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PART ONE: OVERVIEW
I. Background

On September 30, 1981, AID awarded a contract to the Population Council "to improve the efficiency and acceptability of family planning programs in Asia through operations research and the dissemination and applications of these research findings." Initially, the contract covered a three-year period through September 30, 1984, but was subsequently extended to March 31, 1986.

The Operations Research (OR) Project was designed (a) to foster within the Asia region family planning research which would have direct implications for program management, and (b) to improve the capabilities of researchers to design, implement, and disseminate the findings from research studies. The project was based on the assumption that technically sound research which addresses issues relevant to the operations of national family planning programs can help to increase the availability and accessibility of contraceptive services. The OR Project had two specific objectives:

1. "To improve Asian family planning programs through focussed operations research closely linked to program planners and policy makers."

2. "To improve Asian national capacities for operations research design, implementation, and effective dissemination of findings."
Personnel supported under the OR contract consisted initially of one full-time position (Dr. Andrew A. Fisher), two 33 percent part-time positions (Drs. John Stoeckel and John Laing) and one 20 percent position (Dr. Barnett Baron) plus supporting staff. See Appendix A for a list of staff.

The USAID-Population Council contract outlined four principal Project activities to accomplish the objectives:

1. Conduct technical workshops of two kinds:
   a. 6 one week research review and development workshops for approximately 12 participants each.
   b. 4 technical support workshops of 2-3 days each.

2. Respond in a timely manner to AID Mission requests for technical assistance in the development and execution of family planning operations research.

3. Award approximately 10 subcontracts to conduct family planning operations research.

4. Disseminate the operations research results through workshops sponsored by others, seminars, oral communication, and publications in national or international journals including Studies in Family Planning.

The results of the OR project are summarized in the following section and compared against the contract obligations. Subsequent sections fully discuss these results.
### III. Summary of Project Results

#### CONTRACT OBLIGATIONS

1. Conduct 6 OR research review and development workshops for approx. 12 participants each; and conduct four technical support workshops.

2. Respond in a timely manner to AID Mission requests for research technical assistance.

#### SUMMARY OF OR PROJECT RESULTS

1. 6 OR proposal development workshops conducted, 3 in Thailand and 1 each in the Philippines, Nepal, India for 86 participants.

2. 4 technical support workshops conducted, 2 in Thailand and 1 each in the Philippines and Sri Lanka.

3. 1 proposal development workshop conducted with non-OR contract funds in Thailand.

4. Research technical assistance provided on request to AID Missions over 48 months for:
   a. workshop conducted for USAID personnel on "OR Methods and Techniques for proposal Review" (Thailand)
   b. evaluation of service delivery projects (Nepal, India)
   c. design of research proposals (Thailand, Philippines, Bangladesh)
   d. analysis of research data (Thailand, Philippines)
   e. contraceptive method target setting (Philippines, Thailand)
2. Research technical assistance provided to national family planning organizations, NGOs and PVOs over 48 months in the Philippines, Indonesia, Thailand, Bangladesh, Nepal, India, Sri Lanka for:

a. Proposal development
b. Study implementation
c. Data tabulation and computer programming
d. Data analysis
e. Report writing
f. Information dissemination
g. Research topic priority setting

3. Award approximately 10 OR subprojects

1. 14 subprojects funded by the OR Project
2. 12 study proposals developed by OR staff supported through Mission bi-lateral funds or other sources

4. Disseminate OR study results

1. 18 full OR reports completed and distributed (5 reports for NFP study)
2. 4 OR articles published and distributed as Council Regional Papers in Asia
3. 8 articles published in professional journals.

4. 2 articles currently under review for publication.

5. 7 papers presented at scientific conferences.


7. With other non-OR funds, 1,000 French copies and 2,000 Spanish copies of Handbook published.


9. End of subproject seminars held for 9 of 14 studies.

10. Executive summaries for all Philippine studies published in Selective Dissemination of Information
III. Family Planning Operations Research

A. The Process of OR

Operations research is a continuous process of problem identification and diagnosis, program experimentation and evaluation, and information dissemination and utilization. The process is designed to increase the efficiency and effectiveness of services delivered by providers; and the accessibility, availability, and acceptability of services desired by users.

The process of operations research is set in motion by the existence of a program problem. The problem might be in the area of training, supervision, management, information and education, or any number of other areas. The process begins with the identification of a problem area, continues through the design and implementation of research activities aimed at investigating the problem, and concludes with the dissemination and use of study results for overcoming the problem.

An active program of operations research implies: 1) a network of organizations with the institutional capacity to identify and support OR activities on a continuous basis; 2) an interested group of researchers who possess the methodological skills required to study a great variety of health and family planning related topics; and 3) administrators and policy makers who are willing to use the findings from operations research for program improvement. For several reasons, weakness in one or more of these areas has limited the potential of past health and
family planning operations research for improving program activities.

First, previous research studies often have addressed demo­
graphic, social, or economic correlates of family planning which
do not always have obvious implications for on-going program
activities. These studies have been somewhat less than useful as
a source of guidance for administrators who daily are faced with
an entire host of vexing questions concerning the most efficient
and cost effective means of delivering services. While program
administrators may be interested, for example, in knowing the
overall contraceptive prevalence rate for their country or the
theoretical value of children, typically they are more concerned
on a day-to-day basis with such questions as: What is the most
cost effective means of providing accurate information to large
numbers of rural people about the availability and use of family
planning and health care services? What type and length of
training should field workers receive? What is the most effec­tive
means of educating rural women about the potential side
effects of contraception? How can the quality of contraceptive
services be improved?

In general, these and similar operational questions have not
been carefully identified or addressed in past research. An
effective operations research program requires that a network of
health and family planning organizations be developed with the
capacity to identify on a continuous basis significant program
problems and address these problems through directed research
A second factor limiting the utility of past family planning operations research is the weak methodological quality of many of these efforts. Methodological problems often can be traced to the very beginning of the research process when a study proposal is formulated. In many proposals, research objectives are ambiguous or absent altogether, key independent and dependent variables are not identified let alone operationally defined, study areas and populations are not delineated, comparison areas and groups are not considered, data collection techniques are not specified, and analytic plans are not mentioned. Initial problems in these areas are subsequently compounded during the study implementation phase. A prerequisite to establishing an effective family planning operations research program is to improve the methodological skills of those persons who plan and conduct the research.

A third factor restricting the utility of past research has been a general failure to disseminate study results widely and in a form that is both understandable and usable by administrators and policy makers. Developing mechanisms to assure that there is a policy feedback loop for research is essential. This is particularly important for operations research. The use of scarce resources for OR can hardly be justified unless the research results are made known and used for program improvement.

Finally, a fourth factor limiting the utility of past family planning research studies is the obvious one. Many of these...
studies are outdated. Family Planning programs in Asia have changed rapidly in recent years. Issues that were important only five years ago are less so today. Similarly, new concerns have emerged that have not been adequately addressed by past studies. An effective operations research program implies a continuous review and updating of past studies plus an on-going search for emerging problem areas.

B. Types of OR Studies

Operations research studies can be classified under three headings:

1) **Exploratory/Diagnostic Studies.** These studies seek to determine the parameters of a problem situation. They examine the underlying factors influencing the effectiveness of programs. Exploratory/diagnostic studies are retrospective or cross sectional in design and are called for whenever there is a perceived program problem but the nature of the problem simply is not known. A key aspect of these studies is the search for programatically manipulable variables.

2) **Field Intervention Studies.** These studies test on an experimental basis new approaches to overcoming a program problem. In many situations, the factors responsible for a program problem are known but the most efficient and cost effective means of alleviating the problem are not known. Field intervention studies test new service delivery modes. These studies always are prospective and longitudinal and usually
employ either an experimental or quasi-experimental research design.

3) **Evaluative Studies.** Very often family planning service delivery programs are implemented for years but never assessed. In such cases, evaluative studies can be a valuable operations research approach for examining retrospectively or cross sectionally the effect of the program activities.

These three categories of OR studies are not mutually exclusive. Frequently a single OR study will begin with an exploratory phase to identify key manipulative variables. Once these variables have been identified, a field intervention will be implemented in a second phase of the study to test on an experimental basis one or more new approaches to service delivery. Finally, a third evaluative phase will be initiated to determine the impact of the intervention.

**C. The Methods of OR**

There is no single set of research methods unique to operations research. Indeed, it is not the application of a particular set of research methods which distinguishes OR from other forms of research. Rather, it is the central objective or focus of this type of research. Simply stated and in its broadest terms, the objective of operations research is to improve the delivery of services. While OR studies may employ experimental or nonexperimental research designs, and they may include an analysis of demographic processes or a theoretical
discussion of health and population issues, the central objective always is to obtain a better understanding of the "operations" of programs so that needed improvements can be made.

The selection of a particular research design or analytical technique for an OR study will be determined in large part by the study objectives, the resources available, and the capabilities of the investigators. At the same time, the selection of a research design is also influenced by the difficulty, particularly in field intervention studies, of using a true experimental design. The numerous unanticipated factors that tend to affect operations research studies usually force investigators to employ quasi-experimental research designs. These designs can be very effective in controlling threats to validity particularly if the research investigator follows three simple procedures:

1. Seeks multiple data sources to obtain information on the same variables.

2. Seeks multiple measurements over time of the same variables.

3. Seeks multiple replications of the study intervention in different field settings.
IV. Activities of the OR in Asia Project

A. Technical Workshops

In order to improve the quality of operations research proposals and at the same time upgrade the research skills of investigators, the Population Council designed and initiated a series of research proposal design workshops. Six of these were conducted: three in Bangkok for participants from the Asia region and one each in Nepal, India, and the Philippines for participants from these countries. In addition, and as an offshoot from the OR Project, the identical format (including a translation into Thai of the Handbook) was used in a workshop conducted by the Thai national family planning program.

In all, 86 participants from six countries attended the OR workshops and developed 46 family planning OR proposals. Approximately 46 percent of the participants were administrators or physician administrators. The remaining 54 percent were statisticians, program evaluators, or university lecturers who had some formal training in research, usually at the Masters degree level. See Appendix B for a listing of participants and proposals developed at the workshops.

The proposal development workshops were conducted over a six-day period and limited to approximately 15 participants. The primary objective was the development by each participant or group of participants working together of a technically sound family planning research proposal that subsequently could be implemented. Two or three OR staff acted as faculty and were
The entire six days. Guest lecturers were never used. The major sections of a research proposal were covered in sequence beginning with problem identification and definition, study design, sampling, data collection, tabulation and analysis, study budget, and plans for report dissemination. See Appendix C for the curriculum used in the workshops.

The only resource material used in the Workshops was the **Handbook for Family Planning Operations Research Design**. The Handbook provides a step-by-step guide to the design of an OR proposal. Initially, it was developed as a series of handouts for the workshop. After several revisions based on comments from participants and independent reviewers, it was published by the Population Council.

Like many training endeavours, the research design workshops are somewhat difficult to evaluate because the final outcomes of importance such as implemented studies and utilization of results depend on numerous other factors. The workshops are just one among many activities that constitute the process of operations research.

While it is possible to assess the workshops as isolated events with outcomes such as increased understanding of research methods, enthusiasm of participants, and the number of proposals drafted, this is not a particularly informative assessment and tends to focus on outcomes that are probably not the most important. The full value of the workshops lies in the extent to which they are integrated with pre- and post-workshop activities.
designed to facilitate study implementation and the utilization of research results.

Training is concerned with persons on a job and in an organization. Its objective is to improve the job-related knowledge and skills of the participants. As a discrete event lasting only six days (or even longer), it is unlikely to accomplish this objective. Training programs cannot be structured effectively to improve knowledge and skills without prior knowledge about the participants, the nature of their jobs and their organizations. Similarly, it is unlikely that training alone can have a lasting effect without the re-enforcement provided through post training follow-up. In our experience, pre-workshop contact and consultation with the participants and post-workshop technical assistance are the most important factors affecting whether or not a research study proposal is implemented.

The national workshops held in Nepal, India, and the Philippines lacked this type of pre-and post-workshop contact with the participants. These workshops tended to be discrete events unrelated to other operations research activities. The Population Council was invited to provide the faculty and the curriculum -- the Handbook. There was no prior opportunity to work on an individual basis with the participants and help them identify a problem situation amenable to operations research. As one result of this, many of the participants came to the national workshops without having a research topic in mind, and many left
with very rough proposals requiring substantial further revisions. Also, some of the participants were selected on the basis of criteria that had little to do with their interest in conducting research, their previous experience with research studies, or their organization's need for research information. Not surprisingly, many of these participants did not respond to follow-up contacts after the workshop. Only three of the 28 proposals developed at the workshops in India, Nepal, and the Philippines were subsequently funded and implemented.

In contrast, 7 of the 18 proposals developed at the Bangkok regional workshops were funded and implemented. All of the participants who attended these workshops were contacted before they came to Bangkok. Each was asked to select a program problem of particular concern to them and to collect as much information on the problems as they could find. In several cases, faculty worked closely and intensively with persons scheduled to attend.

In addition, considerable effort was devoted to contacting participants after the workshop. This was done through letters but more often through personal visits. Even the best study proposal developed by the most enthusiastic research group is likely to require revisions of one sort or another during the post-workshop period. Operations research field studies rarely proceed according to plan. Unanticipated events sometimes threaten the validity of the study and force changes in the research design.
Establishing procedures to provide technical assistance during the post-workshop period has been an important component of the overall operations research process followed by the Population Council. Every two or three months, one of the workshop faculty would visit with the researchers implementing OR studies. These visits were used to provide technical assistance in such areas as sampling, questionnaire construction, data collection, computer programming, and data analysis. In addition to individual consultation, at least once during the study implementation phase two-three day mini-workshops were held with investigators working on OR studies. These small workshops provided an opportunity to review progress and discuss common field implementation problems. They also provided an opportunity for the participants to plan for the final dissemination and utilization of their study findings. During the last two years of the OR Project, we held four of these investigators' workshops, two in Thailand and one each in the Philippines and Sri Lanka.

We have been particularly gratified to note that in Thailand, the National Family Planning Program (NFPP) has adopted an operations research model which fully integrates proposal development workshops with other activities. A research review committee of the NFPP establishes priority research topics each year. These topics are widely distributed to the research community in the country. Persons interested in conducting an
operations research study are invited to a proposal development workshop which is conducted in Thai and uses a Thai translation of the Handbook as the basic text. Two NFPP research assistants work with these persons before the proposal design workshop, during the workshop, and afterwards. Possibly because the Thai workshops are integrated with other research assistance activities, four of the six proposals developed at the first workshop have been funded with bi-lateral USAID Mission funds.

Beyond integrating the workshops into the larger process of operations research, we found that the value of the workshops was increased when an effort was made to select two or more participants from one area or organization who could work as a research team. Where this was possible, the team always consisted of an administrator and one or more research-oriented persons. The administrator helps ensure that the topic of the research is relevant to a current service delivery problems. As part of the study design and implementation team, the administrator is actively involved in all phases of the study and develops a commitment to using the findings for program improvement. Also, since the process of obtaining study approvals, setting up a bank account, hiring and supervising field staff is handled by the administrator, the other team members are free to concentrate on more technical research design and analysis issues.
B. Technical Research Assistance

Technical assistance lies at the heart of the operations research process. Through direct personal contact with program managers, researchers, and USAID Missions, we have been able to keep attuned to research developments and problems as they arise; provide direct assistance to host country colleagues; identify individuals who show promise for undertaking OR studies; support on-going research and evaluation efforts; help upgrade methodological skills of investigators; collaborate with national family planning programs in establishing procedures for identifying priority OR topics; and assist USAID Missions with needs assessments, research project development, and program evaluation. In Appendix D we have listed some of the individuals and institutions with whom we have worked directly. This list does not include donor agencies such as USAID Missions, UNFPA, Ford Foundation and others.

During the first two years of the Project a substantial proportion of OR staff time was devoted to assisting individual researchers. Usually, the assistance focussed on helping investigators identify priority research topics, define testable study objectives and hypotheses, select appropriate study designs, plan suitable analysis strategies, and formulate effective research dissemination and utilization plans. In the past eighteen months, our technical assistance has shifted to helping research groups with data tabulation, computer programming, data analysis, and
final report writing. For all of these tasks, OR staff have made frequent staff visits throughout the region to monitor on-going studies and to respond to specific requests for assistance. See Appendix E for a listing of all OR staff travel undertaken over the Project period.

Most of the 42 unsolicited research proposals reviewed by the OR staff as well as the 46 generated at workshops were submitted by mid-level research and evaluation officers of national family planning organizations or junior faculty members at provincial universities. Typically, those proposals which ultimately were approved and funded required four or more major revisions before they reached a stage where they could be considered methodologically acceptable. A list of unsolicited proposals received and reviewed is shown in Appendix F. Other proposals that were developed at workshops and reviewed by OR staff are listed in Appendix B.

The experience of the past four-and-a-half years suggests that the process of proposal development and subsequent study monitoring and completion is far more complex and time consuming than originally anticipated. Intensive OR staff assistance, often on a one-to-one basis, is required in order to develop operations research studies. In our view, without this type of individual assistance and focus on research skill development, particularly among mid-level officers, operations research is unlikely to become a widely used and accepted tool for program experimentation and improvement.
It would have been possible, of course, to reduce the amount of time devoted to technical assistance activities by commissioning studies with a few well known and highly capable institutions and individuals that exist within each country of the region. Certainly this approach has been used in the past and resulted in high quality national research endeavours. On the other hand, it has not succeeded in creating a cadre of research-oriented individuals at the mid-managerial level nor has it been particularly successful in internalizing a process among program administrators of questioning existing approaches, planning from a data base, or testing alternatives to existing service delivery approaches. Indeed, it can be argued that the commissioned study approach has tended to generate a belief among many that research is the pursuit of academics and has little practical value for helping to overcome day-to-day program problems.

Much of the activity undertaken as part of the OR Project has been educational in nature and designed specifically to upgrade research skills, demonstrate the utilitarian value of OR, and institutionalize the process of family planning operations research. We have made a conscious effort to identify and work with groups located outside of the major cities and research institutions in the region. We are pleased that eight of the 14 funded studies were conducted by research groups located at provincial institutions.
Beyond on-going technical assistance provided in connection with specific research studies, we have undertaken a number of special assignments at the request of USAID Missions or national family planning organizations. A brief description of the most important of these is given below:

1) **India.** At the request of the USAID Mission, Dr. John Laing visited India for 20 days during February 1982 and participated with other Council staff in a Population Sector Analysis. A comprehensive report was submitted to USAID/New Delhi in April 1982.

At the end of September 1982, Dr. Barnett Baron visited New Delhi at the request of the USAID Mission to develop a workplan for OR technical assistance to the USAID supported Integrated Rural Health Project (IRHP). During January 1983, Drs. Baron, Laing, Fisher, and OR consultant J.K. Satia spent three weeks in India reviewing the operations research component of IRHP. A detailed report with a set of specific recommendations regarding initiating operations research studies in five Indian states was given to the Mission and fully discussed in a seminar with concerned Indian officials. One outcome from this consultation visit was a research proposal development workshop held in New Delhi in May 1983 and conducted by Dr. Fisher and OR consultant M.E. Khan.

