lucia

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Family Planning Association

DATES: November 1982 - February 1985

BUDGET: \$33,368

BACKGROUND AND PURPOSE: In St. Lucia family planning services are provided by the Ministry of Health and the Family Planning Association (FPA) through clinics and CBD posts. However, many women in the high fertility age group are at work during clinic hours. An initiative by the FPA in 1980 to deliver family planning services to factories was discontinued due to lack of funds but had established the need for such a service. In 1982 the FPA, in collaboration with Tulane University, designed an OR project to test two alternative systems for family planning delivery in factories.

DESCRIPTION: The objectives of the OR study were to test the increase in knowledge and use of contraceptives among female employees, comparing two service delivery systems in a total of 21 factories, and to test the relative cost-effectiveness of the systems. In group one, a nurse handled all contraceptive distribution during her twice-monthly visits to factories. She also performed routine gynecological exams, counseling and conducted periodic group discussions. In the second group, one employee per factory was selected for training to serve as a distributor for contraceptive sales in the workplace, and to make referrals to the nurse or clinic as necessary. The nurse also visited this group monthly to supervise the distributor's activities, screen new users, consult with clients who experienced side effects, and conduct periodic discussions on family planning topics.

STUDY DESIGN AND METHODOLOGY: In a quasi-experimental design three types of data were collected in the OR study: sample surveys, service statistics and cost expenditure. A baseline survey was conducted before family planning service delivery to the factories started. All employees, male and female were interviewed. Questions covered current use of contraceptives and reasons for non-use, sources of supply and duration of use. After 21 months a follow-up survey was undertaken which replicated these questions plus questions about employees' attitudes towards the services they received and measuring of their knowledge of family planning methods.

FINDINGS AND IMPLICATIONS:

- o Overall contraceptive prevalence increased in the second group with the distributors (from 31.5 to 38.1 percent) and decreased in the first group.
- o Both groups primarily obtained their supplies from the MOH or FPA clinics at the outset; by the follow-up survey nearly half of all current users were getting their supplies from either the nurse or the distributor at the factory.
- o Over 90 percent of both groups were supportive of the services and wanted them continued.

- o The follow-up survey revealed that 87-92 percent of respondents knew of at least one method of family planning.
- o Cost effectiveness analysis showed that the trained distributors sold more CMP at a lower cost compared with the alternative that used the nurse alone. Specifically, the trained distributors sold a total of 2613 CMP at a cost per CMP of \$6.91 compared with 676 CMP sold by the nurse at a cost of \$11.11 per CMP.

FOLLOW-UP AND FUTURE PLANS: The FPA has incorporated factory distribution into their CBD program.

PROJECT NO. STL-02

COUNTRY: St.Lucia

TITLE: Teens Clinics and Peer Counseling as Strategies for Combatting Teenage Pregnancy

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Ministry of Health

DATES: January 1984 - March 1986

BUDGET: \$37,960

BACKGROUND AND PURPOSE: St. Lucia is characterized by high rates of population growth, with both crude birth rate and total fertility rate on the increase since 1980. Teenage pregnancies accounted for 26.3 percent of total births in 1983. The Ministry of Health (MOH) targeted this group as a priority in its efforts to reduce rising birth rates and fertility. In collaboration with Tulane University the MOH developed an OR study to test the impact of two strategies on adolescents' sexual knowledge, behavior and attitudes and ultimately, teenage pregnancy.

DESCRIPTION: The specific objectives of the OR study were to increase teenagers' knowledge about the basic reproductive process and increase awareness of the risk of unplanned pregnancy, to foster attitudes of sexual responsibility, and to increase knowledge and use of contraceptives among sexually active teens. The strategies to be compared were adolescent health clinics operating within an existing health facility and peer counseling. Four health centers were selected. In the first, young adults were trained as peer counselors, providing information and advice in the clinic setting. A teen clinic was also established with nurses offering clinical, educational and counseling services. In the second health center only peer counseling was offered to teens by young people who provided information and counseling both informally and in an organized setting. Teens requesting contraceptives were referred to the government health center. In the third area, only a teen health clinic was established. In the fourth area, the control, no services were offered, but contraceptive services and supplies were available, as before, to young people on request from the government health center.

STUDY DESIGN AND METHODOLOGY: A quasi-experimental design, the study compared the results of strategies in three treatment groups with a control area where no intervention took place. A baseline survey was conducted through a self-administered questionnaire. A follow-up survey was undertaken after 21 months. Two interim assessments were conducted, seven and seventeen months through the project during which qualitative information was collected from project personnel. Service statistics were routinely collected in the four areas.

FINDINGS AND IMPLICATIONS:

- o The program did not seem to have an effect on contraceptive use. More teens in the control area than in the treatment areas had used a method at most recent intercourse.
- o In the areas where a teen clinic operated, less than 25 percent had heard about the program and between 5 percent and 9 percent had used the services. Between 2 percent and 8 percent had come in contact with a peer counselor.
- o Eighty-nine percent of teens in all four groups knew of at least one contraceptive method. The pill and the condom were the most widely known and teens in the treatment groups were more aware of these methods than those in the control group.