2) **Nepal.** At the request of the USAID Nepal Mission, Dr. John Stoeckel spent the week of March 15-20, 1982 in Kathmandu where
he designed the evaluation plan for the Ex-Servicemen's Family Planning Project. Dr. Andrew Fisher visited Nepal March 29 - April 8 to work with the Mission, the Nepal Population Commission, and the FP/MCH Project to collect data for the evaluation of this Project. Drs. Fisher and Stoeckel presented the Mission with a comprehensive evaluation report in May.

At the request of the Nepal Population Commission, Drs. Stoeckel and Fisher conducted a proposal development workshop in Kathmandu February 27 - March 4, 1983 for 21 participants from private research organizations.

3) Thailand Since early 1983, Dr. Fisher has been a member of the Thai Family Health Division's Research Review Committee. This committee meets 1) to set priority OR topics to be developed into research studies, 2) to review OR proposals, and 3) to recommend funding through USAID's bilateral population research program. At the request of the USAID Mission, Dr. Fisher and other OR staff have regularly reviewed proposals and commented on research studies. In addition, Drs. Laing and Fisher developed for the Mission a detailed request for research proposals on adolescent sexual activity and its consequences. They also conducted a three-day workshop for Mission personnel on techniques and methods for reviewing research proposals, (see curriculum in Appendix G).

All OR staff have maintained regular contacts with a number of Thai research institutions and provided technical assistance
Dr. Fisher regularly assisted the Asian Regional Training Centre of the Population and Community Development Association (PDA) with conducting research training courses. He also has helped review research proposals for the Mahidol University Asia and Pacific Academic Consortium for Public Health. Dr. Stoeckel has assisted researchers at the Institute of Population Studies of Chulalongkorn University and PDA with proposal development and data analysis. OR and other Council staff also assisted National Economic and Social Development Board with establishing contraceptive acceptor targets for the 6th Five-Year Plan. Mr. David Leon, an OR consultant, has assisted PDA and other institutions with computer programming and data processing.

4) **Bangladesh.** At the request of the Director General of the National Institute for Population Research and Training (NIPORT) Dr. Fisher visited Dhaka in February 1984 to discuss plans for conducting an in-country proposal development workshop. The curriculum for the workshop was discussed and multiple copies of the *Handbook* were given to NIPORT. In 1984, a workshop was conducted by NIPORT with Ford Foundation support.

In February 1985, at the request of the USAID Mission, Dr. Laing helped design a follow-up survey of condom and pill users to measure the continuation rates and use effectiveness associated with these methods. In December, after the survey contract had been awarded to PIACT/Bangladesh, Dr. Laing visited Dhaka to assist PIACT with the sampling scheme, the detailed
design of the questionnaires, and plans for data processing and analysis. (He will visit Dhaka again in April 1986 to continue the technical assistance with more detailed discussion of data processing, tabulation, and reporting plans.) During the December visit he also assisted the USAID mission in their efforts to assess the "gaps" between estimates of pill and condom use based on distribution figures on the one hand and survey data on the other.

5) Philippines. For most of the first three years of the OR Project, Dr. Laing resided in the Philippines and undertook a wide variety of research and evaluation activities as part of his bilaterally funded work. Following his move to Bangkok in June 1984, he continued to provide some assistance apart from monitoring and advising OR projects. Included among these other assistance activities were meetings with persons responsible for reviewing and evaluating program activities for USAID; reviews of and comments on reports arising from these reviews; comments on reports and papers assessing recent research findings, particularly controversial findings regarding fertility and contraceptive prevalence trends from the 1983 National Demographic Survey; consultancy with POPCOM officials to discuss and update program targets on the basis of new data; and consultancy with the University of the Philippines Population Institute on the design of the 1986 Contraceptive Prevalence Survey.
C. Research Subprojects

Over the life of the Project, a total of 88 study proposals were reviewed by the Population Council for possible support under the OR Project. In addition, OR staff reviewed and commented on a great number of other study proposals for USAID Missions and national family planning organizations.

The OR in Asia Project contract set a goal of funding ten studies. A total of $450,000 was allocated for this purpose. The entire allocation was spent and 14 studies were developed and directly supported by the OR Project. The only factor limiting the development and support of additional studies was the lack of funds and time under the contract. Indeed, another 12 studies developed with technical assistance from the OR staff were supported and implemented through other mechanisms. Thus, in total, 26 OR studies can be attributed to this Project. A list of these studies is shown in Appendix H.

Of the studies directly supported by the OR Project, one was diagnostic, three were program evaluative, and ten were experimental field intervention studies. Six of the studies were in the Philippines, six in Thailand, one in Sri Lanka, and one in Nepal. Summaries of each of these appear in Appendix I.

The studies employed a multiplicity of data collection and analytic techniques. For quantitative analysis, the primary data sources were service statistics and surveys of eligible couples. Intervention studies usually included a baseline and a follow-up survey in experimental and control areas. Most of the studies
involved efforts to obtain descriptive and qualitative data through such techniques as in-depth interviews of workers, couples, or program administrators. In addition, a number of the studies used focus group discussion and direct observation as data collection methods.

Several of the OR studies already have had an effect on policy and program decisions and others are likely to in the future. In Sri Lanka, for example, a seminar devoted exclusively to a consideration of the findings from the OR IUD study was chaired by the Minister of Health who took an active part in the discussion which lasted for three hours. At the end of the seminar and as a direct result of the study, the Minister gave his approval for training P.H. Nurses in IUD insertion technique and using them in rural clinics to increase IUD acceptance. He also gave his encouragement to the use throughout the country of satisfied contraceptive acceptors as motivators among their friends, relatives, and neighbors; and he suggested that the concept of satisfied acceptors should be extended to the promotion of other health practices such as oral rehydration.

In Thailand, the study by Napaporn and Knodel has been influential in demonstrating the utility of the focus group discussion technique as a method of obtaining valuable insights about family planning. Since their study, focus group methods have become a part of many studies in Thailand. Also in Thailand, the study by the Population and Community Development Association (PDA) has highlighted the potential importance of
community development incentives in family planning for helping to maintain contraceptors over long periods of time. Maintenance is a particularly important issue in Thailand where contraceptive prevalence levels are extremely high and the pool of non-contraceptors has decreased. Maintenance was also examined in an OR study in Khon Kaen which looked at the flip side of this issue, namely, method switching and the reasons for switching. In the southern part of Thailand, a study of grass roots workers (VHVs and VHCs) clearly indicated that most village people simply do not know about the services available from these workers but that the relatively simple approach of holding regular village meetings which covered health and family planning topics and introduced the workers to their constituents could have a substantial impact in a relatively short time on increasing knowledge and changing attitudes. The study also demonstrated that contraceptive prevalence rates could be raised in areas which previously had been resistant to family planning by allowing the VHV and the VHC to distribute pills and condoms.

In Nepal and in another study in southern Thailand, an attempt to calculate the cost effectiveness of family planning service delivery proved to be an impossible task. The cost effectiveness ratios generated by these studies are highly questionable at best and probably meaningless at worst given the numerous assumptions that had to be made. The basic problem was the difficulty of disaggregating family planning related cost and time factors from programs which are integrated with other health
services. Both of these studies strongly suggest that, despite the appeal of cost-effectiveness as an easily understandable measure of program performance, considerable caution should be exercised before attempting the calculation in order to assure that reasonably accurate and complete data is available.

In the Philippines, the OR in Asia Project supported the first national survey of natural family planning (NFP) users in Asia and possibly in the world. This survey was designed to provide both qualitative and quantitative analyses, not only of NFP practice but also of knowledge and attitudes about the various NFP methods in the user population. In addition to confirming numerous preliminary findings from earlier, more limited studies, the survey produced many useful new insights. For instance, it provided much more information than had previously been available concerning users' knowledge about NFP methods, which should be of great value to IEC specialists concerned with improving communications about NFP. It also provided the first detailed information concerning the range of formulas and procedures actually employed by couples attempting to use NFP methods, which should be useful for the design of IEC materials, training programs, and service delivery procedures. It documented the users' awareness of their own lack of knowledge about NFP and their desire for additional information and aids. It also revealed a much more widespread reliance than previously realized on the use of combinations of different NFP approaches, including a surprisingly varied range of unconventional
indicators, for greater protection as well as the use of back-up methods, mainly during the "unsafe" days but also in some cases during the "safe" days. The availability of such new information is particularly important at this time when intensive efforts are being made to harness the popularity of NFP methods in the Philippines and to develop strategies for improving their use-effectiveness.

The five intervention studies in the Philippines that were supported by the OR in Asia Project jointly illustrated numerous problems hampering POPCOM's Outreach Project, which is at the heart of the Philippine Family Planning Program. All five intervention studies, which were conducted in four different regions of the country, encountered serious operational difficulties which appear to have been traceable principally or in large part to inherent problems in the design of the Outreach Project. For instance, the POPCOM regional office undertook the implementation of the intervention for each of the five studies being tested, but all five interventions were hampered by divergences from instructions at the province, town, or village level over which the regional office had little or no control. The lack of control is a result of the fact that Outreach implementation below the regional level is autonomously administered by local governments, each of which contracts separately with POPCOM and contributes substantially to the local population program costs. POPCOM serves largely as a technical resource, providing training, supplies, and guidance, but has
very little operational control in the field. Thus, though all five intervention studies fell short of complete success in implementing the specific interventions they were designed to test, their analyses of implementation problems jointly provided much useful documentation of pervasive weaknesses of the family planning program as a whole.

D. Information Dissemination

Under the OR Project, two types of information were disseminated to two different groups: 1) Information on research methods and procedures for persons who conduct operations research; 2) Information on OR findings and their implications for potential users of such findings. The first is directed primarily, but not exclusively, towards researchers while the second is directed more towards managers and policy makers.

In the first category, our primary output was the Handbook for Family Planning Operations Research Design published by the Population Council in October 1983. Five thousand copies of the Handbook were initially printed. As of April 1986, all five thousand have been distributed free of charge primarily in Asia but also elsewhere in the world. An additional 2,500 copies are now being printed. The Population Council also has printed 1,000 French copies of the Handbook for use in Africa and 2,000 Spanish copies for use in Central and South America. In Asia, the Handbook has been translated and printed in Thai. Plans are
currently underway to translate it into Bahasa Indonesia.

Apart from the Handbook, we have written and published a series of articles which deal with various methodological issues important to conducting operations research. These articles have appeared first in the Population Council's Regional Research Papers series which is sent to approximately 250 persons in Asia. Subsequently, several of these papers have been published in the Council's Studies in Family Planning. The major research methods articles written, printed, and distributed are the following:

1) Fisher, Andrew A. and Raymond Carlaw, "Family Planning Field Research: Balancing Internal Against External Validity."

2) Fisher, Andrew A., John Laing, and John Stoeckel, "Research Designs for Family Planning Field Studies."


4) Laing, John, "Continuation and Effectiveness of Contraceptive Practice: A Cross-Sectional Approach."


The second area of our information dissemination effort was directed at managers and policy makers. The full reports of all completed studies have been distributed on a limited basis. Short versions of most of these studies have been published and distributed as Regional Research Papers. Others have been published in international journals such as Studies in Family Planning. In the Philippines, executive summaries of all OR studies completed in that country have appeared in POPCOM's
Selective Dissemination of Information.

In addition to publications, we have presented six papers at international conferences and another two will be presented in 1986. Nine of the 14 studies have been presented at end-of-study seminars and many of the Thai studies will be presented at a large conference scheduled for mid-1986.

A complete list of all OR generated publications, regional papers, conference publications, and reports appears below:
OPERATIONS RESEARCH INFORMATION DISSEMINATION REPORTS

PUBLICATIONS


ARTICLES UNDER EDITORIAL REVIEW


POPULATION COUNCIL REGIONAL RESEARCH PAPERS FOR SOUTH AND EAST ASIA

1. Fisher, Andrew A., John Laing, John Stoeckel, "Research Designs for Family Planning Field Studies"

2. Stoeckel, John, Andrew A. Fisher, Mechai Viravaidya, Rachitta Na Pattalung, "Increasing Family Planning Acceptance Through Development Programs: An Experimental Study in Northeastern Thailand"


4. Research Staff Porntip Pongsupaht, Rachanee Kalayakunavuti, Sujitra Jorajit and Saowapa Meetawornkul, "Promoting Family Planning Through Village-Level Meetings and Volunteer Workers in Southern Thailand"

CONFERENCE PRESENTATIONS


PAPERS TO BE PRESENTED IN 1986 AT CONFERENCES


REPORTS AND OTHER PAPERS


V. Comments on Family Planning Operations Research

After four and a half years working on this project, we have gained a number of insights about the process and potential for OR to influence policy and program change. Our comments on family planning operations research are given below:

1. Proposal Development Workshops. We strongly believe that the proposal development workshops are successful only when fully integrated into an ongoing process of operations research which includes intensive pre- and post-workshop technical assistance with participants. When this type of assistance is not possible, as was the case with three workshops, viable OR proposals which subsequently can be funded and implemented are not likely to emerge. We would recommend against conducting proposal development workshops as discrete, one-time events unrelated to other OR activities. We also would caution against trying to turn the proposal development workshops into an academic course on research methodology.

2. Technical Research Assistance. Repeatedly we have stressed that technical assistance lies at the heart of the operations research process. In our experience, most OR studies are conducted by mid-level program managers and researchers. These persons often require assistance throughout the research study design, implementation, and analysis phases. OR proposals usually require four or more drafts before they reach an
acceptable level. Final reports usually require an equal number of drafts. Between the proposal development and final report phases there are numerous times when technical assistance is needed. Indeed, the range of technical assistance skills required to implement effectively an operations research program is broad in scope. This suggests the need for a technical assistance team which possesses skills in a variety of areas such as training, research methodology, data analysis, computer programming, organizational development, supervision and consultation, information dissemination, report writing and editing.

3. **Operations Research Subprojects.** As a means of influencing service delivery improvements, operations research studies are most effective in situations where relatively simple, "fine tuning" changes are required rather than in situations where major, systemic changes are needed. In general, the "fine tuning" changes are required in countries which have relatively high prevalence levels and fairly active field operations, or where discrete and manageable program problems can be isolated and resolved. Low prevalence rates and inactive field operations are usually indicative of broaden systemic problems that require a more comprehensive approach to program improvement.

4. **Information Dissemination.** Considerable time and resources need to be devoted in OR Projects to information dissemination activities. There is a tendency to focus on the development and
completion of studies and neglect subsequent information dissemination activities. In part, this is because funds required for these activities often are not budgeted. Also, many projects, including this one, simply run out of time to devote full attention to information dissemination.

5. **Cost-Effectiveness Analysis.** Our attempt to include a cost-effectiveness analysis as part of most OR studies was a failure. The main problem, as noted earlier, is the difficulty of disaggregating costs. While we believe that cost-effectiveness analysis can be an important tool for managers, this is only true when the assumptions used in the analysis are reasonable. In our experience, most of the assumptions were unreasonable and hence the analysis was meaningless.

6. **The Educational Aspect of Operations Research.** We have noted in the past that many of the activities undertaken as part of the OR Project were educational in nature. Indeed, we believe strongly that AID funded OR Projects must be viewed in large part as an educational process for improving individual research skills and expanding institutional research capacity. The goal of these projects is not only the production of studies which have potential program implications, but also the development of a strong individual and institutional commitment to conducting and utilizing OR for program improvement.
PART TWO: SUBPROJECT SUMMARIES
Title: An Experimental Field Research Study to Increase IUD Acceptance in Sri Lanka

Location: Sri Lanka

Sponsoring Institutions: The Family Health Bureau of the Ministry of Health and The Family Planning Association of Sri Lanka

Principal Investigators:
- Dr. N.W. Vidyasagara, Director, M.C.H.
  Family Health Bureau
- Mr. Daya Abeywickrama, Executive Director
  Family Planning Association
- Dr. Kusum Wickremasooriya, Head Evaluation Division
  Family Health Bureau
- Mr. S. Victor de Silva, Evaluation and Research Consultant
  Family Planning Association

Starting Date: June 1983

Completion Date: August 1985
**Problem Situation**

Remarkable progress has been made over the past few years by the Sri Lankan national family planning program. Overall, there has been a significant expansion of services throughout the country. The total number of new acceptors increased from 109,639 in 1975 and 171,160 in 1980. While this increase is certainly encouraging, an examination of family planning performance statistics indicates some problem areas.

In the past several years, there has been a marked shift in the contraceptive mix. In particular, the annual number of new IUD acceptors declined from 32,755 in 1975 to 14,834 in 1981 and this decline occurred in every area of the country. The contraceptive prevalence survey (1981) revealed that contraceptive use among currently married women (15-49) had increased since 1975 for all methods except the IUD which showed a decline from 4.7 percent in 1975 to 2.5 percent in 1981.

This decline in new IUD acceptors has been a cause for concern among Government planners and program administrators. Although the IUD requires trained personnel for insertion, as a method it is highly effective and is a less costly means of contraception than other temporary and reversible methods.

The decline in IUD popularity is probably due, at least in part, to the recent emphasis on sterilization and to the introduction of injectables. Nevertheless, it seems unlikely that these two factors alone are responsible for a drop of 54.7 percent over a six-year period. Other factors, in addition to the emphasis on sterilization and the introduction of injectables probably played a significant role. A 1981 study by the Family Planning Association of Sri Lanka indicated that the reasons for the recent decline in IUD use inclined the following:

1) A wide-spread belief among potential acceptors that the IUD is associated with unacceptable side effects.

2) A lack of adequate services in some areas, particularly where there is a shortage of trained physicians or others to do the IUD insertions.

3) Inadequate attention to pre-insertion counselling and post insertion follow-up that might help lessen the anxiety among clients.

4) Improper insertion technique among providers of IUD services.
Study Objectives

An experimental operations research field study was conducted by the Family Health Bureau (FHB) of the Ministry of Health (MOH) and the Family Planning Association (FPA) of Sri Lanka. The primary objective of this study was to increase the number of new IUD acceptors in Sri Lanka, and at the same time, to encourage the use of temporary, effective spacing methods of contraception.

The immediate objectives of the experimental operations research IUD study were:

a) To identify and use satisfied IUD acceptors as recruiters, counsellors, motivators, and follow-up personnel for new IUD clients;

b) To encourage women using less effective methods of contraception to switch to the use of the IUD;

c) To train rural government midwives and satisfied IUD acceptors as a recruitment, counselling, motivation, and follow-up team;

d) To train Public Health Nurses in IUD insertion techniques, particularly in areas where physician services are lacking or only irregularly available;

e) To retrain medical officers of health, (physicians) registered medical practitioners (RMP) and assistant medical practitioners (AMP) in IUD insertion techniques.

Hypotheses:

1) Community residents who also are satisfied IUD acceptors can help the government public health midwife increase significantly the number of new IUD acceptors recruited in a year.

2) New IUD acceptors who receive pre-insertion counselling and post-insertion follow-up by a government midwife and a satisfied acceptor will be less likely to complain about side effects and less likely to have the IUD removed than women who have received counselling or follow-up from only a government midwife.

3) A program that emphasizes the use of the IUD as an effective but temporary contraceptive method will result in women switching from the use of less effective methods such as rhythm and withdrawal to the use of the IUD.
4) Women who have an IUD inserted by a trained public health nurse or a RMP/AMP will not differ from women who have had an IUD inserted by a trained physician in terms of expulsion rate, removal/withdrawal rate, and the incidence of side effects.

Research Design:

Three primary activities were undertaken to accomplish the above-stated objectives. First, satisfied IUD users were teamed with government midwives and then given a short training course designed to help them increase IUD motivational and recruitment efforts. Second, physicians, registered medical practitioners (RMP), and assistant medical practitioners (AMP) were re-trained in IUD insertion techniques. Public health nurses were trained for the first time in these techniques. Third, the facilities of rural clinics were upgraded so that insertions could be done safely and effectively.

The study was conducted over a two-year period from the summer of 1983 through the summer of 1985. Experimental and comparison sites were selected in each of the 9 provinces of the country. For administrative purposes, the Ministry of Health has divided the provinces into Medical Officer of Health (MOH) areas.

The study was implemented in six MOH divisions. An additional six MOH divisions were used as matched comparison areas. In the experimental MOH divisions, half of the midwives were randomly chosen to be teamed with satisfied IUD acceptors. Each of these midwives selected four satisfied IUD acceptors with whom to work. The area where teams were formed was called experimental area I. Midwives who were not teamed with satisfied acceptors motivators (SAMS) worked alone in areas designed experimental area II. In all, there were 99 midwives and 423 SAMS in experimental area I, 123 midwives in experimental area II, and 201 midwives in the comparison area. The intervention phase of the study covered a thirteen-month period from January 1984 through January 1985. Throughout this period, a study monitoring system collected data on new IUD acceptors in both the experimental and the comparison MOH divisions. Upon completion of the study final post-intervention survey was undertaken during June, July and August of 1985. The survey was conducted among a sample of women who had an IUD insertion between January 1, 1984 and January 31, 1985. A total of 1,217 IUD users were interviewed.
Major Study Findings

1) The primary objective of this experimental operations research field study was to increase the number of new IUD acceptors in the six Experimental MOH Divisions. Unquestionably, this objective was achieved (See Table 1 and Figure 1). A total of 3,019 new IUD acceptors were recruited in the Experimental Areas during the 13 month study period. Although these areas account for only 6.1 percent of Sri Lanka's total population, they contributed 17.3 percent of the island's total new IUD acceptors during the study period from January 1984 through January 1985. In contrast, the six MOH Comparison Areas with 6.5 percent of the country's total population contributed only 7 percent of all new IUD acceptors during the study period.

2) A time series regression analysis of the data showed that there was a significant difference between the Experimental and the Comparison Areas in terms of new IUD acceptors recruited each month (See Table 2). On the average, the analysis revealed that in the Experimental MOH Areas 117 new IUD acceptors were recruited each month over and above the number recruited in the Comparison Areas.

3) An analysis of the differences between the mean number of new IUD acceptors recruited per Midwife also showed a highly significant difference between the Experimental and Comparison Areas (See Table 3 and 4). On the average during the 13-month study period, a Midwife in Experimental Area I recruited 16 new IUD acceptors compared with approximately 10 in Experimental Area II and only 6 in the Comparison Area.

4) Teaming Government Midwives with satisfied IUD acceptors seems to have had the desired effect of greatly increasing the number of new IUD acceptors. On the other hand, the SAMs did not have an effect on decreasing IUD termination rates (See Figure 2). These rates appear to have been affected by other aspects of the study program such as the IUD insertion technique training provided to physicians, RMP, AMP, and P.H. Nurses. At eighteen months, for example, the IUD termination rate for both the Experimental I and II Areas was 17.6 percent compared to 25.4 for the Comparison Areas (See Table 5).

5) A final and important finding from this study is that P.H. Nurses can be trained to become effective providers of IUD services. New acceptors who had an IUD inserted by a trained Public Health Nurse were no more likely to express complaints than new acceptors who had an IUD inserted by either a physician or an RMP or AMP (See Table 6). Moreover, at six, twelve, and eighteen months there was no significant difference in terms of IUD termination rates between acceptors who had the IUD inserted by a physician, AMP, RMP, or a Public Health Nurse (See Table 7).
Program Implications

The findings summarized above have a number of important program and policy implications for the family planning and maternal child health programme in Sri Lanka.

First, this experimental study has demonstrated that local residents who are current and satisfied users of a contraceptive method can be used as volunteer recruiters and motivators among their friends, relatives, and neighbors. Initially, when the study began, there was some concern that women in rural areas might be reluctant to publicly identify themselves as current contraceptive method users, and would be hesitant about becoming volunteer motivators and recruiters. This need not be a concern in the future. The Midwives had no difficulty obtaining the voluntary services of satisfied IUD acceptors. Indeed, there were more women willing to work with the Midwives than the study could accommodate. Based on our experience with this study we believe that one of the key factors to using volunteers in family planning work is to give them very defined and limited activities and at the same time provide continuous encouragement and reinforcement through periodic group meetings. In our opinion there is no reason why satisfied acceptor motivators cannot be used throughout the island to promote the IUD or other contraceptive methods. Indeed, volunteer workers also could be used to promote various primary health practices such as oral rehydration therapy.

Second, this study strongly suggests that the IUD can become, as it was in past years, an important method of choice for many women. While it seems likely that most women who accept an IUD will experience some initial discomfort and express one or more complaints about the method, termination rates can be reduced significantly through a programme of training for service providers. The training should focus on developing insertion technique skills and on providing clients with both pre- and post-insertion counselling and support. At the same time, it is important to upgrade the facilities of rural clinics so that insertions can be done safely and the acceptor can be made to feel comfortable.

Third, the availability of IUD services can be expanded greatly by using Public Health Nurses to do insertions. In this study, 217 women had an IUD inserted by a Public Health Nurse trained for this activity. These women were no more likely to express complaints about the IUD than women who had an insertion done by a physician, a RMP, or a AMP. Also, these women were no more likely to terminate IUD use than other women.
Table 1: NEW IUD ACCEPTORS FOR ALL SRI LANKA, THE EXPERIMENTAL AREAS AND THE COMPARISON AREAS, 1980 THROUGH JAN. 1985

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All Sri Lanka</td>
<td>17,000</td>
<td>14,834</td>
<td>16,115</td>
<td>16,328</td>
<td>16,140</td>
<td>1,284</td>
</tr>
<tr>
<td>Experimental MOH Areas</td>
<td>1,603</td>
<td>1,185</td>
<td>1,324</td>
<td>1,506</td>
<td>2,813</td>
<td>206</td>
</tr>
<tr>
<td>Experimental Areas As Percent of all Sri Lanka Total</td>
<td>9.4</td>
<td>8.0</td>
<td>8.2</td>
<td>9.2</td>
<td>17.4</td>
<td>16.0</td>
</tr>
<tr>
<td>Comparison MOH Areas</td>
<td>1,480</td>
<td>945</td>
<td>1,040</td>
<td>1,567</td>
<td>1,113</td>
<td>105</td>
</tr>
<tr>
<td>Comparison Areas As Percent of all Sri Lanka Total</td>
<td>8.7</td>
<td>6.4</td>
<td>6.5</td>
<td>9.6</td>
<td>6.9</td>
<td>8.2</td>
</tr>
</tbody>
</table>

Source of data is Government FHB
Figure 3

Sri Lanka
New IUD Acceptors
In Study Areas

Experimental
Areas

Start of
Project

Comparison
Areas

New Acceptors

Months
Table 2 GENERALIZED LEAST SQUARES TIME SERIES REGRESSION ANALYSIS OF THE EFFECT OF SEASONALITY AND THE PROGRAM INTERVENTION ON MONTHLY IUD ACCEPTANCE OVER A FIVE-YEAR PERIOD IN THE EXPERIMENTAL AND COMPARISON AREAS.

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Regression Coefficients</th>
<th>Coefficient Standard Error</th>
<th>T-Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Month:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>-8.62</td>
<td>11.65</td>
<td>-0.74</td>
</tr>
<tr>
<td>February</td>
<td>2.18</td>
<td>13.85</td>
<td>0.16</td>
</tr>
<tr>
<td>March</td>
<td>35.82</td>
<td>14.72</td>
<td>2.43*</td>
</tr>
<tr>
<td>April</td>
<td>-25.22</td>
<td>15.08</td>
<td>-1.67</td>
</tr>
<tr>
<td>May</td>
<td>19.65</td>
<td>15.23</td>
<td>1.29</td>
</tr>
<tr>
<td>June</td>
<td>23.75</td>
<td>15.26</td>
<td>1.56</td>
</tr>
<tr>
<td>July</td>
<td>29.23</td>
<td>15.23</td>
<td>1.92</td>
</tr>
<tr>
<td>August</td>
<td>29.17</td>
<td>15.08</td>
<td>1.93</td>
</tr>
<tr>
<td>September</td>
<td>13.19</td>
<td>14.72</td>
<td>0.90</td>
</tr>
<tr>
<td>October</td>
<td>-4.50</td>
<td>13.84</td>
<td>-0.33</td>
</tr>
<tr>
<td>November</td>
<td>-6.00</td>
<td>11.55</td>
<td>-0.52</td>
</tr>
<tr>
<td>Program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention</td>
<td>117.22</td>
<td>15.04</td>
<td>7.80**</td>
</tr>
</tbody>
</table>

SUMMARY STATISTICS

OLS Mean = 122.0, Standard Deviation = 53.5
Intercept = 56.03 (a)
Lag Coefficient = .44
Durbin - Watson d = 1.11
OLS Box - Pierce Statistic = 54.94 d.f. = 24 **
GLS Box - Pierce Statistic = 12.23 d.f. = 19 (n.s.)
F = 8.90 **

Source of data is Government FHB

(a) December is the omitted class. The intercept is the December mean

* p .05
** p .001
Table 3 MEAN NUMBER OF NEW IUD ACCEPTORS RECRUITED PER MIDWIFE IN THE SIX EXPERIMENTAL I AND II AREAS AND THE SIX COMPARISON AREAS DURING THE 13-MONTH STUDY PERIOD

<table>
<thead>
<tr>
<th>Area and MOH</th>
<th>Midwives Per MOH</th>
<th>Total New IUD Acceptors in 13 Months</th>
<th>Mean New IUD Acceptors Per Midwife</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experimental Area I (Midwife + SAM)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kadugumnawa</td>
<td>16</td>
<td>294</td>
<td>18.37</td>
</tr>
<tr>
<td>Unawatuna</td>
<td>15</td>
<td>261</td>
<td>17.40</td>
</tr>
<tr>
<td>Bandarawela</td>
<td>16</td>
<td>206</td>
<td>12.87</td>
</tr>
<tr>
<td>Panadura</td>
<td>19</td>
<td>136</td>
<td>7.16</td>
</tr>
<tr>
<td>Kekirawa</td>
<td>18</td>
<td>413</td>
<td>22.93</td>
</tr>
<tr>
<td>Mawathagama</td>
<td>15</td>
<td>257</td>
<td>17.13</td>
</tr>
<tr>
<td><strong>Overall Mean for Experimental Area I</strong></td>
<td></td>
<td></td>
<td><strong>15.98</strong></td>
</tr>
<tr>
<td><strong>Experimental Area II (Midwife Alone)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kadugumnawa</td>
<td>18</td>
<td>245</td>
<td>13.61</td>
</tr>
<tr>
<td>Unawatuna</td>
<td>11</td>
<td>121</td>
<td>11.00</td>
</tr>
<tr>
<td>Bandarawela</td>
<td>17</td>
<td>148</td>
<td>8.71</td>
</tr>
<tr>
<td>Panadura</td>
<td>28</td>
<td>154</td>
<td>5.50</td>
</tr>
<tr>
<td>Kekirawa</td>
<td>28</td>
<td>285</td>
<td>10.18</td>
</tr>
<tr>
<td>Mawathagama</td>
<td>21</td>
<td>215</td>
<td>10.24</td>
</tr>
<tr>
<td><strong>Overall Mean for Experimental Area II</strong></td>
<td></td>
<td></td>
<td><strong>9.87</strong></td>
</tr>
<tr>
<td><strong>Overall Mean for Combined Experimental Areas I and II</strong></td>
<td></td>
<td></td>
<td><strong>12.62</strong></td>
</tr>
<tr>
<td><strong>Comparison Areas</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kahatagasdigiliya</td>
<td>27</td>
<td>148</td>
<td>5.48</td>
</tr>
<tr>
<td>Welimada</td>
<td>37</td>
<td>185</td>
<td>5.00</td>
</tr>
<tr>
<td>Moratuwa</td>
<td>34</td>
<td>264</td>
<td>7.76</td>
</tr>
<tr>
<td>Ambalangoda</td>
<td>32</td>
<td>289</td>
<td>9.03</td>
</tr>
<tr>
<td>Werellagama</td>
<td>46</td>
<td>104</td>
<td>2.26</td>
</tr>
<tr>
<td>Polgahawella</td>
<td>25</td>
<td>228</td>
<td>9.12</td>
</tr>
<tr>
<td><strong>Overall Mean for Comparison Area</strong></td>
<td></td>
<td></td>
<td><strong>6.44</strong></td>
</tr>
</tbody>
</table>

Source of data is CLINIC Cards
Table 4 ONE-WAY ANALYSIS OF VARIANCE OF THE MEAN NUMBER OF NEW IUD ACCEPTORS RECRUITED PER MIDWIFE IN EXPERIMENTAL AREA I, EXPERIMENTAL AREA II, AND THE COMPARISON AREA

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>D.F.</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>2</td>
<td>280.09</td>
<td>140.05</td>
<td>9.68</td>
<td>.002</td>
</tr>
<tr>
<td>Within</td>
<td>15</td>
<td>217.12</td>
<td>14.47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>497.21</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group (Area)</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
<th>99 Percent Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental I</td>
<td>6</td>
<td>15.98</td>
<td>5.39</td>
<td>2.20</td>
<td>10.3-21.6</td>
</tr>
<tr>
<td>Experimental II</td>
<td>6</td>
<td>9.87</td>
<td>2.68</td>
<td>1.09</td>
<td>7.1-12.7</td>
</tr>
<tr>
<td>Comparison</td>
<td>6</td>
<td>6.44</td>
<td>2.69</td>
<td>1.10</td>
<td>3.62-9.26</td>
</tr>
</tbody>
</table>

$t$ Test for difference between means for Experimental Areas I and II = 2.27 with d.f. = 10 (Significant at $p .05$ two tailed test and $p .025$ one tailed)

$t$ Test for the difference between means for Experimental Area II and the Comparison Area = 2.01 with d.f. = 10 (not significant at $p .05$ for two tailed test but significant for one tailed test).

Source of data is CLINIC Cards
Figure 2
Sri Lanka
Age Standardized Cumulative Gross IUD Termination Rates for Study Areas

Comparison Areas

Experimental Area I (Midwife with SAM)

Experimental Area II (Midwife alone)
Table 5  AGE STANDARDIZED CUMULATIVE GROSS IUD TERMINATION RATES FOR SPECIFIC REASONS AT MONTHS 6, 12, AND 20 BY EXPERIMENTAL AND COMPARISON AREAS

<table>
<thead>
<tr>
<th>Reasons for Terminating IUD Use</th>
<th>Area</th>
<th>Probability of Terminating at Month</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>1) Got Pregnant</td>
<td>a. Midwife + SAM</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>b. Midwife Alone</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>c. Comparison Area</td>
<td>0.003</td>
</tr>
<tr>
<td>2) Want Child</td>
<td>a. Midwife + SAM</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>b. Midwife Alone</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>c. Comparison Area</td>
<td>0.00</td>
</tr>
<tr>
<td>3) IUD Expelled</td>
<td>a. Midwife + SAM</td>
<td>0.036</td>
</tr>
<tr>
<td></td>
<td>b. Midwife Alone</td>
<td>0.053</td>
</tr>
<tr>
<td></td>
<td>c. Comparison Area</td>
<td>0.081</td>
</tr>
<tr>
<td>4) Change Methods</td>
<td>a. Midwife + SAM</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>b. Midwife Alone</td>
<td>0.006</td>
</tr>
<tr>
<td></td>
<td>c. Comparison Area</td>
<td>0.011</td>
</tr>
<tr>
<td>5) Side Effects</td>
<td>a. Midwife + SAM</td>
<td>0.010</td>
</tr>
<tr>
<td></td>
<td>b. Midwife Alone</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>c. Comparison Area</td>
<td>0.043</td>
</tr>
<tr>
<td>6) Other/Personal</td>
<td>a. Midwife + SAM</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>b. Midwife Alone</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>c. Comparison Area</td>
<td>0.000</td>
</tr>
<tr>
<td>7) ALL REASONS</td>
<td>a. Midwife + SAM</td>
<td>0.059</td>
</tr>
<tr>
<td></td>
<td>c. Midwife Alone</td>
<td>0.076</td>
</tr>
<tr>
<td></td>
<td>d. Comparison Area</td>
<td>0.133</td>
</tr>
</tbody>
</table>

* Indicates a statistically significant difference (adjusted Chi Square, p < .03) between the Experimental Area (either I or II) and the Comparison Area. There was no statistically significant difference between Experimental Area I and II.

Source of data is from SURVEY 54
TABLE 6  PERCENT OF NEW IUD ACCEPTORS IN EXPERIMENTAL AND COMPARISON AREAS WHO EXPRESSED SPECIFIC COMPLAINTS BY PERSON WHO INSERTED THE IUD.