- o Attrition was high among the peer counsellors: after 17 months only 9 out of 20 trained were actively participating.

PROJECT NO. WIN-01

COUNTRY: Barbados, St. Lucia and St. Vincent (West Indies)

TITLE: Evaluation of the Caribbean Contraceptive Social Marketing Project in Three Countries

CONTRACTOR: Tulane University

PARTICIPATING INSTITUTION: Barbados Family Planning Association

DATES: January 1984 - May 1985 **BUDGET:** \$37,499

BACKGROUND AND PURPOSE: The social marketing of contraceptives has emerged as an important complementary approach to the clinic-based delivery of family planning. In 1983 the Caribbean Contraceptive Social Marketing Project (CCSMP) was developed by the Futures Group in association with the Barbados Family Planning Association (BFPA) in an effort to increase the level of family planning awareness and to make contraceptives more available through retail outlets in Barbados, St. Lucia and St. Vincent. Under CCSMP auspices an OR study was undertaken to assess the effect of social marketing programs on the larger family planning program, to determine whether social marketing increases contraceptive use or simply causes users of one service to switch to another. The feasibility of combining markets in Barbados, St. Vincent, and St. Lucia was also to be considered.

DESCRIPTION: Two contraceptive products--a condom (Panther brand) and an oral contraceptive (Perle)--were widely promoted, using advertisements on television, radio and in the press plus point of purchase promotional materials. The objective was to increase awareness, not only of prospective customers but of retailers and the medical community, in order to gain greater receptivity for the concept of social marketing of contraceptives. The contraceptives retailed at a substantially lower price than comparable products on the market. The project also sought to measure change in contraceptive prevalence, and to determine the extent of switching both from other brands to Panther and Perle, and from other sources of supply to pharmacies and other commercial outlets.

STUDY DESIGN AND METHODOLOGY: The study employed a pre-test/post-test staggered sample design, limited by the absence of a control group. A baseline study was conducted before the launch of the advertising campaign and a follow-up survey undertaken 12 months later in all three countries. One person per household was interviewed about their recall of the advertising messages and whether their contraceptive purchasing habits had been affected by them.

FINDINGS AND IMPLICATIONS:

- o The survey data support the use of radio and television for reaching the target population:
 - At the time of the baseline study there was almost no recognition of the products. By the follow-up survey over 66 percent of respondents in Barbados, 50 percent in St Vincent and 25 percent in St Lucia had heard of the products.
 - None of the respondents claimed to have purchased Perle at the time of the baseline survey. By the follow-up survey among females 1.1 percent in Barbados, 2.5 percent in St Vincent and 1.2 percent in St Lucia claimed to have purchased the product. No males had purchased it.

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- No respondents had purchased Panther condoms at the baseline survey. By the follow-up survey 5 percent of the males in Barbados and 7 percent of the males in St Vincent and St Lucia had purchased it. Among females the percentages were 3 percent in Barbados, 1 percent in St Vincent and 2 percent in St Lucia.
- o After one year of the campaign CPR remained the same for all three countries, possibly because 12 months is too short a period for evaluating the impact of social marketing on contraceptive prevalence.
- o Respondents were generally favorable to CCSMP messages being promoted in the media. However, there was evidence of resistance to the idea by the medical community.

PROJECT NO. WORLD-01

COUNTRY: Worldwide

TITLE: Managing Delivery Systems: Identifying Leverage Points for Improving Family Planning Performance

CONTRACTOR: University of Michigan

PARTICIPATING INSTITUTION:

DATES: September 1983 - October 1985

BUDGET: \$248,727

BACKGROUND AND PURPOSE: This research effort was initiated to provide a problem oriented analysis of family planning programs that focuses on the impact of management on program performance.

DESCRIPTION: The project consisted of: 1) a review of the literature about organizational structure, management and supervision of family planning programs; 2) in-depth interviews with family planning policymakers, administrators and supervisors in the U.S.; 3) a survey of family planning administrators in the developing world; and 4) a report of changes that could be made in family planning programs to improve their management, supervision, and service delivery systems.

STUDY DESIGN AND METHODOLOGY: Interviews were conducted with managers and observers of family planning programs in India, Pakistan, Indonesia, Egypt and Jamaica. The investigators reviewed the documentary evidence from these country programs and a number of other country programs that had been gathered over many years. The analysis is based on 71 usable questionnaires out of 186 sent to family planning managers throughout the developing world.

FINDINGS AND IMPLICATIONS: The following findings are from the "Summary of Actionable Suggestions" included in the final report for this project.

o Program Structure and Character

- Political support for family planning can improve program performance.
- Centralize and decentralize different elements of the program structure, tailored to the specific technological and environmental conditions of the tasks.
- Integration of family planning with health can improve performance if it is tailored to the general aim of fertility limitation, and not automatically subsumed under the rubric of health.

o Problem Solving Modes

- Program performance can be improved by more explicit use of Operations Research (OR) techniques in the routine, ongoing process of program management.
- Provide training in OR techniques at all levels of management and supervision.
- Giving OR a distinct organizational setting within Research and Evaluation units will improve the use of OR.