<table>
<thead>
<tr>
<th>Specific Complaint</th>
<th>Study Area</th>
<th>Person Who Inserted IUD</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Doctor</td>
<td>AMP/RMP</td>
<td>PHN</td>
<td></td>
</tr>
<tr>
<td>1) Abdominal Pain</td>
<td>a. Midwife + SAM</td>
<td>55.9</td>
<td>57.0</td>
<td>50.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Midwife Along</td>
<td>54.3</td>
<td>48.4</td>
<td>46.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Comparison Area</td>
<td>63.8</td>
<td>57.7</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>2) Backache</td>
<td>a. Midwife + SAM</td>
<td>52.8</td>
<td>54.2</td>
<td>50.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Midwife Alone</td>
<td>54.8</td>
<td>45.2</td>
<td>45.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Comparison Area</td>
<td>56.2</td>
<td>46.2</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>3) Weakness</td>
<td>a. Midwife + SAM</td>
<td>45.8</td>
<td>47.7</td>
<td>41.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Midwife Alone</td>
<td>54.8</td>
<td>45.2</td>
<td>45.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Comparison Area</td>
<td>41.5</td>
<td>38.5</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>4) Irregular Menses</td>
<td>a. Midwife + SAM</td>
<td>51.4</td>
<td>52.3</td>
<td>42.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Midwife Alone</td>
<td>52.9</td>
<td>50.0</td>
<td>29.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Comparison Area</td>
<td>43.4</td>
<td>38.5</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>5) Menorrhagia</td>
<td>a. Midwife + SAM</td>
<td>51.7</td>
<td>55.1</td>
<td>53.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Midwife Alone</td>
<td>61.1</td>
<td>58.1</td>
<td>49.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Comparison Area</td>
<td>55.1</td>
<td>46.2</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>6) Dysmenorrhea</td>
<td>a. Midwife + SAM</td>
<td>38.5</td>
<td>36.4</td>
<td>33.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Midwife Alone</td>
<td>46.2</td>
<td>37.1</td>
<td>28.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Comparison Area</td>
<td>42.6</td>
<td>21.2</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>7) Spotting</td>
<td>a. Midwife + SAM</td>
<td>12.2</td>
<td>15.9</td>
<td>12.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Midwife Alone</td>
<td>17.6</td>
<td>17.7</td>
<td>18.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Comparison Area</td>
<td>20.0</td>
<td>28.8</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>8) White Discharge</td>
<td>a. Midwife + SAM</td>
<td>46.9</td>
<td>49.5</td>
<td>44.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Midwife Alone</td>
<td>47.5</td>
<td>46.8</td>
<td>36.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Comparison Area</td>
<td>49.8</td>
<td>69.2</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>9) Weight Loss</td>
<td>a. Midwife + SAM</td>
<td>61.9</td>
<td>47.7</td>
<td>55.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Midwife Alone</td>
<td>53.4</td>
<td>61.3</td>
<td>45.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Comparison Area</td>
<td>52.5</td>
<td>42.3</td>
<td>--</td>
<td></td>
</tr>
</tbody>
</table>

**CELL NUMBERS**

<table>
<thead>
<tr>
<th></th>
<th>a. Midwife + SAM</th>
<th>b. Midwife Alone</th>
<th>c. Comparison Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>286</td>
<td>221</td>
<td>265</td>
</tr>
<tr>
<td></td>
<td>107</td>
<td>62</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>122</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Seven IUD insertions in the Comparison Area were done by PHNs. These cases were not included in the analysis.

Data source is from the post intervention SURVEY

55
### TABLE 7 AGE STANDARDIZED TOTAL GROSS IUD LIFE TABLE TERMINATION RATES WITHIN EXPERIMENTAL AND COMPARISON AREAS BY TYPE OF IUD SERVICE PROVIDER DOING INSERTION AT MONTHS SIX, TWELVE, AND EIGHTEEN

<table>
<thead>
<tr>
<th>Type of service provider doing IUD insertion</th>
<th>Probability of terminating Use at Month</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
</tr>
<tr>
<td>EXPERIMENTAL AREA I*</td>
<td></td>
</tr>
<tr>
<td>Physician</td>
<td>.045</td>
</tr>
<tr>
<td>AMP/RMP</td>
<td>.069</td>
</tr>
<tr>
<td>P.H. Nurse</td>
<td>.087</td>
</tr>
<tr>
<td>EXPERIMENTAL AREA II*</td>
<td></td>
</tr>
<tr>
<td>Physician</td>
<td>.078</td>
</tr>
<tr>
<td>AMP/RMP</td>
<td>.035</td>
</tr>
<tr>
<td>P.H. Nurse</td>
<td>.105</td>
</tr>
<tr>
<td>COMPARISON AREA*</td>
<td></td>
</tr>
<tr>
<td>Physician</td>
<td>.118</td>
</tr>
<tr>
<td>AMP/RMP</td>
<td>.220</td>
</tr>
</tbody>
</table>

*Indicates that within each study area, the differences between service providers are not statistically significant at $p > .05$.

Source of data is from SURVEY
Title: Collecting Village Level Data to Permit an Analysis of the Impact of Contraceptive Availability and Accessibility on Reproductive Change, 1969-1979

Location: Thailand

Sponsoring Institution: Institute of Population Studies, Chulalongkorn University

Principal Investigators: Napaporn Chayovan, Nibhon Debavalya, Apichat Chamrathrithirong, John Knodel

Starting Date: January 1983

Completion Date: February 1984
Problem Situation

The coincidence of the rapid increase in contraceptive prevalence in Thailand, the rapid decline in fertility, and the establishment, expansion, and evolution of the National Family Planning Program suggests that these developments are closely linked together. Indeed, there are practical as well as theoretical issues of importance in assessing in a rigorous manner the contribution of the increased accessibility and availability resulting from government and private efforts to change reproductive behavior in Thailand during the last decade. The relative importance of "supply" versus "demand" factors has implications both for program strategies and for a general understanding of the determinants of fertility change. Of particular importance is analysis which relates actual availability of sources of supply to reproductive behavior.

Study Objectives

The basic objective of this project was to assess, in a more precise and complete manner than had been done in the past, the importance of contraceptive availability and accessibility levels and changes in fertility in rural Thailand over the period 1969-1979. During this period, rural contraceptive prevalence on a national scale increased from approximately 10 percent to 50 percent of married women of reproductive ages. Also, rural fertility declined by approximately 40 percent. The basic research question asked by this study was: Are contraceptive prevalence rates higher when family planning services are more accessible? A methodological question asked by the study was: How can people's access to family planning services be measured? The researchers note that accessibility has many dimensions such as: distance to a specific service outlet, travel time, travel cost, travel convenience, type of services offered by the outlet, and quality of services provided.

Research Design

In this study, accessibility was defined as the length of time contraceptives have been available, the methods that are available, the number of sources, and the distance to the source(s). Data were gathered on the accessibility variables in 36 Thai villages where prevalence had been measured two or three times before and in 28 other villages where only one, the most recent survey was completed. The village-level variables were collected through group interviews with qualified village informants and through interviews with contraceptive providers. The village-level variables were added to the data tapes from three existing surveys.
Major Findings

The results from the study were mixed. The effect of accessibility on contraceptive use varied depending upon the particular operational definition of accessibility employed and upon the control variables introduced into the multivariate equation. Through a weighting system, the researchers rated service delivery points which provided a full range of contraceptive services as being more accessible than Tambon Health Centers which provided only pills and condoms. In general, the researchers found that the simplest measures of accessibility (either time or distance) did not demonstrate that greater accessibility was associated with higher contraceptive prevalence rates. The more complex measures of accessibility that included both time and distance along with the type of service available did indicate that where family planning was more accessible, contraceptive prevalence was higher than in areas where contraceptive services were less accessible. The researchers conclude by noting that further research designed to test the accessibility increases contraceptive use hypothesis must deal with a number of important methodological issues including operational definitions of "accessibility", the development of explicit models for studying change when over-time data are available, the number of primary sampling units and the size of each cluster when designing surveys, and the problems of data reduction when a wide array of micro-and macro-level variables are available for analysis.
FAMILY PLANNING OPERATIONS RESEARCH

Title: Reasons for Family Planning Method Switching in Northeastern Thailand: An Experimental Study of a Motivational Strategy

Location: Khon Kaen, Thailand

Sponsoring Institution: Khon Kaen University

Principal Investigators: Amporn Charoenchai
Earmporn Thongkrajai
Piyarat Nilaiyaka
Prapaporn Srirakul
Athithan Chinsuwan
Suchitra Limumnoilap
Renu Kuptusthein
Punnee Muanwong

Starting date: November 1983

Completion date: September 1985
Abstract

The purpose of this research project is to study: a) women's reasons for using inappropriate contraceptive methods, b) factors influencing women's decision to switch methods, c) consequences of inappropriate method use and method switching, and d) group approaches to induce women to adopt an appropriate method.

Target women were divided into two groups: one subjected to group inducement and the other the control group. The inducement group was led by a professional nurse who had good knowledge of contraceptive methods and an assistant who used an appropriate contraceptive method.

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.

Major reasons for switching contraceptive method used were personal health problems, side effects, worries, duration of contraceptive use and influence of neighbours. Reasons for continuance of inappropriate method use were comfort with the method used, long period of use, lack of side effects and other considerations such as lack of time and additional cost.

The group that was subjected to group inducement was found to have increased knowledge of and a more favourable attitude towards family planning, and adopted more appropriate methods than the control group.

Problem Statement

Family planning has been a focus of concern for government agencies for the past decade and although the use of planning has achieved the goals set, continued efforts are still required since the population increase is not yet in line with the economic and social growth of the country (Family Planning Programme, Ministry of Public Health, 1982-1986). The qualitative aspects of service delivery, its extension to rural areas, and teaching of the most appropriate method of contraception are areas which need particular attention. While ever use of contraception is high, 72 percent in the Northeast according to the report of the Contraceptive Prevalence Survey Round 2 (CPS-2), there is evidence that many people using inappropriate methods switch from one method to another frequently. In either case, they expose themselves to the risk of unintended pregnancy. This group of people (inappropriate method users and switchers) is the
target population of concern for this study.

A recent survey conducted by the research team at the Maternal and Child Health Centre, Region IV in Khon Kaen reveals that large numbers of users have used at least two methods of contraception in a period of one year. From the records of the centre for 1981 and 1982, 865 and 728 users were studies respectively, and of these more than half over the age of 30 had switched method, while the rate of switching increased with age. (Fac. of Nursing, 1983). The relationship suggests the need to study the factors influencing switching and to design educational strategies for helping people select the most appropriate method for their circumstances. Two primary research questions to be considered by this study are:

1. What factors influence people to switch from the use of one contraceptive method to another?

2. Can an educational strategy be designed and implemented which will help people use the most effective and appropriate method for them?

To answer these two questions, our research team conducted a research intervention study in Khon Kaen province in Northeast Thailand. From general information about the use of contraception in the Northeast, 54 percent of women in the 15-44 age group use contraception. This high rate helps to ensure that a reasonably large number of inappropriate method users (IMUs) and switchers can be identified in villages. Also, the staff of the Faculty of Nursing and Education, Khon Kaen University is very familiar with the area and has had experience conducting community oriented research in the past.

Study Objectives

The specific objectives of the study are the following:

1. To identify inappropriate method users and frequent method switchers within selected villages in Khon Kaen Province to establish:

   a. The reasons why they are still using an inappropriate method;
   b. The factors influencing them to switch methods in the past;
   c. The frequency of method switching;
   d. The consequences in terms of unintended pregnancy of inappropriate method use and frequent method switching.
2. To classify the group of inappropriate method users and switchers in terms of the most "ideal" method they should be using given their desire to limit their number of children or extend the time between pregnancies, their age and their parity.

3. To work in small groups with IMUs and switchers to help them select what they perceive to be the most appropriate method for them, and help them to continue to use that method for at least six months.

4. To evaluate the effect of the small group discussions by considering the number of women who select an appropriate contraceptive method and the percent who continue with the method for at least six months.

Research Methodology

This research study was conducted in two stages; the first stage gathered basic information concerning the reasons why women still use inappropriate methods of contraception, and why they switch from one method to another. Also studied were the use of inappropriate methods of contraception and method switching leading to pregnancy. The second stage was designed to test a method of persuading women in groups to change their contraceptive method to a method which is most suitable for their circumstances.

The researchers selected 12 study villages in 6 amphurs of Khon Kaen Province. The survey held in the first stage of the research consisted of interviewing 1206 married women of reproductive age (MWRA) (age 15-44) from these villages. After that, simple sampling techniques were used to select 6 control and 6 experimental villages from the 12 villages. During the second stage, the researchers sampled the MWRA using set criteria to determine who were inappropriate method users. Once the list of target group women had been compiled, the research team assessed their knowledge, attitude and practice of family planning. There were 365 target women who were studies, 187 women from experimental villages and 178 women from control villages. The procedure for the group activities in the experimental villages was as follows:

Group activities in each experimental village were arranged by dividing the women in each village into 2 sub-groups of 10-15 women each. Each sub-group consisted of one group leader, one assistant group leader and target group women members. Three group activities were carried out for each group.
The first meeting gave the women the opportunity to discuss their past and present experience with contraception. In the second meeting the women were provided with correct information on each method of contraception. The third meeting was used to motivate the women to select a method of contraception which is appropriate for their circumstances.

Apart from the three group meetings, the focal person visited the women at home to give them help and advice whenever they had problems in choosing an appropriate method of contraception. The focal person also monitored the progress of the women from time to time.

Six months after the last group meeting, the researchers evaluated the result by comparing the changes in knowledge, attitude, and practice of contraception between the experimental and control village.

**Operational Definitions**

**Definitions of Terms Used in the Study**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modern Methods</td>
<td>Modern methods of contraception, i.e. pill, injectables, condom, IUD and sterilization</td>
</tr>
<tr>
<td>Traditional Methods</td>
<td>Old methods of contraception which are methods not included under modern methods.</td>
</tr>
<tr>
<td>Permanent Methods</td>
<td>Male and female sterilization.</td>
</tr>
<tr>
<td>Non-Permanent Methods</td>
<td>Temporary methods of contraception, which are pill, injectables, condom and IUD.</td>
</tr>
<tr>
<td>Switchers</td>
<td>Women of age 15-44 who have changed their method of contraception more than twice in the last year.</td>
</tr>
<tr>
<td>Inappropriate Method Users (IMUs)</td>
<td>Women of age 15-44 who want to extend the period between pregnancies or who want to limit their number of children, but who still use inappropriate methods. They are subdivided into the following groups:</td>
</tr>
</tbody>
</table>
a) Group who wish to extend the period between pregnancies who should use one of the modern methods but who are either not using any contraception or are using a traditional method.

b) Group who do not wish to have further children, but who have not yet changed to a permanent method, but are either not using any contraception or are using traditional methods.

c) Group who do not wish to have further children and who should have changed to a permanent method, but who are still using a temporary method.

Major Findings

Stage I

The sampled population of 1206 MWRA had an average age of 30.5 years and an average educational level of 4.4 years; 99.9 percent of the women were Buddhist and 88 percent earned their living through agriculture, with the average income of each family being 24,000 baht/year.

When considering the reproductive behavior and use of family planning, it was found that the average age at first marriage of the women was 19.7, the average number of children ever born was 2.6, and the average number of living children 2.3. Most women would still like to have about three children. The percentage of women who know about contraception is 99 percent, the information coming mostly from governmental health care facilities. The prevalence rate of contraceptive use was found to be 66.6 percent with the most popular method being female sterilization at 33 percent. The use of contraception increases with the age of the women. When asked how long they would like to have between their pregnancies, 72 percent of the women replied that they would like 2 years. 23 Percent of the women said that they chose to use a temporary method in order to space their births, while 43 percent of the women who chose a permanent method in order to space their births, while 43 percent of the women who chose a permanent method said that the reason was that they already had enough children. There are still 36 percent of the women who have had enough children using a temporary method of contraception. Women who only know of one method of contraception use contraception the least, whereas those who know two methods use it the most. However women who know of 3 or more methods of contraception tend to use less contraception than those who know only 2 methods.

Women who become pregnant unintentionally, that is women who are using contraceptive methods but nonetheless become pregnant, are mostly IUD users (4%), pill users (2%) or injectable users (0.8%).
It was found that the way in which women change their method is rather unpredictable; temporary contraceptive users may change to other temporary methods that they have never used before, and later return to the original method. When they arrive at their desired family size they may change to using a permanent method of contraception. Some members of the group however had already arrived at their desired family size, and yet were still using a temporary method of contraception; not changing to a more suitable permanent method. These women tend to be older and have used temporary methods in the past without any problems. They perhaps think that as they are old and will be reaching menopause soon they need not change to a permanent method of contraception.

Using Discriminant Analysis to investigate factors influencing method switching, it is indicated that the factors influencing the change of contraceptive method are: women's age—the age of women who switch methods is higher than the age of non-switchers; the duration of their marriage—women who switch methods come from longer marriages than women who do not switch; number of living children; number of additional children wanted; desired family size; women's satisfaction with their first method of contraception; and husbands' satisfaction with their wives' first method of contraception. The last two have the effect that if women and their husbands are satisfied with the method of contraception that they are currently using, they will tend not to change method. The length of time that the first method has been used and the number of methods known also affect the rate of switching. Women who have used one method for a long time or who do not know of many methods of contraception tend to switch less than women who know of many methods.

Stage II

It was found from the qualitative information obtained from running the group activities that most women in the groups had changed methods, beginning with an inefficient, temporary method and switching to a more reliable method. Problems occurring with the use of contraception can be categorized as psychological effects, side effects and associated symptoms of contraceptive methods.

With regard to the length of time for which a contraceptive method is used, it was found that it varied from 10 days to 5 years. It is difficult to assess the rate of use of each method; the main reason for change comes from health problems and side effects. Length of time for which the contraceptive method has been used and the influence of neighbours also have an effect.

Women normally make their own decision to use contraception, usually as the result of economic pressures in the family.
When considering the effect of beliefs and attention paid to rumours, it was found that some women do still react negatively to rumours, but mostly they do not believe in the rumours, since they have heard the correct information provided by health personnel.

When most women believe that it is better to have children of both sexes, the decision to use contraception would appear to depend rather on the number of children than the sex of the children born so far.

It was found that a small number of the women became pregnant while they were changing method, or continuously using a method of contraception. These were women who were continuously using the pill, injectable and IUD.

There were a small number of women who were using two methods in the same period of time, mainly pill and condoms.

Reasons for use of inappropriate contraceptive method (before the group activities), were because of convenience, lack of side effects from the contraceptive use, experience of trouble-free use, lack of time and money to collect the service so they continue to use the old method.

Quantitative information gathered from the implementation of the group activities showed that there was a change in the knowledge, attitude, and practice of contraception in the target group women before and after the group activity, and between the experimental and control villages. The results suggest that the use of group meetings as a technique to persuade women to adopt a more appropriate method of contraception shows a statistically significant improvement with respect to the control village, for knowledge, attitude, and practice of contraception.

Programme Implications

This study found that the use of group meetings is an effective technique for persuading women to adopt an appropriate method of contraception. The group of limiters and spacers improved their knowledge, attitude, and practice of family planning. The results support the following suggestions:

1. Policy of Family Planning

1.1 Motivation to persuade women to use the family planning service should use an integrated approach, by stressing the participation of the women in their decision to adopt a new method of contraception. Once they have a correct knowledge and understanding of contraception, the fact that they are participating in their decision may be used as a further pressure coming
from the group. This should be done continuously and a follow up should be used.

1.2 Volunteers in the villages who use an appropriate method of contraception should be used as "models" to encourage the target group women, both during the group meetings and at home visits when advice is given to the individual. These "models" will continue to have a persuasive influence on the target women to use an appropriate method of contraception, which will extend the persuasion of the group meeting.

1.3 The group leader for the group meeting should come from the local health personnel, since family planning comes under their responsibility. The use of existing personnel as the group leader will be economical but their knowledge of group activities may need to be upgraded by the use of trainings, manuals to guide them through the stages of the group meetings, and recommended procedures.

2. Implementation of the Group Meetings

2.1 The use of group meetings as a technique to persuade women to adopt an appropriate method of contraception is limited by time arrangement and group continuity. The methods recommended in this study will depend on the individual circumstances of the community.

2.2 The selection of a suitable and absolute "model" may lead to problems in practice, because the "model" will have a strong influence on the group meetings. The selection of a "model" who is less than perfect will tend to reduce the efficiency of the group meeting technique.

The selection of an appropriate "model" will depend on factors such as: personality, leadership qualities, social abilities in having good relationships with other people, communication skills and especially knowledge and acceptance by the villagers. The study found that if the "model" selected is the health volunteer, wife of the group leader or the wife of the village headman, she will be better accepted and respected than if she has no status or no specific role in the community.

2.3 The successful motivation of some group members who have "readiness" or "desire for change" to adopt an appropriate method of contraception immediately may result in helping other group members who are reluctant to make a decision to follow suit. From the study, it was found that when some group members had made a decision to change their method of contraception, it caused a chain reaction with other members. This may be a secondary persuasive force, after the group meetings and the use of a "model". When the group leader sees that there is a movement in the group towards immediate change to a new method of
contraception, this move may be reinforced by regular home visits and demonstrations of the advantages of using an appropriate method.

2.4 The fact that time is limited should be borne in mind constantly in the group meetings. Also the fact that there may be other influences bearing on the women from outside the groups, for example from parents, husbands and other relatives, which may affect the decision of the women, causing them to hesitate or not dare to decide.
| **Title:** | Research Report on A Comparative Analysis of the Government and Private Family Planning Programs in the Southern Region of Thailand |
| **Location:** | Songkhla Province, Thailand |
| **Sponsoring Institution:** | Prince of Songkhla University |
| **Principal Investigators:** | Dr. Chavalit Siripirom  
Assistant Professor  
Prince of Songkhla University  
Haad Yai, Songkhla  
Thailand  

Dr. Rangson Prasertsri  
Assistant Professor  
Prince of Songkhla University |
| **Starting Date:** | October 1983 |
| **Completion Date:** | September 1985 |
Problem Situation

While an active national family planning program, complemented in most areas by private organizations, has contributed to high contraceptive prevalence levels in Thailand, significant regional differences remain. In particular, the southern region of the country lags far behind other areas and has the lowest prevalence rates, lowest hospital utilization rates, and highest fertility rates. In part, this situation may be due to greater resistance to use contraceptive methods among Muslim couples in the South. But it also may be due to other factors such as the organization and management of service delivery activities by both the government and private organizations. A comparative evaluation of these two organizations from the perspective of cost effectiveness, client acceptability, and use of service has not been undertaken.

The government's family planning service delivery system contrasts in several key respects with the system used by private organizations, particularly the Population and Community Development Association (PDA).

Study Objectives

The aims of the research reported here were: 1) to identify and compare the organizational and managerial structures of the two service delivery systems, the government and PDA, that are associated with effective family planning performance; 2) to compare the two service delivery systems in terms of the cost effectiveness to recruit and maintain family planning acceptors; and 3) to examine from the perspective of eligible couples the factors which affect their selection of one supply source and method over another, and the factors which influence them to switch from the use of one supply source to another.

Research Methodology

With regard to each of the objectives, the following methods of data collection and data analysis were adopted for this study.

1. Objective 1

Data Collection

Data employed in Objective 1 were obtained from documentary records of both the government sector and the PDA. Another portion of data was received during interviews with officials of the PDA both at its Bangkok office and its branch office in Haad Yai. From the government sector, such data was collected during interviews with officials connected with the family planning
work, from provincial and district public health offices, provincial and district hospitals, as well as from community health stations in Songkhla, Satun and Narathiwat.

Data Analysis

Analysis was made of the results achieved in the family planning activities of the government sector and the PDA, taking into account also different factors existing in organizational and managerial structures so as to make a comparison between the family planning service system of the government sector and that of the private sector.

2. Objective II

Data Collection

Data was collected from documentary records and also from interviews with officials of the PDA both at its Bangkok and Haad Yai offices, and from family planning officials of public health officers in Songkhla, Satun and Narathiwat.

Data Analysis

The method employed in the analysis was the computation of total cost and total output to determine cost effectiveness of providing family planning services by the government and private sectors.

3. Objective III

Data Collection

The method used in this case was to interview women of reproductive age who still lived with husbands and who were acceptors of the services rendered by the government and private sectors in Songkhla, Satun and Narathiwat. The total sample consisted of about 1,800 families, and was divided into two groups.

1st Group. In the area (villages) where only government family planning service exists, 600 persons were selected from 15 villages, or about 40 persons from each village, as below:

Haad Yai, Songkhla 345 persons
Khuan Kalong District, Satun 40 persons
Ra-gae District, Narathiwat 215 persons
2nd Group. In the area (villages) where both government and the PDA family planning services are available, about 1,200 persons were selected from 30 villages, or about 40 persons from each village as below:

<table>
<thead>
<tr>
<th>Province</th>
<th>Town Area</th>
<th>Rural Area</th>
<th>Total Sample</th>
<th>Total Villages</th>
<th>Total Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Villages</td>
<td>Persons</td>
<td>Villages</td>
<td>Persons</td>
<td>Persons</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Total</td>
<td>Total</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Songkhla</td>
<td>6</td>
<td>245</td>
<td>14</td>
<td>555</td>
<td>20</td>
</tr>
<tr>
<td>Muang District</td>
<td>5</td>
<td>200</td>
<td>7</td>
<td>270</td>
<td>12</td>
</tr>
<tr>
<td>Sadao District</td>
<td>1</td>
<td>45</td>
<td>3</td>
<td>120</td>
<td>4</td>
</tr>
<tr>
<td>Rattaphum District</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>165</td>
<td>4</td>
</tr>
<tr>
<td>Satun</td>
<td>1</td>
<td>40</td>
<td>5</td>
<td>200</td>
<td>6</td>
</tr>
<tr>
<td>Muang District</td>
<td>1</td>
<td>40</td>
<td>5</td>
<td>200</td>
<td>6</td>
</tr>
<tr>
<td>La-goo District</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>80</td>
<td>2</td>
</tr>
<tr>
<td>Narathiwat</td>
<td>2</td>
<td>80</td>
<td>2</td>
<td>85</td>
<td>4</td>
</tr>
<tr>
<td>Muang District</td>
<td>2</td>
<td>80</td>
<td>2</td>
<td>85</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total in 3 provinces</strong></td>
<td><strong>9</strong></td>
<td><strong>365</strong></td>
<td><strong>21</strong></td>
<td><strong>840</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>
In determining the sample size in each province, district, town, and rural area in Group 1 and Group 2, a calculation was made to ensure that the number of respondents would be in the same proportion to the number of women of reproductive age (age 15-49) in those areas.

Statistical means were employed in the analysis through the determination of percentage, average value, and analysis of relations among variables.

Major Results

From looking at the systems used for providing the family planning services by the government and PDA, and with particular attention given to the structures, operations, and work results, it was found that the two organizations differed greatly in many respects as can be concluded as follows:

1. The operations by the government are more complex than that of PDA. The government operates at all levels, from the province on down to the village. PDA, on the other hand, operates at only one level, the village level.

2. The government utilizes different types of staff to provide a wide range of health services. Family planning is just one of many services provided by the government and family planning work is incorporated into the normal work routine of the staff. PDA only uses one type of service delivery staff, the village-level volunteers, who distribute condoms and pills but are not concerned with health care services.

3. The government uses many different channels of communication much of which tends to be one-way, mass communication. PDA tends to rely more on person-to-person type of communication more than any other.

4. Both organizations provide staff training on the theory and practice of family planning. The training is similar given to the staff from the both sectors.

5. The incentives given to the staff by PDA is money deducted from the sales of the contraceptives. The government also provides money as an incentive but indirectly in the form of funds to the centers providing the services. Only when the staff go out in the field to do work is money given directly to them as per diems.

6. Both sectors have similar reporting procedures, in that the information is collected by lower level staff and reported to higher levels periodically. Also progress is indicated by the
number of clients given services and the amount of contraceptives disbursed.

7. It is difficult to quantify the work results of PDA because the only services offered are pills and condoms. Only the number of pills and condoms dispensed are recorded and the distributors' records cannot be used because they lack completeness. The government, on the other hand, maintains fairly complete information on clients and has well kept records on clients separated by method. However, there is still a problem of counting the old acceptors repeatedly.

Regarding the comparison of the cost-effectiveness between the two organizations, it was found that the average supply cost for the government hospitals was 388 Baht/patient which is much higher than that of PDA's 128-152 Baht/case. However, the average supply cost for the government sub-district hospitals is 168 Baht/patient which is similar to PDAs.

In the comparison of the average supply cost per unit of product (acceptor) between the government and PDA-Southern branch, it must be taken into account that many factors make these two organizations different and thus make the comparison of the cost effectiveness somewhat difficult to interpret. PDA only offers one kind of contraceptive which could be costed out, namely, the pill. The government offers five different types of birth control methods such as the pill, injectables, IUD, sterilization and vasectomy (the condom was excluded from the analysis). Apart from this, in the supply cost calculation of PDA, the figures were based on assumed percentages of the supply cost, as PDA does not have information available. This assumption may be far from the truth. Therefore, the cost-effectiveness comparison between the government and PDA is only a rough estimate, and any conclusions drawn must be done with great care, and also take into account the results from the studies in Chapter 2 and 4.

Regarding family planning knowledge, it was found that the pill was the most well known method followed by sterilization and injectables. The least known methods were the cream, foam, and jelly and the herbal methods.

Concerning method switching, there was a general trend for respondents to begin using temporary and less reliable methods and then later to change to more effective and permanent methods such as sterilization and vasectomy.

Finally, regarding the use of different service outlets, the data clearly shows that most people rely on government centers such as hospitals and maternal child health centers. Indeed, relatively few respondents relied on PDA service outlets.
Title: Increasing Family Planning Acceptance through Development Programs in Northeast Thailand

Location: Thailand

Sponsoring Institutions: The Population and Community Development Association of Thailand (PCDA)

Principal Investigator: Mr. Mechai Viravaidya
Secretary-General
P.C.D.A.
Bangkok, Thailand

Starting Date: March, 1982

Completion Date: March, 1983
Abstract:

This study was designed to assess the impact of development inputs might have on contraceptive prevalence and continuation in Northeastern Thailand. Three experimental areas of ten villages each received different amounts of development inputs (e.g. pig and chicken raising, fertilizer and seeds, crop storage, brick-making plus other types of inputs) with one group of ten villages serving as the control.

Problem Situation:

Northeastern Thailand with its relatively dry climate, infertile soil and insufficient irrigation is the largest of four regions and contains over one-third of the country's population. It is characterized by the lowest level of per capita income, approximately one quarter below the national average, the highest rates of fertility, and the lowest level of contraceptive prevalence with the exception of the South. Additionally, the region has the highest proportion engaged in agriculture (over 80% of households) and is beset by major problems limiting growth in the agricultural sector, including insufficient credit opportunities, diminishing land resources, inefficient land utilization, poor crop yields and lack of marketing opportunities.

Study Objectives:

In late 1981, the Population and Community Development Association (PCDA) implemented a Community-Based Integrated Rural Development Program in selected villages in the Northeast.

The objectives of this program were:

1) To improve employment opportunities and the standard of living of the population through the introduction of income-generating activities aimed at increasing skills and productive capacity in agriculture and livestock;

2) To raise the acceptance levels of Family Planning through the benefits received from the income-generating activities of the program.

Hypotheses:

I. Couples in the experimental areas will exhibit a higher increase in the level of contraceptive practice than couples in the control area.
II. Couples who accept development inputs in the experimental areas will have a higher increase in the level of contraceptive practice than couples who don't accept a development input in the experimental areas, or than couples in the control area.

III. Continuation of Family Planning practice will be higher among users of family planning who accept a development input in the experimental area than users who don't accept a development input in the experimental area, or than users in the control area.

Research Methodology:

Sample Design

The primary sampling unit was the village. Selection of villages was determined by a survey of all villages in three districts to determine the level of contraceptive prevalence. A total of 40 villages were randomly selected from three districts in Northeast Thailand (Myang and Ban Phai - Experimental and Bam Net Narong - Control.) Each of the three experimental treatment areas and the control area were composed of 10 villages. All households within the selected villages were surveyed at the beginning of the study period and again at the end.

Research Design

Three experimental groups (A, B, and C) and one control group (D) were constructed. The three experimental intervention areas differed in terms of the availability of the development incentives. Model A households were offered the largest selection of different inputs as well as the greatest availability of specific types of inputs. Models B and C had progressively a fewer number of inputs offered and less availability of any specific input.

Data collection focussed upon currently married couples with females age 15-44 years. The 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 the panel of couples who were in the study areas for the entire year.

Community-level data were also collected from the headmen in each village in the experimental and control areas at the end of the study period. These data included information on the level of Family Planning and development activities which were utilized to construct a comparative profile between the experimental and control villages.
The baseline survey was conducted between February 4 and March 11, 1982 and the follow up survey was conducted between February 6 and March 12, 1984.

Major Findings:

1) Over the one-year period of the study, contraceptive prevalence rates increased in all three experimental model areas and in the control area. There was no essential difference in effective percent change between the experimental and control areas.

2) Within models B and C (but not model A), acceptors of development inputs showed a greater effective percentage change in contraceptive prevalence than non-acceptors of development inputs.

3) Compared against the control area, acceptors of development inputs in models B and C (but not model A) showed a greater effective percent change in contraceptive prevalence rates.

4) In all three model areas, there was a slightly greater use of more effective and coitus independent Family Planning methods between the beginning of the program and the end than in the control area.

5) For combined models B and C, a multivariate regression analysis revealed a significant positive relationship between acceptance of a development input and Family Planning practice net of the effects of wife's age and annual couple income (a) when non-acceptors of development inputs were used as the reference point and (b) when the control area was used as the reference point.

6) In all areas, experimental and control, neither annual couple income, landholdings, nor husband's and wife's education were significantly related to Family Planning practice.

7) In all areas, experimental and control, wife's age showed a significant, inverse relationship with Family Planning practice.

8) Within all experimental model areas, Family Planning users (excluding sterilization users) who accepted a development input showed consistently higher proportions still practicing Family Planning at the end of the program period than non-acceptors of a development input. The largest differences were found in models C and B.
9) Compared against the control area, Family Planning users (excluding sterilization users) on models B and C (but not model A) who accepted a development input showed slightly higher proportions still practicing Family Planning at the end of the program period.

Program Implications:

Contraceptive prevalence in several areas of Asia has reached exceptionally high levels. In the program area, approximately two thirds of the eligible couples were already practicing at the beginning of input implementation. The use of contraception in Thailand may no longer represent an innovative behavior but merely a common practice. In such situations, a concern of importance for Family Planning programs is not necessarily recruiting new acceptors but maintaining existing ones.

This study's findings showed that Family Planning users who accepted a development input show consistently higher proportions still continuing to practice family planning at the end of the program, suggesting that development inputs contribute towards maintenance of use.

The data from this study suggested that within the experimental model areas, a slightly higher proportion of couples shifted to the use of more effective and coitus independent methods than in the control area. Method selection may have been affected by program intervention, in particular, by the way in which PDA staff presented Family Planning and emphasized it as part of an overall development program.

Data collected on Family Planning and development activities indicates that substantial inputs flowed into the control area primarily from government sources for several years prior to the start of the Community-Based Integrated Rural Development (CBIRD) Program. These inputs probably minimized the comparative impact of program interventions in the models areas.

Further Research:

1) Additional data needs to be collected from the control area to assess the extent and impact of development inputs introduced there by the government.

2) The process of program implementation in the experimental model areas needs to be given greater attention, particularly the operational mechanisms for integrating Family Planning and development inputs at the household level.
3) Documentation of villagers perception with regard to the program is needed. Focus group discussions might accomplish this.

4) The program's long range impact on Family Planning maintenance and quality of method use must be determined.

5) As the program continues, its impact on income, employment, migration, fertility and mortality need to be measured carefully.
Title: The Implementation of Contraceptive Counselling Services As a Strategy to Induce Contraceptive Use

Location: Khon Kaen, Thailand

Sponsoring Institution: Department of Social Sciences
Faculty of Humanities and Social Sciences
Khon Kaen University

Principal Investigator: Wilaiwat Grisanaputi
Manthana Samart
Wilawan Penpruk
Tassaneewsan Pruksamathanun
Prungtip Phosri

Starting Date: November, 1983

Completion Date: September, 1985
Problem Situation

Almost all 15-49 year old females in Thailand know at least one type of contraceptive method and a place where supplies are available (Kumnuansilpa, P. and Chamratrithirong, A., 1983). However, there remains a relatively large unmet need among women for family planning. In the Northeast region, for example, approximately 44.9 percent of currently married women are at risk of an unwanted pregnancy. Unmet need includes women who desire to space births (spacers) as well as those who desire to prevent additional births (limiters).

One reason there may be an unmet need among women is that some of these women may have fears and concerns about potential side-effects associated with the use of contraceptives. Yet another possible reason might be that some people also are concerned about losing their ability to work particularly after they have had a sterilization operation.

Most Thai women can obtain simple information about the existence of contraception, but they need to receive more detailed and specific information about methods suitable for their particular circumstances. This suggests that a family planning information program which includes an effective means of communication with women in need of contraception could be an appropriate strategy to induce contraceptive use.

Study Objectives

This operations research field study was designed to assist village-level couples with improving their use of effective contraceptive method use by providing them with counselling services. The ultimate objective of the study was to increase the overall contraceptive method prevalence rate in the Northeastern section of Thailand and thus reduce the fertility rate. The more immediate objectives of the study were the following:

1. To conduct focus group discussion sessions in selected villages for the purpose of understanding the fears and concerns of villagers about the use of contraception and learning about contraceptive method use patterns.

2. To conduct a survey in 12 villages among approximately 960 women to determine prevalence rates and contraceptive mix; and to identify women at risk.

3. To design a training program for health workers (based on information from the focus group sessions) which will enable them to provide individual counselling to village-level couples in the reproductive ages.
4. To train selected village-level workers in counselling techniques.

5. To select twelve villages and in half of them to implement the counselling program using trained village level workers.

6. To evaluate the effect of the counselling program by comparing contraceptive prevalence levels, continuation rates, shifts in contraceptive mix, and satisfaction with contraceptive use in the six experimental villages against the six control villages.

Hypotheses

The two basic hypotheses tested by this study were:

Using trained health workers, a village-level counselling program will:

1. increase the use of contraception, increase continuation rates, and shift couples away from the use of less effective methods to the use of more effective methods.

2. decrease peoples' fears and concerns about the use of contraception.

Research Design

The study began by conducting a series of focus group discussions with village women and with local health workers. These focus group sessions were then followed by a baseline survey, a study intervention, and a follow-up survey. The intervention was the counselling service program provided in the experimental villages for six months.

Data collection focussed upon currently married females age 15-49 years. The baseline survey collected data from 930 women on socio-economic status, pregnancy and children, knowledge of family planning, attitudes toward the use of contraceptives, and knowledge of sources of contraceptive supplies. The follow-up survey was a modified version of baseline survey and collected data on 940 cases.

In addition to the two surveys, qualitative data on family planning was collected through focus group sessions and informal discussion with village headman.
The study was conducted in Kalasin Province where the rate of contraceptive acceptance is close to the average rate for the Northeast region. The selection of study areas were purposive and based on the following criteria:

1) the rate of contraceptive acceptance;
2) the distance from the study area to Kalasin or Khor Kaen Province;
3) the convenience of transportation to the health center;
4) the distance from the study areas to the health center;
5) population size

Major Findings

The results of the test of Hypothesis 1 show no relationship between the counselling program and the induction of contraceptive practices. Also, the findings do not support the portion of Hypothesis 2 which deals with the comparison between the experimental villages and control villages with regard to the reduction of concerns, unjustified beliefs, and attitude toward the failure of contraceptive use. Finally, the counselling program could not induce a shift from the less effective method used to the higher one.