o Management Styles

- Greater use of participative management styles will increase program performance.
- Teaching participative management styles at all levels of management and supervision will increase its use.
- Program performance can be improved by including an emphasis on community and preventive medicine as well as management training in medical education.
- Participative management styles applied to the client population can improve program performance by enlisting the local population into the program development process.

o Management Tasks: Supervision

- Supervisor visits to field workers once or twice a month will improve performance.
- Fully specified field work regimes, with simple record keeping will improve supervision.
- A supportive, collaborative style of supervision will improve program performance.
- An optional span of control that gives supervisors responsibility for no more than 8-10 field workers.
- Training and retraining of field workers should be closely linked to supervision. This implies monthly refresher training with the content in part taken from field worker problems.
- Supervisory attention to support for field staff (including supplies and cooperation from local medical services) will improve program performance.

o Contraceptive Mix

- Provide a contraceptive method mix that best balances user preferences with program capacities.
- Making top political leaders aware of the fertility consequences of various method mixes will improve the policy decision making process regarding method mix.
- Specific attention to the causes and consequences of a given method mix at all levels of program operation will improve program performance.
- Location-specific clinical trials of different method mixes will improve program performance by balancing user preferences against program capacities.
- The management of method mix requirements can be improved by construction of simple check-lists or graphic representations of the requirements of specific methods and combinations of methods.

Source: Finkle, J.L. and G.D. Ness (1985). *Managing Delivery Systems: Identifying Leverage Points for Improving Family Planning Program Performance*. Final Report to A.I.D. Ann Arbor, MI: University of Michigan School of Public Health, Department of Population Planning and International Health.

PROJECT NO. WORLD-02

COUNTRY: Worldwide

TITLE: Organizing for Effective Family Planning Programs

CONTRACTOR: National Academy of Sciences

PARTICIPATING INSTITUTION:

DATES: September 1983 - February 1986

BUDGET: \$150,000

BACKGROUND AND PURPOSE: The National Research Council's Committee on Population formed a Working Group on Family Planning Effectiveness to conduct a scholarly study of factors affecting the relative effectiveness of family planning programs under varying conditions, with particular attention to the role of management and supervision.

DESCRIPTION: Forty-five authors wrote 28 chapters on specific program elements. These included the relationship between a program's impact on contraceptive prevalence and its social and political environment, the logistics system, the supervision and training of family planning personnel, the characteristics of client-provider transactions and methodological issues involved in understanding and measuring family planning program effectiveness.

STUDY DESIGN AND METHODOLOGY: Literature review.

FINDINGS AND IMPLICATIONS: The major output of the project is a report, *Organizing for Effective Family Planning Programs*. The following is the conclusion of the synthesis chapter from that volume by G. Simmons and R. Lapham.

Family planning programs vary widely in their efforts. Among the variety of environmental and program factors that influence program effectiveness, there is great scope for program management at all levels to make a difference. Effective management influences performance in part through the establishment of internal systems to assure accountability and evaluation. Equally important, effective management understands the environment in which it works, and seeks to adapt to it in appropriate ways. It recognizes constraints, works actively to assure the flow of resources, generates or maintains political support, and seeks ways to increase demand for program services. An exclusive focus on any single explanation of program effectiveness is misleading. Demand for services or supervision may be more important determinants of contraceptive prevalence in a particular context, but in other places they may be much less important. More important, supervision and even demand are greatly influenced by other elements in the system. We have argued that environmental factors such as political support strongly influence internal management. It may be as effective to seek improvements by various policy development activities as to intervene directly to influence supervision or logistics. Both indirect and direct approaches merit attention by those concerned with increasing the effectiveness of family planning programs.

Too little is known about many aspects of family planning programs. Research concerning the actual functioning of programs and especially of national scale programs is a high priority. Emphasis should be given to the quantity and quality of transactions between the client population and the program, the nature of program elements, the factors which lead to accountability, and the linkages between program management and the environment. Greater understanding of how programs function and the nature of the focuses which limit their

effectiveness will augment our knowledge about effective ways to strengthen existing programs, and to construct new ones.

To gain this understanding, it will be necessary to apply a wide variety of research approaches such as organizational analysis, participant observation techniques, case studies, surveys, operations research, and focus group research.

Family planning programs in the Third World have had a significant impact on contraceptive prevalence and fertility. But family planning programs, narrowly-defined, may not have enough effect, in the short run, to reduce fertility to levels consistent with national goals and aspirations for economic and social change. This review strongly suggests that family planning programs will be most effective when the environment is favorable, when there is a strong demand for contraception and when the political environment is supportive. But the most important conclusion is that the effectiveness of family planning programs is to a large extent determined by their design and implementation.

Source: Lapham, R.J. and G.B. Simmons, eds. (1987). *Organizing for Effective Family Planning Programs*. A report of the Working Group on Family Planning Effectiveness, Committee on Population, Commission on Behavioral and Social Sciences and Education, National Research Council. Washington, D.C.: National Academy Press.