Discussion

These findings raise the following issues: Why were there no differences in the use of the contraceptive method between the two village groups? Secondly, why do the fears of side effects not decline in the experimental villages more than in the control villages? Possible answers to these questions are presented and discussed below.

One factor affecting this research study program is the family planning promotion program initiated by the district hospitals, particularly Huay Mek Hospital and Yung Ta Lard Hospital, which induce the use of IUD and female sterilization by providing those services free of charge to meet the hospital's target. The 15-49 women in Huay Mek District did respond to this promotion program, and in general, the findings indicated that the control villagers, as a whole, were more likely to accept either the use of the IUD or the female sterilization than the experimental villages.
In addition, and probably most important as a reason why there was no difference between the two groups of villages is that the control areas were not totally controlled. The midwives did visit the control villagers and provided some services and information, that is they visited the control villages at least 0.7 times per household between September 1984 and February 1985, the implementation period. The activities implemented were different, that is, the activities in the control villages focussed mainly on the supplement food demonstration and the family planning whereas the family planning was mainly emphasized in the experimental villages.

Moreover, although the counselling program was to be implemented over a six months period with the midwives visiting each village at least once per month, in fact this did not happen. Actually, the midwives began one or two months later than expected; therefore the counselling program covered part of 15-49 year women, around 30 percent. Inevitably the midwives conducted group counselling sessions and not individual counselling sessions as originally planned. These constraints resulted in the ineffectiveness of the program to reduce the fears and anxieties of respondents concerning family planning.

Finally, the midwives conducting the counselling program had other responsibilities to do their routine, normal activities, such as providing curative and preventative health services. Therefore, they did not work effectively and follow the working schedule firstly planned. For instance, one of them planned to conduct the individual counselling in the village but did not do this. In some districts - for example, Ta Kun Thoo - it was very dangerous for the midwife to conduct counselling sessions frequently, and the counselling program, therefore, was partly unsuccessful. Last but not least, we have to accept that our counselling was not conducted perfectly and we did not have the authority to enforce our research plan. All we could do was to suggest that the midwives do or not do a particular activity.

Particularly in the experimental area, the local midwives, who attended the training on counselling program, should be obliged to follow the program on the regular base for another year. The benefits would be given directly to the women at the village level and the Ministry of Health indirectly in terms of providing close attention to local people.

The further studies that should be conducted are as follows:

1. Evaluate the counselling program by matching the respondents in the baseline survey and follow-up survey in order to measure the direct impact of the program and compare to the results from the matching respondents and the non matching respondents to give the clear feature of the counselling program.
2. Extend the counselling program up to one or two years and then evaluate the program; then we could cite the result of the counselling program. This program could be conducted in other aspects in addition to the contraception promotion program.

3. The frequencies of the monitoring visit should be increased in order to understand the situation and problems of implementation. Therefore, the researchers and midwives could discuss the matter and solve the field work problems with higher effectiveness.
Title: A study of the effectiveness of the Village Health Communicator and the Village Health Volunteer upon the Family Planning of Muslim and Buddhist couples in Southern Thailand

Location: Songkla Province, Southern Thailand

Sponsoring Institution: Prince of Songkla University

Principal Investigators: Mrs. Porntip Pongsupaht
Faculty of Management Sciences
Prince of Songkla University
Thailand

Starting Date: October 1983

Completion Date: March 1985
Problem Situation:

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. The VHV and VHC are chosen from the local community since they are intended to be a local health resource for the community. However, many villagers do not know about the program or the role of the VHV or VHC. One study conducted by the Family Health Division of the Ministry of Public Health in February 1982 on the village health volunteer and village health communicator, found that only 6.1% of the sample knew that the VHV should provide general health first aid and distribute contraceptive pills and condoms. However, more than 50% of the sample maintained that village family planning should rest with the village health volunteer and village health communicator. Another study conducted at Haad Yai District, Songkla Province in Southern Thailand showed that 81% of the sample had never received services from the VHV and 96% of the sample stated that they have never been visited by the VHC.

The Southern region of Thailand lags behind other regions of the country in terms of contraceptive prevalence. While contraceptive prevalence for the entire country was 64.6 percent (1984), in the South it was only 50.4 percent. This places the South at the lowest level among the four regions of the country. Moreover, within the South, there are substantial differences in prevalence among Buddhist and Muslim populations. Contraceptive prevalence among Yawee-speaking muslims was 23%, among Thai Muslims it was 44%, and among Buddhists in the South it was 57%.

Study Objectives:

This study was designed to improve contraceptive availability, accessibility, and use in Buddhist and Muslim villages in the South by improving the work performance of the village health volunteer and village health communicators. The study employed experimental and control areas in order to test the effect a strategy of training village health volunteer and village health communicator workers combined with holding village meetings would have on the delivery and use of family planning services. The specific objectives of the study were:

1) To increase understanding and knowledge about the work of the VHVs and VHCs and the services these workers provide among currently married Buddhist and Muslim couples (with wives aged 15-44) in selected villages of Songkla Province.
2) To increase utilization of the contraceptive services offered by the village health communicator and village health volunteers among Buddhist and Muslim married couples.

Research Methodology:

The study was conducted in two districts of Songkla Province: Haad Yai and Rattapoom. From each district, two tambons were selected. The two tambons in Rattapoom were Thai Muslim while the two in Haad Yai were Thai Buddhist. One tambon from each district served as a control area.

The study consisted of four main activities as follows:

1) A baseline survey in the experimental and control areas;

2) A training program for village health communicator and village health volunteer workers in the experimental area;

3) Village meetings in the experimental area;

4) A follow-up survey in the experimental and control areas.

Interviews were conducted with 893 married women and 198 village health communicators and village health volunteers in 15 experimental villages and in another 10 control villages from January 1984 to March of 1984. Interviews with the VHCs and VHVs aimed to find out their knowledge of family planning and to determine their pattern of work. Interviews with the married women were concerned with her family planning knowledge and attitude, as well as the contraceptive services they receive from the VHCs and VHVs.

For this project, VHVs were granted permission to distribute contraceptive pills and condoms. The training program included information about contraceptive methods, ways of persuading people to seek advice and to learn of the problems the VHCs and VHVs have been experiencing. 117 VHCs and VHVs from 15 villages under went a two day training program.

The objectives of the village meetings were to introduce the VHCs and VHVs to the villagers and explain their job and the available Family Planning Services. A total of 79 meetings were held over a 6 month period.
Eight months later, the same questionnaire administered during the baseline survey was used for the follow up. Of the original 893 married women interviewed, 808 were able to be interviewed. For the original 198 village health volunteers and village health communicators, 171 were followed up.

Major Findings:

1) In both the Muslim and Buddhist experimental areas, the village-level meetings had the effect of greatly increasing the respondents knowledge about the village health volunteer and village health communicator and about contraceptive methods.

2) The training program given to the village health volunteers and village health communicators plus the permission given for them to distribute condoms and pills appears to have made them far more active in the area of Family Planning. They were far more likely than their counterparts in the control villages to make home visits, discuss Family Planning with couples, hold village meetings, advise people to receive Family Planning, and distribute pills and condoms in the village. See Table 1.

3) The greater activity of the VHVs and VHCs had a major impact in the Muslim experimental villages where contraceptive prevalence rose from approximately 15 percent at the baseline to 49 percent at the time of the follow-up survey. See Table 2.

4) While in general the Buddhist villages had higher levels of Family Planning knowledge, a more favorable attitude towards Family Planning and a higher contraceptive-prevalence rate at the time of the baseline survey than the Muslim villages, the experimental program greatly diminished these differences by the time of the follow-up survey. The mean number of all contraceptive methods known and of modern methods known was approximately the same at the follow-up survey in both the Muslim and Buddhist experimental villages. In fact, knowledge levels were higher in the Muslim experimental villages than in either the Buddhist or Muslim control areas. See Table 3.

5) Approval of Family Planning was nearly universal in all areas (above 92 percent) at the time of the follow-up survey. See Table 4.

6) Although the Muslim experimental villages remained lower in terms of contraceptive use than the Buddhist control village, the difference was narrowed considerably between the time of the baseline and the follow-up surveys.
Program Implications:

The findings have several program implications for the National Family Planning Program and for the village health volunteer and village health communicator programs. First, they suggest that the relatively simple strategy of holding village meetings can have a major impact in terms of increasing Family Planning knowledge and the use of village health volunteer and village health communicator services. Most villagers do not know about the village health volunteer and village health communicator programs. They are unaware that health and Family Planning services are available from these voluntary workers. The village meetings served the very useful purpose of introducing the village health volunteer and village health communicator to the village and explaining the services available.

Second, this study suggests that allowing the village health volunteers and village health communicators to distribute pills and condoms can help to increase the contraceptive prevalence rate. Third, since Family Planning is not heavily emphasized in the initial village health volunteer and village health communicator training program given by the Ministry of Public Health, it is probably necessary to provide a short program which focuses specifically on Family Planning. This is particularly important if the VHVs and VHCs are given permission to distribute pills and condoms. Finally, this study suggests that the differences between Muslim and Buddhists can be greatly reduced by simple increasing educational activities (such as village meetings) and service delivery in the Muslim areas.

Further Research:

1) What are the ongoing training needs of the village health volunteers and village health communicators to keep them updated about Family Planning methods.

2) How can the roles of the village health volunteers and village health communicators be more integrated into the health delivery system so that they are more visible to the communities they serve.

3) What additional incentives for the village health volunteers and village health communicators could contribute to their increased activity in their communities.
TABLE 1: Respondents knowledge and use of VHV/VHC services

<table>
<thead>
<tr>
<th>Questions</th>
<th>Muslim Experimental Villages</th>
<th>Muslim Control Villages</th>
<th>Buddhist Experimental Villages</th>
<th>Buddhist Control Villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Know VHV/VHC?</td>
<td>Baseline: 13.6</td>
<td>Baseline: 40.8</td>
<td>Baseline: 29.6</td>
<td>Baseline: 25.6</td>
</tr>
<tr>
<td></td>
<td>Follow-up: 85.3</td>
<td>Follow-up: 68.8</td>
<td>Follow-up: 96.7</td>
<td>Follow-up: 45.7</td>
</tr>
<tr>
<td>2) Ever been Visited by VHV/VHC?</td>
<td>Baseline: 10.3</td>
<td>Baseline: 32.8</td>
<td>Baseline: 14.0</td>
<td>Baseline: 19.5</td>
</tr>
<tr>
<td></td>
<td>Follow-up: 69.6</td>
<td>Follow-up: 56.8</td>
<td>Follow-up: 76.7</td>
<td>Follow-up: 27.4</td>
</tr>
<tr>
<td>3) Purpose of visit was family planning?</td>
<td>Baseline: 2.2</td>
<td>Baseline: 8.0</td>
<td>Baseline: 4.8</td>
<td>Baseline: 5.5</td>
</tr>
<tr>
<td></td>
<td>Follow-up: 46.7</td>
<td>Follow-up: 25.6</td>
<td>Follow-up: 55.2</td>
<td>Follow-up: 6.7</td>
</tr>
<tr>
<td>4) Ever Receive services from VHV/VHC?</td>
<td>Baseline: 1.1</td>
<td>Baseline: 3.2</td>
<td>Baseline: 3.3</td>
<td>Baseline: 3.7</td>
</tr>
<tr>
<td></td>
<td>Follow-up: 15.2</td>
<td>Follow-up: 0.8</td>
<td>Follow-up: 10.7</td>
<td>Follow-up: 4.9</td>
</tr>
<tr>
<td>5) Ever receive family planning services from VHV/VHC?</td>
<td>Baseline: 0.0</td>
<td>Baseline: 0.8</td>
<td>Baseline: 2.1</td>
<td>Baseline: 1.2</td>
</tr>
<tr>
<td></td>
<td>Follow-up: 12.0</td>
<td>Follow-up: 0.0</td>
<td>Follow-up: 7.5</td>
<td>Follow-up: 2.4</td>
</tr>
</tbody>
</table>

PANEL N = 184 125 335 164

Among the panel of Muslim respondents in the experimental villages, the percent who knew the VHV and VHC increased from 13.6 at the time of the baseline to 85.3 at the time of the follow-up survey. Among Buddhists in the experimental villages, the change was from 29.6 to 96.7 percent which compares with a change in the comparison villages from 25.6 to 45.7 percent.
Table 2: Percentage of Respondents Practicing Contraception by Method Used

<table>
<thead>
<tr>
<th>Current Method Used</th>
<th>Muslim Villages Experimental Control</th>
<th>Buddhist Villages Experimental Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B*</td>
<td>F*</td>
</tr>
<tr>
<td>Pill</td>
<td>4.3</td>
<td>17.9</td>
</tr>
<tr>
<td>Condom</td>
<td>0.0</td>
<td>1.1</td>
</tr>
<tr>
<td>Vaginal Method</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Injection</td>
<td>2.2</td>
<td>9.2</td>
</tr>
<tr>
<td>IUD</td>
<td>1.1</td>
<td>2.2</td>
</tr>
<tr>
<td>Female Sterilization</td>
<td>2.7</td>
<td>4.9</td>
</tr>
<tr>
<td>Male Sterilization</td>
<td>3.3</td>
<td>3.8</td>
</tr>
<tr>
<td>Rhythm</td>
<td>1.1</td>
<td>3.8</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>0.5</td>
<td>6.0</td>
</tr>
<tr>
<td>Traditional Method</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

PREVALENCE RATE = 15.2 48.9 27.2 40.8 61.5 69.9 50.0 60.3

PANEL N = 184 184 125 125 335 335 164 164

* B = Baseline Survey
* F = Follow-up Survey
Table 3: Mean Number* of Contraceptive Methods Known Without Prompting Among Respondents

<table>
<thead>
<tr>
<th>Contraceptive Methods Known</th>
<th>Muslim Villages</th>
<th>Buddhist Villages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Experimental</td>
<td>Control</td>
</tr>
<tr>
<td></td>
<td>2.3</td>
<td>3.0</td>
</tr>
<tr>
<td>Baseline survey</td>
<td>3.0</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>5.1</td>
<td>5.0</td>
</tr>
<tr>
<td>Follow-up survey</td>
<td>5.7</td>
<td>4.2</td>
</tr>
<tr>
<td>N</td>
<td>184</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>335</td>
<td>164</td>
</tr>
</tbody>
</table>

* A total of 10 methods were considered: Pill, condom, vaginal methods, injection, IUD, female sterilization, male sterilization, rhythm, withdrawal, abortion.
Table 4: Percent of Respondents Who Approved of Family Planning

<table>
<thead>
<tr>
<th>Approve of Family Planning</th>
<th>Muslim Villages Experimental Control</th>
<th>Buddhist Villages Experimental Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>73.0</td>
<td>92.3</td>
</tr>
<tr>
<td>Follow-up</td>
<td>92.7</td>
<td>97.3</td>
</tr>
<tr>
<td>N</td>
<td>184</td>
<td>335</td>
</tr>
<tr>
<td></td>
<td>125</td>
<td>164</td>
</tr>
</tbody>
</table>
Title: A Cost Effectiveness Analysis of the Family Planning Programs in Nepal

Location: Nepal (nationwide)

Sponsoring Institution: Integrated Development Systems, Kathmandu

Principal Investigator: Ram Risal

Starting Date: June 1984

Completion Date: March 1986
Problem Situation

Data from surveys conducted in the late 1970s and early 1980s reveal continuing high levels of fertility and low levels of contraceptive prevalence in Nepal. Efforts are needed to increase the effectiveness and efficiency of the family planning program. One possible approach to increasing efficiency might be to perform a cost-effectiveness analysis in which the relative efficiency of different operational strategies and contraceptive services could be observed, permitting the identification of more efficient strategies and methods that might be expanded in the future so as to improve the efficiency of the program as a whole.

A cost-effectiveness analysis was undertaken in 1983 under World Bank auspices. However, this analysis was limited to only two of the four major family planning projects: the Family Planning/Maternal and Child Health (FP/MCH) Project and the Contraceptive Retail Sales (CRS) Project. No such analysis had been performed for the other two family planning projects -- the Family Planning Association of Nepal (FPAN) or the Integrated Community Health Services Development Project (ICHSDP). Furthermore, the 1983 study suffered from a limited data base for assumptions in disaggregating health and family planning costs, failure to adjust for over-reporting of acceptors, lack of data necessary for disaggregating costs by contraceptive method, and a disregard of trends over time.

Study Objectives

The ultimate objective of this study was to provide policymakers and program managers with information on the relative efficiency of the various existing strategies for delivering family planning services in Nepal. More specifically, the study was intended to provide cost-effectiveness ratios for family planning services offered by each of the four main projects during three fiscal years: 1974-75, 1979-80, and 1982-83 (the most recent year for which data were available). In addition to providing cost-effectiveness trends and levels for the four agencies, it was also intended to provide comparative cost-effectiveness ratio for individual contraceptive methods, including breakdowns of costs for recruitment of new acceptors and for maintenance of continuing users.

Research Design

For the main objective of obtaining cost-effectiveness ratios for each of the four major projects, raw financial data for the years to be studied were extracted from the financial accounts of the agencies and data on numbers of acceptors during the same years were obtained from their service statistics. The
acceptron data were processed using assumptions about continuation rates and contraceptive effectiveness, to produce estimates of couple years of protection (CYP) and births averted, permitting refinement of the cost-effectiveness measures.

For the purpose of estimating method-specific cost-effectiveness ratios, it was necessary to obtain additional data on time allocation for disaggregating cost data (on the assumption that time allocation at the field level is the best indicator of overall allocation of costs, including overhead costs). For this purpose 51 clinics and health posts representing the three agencies and the three topographic regions of Nepal (plains, hills, and mountains) were sampled and visited by researchers who interviewed personnel and observed operations to obtain detailed data on time allocation. The data from this part of the research permitted assessment of how much time was spent on family planning vs. other health activities as well as disaggregation of family planning time by method and by time spent on initial acceptors and on continuing users.

Major Findings

The detailed analysis of cost effectiveness intended originally could not be performed because of the unavailability of disaggregated data on sterilization camps. Available cost data did not distinguish between costs of operating fixed clinics (or health posts) and costs of operating mobile sterilization services (camps). Field observation did not include visits to camps; as a result, no data were available on time allocation of personnel for setting up camps, recruiting acceptors for them, and providing services in them. Even service statistics did not distinguish between sterilization acceptors at camps and at stationary clinics. Since the camps account for a very large proportion of all family planning acceptors, it was not realistic to make arbitrary assumptions about the extent to which they added to time spent on family planning, thereby rendering the clinic-specific data on time allocation for family planning and health activities useless.

As a result of this gap in the data, it became impossible not only to provide the refined method-specific cost-effectiveness estimates that had been intended but even to provide valid cost effectiveness estimates for the main projects. The best that could be done with the data at hand was to relate costs for total integrated (health plus family planning) services to family planning output measures (acceptors, CYP, and births averted). Since relative health and family planning allocation varied among the projects, comparison among these measures is not really justified. Nevertheless, in the absence of any better alternative, the cost-effectiveness ratios were calculated with the following key findings:
1. Considering the non-comparable nature of the cost ratios, there was surprisingly little variability among the four agencies during the most recent (1982-83) fiscal year. The cost per birth averted ranged only from Rs. 716 (for the CRS) to Rs. 1,085 (for the mainstream FP/MCH Project).

2. In constant prices, 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 services doubled during the same period. However, the increase in the ICHSDP cost ratio can probably be explained largely if not entirely as a result of increasing emphasis on non-family planning activities.

The field observation of clinic activities provided a wealth of data on time allocation of potential use in its own right. Even though the lack of data on camp costs and effects prevented utilization of the clinic data for the cost analysis as intended, summary data on time allocation were presented in the study report so that it will be available for future applications. No attempt is made in this summary to describe the findings presented since they are not germane to the objectives of the cost-effectiveness study.

Program Implications

Owing to the shortcomings in the data, this study provided no clear implications for program managers regarding the relative efficiency of the four major programs or of the various methods offered by them. However, the study does draw attention to other important implications. First, it calls into question the validity of the previous cost-effectiveness analysis since it was presumably beset by the same lack of data that invalidated the present study. Second, it indicates the futility of attempting further cost-effectiveness analyses in Nepal using the cost data and service statistics presently available. If a valid cost analysis is to be conducted in the future, either the accounting and record-keeping procedures should be changed to permit adequate disaggregation of the raw data (so that retrospective cost analyses on activities in the coming years will be possible) or cost-effectiveness analyses should be designed and implemented prospectively, with advance assurances of cooperation from the family planning service delivery agencies involved (so that special data gathering procedures can be employed to ensure comparability of the cost-effectiveness ratios generated).
<table>
<thead>
<tr>
<th><strong>Title:</strong></th>
<th>Evaluation of the Cebu Male-Specific Campaign</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location:</strong></td>
<td>Metro Cebu, Toledo and Danao City, Philippines</td>
</tr>
<tr>
<td><strong>Sponsoring Institutions:</strong></td>
<td>Population Center Foundation</td>
</tr>
<tr>
<td></td>
<td>University of the Philippines College Cebu Center for Regional Development Operations (CREDO)</td>
</tr>
</tbody>
</table>
| **Principal Investigators:** | Esperanza V. Manuel  
Project Director |
| | Antonio C. Lim  
Research Associate |
| | Aida C. Sarmiento  
Research Associate |
| **Starting Date:** | May 1983 |
| **Completion Date:** | September 1985 |
Problem Situation

Family planning programs have been mostly addressed to women. This has been especially true with information education and communication (IEC) efforts. What factors hinder gaining active male support and participation in family planning programs? What accounts for the preponderance of female sterilization over male sterilization? Related studies point out that the significantly low level of vasectomy acceptance among males has been attributed to a great extent to the "machismo" complex, i.e., the male's fear of losing his virility if sterilized. The very thrust of program efforts which centered on women may have affected male attitudes towards family planning. Data from the field also seem to suggest that most males believe that the burden of childbearing and responsibility should be left to the wife and that the husband's share of the burden is the economic welfare of their families.

Study Objectives

To increase male involvement in the family planning (FP) programs, especially in the rural areas. This study tested and evaluated an IEC strategy geared towards encouraging rural-based males to become active participants in the family planning program, especially with regards to acceptance of vasectomy. The ultimate objective of the campaign evaluation was to assess the effects of the campaign on husband's family planning awareness, knowledge, attitudes and practice (AKAP), especially with regard to the more effective contraceptive methods (MEM).

The immediate objectives were:

a) In the first phase (1983), to conduct a baseline survey of a randomly-selected sample of married couples of reproductive age (MCRAs) ages 15-44 in three rural districts to determine the level of AKAP of couples in the area.

b) In the second phase (1984), to conduct a posttest survey to evaluate the effectiveness of the IEC strategy involving males, in terms of increased AKAP levels among MCRAs in the target area.

Hypotheses

1) The level of FP awareness, knowledge, attitudes, and practice, particularly with regards to vasectomy will be significantly higher after the campaign than before.
2) Attitudes about small family size, more effective contraceptive methods, and vasectomy will be significantly more favorable after the campaign.

3) Family planning awareness, knowledge, attitudes and practice will be positively correlated with degree of exposure to the male-specific campaign.

4) There will be a detectable upward shift in the trend line of vasectomy acceptance during the course of the campaign.

Research Design

Independent samples were used for the baseline and posttest surveys. From a complete listing of all barangay service points (BSP), forty BSP units were sampled. Systematic sampling was utilized to select, from each BSP unit, 20 husbands from the list of married couples of reproductive age. A total of 800 respondents for the baseline and the posttest survey were interviewed.

The campaign was conducted from July 1983 to June 1984. Three cities on the island of Cebu: Metro Cebu; Toledo; and Danao constituted the study area. The baseline survey was conducted from May to June 1983 and the posttest survey from September to October of 1984.

In order to evaluate the effectiveness of the campaign, the baseline and posttest responses were compared and differences tested for statistical significance. The t-test statistic was used to compare the AKAP levels of the two independent samples. In addition, data from the program service statistics in the project area were used for an analysis of program methods for the period from January 1982 to December 1984. There were several limitations of the research design including: the absence of a control group which would have implied cause-effect relationships; the use of two independent survey samples; the recency of the campaign when the evaluation was conducted; and the nature of the campaign requiring a longer period of time for decision-making on the irreversible method of vasectomy. Also, the time of the campaign occurred during a period of great national stress and anxiety, a time of great economic and political upheavals throughout the nation.

The campaign was carried out by the Full-Time Outreach Workers (FfOWs) and Barangay Service Point Officers (BSPOs). Both groups underwent training. Other campaign activities included a mobile IEC team that promoted vasectomy, radio publicity, and the production of IEC support materials for distribution to potential vasectomy acceptors and field workers.
Major Findings

1. Comparison of data from the two survey rounds regarding respondent characteristics revealed only slight differences, indicating comparability of the independent samples. However, there was a decline in reported exposure to the mass media, probably indicative of declining economic conditions during the intervention period.

2. The proportion of respondents who said they wanted no more children increased significantly, though this finding may have reflected declining economic conditions more than the effects of program communications.

3. Significant but small increases in awareness of the more effective program methods, including vasectomy, were noted.

4. Reported knowledge of service sources increased significantly regarding vasectomy, IUD, and rhythm but not regarding pills, ligation, or condoms.

5. Approval of more effective methods and supportiveness for the wife's use of contraception declined significantly.

6. Contraceptive prevalence did not change significantly, nor did prevalence of use of vasectomy. The only method with a significant increase in use was ligation. Interestingly, the only significant decrease in use was found for condoms, a "male" method.

7. Time series analysis of vasectomy, ligation, and IUD acceptances showed no discernable program effect during the intervention period or during the months immediately following it. Ligation acceptances showed a constant trend (with fluctuations) during the intervention period and a decline subsequently. IUD acceptances declined gradually during the intervention period, and this decline accelerated subsequently. Vasectomy acceptances increased sharply several months before the campaign began and fell nearly as sharply a few months after it began. It began to rise again only during the last two months of the campaign and continued to rise subsequently. This later rise may have been influenced to some extent by the campaign, but it appears to be fully consistent with a long-term rise that was already occurring independently of the campaign.

8. Exposure to communications from field workers and mass media sources declined significantly from the year preceding the first survey to the year preceding the second survey (i.e., the year of the intervention), indicating that the failure
to affect AKAP variables resulted largely from failure to convey the campaign's messages to the target audience.

9. Qualitative analysis, based on informal interviews with selected campaign managers and field personnel revealed several factors that appear to have impeded the effectiveness of the campaign:

a. District Population Officers, who were responsible for supervising the fieldworkers, were not included actively in training (but only as observers) and were subsequently distracted by an "urban poor" project which was concurrently under way. Their supervision of the male-specific campaign was therefore minimal.

b. Despite the original intent of promoting more involvement of husbands in family planning in general, the training of field workers and promotional messages in the mass media concentrated single-mindedly on vasectomy, thereby ignoring the need to reach husbands who might be willing to practice contraception but were not ready for sterilization.

c. The campaign period coincided with a period of particularly low morale for population field workers in the face of widespread layoffs, rapidly declining real income, and increased delays in salaries and reimbursements.

d. Local elections were held in May 1984, and nearly all population fieldworkers were used as campaign workers of the incumbents, most of them on a full-time basis or nearly so, for several months preceding the election.

e. The credibility of the field workers as motivators of husbands was often questioned owing to the fact that about 95 percent of them were women (and most of them relatively young).

f. Many of the 40,000 copies of the vasectomy pamphlets printed for the campaign apparently failed to reach their intended audience. Only 20,000 of them were acknowledged to have been received by the Population Officer of Cebu City, where the great majority of the target population resided, and survey responses indicate that only a fraction of this number were received by husbands.

g. The audio-visual team, which was supposed to be a major element of the mass-media component of the campaign, was seriously hampered by financial constraints and bureaucratic red tape as well as by a policy that
prevented them from operating in relatively urbanized areas where they could have reached larger and more receptive audiences.

h. The sharp increase in vasectomy acceptances over time prior to the campaign appears to have been largely attributable to a special monetary incentive of 100 pesos (as opposed to the usual reimbursement of 25 to 30 pesos) that was offered by a Protestant group, World Vision, from early 1982 to June 1983, as well as to a marked increase in the number of centers offering vasectomy during the same period. Conversely, the decline in vasectomy acceptances during the campaign may have been due in part to withdrawal of this incentive.

i. The rise in vasectomy acceptances after the campaign coincided with the opening of a new vasectomy clinic in the Cebu City Health Office. It was learned that some field workers purposely delayed referring cases for vasectomy until this facility was opened so that credit would not be "lost" to private clinics.

Program Implications

The study reported here did not provide an adequate test of the feasibility of the male-specific campaign originally envisioned, partly because of deficiencies in the research design but more importantly because the campaign was not properly implemented. The research design did not provide for any comparison or control group. Such a group would have been needed to indicate whether the declines in exposure to program communications, for instance, were attributable to some aspect of the program or to an unrelated trend. The research design was further weakened by the fact that the campaign being evaluated was the third phase of a larger study of family planning attitudes and behavior of men and approaches to dealing with them programmatically. The second phase, which immediately preceded the third phase and which was conducted in the same geographic area, may have already had a considerable effect, making it more difficult for the intervention of the third phase to have a significant effect.

Regardless of the design weaknesses, the intervention clearly suffered from poor implementation. To a considerable degree this appears to be attributable to poor management. The training of the BSPOs was done by FTOWs rather than by professional trainers and was done too briefly (and without follow-up, refresher training) to be of great value. Supervisors were not actively involved in training and were given too many other responsibilities, thereby ensuring inadequate supervision.
No provision was made for measuring or monitoring the coverage of either FTOWs or BSPOs, with the result that most of the target audience remained untouched by personal contact with program workers. The distribution of IEC materials and audio-visual services appears to have been poorly managed.

However, much of the difficulty seems to have been out of the hands of the POPCOM Regional Office, which was, nominally at least, responsible for the implementation of the campaign. For instance, financial constraints, which seemed to be at the heart of many of the management problems, were largely a result of POPCOM/Central policies, and limits to contributions made by the local governments in the areas where the campaign was implemented. All POPCOM field activities are implemented through bilateral contracts with the local governments whereby the latter contribute a portion of the field costs and undertake administrative responsibility for the project. If a local government contributes less than the share dictated by POPCOM/Central policies, the share contributed by POPCOM/Central also declines. In the deteriorating economic climate of 1983 and 1984, restrictions on both local and Central financial inputs probably had a pronounced effect on the morale of the field staff and perhaps some lesser effects as well, such as the shortage of funds for the work of the audio-visual team.

The contractual arrangements with local government had even more profound effects on POPCOM's control over field implementation of the campaign. Since the local governments had administrative control over the field workers, and POPCOM's function extended only to technical support, POPCOM's role ended with training. When the local government officials diverted the population workers from family planning promotion to political campaigning, POPCOM was in no position to demand otherwise. With so little basis for control, it is not surprising that POPCOM paid so little attention to training District Population Officers in supervisory techniques or to motivate them to supervise the campaign.

The potential effectiveness of a well-administered male-specific campaign is still unknown. To be adequately tested it would need to be conducted by a committed management with the capability to provide adequate financing, training and IEC support; to command the cooperation of its field staff; and to monitor and supervise operations systematically.
Title: The Introduction of an IEC Package for the Rural Women of Maguindanao: A Pilot Study

Location: Maguindanao Province, Philippines

Sponsoring Institution: Notre Dame University, Cotabato City

Principal Investigator: Alfonso E. Villegas, Jr.

Starting date: September 1983

Completion Date: March 1986
Problem Situation

Region 12 is located in the south-central portion of Mindanao and is characterized by a mixed Christian and Muslim population. Though family planning has been widely accepted in the Christian community, there has been considerable resistance to the practice of family planning by the various Muslim ethnic groups and particularly to the practice of the more effective clinical methods promoted by the family planning program. Resistance has been especially high to both male and female sterilization. One possible reason for Muslim resistance to modern family planning methods may be that the IEC materials and messages developed for promoting such methods are less well-suited to the Muslim groups than to the Christians. Part of the problem is linguistic, since most Christians speak dialects used widely in various parts of the country, whereas each Muslim ethnic group speaks a unique language and therefore requires specially-prepared materials in its own language. In addition, major cultural differences between the Muslim and Christian groups indicate the need to develop materials and approaches that are different not only linguistically but also in terms of cultural norms and values. A third problem is that local Muslim leaders have opposed or had reservations about family planning in general and sterilization in particular.

Study Objectives

The study was intended to test the introduction of an IEC package designed expressly for the largest group of Muslim women in Region 12, the Maguindanao. It was intended that the findings from this study would strengthen the IEC capability of the Commission on Population (POPCOM) for promoting modern clinical methods, particularly female sterilization, among special ethnic groups with distinct cultural values, thus increasing contraceptive prevalence and effectiveness.

More specifically, the study was designed to be conducted in two phases. In the first phase, an IEC package was developed, beginning with a small-scale survey conducted among a sample of 40 Muslim couples living in Maguindanao areas who were not using clinical contraceptive methods. These couples were interviewed in detail about their knowledge and attitudes concerning contraception so as to provide information needed in designing culturally sensitive IEC materials and training curricula for field personnel and for local religious leaders (imams). In addition several religious leaders were brought together to act as an advisory committee for the development of the IEC and training materials. The output of this phase was a heavily illustrated brochure in the Maguindanao dialect that was clearly oriented to the Muslim population; a flip chart patterned after
the brochure for use by family planning outreach workers; and training materials for outreach workers and religious leaders.

The second phase began with training of workers for selected experimental areas and religious leaders in the same areas. Religious leaders agreed to support the POPCOM program and to speak out both informally and in religious gatherings in favor of it. The workers were given multiple copies of the special brochure and flip charts to use in their IEC work. Implementation of the IEC campaign among Maguindanao women using these materials lasted for a period of one year, beginning May 1984.

Both phases were implemented in the Province of Maguindanao by the Regional Population Office of the Commission on Population (POPCOM), using the staff of its Outreach Project.

Hypotheses

The study was designed with the intention of testing the following hypotheses:

1. Consultation with religious leaders and educating them on the FP concepts and methods will change their outlook on family planning, particularly the modern clinical methods of contraception.

2. A program equipped with IEC materials sensitively attuned to Muslim religion, culture, ethnic and morals, and utilizing inputs from Imams and community influentials will reduce Muslim resistance to contraceptive practice. Specifically, it is proposed that:

   a. The new IEC package will help increase FP practice in general and acceptance of modern clinical methods, in particular.

   b. The new strategy will have a positive impact on the awareness, interest, knowledge and motivation and practice of family planning, especially the modern clinical methods of contraception.

Research Design

The study employed a modified experimental design, with pretest and posttest observations for both experimental and control groups. It deviated from a true experimental design in that independent samples were drawn for the pretest and posttest observations. This deviation was necessary so that family planning field workers in experimental areas could not identify a limited number of cases (the survey respondents) for special
attention and ignore the rest of the couples, knowing they would not be observed. Two municipalities were selected as experimental areas and two municipalities as control areas. The experimental areas were matched as much as possible with regard to population size, class of municipality, proximity to sterilization and other contraceptive services, and prevalence of use of modern clinical methods. The four municipalities were selected so as to ensure that experimental and control areas would not share common borders (to minimize the diffusion of communication from experimental to control areas).

In each treatment area (experimental and control), 400 randomly selected Muslim women were interviewed shortly before the intervention period began to provide baseline information. A second sample of the same size was drawn independently and interviewed after the intervention period to provide posttest information. In addition, service statistics were monitored to provide a time series on sterilizations performed on residents of the four municipalities, beginning one year before the intervention began and continuing to the end of intervention period.

**Major Findings**

1. According to posttest survey responses, only 23 percent of the respondents in the experimental areas had been visited by a Full-Time Outreach Worker (FTOW) who spoke about family planning, and 14 percent had been visited by a village volunteer worker (BSPO) about family planning. Though the corresponding percentages in the control areas were even smaller (13 and 4 percent, respectively), the low incidence of personal contact in the experimental areas was bound to undermine the prospect of any widespread influence on contraceptive behavior.

2. The Imams in the experimental areas do not appear to have played the active role they were expected to play in promoting contraceptive practice. Only ten percent of the respondents in the experimental area reported having heard the Imam speak about F.P.* during any religious assembly during the intervention period. However, even this modest proportion cannot be attributed to the intervention since the same proportion of respondents in the control areas also reported hearing the Imam speak out about family planning during religious assemblies. Furthermore, only 4.5 percent of the respondents in experimental areas reported personal communication about family planning with the Imam, as opposed to 6.5 percent in control areas.

* - Family Planning
3. Only 34 percent of the respondents in the experimental areas had seen the special brochure, 13 percent had received a copy, and 5 percent claimed to have read it. The corresponding figures in the control areas were 20, 9, and 8 percent. Thus, though the brochure was not supposed to have been available outside the experimental areas and though the control areas were geographically separated from the experimental areas, proportions of control area respondents not greatly lower than those in experimental areas had seen or received it, and the proportion claiming to have read it was actually greater in the control areas than in the experimental areas.

4. Despite the slight edge experimental areas had over control areas in terms of exposure to interpersonal communications, awareness and knowledge of contraceptive methods declined significantly in the former and increased significantly in the latter.

5. No change in scale scores intended to gauge attitudes toward family planning in general and sterilization in particular was found in either experimental or control areas.

6. Contraceptive practice declined significantly in the experimental areas (from 17 to 10 percent and increased significantly in the control areas (from 10 to 15 percent). However, changes were attributable almost entirely to changes in the use of less effective methods, such as rhythm, condoms, and withdrawal; there was no significant difference in the prevalence of use of more effective methods in either the experimental or control areas.