INDEX

NOTE: This Index lists projects by region, country and project number within each topic. Topics in the index are taken from the MORE Project database fields for issues, delivery system, and contraceptive method studied. In the database, categories in these fields are coded if they were the focus of research, but are not coded if they were just a component of the project. For example, if an OR study included training CBD workers but did not measure pre- and post-training knowledge or attitudes, training is not coded as an issue studied. Similarly, an OR study may have been carried out on a project that provided pills, IUDs, condoms and foam, but no method is coded in the database unless the research specifically dealt with one or more contraceptive method. Each project can have a maximum of four issues coded; there is no limit on the number of delivery systems or contraceptive methods studied.

REGION	COUNTRY	PROJECT NO.
AIDS AND SEXUALLY TRANSMITTED DISEASES		
Africa	Tanzania	TAN-03
	Uganda	UGA-01
	Zaire	ZAI-11
Asia and Near East	Thailand	THA-12, THA-13
Latin America and Caribbean	Colombia	COL-06
	Mexico	MEX-11, MEX-15
	Peru	PER-09, PER-10
BREASTFEEDING		
Latin America and Caribbean	Honduras	HON-01
CHOICE OF METHODS		
Africa	Zaire	ZAI-02, ZAI-03, ZAI-04
Asia and Near East	Bangladesh	BAN-03
	Thailand	THA-07
Latin America and Caribbean	Brazil	BRA-01
	Dominican Rep.	DOM-01

REGION	COUNTRY	PROJECT NO.
CLINICS		
Africa	Burkina Faso	BKF-02
	Ivory Coast	IVO-02
	Liberia	LIB-01
	Madagascar	MAD-01, MAD-02, MAD-03
	Mauritius	MAU-01
	Sudan	SUD-03
	Tanzania	TAN-03
	Zaire	ZAI-02, ZAI-03, ZAI-04, ZAI-05, ZAI-09
	Zambia	ZAM-01
Asia and Near East	Indonesia	INS-01, INS-03, INS-04, INS-06, INS-07
	Nepal	NEP-01, NEP-02, NEP-03
Latin America and Caribbean	Bolivia	BOL-02
	Brazil	BRA-01, BRA-03, BRA-04
	Colombia	COL-03, COL-07
	Dominica	DMA-02
	Dominican Rep.	DOM-02
	Ecuador	ECU-01
	Grenada	GRE-01
	Guatemala	GUA-04
	Haiti	HAI-04
	Honduras	HON-03
	Mexico	MEX-07, MEX-08, MEX-12, MEX-13, MEX-14, MEX-15
	Paraguay	PAR-01, PAR-02
	Peru	PER-03, PER-05, PER-06, PER-10, PER-11
St.Lucia	STL-02	
CONDOMS		
Africa	Burkina Faso	BKF-02
	Gambia	GAM-01
	Ghana	GHA-01, GHA-02, GHA-03
	Nigeria	NGA-01, NGA-03, NGA-04, NGA-05, NGA-06
	Rwanda	RWA-01
Asia and Near East	Thailand	THA-11, THA-12
	Tunisia	TUN-01
Latin America and Caribbean	Barbados	BBD-03
	Brazil	BRA-01, BRA-02
	Colombia	COL-06
	Mexico	MEX-09, MEX-11
	Peru	PER-09, PER-10
	West Indies	WIN-01

REGION	COUNTRY	PROJECT NO.
COMMUNITY BASED DISTRIBUTION (CBD)		
Africa	Ghana	GHA-01
	Ivory Coast	IVO-01
	Kenya	KEN-01, KEN-03, KEN-04, KEN-07
	Lesotho	LES-01
	Liberia	LIB-01
	Mali	MLI-01, MLI-02
	Mauritius	MAU-01
	Nigeria	NGA-01, NGA-02, NGA-03, NGA-04, NGA-05
	Rwanda	RWA-01
	Sudan	SUD-01, SUD-04
	Swaziland	SWI-01
	Tanzania	TAN-01
	Zaire	ZAI-02, ZAI-03, ZAI-04, ZAI-07, ZAI-08, ZAI-10, ZAI-11
Zimbabwe	ZIM-02	
Asia and Near East	Bangladesh	BAN-07, BAN-10, BAN-12
	Indonesia	INS-02, INS-04
	Korea	KOR-01, KOR-02
	Nepal	NEP-01
	Taiwan	TAI-01
	Thailand	THA-01, THA-06, THA-08
Latin America and Caribbean	Bolivia	BOL-02
	Colombia	COL-02, COL-03, COL-04, COL-06
	Dominican Rep.	DOM-01
	Ecuador	ECU-01
	Guatemala	GUA-01, GUA-03, GUA-04, GUA-05, GUA-06, GUA-07
	Haiti	HAI-02, HAI-04
	Jamaica	JAM-01
	Mexico	MEX-01, MEX-02, MEX-03, MEX-04, MEX-05, MEX-07, MEX-10
	Paraguay	PAR-01, PAR-02
	Peru	PER-01, PER-02, PER-04, PER-06, PER-07, PER-09
	St. Vincent	STV-01
CONTRACEPTIVE METHOD ACCEPTABILITY		
Africa	Kenya	KEN-02
	Liberia	LIB-01
	Madagascar	MAD-03
	Mauritius	MAU-01
	Zaire	ZAI-06
	Zambia	ZAM-01
Asia and Near East	India	IND-01
	Morocco	MOR-01
	Nepal	NEP-03
	Philippines	PHI-04
	Sri Lanka	SRI-01, SRI-03
	Thailand	THA-07

252

REGION	COUNTRY	PROJECT NO.
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CONTRACEPTIVE METHOD ACCEPTABILITY (Continued)

Latin America
and Caribbean

Barbados	BBD-03
Colombia	COL-03
Dominican Rep.	DOM-02
Jamaica	JAM-02
Peru	PER-08, PER-11

CONTRACEPTIVE CONTINUATION

Africa

Lesotho	LES-02
Liberia	LIB-01
Mauritius	MAU-01
Tanzania	TAN-02
Zaire	ZAI-09
Zambia	ZAM-01

Asia and
Near East

Bangladesh	BAN-09
Nepal	NEP-03
Sri Lanka	SRI-01
Tunisia	TUN-01

Latin America
and Caribbean

St. Vincent	STV-01
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COST-EFFECTIVENESS

Africa

Kenya	KEN-01
Liberia	LIB-01
Nigeria	NGA-06
Zambia	ZAM-01

Asia and
Near East

Bangladesh	BAN-14
Philippines	PHI-01
Thailand	THA-01
Tunisia	TUN-02

Latin America
and Caribbean

Barbados	BBD-02
Brazil	BRA-01
Colombia	COL-02, COL-04, COL-05
Dominican Rep.	DOM-02
Ecuador	ECU-01
Haiti	HAI-01
Jamaica	JAM-01
Mexico	MEX-04, MEX-05, MEX-06, MEX-07, MEX-09, MEX-10
Paraguay	PAR-02
Peru	PER-02, PER-05, PER-06
St. Lucia	STL-01

257

REGION	COUNTRY	PROJECT NO.
COST ANALYSIS		
Africa	Kenya Zaire	KEN-04 ZAI-02, ZAI-03, ZAI-04, ZAI-07, ZAI-08
Asia and Near East	Indonesia Korea Nepal Sri Lanka Tunisia	INS-06, INS-07 KOR-01, KOR-02 NEP-01 SRI-01, SRI-02 TUN-01
Latin America and Caribbean	Bolivia Brazil Colombia Paraguay	BOL-01 BRA-03, BRA-04 COL-03 PAR-01
COUNSELING		
Asia and Near East	Bangladesh Thailand	BAN-09 THA-04, THA-05
Latin America and Caribbean	Barbados Bolivia Dominican Rep. Jamaica St.Lucia	BBD-01 BOL-01 DOM-02 JAM-02 STL-02
DISTRIBUTION POSTS		
Africa	Gambia Liberia Mauritius Tanzania Zaire	GAM-01 LIB-01 MAU-01 TAN-01 ZAI-01
Asia and Near East	Morocco	MOR-02
Latin America and Caribbean	Brazil Colombia Paraguay Peru	BRA-02 COL-02, COL-06 PAR-01, PAR-02 PER-02, PER-06

REGION	COUNTRY	PROJECT NO.
DELIVERY MECHANISM		
Africa	Burkina Faso	BKF-02
	Gambia	GAM-01
	Ghana	GHA-02, GHA-03
	Ivory Coast	IVO-01, IVO-02, IVO-03
	Kenya	KEN-04, KEN-07
	Lesotho	LES-01
	Liberia	LIB-01
	Nigeria	NGA-01, NGA-03, NGA-04, NGA-05, NGA-06
	Rwanda	RWA-01
	Sudan	SUD-01, SUD-02, SUD-04
	Swaziland	SWI-01
	Tanzania	TAN-01, TAN-03
	Zaire	ZAI-02, ZAI-03, ZAI-04, ZAI-05, ZAI-07, ZAI-08
Zambia	ZAM-01	
Asia and Near East	Bangladesh	BAN-01
	Egypt	EGY-01, EGY-02, EGY-03, EGY-04
	Indonesia	INS-05, INS-07
	Korea	KOR-01, KOR-02
	Morocco	MOR-01, MOR-02
	Nepal	NEP-02
	Philippines	PHI-01
	Sri Lanka	SRI-01, SRI-02
	Taiwan	TAI-01
	Thailand	THA-01
	Tunisia	TUN-01, TUN-02
Latin America and Caribbean	Barbados	BBD-02
	Bolivia	BOL-02
	Brazil	BRA-01, BRA-02
	Colombia	COL-01, COL-02, COL-03, COL-04, COL-05, COL-07
	Dominica	DMA-02
	Guatemala	GUA-01, GUA-02, GUA-04, GUA-05
	Haiti	HAI-01, HAI-03
	Honduras	HON-02, HON-03
	Jamaica	JAM-01
	Mexico	MEX-02, MEX-04, MEX-06, MEX-09, MEX-12, MEX-13, MEX-14
	Paraguay	PAR-01, PAR-02
	Peru	PER-01, PER-02, PER-03, PER-05, PER-06, PER-07
	St. Vincent	STV-01
	St. Lucia	STL-01, STL-02
	West Indies	WIN-01

REGION	COUNTRY	PROJECT NO.
FEMALE STERILIZATION		
Africa	Zaire	ZAI-06
Asia and Near East	Indonesia Philippines Tunisia	INS-04, INS-06 PHI-07 TUN-01
Latin America and Caribbean	Brazil Colombia	BRA-01 COL-01
HOSPITALS		
Africa	Liberia Madagascar Mauritius Zaire	LIB-01 MAD-02 MAU-01 ZAI-06, ZAI-09
Asia and Near East	Egypt Indonesia	EGY-01, EGY-02 INS-04, INS-06, INS-07
Latin America and Caribbean	Brazil Grenada Haiti Honduras Mexico Peru	BRA-03 GRE-01 HAI-05 HON-01, HON-03 MEX-08 PER-08, PER-11
HOUSEHOLD DISTRIBUTION		
Africa	Zaire	ZAI-01
Asia and Near East	Bangladesh Egypt Indonesia Korea Morocco Nepal Philippines Sri Lanka Taiwan Tunisia	BAN-01, BAN-03 EGY-01, EGY-02, EGY-03 INS-02 KOR-01, KOR-02 MOR-01, MOR-02 NEP-02 PHI-01 SRI-01 TAI-01 TUN-01, TUN-02
Latin America and Caribbean	Brazil Colombia Haiti	BRA-01, BRA-02 COL-01 HAI-02, HAI-05

REGION	COUNTRY	PROJECT NO.
INCENTIVES		
Africa	Kenya	KEN-03
Asia and Near East	Indonesia	INS-03
	Nepal	NEP-03
	Thailand	THA-02
INFORMATION, EDUCATION & COMMUNICATION (IEC)		
Africa	Ivory Coast	IVO-03
	Kenya	KEN-07
	Madagascar	MAD-01
	Niger	NGR-01
	Rwanda	RWA-01
	Tanzania	TAN-03
	Uganda	UGA-01
Zaire	ZAI-05, ZAI-11	
Asia and Near East	Bangladesh	BAN-13
	Indonesia	INS-02, INS-05, INS-08
	Philippines	PHI-03, PHI-04, PHI-07
	Sri Lanka	SRI-03, SRI-04
	Thailand	THA-08, THA-12, THA-13
Latin America and Caribbean	Barbados	BBD-02, BBD-03
	Bolivia	BOL-01, BOL-02
	Brazil	BRA-02, BRA-04
	Colombia	CCL-05, COL-06, COL-07
	Dominica	DMA-01
	Dominican Rep.	DOM-01, DOM-02
	Grenada	GRE-01
	Guatemala	GUA-08
	Haiti	HAI-03, HAI-05
	Honduras	HON-01, HON-02, HON-03
	Mexico	MEX-05, MEX-06, MEX-08, MEX-10, MEX-11, MEX-12, MEX-13, MEX-14, MEX-15, MEX-16
	Peru	PER-08, PER-09, PER-10
	St. Kitts	SKT-02
St. Kitts/Nevis	SKT-01	
West Indies	WIN-01	

201

REGION	COUNTRY	PROJECT NO.
INSURANCE SCHEMES/HMOS		
Latin America and Caribbean	Brazil	BRA-03
INTRAUTERINE DEVICE (IUD)		
Africa	Burkina Faso	BKF-02
	Ghana	GHA-02
	Madagascar	MAD-03
	Sudan	SUD-03
Asia and Near East	Bangladesh	BAN-09
	Nepal	NEP-03
	Sri Lanka	SRI-03
	Thailand	THA-11
	Tunisia	TUN-01
Latin America and Caribbean	Brazil	BRA-01
	Colombia	COL-01, COL-05
	Honduras	HON-02
	Peru	PER-02, PER-08
CONTRACEPTIVE KNOWLEDGE, ATTITUDES AND PRACTICES (KAP)		
Africa	Burkina Faso	BKF-01
	Chad	CHA-01
	Mali	MLI-01, MLI-02
	Senegal	SEN-01
	Sudan	SUD-04
	Zaire	ZAI-02, ZAI-03, ZAI-04, ZAI-05, ZAI-06, ZAI-07, ZAI-08, ZAI-11
Asia and Near East	Bangladesh	BAN-13, BAN-14
	Egypt	EGY-01
	Morocco	OR-01
	Nepal	NEP-03
	Philippines	PHI-02, PHI-03, PHI-04, PHI-07
	Thailand	THA-12, THA-13
Latin America and Caribbean	Dominica	DMA-01, DMA-02

REGION	COUNTRY	PROJECT NO.
LOGISTICS/SUPPLIES		
Africa	Ghana	GHA-03
	Kenya	KEN-06
	Nigeria	NGA-04
	Zimbabwe	ZIM-02
Asia and Near East	Egypt	EGY-02
	Sri Lanka	SRI-02, SRI-05
	Tunisia	TUN-02
Latin America and Caribbean	Honduras	HON-02
	Mexico	MEX-03
MALES		
Africa	Madagascar	MAD-02
	Zaire	ZAI-07
Latin America and Caribbean	Barbados	BSD-03
	Brazil	BRA-04
	Colombia	COL-07
	Dominica	DMA-01
	Mexico	MEX-12, MEX-13, MEX-14
	Peru	PER-07
	St. Kitts	SKT-02
MALE STERILIZATION		
Asia and Near East	Indonesia	INS-04
	Philippines	PHI-07
Latin America and Caribbean	Brazil	BRA-04
	Colombia	COL-07
	Mexico	MEX-12, MEX-13, MEX-14

REGION	COUNTRY	PROJECT NO.
MANAGEMENT AND/OR MIS		
Africa	Burkina Faso	BKF-02
	Ghana	GHA-02
	Kenya	KEN-06
	Niger	NGR-01
	Senegal	SEN-02
	Swaziland	SWI-01
	Zimbabwe	ZIM-02
Asia and Near East	Bangladesh	BAN-04, BAN-05, BAN-06, BAN-07, BAN-08, BAN-09, BAN-11, BAN-12
	India	IND-01
	Indonesia	INS-01, INS-03, INS-08
	Morocco	MOR-03
	Nepal	NEP-01
	Pakistan	PAK-01
	Philippines	PHI-06
	Sri Lanka	SRI-02
	Thailand	THA-05
	Latin America and Caribbean	Guatemala
Haiti		HAI-04
Honduras		HON-02
Mexico		MEX-03, MEX-07
Peru		PER-02, PER-05, PER-06
Inter-Regional		IREG-02
MARKET-BASED DISTRIBUTION		
Africa	Ghana	GHA-03
	Nigeria	NGA-03, NGA-04, NGA-06
Latin America and Caribbean	Peru	PER-03
NATURAL FAMILY PLANNING		
Africa	Kenya	KEN-02
	Liberia	LIB-01
	Mauritius	MAU-01
	Zambia	ZAM-01
Asia and Near East	Philippines	PHI-02, PHI-04
Latin America and Caribbean	Colombia	COL-03

REGION	COUNTRY	PROJECT NO.
NORPLANT Latin America and Caribbean	Peru	PER-11
ORALS/PILLS Africa	Burkina Faso	BKF-02
	Gambia	GAM-01
	Ghana	GHA-02
	Nigeria	NGA-01, NGA-03, NGA-04, NGA-05, NGA-06
	Rwanda	RWA-01
	Sudan	SUD-04
	Zimbabwe	ZIM-02
Asia and Near East	India	IND-01
	Nepal	NEP-03
	Sri Lanka	SRI-01
	Thailand	THA-11
Latin America and Caribbean	Brazil	BRA-01
	Colombia	COL-01
	West Indies	WIN-01
PHARMACIES Africa	Gambia	GAM-01
Latin America and Caribbean	Honduras	HON-02
POST PARTUM Asia and Near East	Taiwan	TAI-01
Latin America and Caribbean	Peru	PER-08
PRICE ELASTICITIES/PRICING POLICIES Africa	Madagascar	MAD-03
Asia and Near East	Indonesia	INS-01, INS-06, INS-07, INS-08
	Thailand	THA-11
Latin America and Caribbean	Mexico	MEX-04

REGION	COUNTRY	PROJECT NO.
PRIMARY HEALTH CARE & FAMILY PLANNING		
Africa	Ghana	GHA-01
	Ivory Coast	IVO-01
	Kenya	KEN-03, KEN-04, KEN-07
	Nigeria	NGA-01, NGA-02, NGA-03
	Sudan	SUD-01, SUD-02
	Tanzania	TAN-01
	Zaire	ZAI-01
Asia and Near East	Bangladesh	BAN-12
	Egypt	EGY-03, EGY-04
	Nepal	NEP-02
	Thailand	THA-01
Latin America and Caribbean	Colombia	COL-01
	Ecuador	ECU-01
	Guatemala	GUA-04
	Haiti	HAI-02
	Mexico	MEX-02
	Peru	PER-01
PRIVATE NURSE-MIDWIVES/PRIVATE PHYSICIANS		
Africa	Ghana	GHA-02
	Sudan	SUD-01, SUD-02
Asia and Near East	Indonesia	INS-05
	Sri Lanka	SRI-03
Latin America and Caribbean	Colombia	COL-05
	Honduras	HON-02
	Mexico	MEX-13
QUALITY OF SERVICE		
Africa	Burkina Faso	BKF-02
	Kenya	KEN-06
	Madagascar	MAD-01
	Tanzania	TAN-02
	Zaire	ZAI-06, ZAI-09, ZAI-10
Latin America and Caribbean	Barbados	BBD-03
	Guatemala	GUA-07
	Honduras	HON-01
	Peru	PER-06

262

REGION	COUNTRY	PROJECT NO.
REFERRALS		
Africa	Burkina Faso	BKF-02
	Rwanda	RWA-01
Asia and Near East	Indonesia	INS-02
	Morocco	MOR-02
REPRODUCTIVE RISK		
Africa	Ivory Coast	IVO-02
Latin America and Caribbean	Brazil	BRA-03
	Grenada	GRE-01
	Honduras	HON-03
	Mexico	MEX-08
SATISFIED USERS		
Africa	Zaire	ZAI-09
Asia and Near East	Indonesia	INS-03
	Philippines	PHI-05, PHI-06
	Sri Lanka	SRI-03, SRI-04
Latin America and Caribbean	Haiti	HAI-05
SCHOOL-BASED DISTRIBUTION		
Asia and Near East	Thailand	THA-12
Latin America and Caribbean	Mexico	MEX-05, MEX-10, MEX-16
SERVICE DELIVERY PERSONNEL		
Africa	Gambia	GAM-01
	Ghana	GHA-01, GHA-02, GHA-03
	Kenya	KEN-07
	Madagzscar	MAD-01
	Nigeria	NGA-02, NGA-03, NGA-04, NGA-05, NGA-06
	Rwanda	RWA-01
	Sudan	SUD-02, SUD-03
	Tanzania	TAN-03

183

REGION	COUNTRY	PROJECT NO.
SERVICE DELIVERY PERSONNEL (Continued)		
Asia and Near East	Bangladesh	BAN-03, BAN-10, BAN-11, BAN-12
	Egypt	EGY-03
	India	IND-01
	Indonesia	INS-01, INS-02, INS-05
	Morocco	MOR-02
	Nepal	NEP-02
	Sri Lanka	SRI-05
	Thailand	THA-06, THA-08
Latin America and Caribbean	Bolivia	BOL-02
	Colombia	COL-06
	Guatemala	GUA-03, GUA-04, GUA-06
	Haiti	HAI-02, HAI-03, HAI-04
	Mexico	MEX-01, MEX-13
	Nicaragua	NIC-01
	Paraguay	PAR-02
	Peru	PER-07, PER-09
SPERMICIDES		
Africa	Burkina Faso	BKF-02
	Gambia	GAM-01
	Ghana	GHA-01, GHA-02, GHA-03
	Nigeria	NGA-03, NGA-04, NGA-05, NGA-06
	Rwanda	RWA-01
SUPERVISION		
Africa	Ghana	GHA-01
	Kenya	KEN-01
	Sudan	SUD-01, SUD-02
Asia and Near East	Bangladesh	BAN-11
	Philippines	PHI-05
	Sri Lanka	SRI-04
Latin America and Caribbean	Brazil	BRA-01
	Colombia	COL-01
	Dominican Rep.	DOM-01
	Guatemala	GUA-05, GUA-06, GUA-07
	Mexico	MEX-02, MEX-03, MEX-08
	Peru	PER-03
World	WORLD-02	

REGION	COUNTRY	PROJECT NO.
TRADITIONAL BIRTH ATTENDANTS/HEALTH PRACTITIONERS		
Africa	Ghana	GHA-01
Asia and Near East	Sri Lanka	SRI-05
Latin America and Caribbean	Brazil	BRA-01
	Haiti	HAI-03, HAI-04
	Mexico	MEX-01
	Nicaragua	NIC-01
TRAINING		
Africa	Gambia	GAM-01
	Ghana	GHA-01, GHA-02, GHA-03
	Kenya	KEN-02, KEN-04, KEN-08
	Nigeria	NGA-01, NGA-03
	Sudan	SUD-01
	Tanzania	TAN-01
Asia and Near East	Indonesia	INS-03, INS-05, INS-08
	Philippines	PHI-05, PHI-06
	Sri Lanka	SRI-03, SRI-04, SRI-05
	Thailand	THA-04
Latin America and Caribbean	Brazil	BRA-05
	Dominican Rep.	DOM-01
	Guatemala	GUA-05, GUA-06, GUA-07
	Mexico	MEX-02, MEX-03, MEX-06, MEX-07, MEX-08
	Peru	PER-04, PER-09
	UNDERSERVED POPULATIONS	
Africa	Mali	MLI-01
	Tanzania	TAN-01
Asia and Near East	Philippines	PHI-03
	Thailand	THA-06
Latin America and Caribbean	Ecuador	ECU-01
	Guatemala	GUA-02, GUA-05, GUA-07, GUA-08

365

REGION	COUNTRY	PROJECT NO.
WORK PLACE DISTRIBUTION		
Africa	Ivory Coast	IVO-03
	Tanzania	TAN-02, TAN-03
Asia and Near East	Indonesia	INS-07
	Thailand	THA-12
Latin America and Caribbean	Barbados	BBD-02
	Bolivia	BOL-01, BOL-02
	Guatemala	GUA-02
	Mexico	MEX-06, MEX-10
	Peru	PER-10
	St.Lucia	STL-01
YOUNG ADULTS (TEENS)		
Asia and Near East	Philippines	PHI-07
Latin America and Caribbean	Barbados	BBD-01
	Dominica	DMA-02
	Guatemala	GUA-08
	Jamaica	JAM-02
	Mexico	MEX-05, MEX-10, MEX-16
	St.Kitts/Nevis	SKT-01
	St.Lucia	STL-02

2/10/10

APPENDIX 1 - ADDRESSES OF MAJOR OR CONTRACTORS

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Cairo, Egypt

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Centers for Disease Control
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Family Health International
(formerly International Fertility Research Program)
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Research Triangle Park Branch
Durham, NC 27709

Institute of Nutrition of Central America and Panama (INCAP) Guatemala City, Guatemala

International Centre for Diarrhoeal Disease Research (ICDDR,B)
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Attn: Ms. Joanne Gleason (Latin American and the Caribbean)
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