7. Time series analysis indicated more sterilizations in the experimental areas than in the control areas during the year preceding the intervention (94 vs. 50) but a reversal during the year of the intervention (117 vs. 142). The number of sterilizations increased in both experimental and control areas, but the magnitude of the increase was much greater in the control areas (184 vs. 24 percent).

8. Qualitative analysis based on field visits and discussions with selected POPCOM managers and field staff provided some insight into the reasons for the negative performance of the intervention:

a. An important weakness of the research design was the selection of only two experimental and two control municipalities, since this meant that there were only two experimental and two control FTOWs (one to a municipality). With such small numbers, the potential for individual differences between workers to affect the outcome was very great. As it happened, FTOWs in...
the experimental municipalities were particularly demoralized, and one was actively seeking to find another job so that she could resign.

b. Municipal governments were expected to contribute to costs of family planning field activities and the experimental municipalities were having considerable difficulty in this regard. As a result, FTOW salaries were constantly delayed, and travel reimbursements were eventually suspended, rendering the FTOWs immobile.

c. FTOWs were supposed to rely on the village-level volunteer workers (BSPOs) to do most of the home visiting for them. However, since the BSPOs were unpaid, they tended to make minimal contributions, jointly visiting a smaller proportion of couples than those visited by the FTOW alone.

d. The Provincial Population Officer, who should have been responsible for ensuring that the experimental treatment would be limited to the experimental areas, was bypassed by the Regional Office in the matter of distributing the brochure. When he discovered this, he felt slighted and adopted a hands-off attitude toward the project. This may help explain the relatively large proportion of respondents in the control areas who reported having seen the special brochure.

e. The increase in sterilizations in the control area can be attributed primarily to the initiation of sterilization services by an itinerant medical team in one of the control municipalities during the first quarter of the intervention period. The acceptance rate for this team during the first half of the intervention period, when the team was meeting pent-up demand, accounted for all of the difference between the experimental and control areas during the intervention period. During the second half of the intervention period, 34 couples living in the experimental area accepted sterilization as opposed to only 11 in the control area. Thus the finding that the increase in sterilizations in the control areas was greater than that in the experimental areas was an artifact of changes in services unrelated to the Maguindanao IEC intervention.
Program Implications

The main value of this study was not, as intended, to demonstrate the effectiveness of IEC materials developed specifically for Maguindanao women but rather to draw attention to inherent weaknesses of the management of POPCOM in general and of the Outreach Project in particular. The Outreach Project is a motivational strategy whereby paid workers (FTOWs) are trained and deployed to promote family planning among eligible couples and to select, train, and supervise village-level volunteer workers (BSPOs), who are expected to assist them in the motivational task. The Outreach Project is implemented through contractual arrangements with each of the 75 provinces and 60 cities in the Philippines. Each province or city is expected to contribute to the Outreach Project financially and in return retain administrative control. Furthermore, many provinces (including Maguindanao) delegate some of this fiscal responsibility to the municipalities. This arrangement introduces serious problems, since the local governments usually find it difficult to meet their financial commitments, which results in delayed or reduced payments and cutbacks in staff. These effects are translated into low morale on the part of the FTOWs, which in turn means low productivity, neglect of supervisory functions, and a resultant demoralization among BSPOs.

The problems of delayed and suspended payments and low morale, which appear to have played an important role in determining the outcome of the Maguindanao IEC intervention, can be attributed largely, if not entirely, to the shortcomings of the way the Outreach Project is structured. As long as POPCOM has technical but not administrative responsibility for operations below the regional level it will be unable to improve management of field-level activities; and as long as financially-pressed local governments are forced to contribute more than they feel they can afford for national programs which to them are of relatively low priority, the program will continue to be encumbered by low and delayed salaries and allowances, staff cutbacks, and resulting low morale. In such circumstances, it is doubtful that any innovative projects can flourish, no matter how well designed.
Title: Introduction of a Promotional Package on the Use of Combination of Methods to Improve Contraceptive Effectiveness

Location: North Cotabato and Lanao del Norte Provinces, Region 12, Philippines

Sponsoring Institution: Socio-Economic Research Center
Notre Dame University
Cotabato City

Principal Investigator: Dolores Silva

Starting Date: November 1983

Completion Date: March 1986
Problem Situation

The contraceptive method mix in the Philippines has been characterized by much greater reliance on relatively ineffective, non-clinical methods than in most other developing countries with similarly active family planning programs and comparable overall prevalence levels. After the 1978 Republic of the Philippines Fertility survey revealed that the two most popular methods, accounting for half of all reported contraceptive practice, were rhythm and withdrawal, program managers became more concerned than previously with the reliance on less-effective methods (LEMs), and their concern was intensified when the 1980 Community Outreach Survey showed much the same pattern.

Two basic approaches for dealing with high LEM prevalence have been considered. One is to try to persuade LEM users to switch to more effective methods (MEMs), like sterilization, IUD, or pills; the other is to try to upgrade the quality of LEM use. One way of improving the quality of LEM use appears to be to promote the use of such methods in combination with each other. Analysis of data from the Community Outreach Survey indicated that the use of rhythm in combination with withdrawal or condoms is not only popular but more effective than the use of any one LEM alone. However, it was not known whether a deliberate effort by the family planning program to promote the use of such combinations could increase their prevalence and thereby improve the use-effectiveness of LEMs as a whole.

Study Objectives

To test the effects of promoting rhythm combinations on the method mix and on the effectiveness of LEM use, a pilot project was designed by the POPCOM Regional Office for Region 12 (Central Mindanao) and tested for a one-year period in ten municipalities purposively selected for a high ratio of LEM users to MEM users. The intervention consisted of a brochure promoting practice of a simplified calendar rhythm formula for identifying safe and unsafe days and recommending reduced sexual frequency during the unsafe days, coupled with use of either condoms or withdrawal during those days; a flip-chart based on the brochure for the use of field workers in home visits; and a special training program for the Full-Time Outreach Workers (FTOWs) who, together with unpaid village-level workers (BSPOs), would be responsible for promoting the combination method.

Hypotheses

1. There will be significantly greater use of LEM Combinations after the program campaign than before.
2. There will be more reliance on improved patterns of LEM practice after the program campaign than before.

3. LEM knowledge and attitudes will be positively associated with exposure to the new IEC brochure and to field personnel trained in the promotion of LEM combinations.

Research Design

The evaluation scheme employed a separate-sample, pretest-posttest design without any control group. It entailed selection of five BSP areas each from the ten pilot municipalities selected for the study. Five of the municipalities were in North Cotabato Province; the other five were in Lanao del Norte Province. Each was under the jurisdiction of a different FTOW. Prior to the intervention, in each of the BSP areas, an enumeration of all married couples of reproductive age listed in BSP records was conducted. During enumeration, these couples were asked about their contraceptive practice. Those respondents who said they were using LEMs or had used one or more LEMs during the preceding twelve months were included in the sampling frame, from which 10 survey respondents were randomly sampled, yielding a total sample of 500 respondents. This process was repeated after the one-year intervention period. The findings from the two survey rounds were compared to determine what changes, if any occurred during the intervention period.

In addition to the survey data, qualitative information was obtained through informal discussions with POPCOM managers and field personnel, through direct observation in the field during the course of the intervention, and at a mid-term project forum, conducted after the first six months of the intervention period, during which FTOWs and their supervisors met with regional POPCOM managers to discuss problems and ways of dealing with them during the remainder of the intervention period.

Major Findings

1. The campaign reached only about half (57 percent) of the posttest survey respondents. In one of the two provinces (Lanao del Norte), 78 percent of the respondents reported contact with one of the three communication sources (FTOWs, BSPOs, or brochure), but only 40 percent reported such contact in the other (North Cotabato). Overall, 42 percent had been visited by an FTOW and 39 percent by a BSPO, 42 percent had seen the brochure, and 34 percent had received a copy.
2. Twenty-three percent of the respondents in the second round of interviews (representing all couples who reported during enumeration that they had used LEMs during the intervention period) reported that they had tried following the brochure's instructions for calculating safe and unsafe days; 19 percent reported trying to follow the instructions for using other methods in combination with rhythm.

3. The prevalence of rhythm combinations declined by six points in North Cotabato and five points in Lanao del Norte; the prevalence of rhythm alone rose by three points overall -- five points in Lanao del Norte and two points in North Cotabato.

4. Knowledge and attitude measures showed little or no change over time.

5. Use-effectiveness analysis validated previous findings that failure rates are lower for combination users than from users of rhythm alone.

6. Exposure to the campaign through either interpersonal contact or the brochure was positively associated with willingness to use combinations and negatively associated with use of rhythm alone.

Program Implications

The findings appear to be contradictory. Prevalence data indicate declines in rhythm use and especially in the use of rhythm combinations. However, substantial proportions of survey respondents reported that they read and were influenced by the brochure, and bivariate analysis indicates that exposure to the brochure or outreach workers was positively associated with use of or willingness to use combinations and negatively associated with use of rhythm alone. On the basis of the survey data, therefore, we would be inclined to conclude that the IEC package, if it reaches large numbers of couples, can be effective. On the basis of the prevalence data, though, we tend toward the conclusion that the intervention was entirely ineffectual. In North Cotabato, where less than half of the posttest survey respondents reported exposure to the intervention, the absence of any evidence of an effect on contraceptive practice is not surprising, but in Lanao del Norte, where the intervention reached nearly four fifths of the respondents, the increase in preference for rhythm alone over rhythm combinations was if anything more pronounced than in North Cotabato.

The positive findings from bivariate and use-effectiveness analyses suggest that the development of an effective strategy
for promoting use of rhythm combinations in preference to rhythm alone is both feasible and worthwhile. The failure of the intervention tested in this study to affect rhythm prevalence in the hypothesized manner suggests a need to redesign the intervention and to take greater care to ensure that it is implemented as intended.
Mobilizing Satisfied Users for Promoting Family Planning: Final Report on a Pilot Study in the Eastern Visayas Region of the Philippines

Samar and Leyte Provinces and Biliran Sub-Province, Eastern Visayas Region, Philippines

University of the Philippines College Tacloban

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Mr. Wilfred G. Barloso
Mr. Domingo A. Mateo
Mr. Antonio A. Abilar
Mr. Dominador B. Mondragon

March 1984

February 1986
Problem Situation

The performance of the family planning program in Region VIII (Eastern Visayas) has consistently been below the national average especially in recruitment of acceptors of the more effective methods (MEM). There is thus a need to take special steps to increase effective contraceptive practice in the region. One way may be to increase the ratio of program workers to eligible couples. The Full-Time Outreach Worker (FTOW), the main family planning worker of the program, is expected to cover an area inhabited by an average of 2,000 married couples of reproductive age (MCRA). Since this number of couples is too large for the FTOW to cover alone, he (or, more likely, she) is expected to establish and manage village-level Barangay Service Points (BSPs), manned by volunteer BSP Officers (BSPOs), who are expected to help with motivation. However, BSPOs often cover only a small proportion of couples, especially in place where MCRAs are dispersed over a large area. As a result, the existing field staff does not fully meet the motivational needs of the MCRAs.

Study Objectives

The objective of this study was to test a strategy whereby the family planning motivation program in the region could be strengthened by augmenting existing staff with specially trained satisfied users of effective contraceptive methods as motivators. More specifically, the study called for the Regional Office of the Commission on Population (POPCOM) to:

1. Develop a training program for "Satisfied MEM-user Volunteer Motivators" (SMVMs) adapted from the BSPO training design;
2. Select and train 60 SMVMs from 40 BSP areas (two from each of 20 BSP areas and one from each of the other 20); and
3. Supervise and monitor their work in the field for a 12 month period.

The BSP areas were purposively selected for large population size and low population density and relatively low prevalence (especially of MEMs).

Hypotheses

1. Overall and MEM prevalence rates will increase following the training and fielding of SMVMs.
2. Prevalence rates will increase more areas with two trained SMVMs than in areas with only one trained SMVM.
3. The cost per additional MEM-user following deployment of trained SMVMs will be less than the pre-existing average cost per MEM-user.

Research Design

The project incorporated an experimental pretest-posttest design with two experimental treatments and one control group. The sampling unit was the BSP. Sixty purposively sampled BSPs were randomly allocated to the three groups, 20 BSPs falling in each. In each of the 60 sample BSP areas, a complete initial enumeration of the contraceptive practice of each MCRA was conducted in April-May 1984, before the training and deployment of the SMVMs. Another complete enumeration was undertaken for the same BSP areas during July 1985, following the intervention period.

During October-December 1984, researchers visited ten randomly selected BSPs with one SMVM and ten with two SMVMs to validate the SMVMs' records, to assess their knowledge and motivation, to discuss with the SMVMs, BSPOs, and FTOWs, the implementation procedures, supervision, problems of implementation, and perceived needs for additional training, and to observe directly the SMVMs' motivational activities and records. The findings from this first field observation were communicated to POPCOM with recommendations for modifying implementation guidelines, improving supervisory procedures, and retraining SMVMs and others for the second half of the intervention period. During April 1985, the researchers visited the remaining twenty BSPs to replicate the validation, assessment, discussion, and observation activities conducted during the first observation period. This second field observation permitted assessment of the extent to which changes were introduced following the first round of observation. The combined data from the two rounds of field observation provided a basis for identifying the strengths and weaknesses of the intervention and for rating the SMVMs' level of activity and knowledge.

Major Findings

1. Comparison between experimental and control areas provides no evidence that the deployment of trained SMVMs had any effect on either MEM prevalence or overall prevalence.

2. Comparison between the two experimental groups provides no evidence that fielding two SMVMs had any greater effect on either MEM prevalence or overall prevalence than fielding only one SMVM.
3. Since there was no evidence that the intervention had any effect on prevalence, it was impossible to do the cost-effectiveness analysis required for testing the third hypothesis.

4. When the analysis for testing the first hypothesis was limited to individual provinces, no difference in prevalence trends found between experimental and control areas in Samar or Leyte, but the hypothesized pattern was found in Biliran, where prevalence rose by 12 percentage points in the experimental BSP areas and declined by 5 percentage points in the control area. However, the significance of this finding is not clear, since Biliran had only five experimental BSP areas and two control BSP areas. (The second hypothesis was not supported in any of the three provinces.)

5. When prevalence was cross-classified with measures of SMVMs' activity level, knowledge level, or contraceptive method, very little relationship was observed. To the extent that there were relationships, they were positive with regard to MEM prevalence but negative with regard to overall prevalence (indicating a tendency of more active, knowledgeable SMVMs to promote increased MEM use but an even greater tendency for them to inhibit use of less effective methods.

6. The qualitative data from the researchers' observation of training, from the two rounds of field observation and from interviews, and discussions with project managers at POPCOM produced several insights that help explain why the intervention had so little effect:

   a. Problems began with selection of SMVM trainees. Of the 60 trainees expected to show up for the two scheduled training sessions, only 44 showed and some of them had to be replaced because they fell short of the selection criteria. As a result additional training sessions had to be scheduled.

   b. The training itself was limited to lectures and discussions with no opportunity for role-playing or other practical applications. The additional training sessions had to be condensed from the originally intended two days to one day for financial reasons. Results of pre- and posttest designed and administered to the trainees by POPCOM, indicated little improvement in knowledge levels.
c. Coordination between BSPOs and SMVMs in the field was rare, though the work of the SMVMs was intended to complement the efforts of BSPOs.

d. Supervision was minimal and often absent altogether. Supervision was supposed to be provided by the FTOWs, but most FTOWs were demoralized by low and declining real income levels, by continuous staff cutbacks, and by a widespread belief that USAID support for population activities would be terminated at the end of 1985. Their travel allowances also did not permit frequent visits to the field. Furthermore, several of the FTOWs were simply inactive. As a result, many SMVMs never saw their FTOWs after training and most of the rest saw them only rarely.

e. Though SMVMs were provided in training with single copies of printed IEC materials, the great majority did not have multiple copies to distribute to others.

f. Most SMVMs became inactive after the first two or three months following training, during which they visited a few neighbors each month. Without supervision, IEC support, or any other recognition from the program, they soon lost interest in promoting family planning.

Program Implications

The positive experience in Biliran and the positive association of MEM prevalence with level of SMVM knowledge and activity suggest that a well-designed and conscientiously implemented strategy of using satisfied acceptors of effective methods to promote increased use of such methods could succeed. However, the experience in the present project has indicated a number of shortcomings that would have to be overcome. Communication between management and the field would have to be strengthened so that selection and recruitment for training would be consistent with plans. Training would need to be upgraded. Supervision at the field level would need to be ensured. SMVMs would need multiple copies of IEC materials.

There is good reason to question whether these conditions could be met given the present level of management in POPCOM and the current design of the Outreach Project, under which FTOWs and their work are supported. The Outreach Project is implemented through contracts between POPCOM and the local governments (provinces and cities). Over the years, POPCOM has required local governments to contribute increasing proportions of program costs. As local government costs have risen, so has the local government's administrative control over Outreach Workers'
activities. Conversely, POPCOM's control over field activities has eroded. The selection of candidates for SMVM training was the responsibility of the Provincial Population Officers, whose accountability is to their provincial governors rather than to POPCOM. The poor screening of candidates and the fact that so many failed to show up for training reflects the POPCOM Regional Office's lack of control over provincial and lower level personnel.

Furthermore, most local governments have objected strongly to the magnitude of the contribution they are expected to make, and many have eliminated large numbers of FTOW positions so that they could limit their contributions to more acceptable amounts. The effects of these cutbacks on FTOW morale have been exacerbated by delays in salary payments, reductions in travel allowances, and rapid inflation.

Apart from the lack of control and low morale engendered by the implementation of the Outreach Project through contracts with local government, it appears that lack of commitment on the part of the regional office may have served to undermine the SMVM project further. POPCOM's own testing procedure indicated that the training had not had much effect on the SMVM trainees' knowledge, yet POPCOM did nothing to compensate for the deficiency. Following the first field observation, the research team submitted to POPCOM a report noting the shortcomings observed and a list of recommendations for improving field operations. The POPCOM Regional Officer, by his own admission, made no effort to act on the recommendations.

With a higher level of commitment from POPCOM, greater POPCOM control over field operations, and higher field worker morale, the SMVM project might have been successful. Under the conditions that prevailed, it was not put to a meaningful test.
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<th>The Use of Social Network Analysis for Increasing and Improving Family Planning Practice in Region VI, Philippines</th>
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<td><strong>Location:</strong></td>
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<td><strong>Principal Investigators:</strong></td>
<td>Venancio Ardales Fely P. David</td>
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**Problem Situation**

In the Western Visayas (Region VI of the Philippines), the prevalence of the more effective method offered by the family planning program (sterilization, the IUD, and pills) has long been notably low in comparison with the prevalence of other methods. In May 1983, for instance, service statistics indicated that only 18 percent of the couples in the barangays (villages) covered by Barangay Service Points (BSPs) were using the more effective methods (MEMs) as opposed to 25 percent who were reported to be using less effective methods (LEMs).

The Regional Office of the Commission on Population (POPCOM) observed that some family planning Full-Time Outreach Workers (FTOWs) had been successful in increasing MEM prevalence following the introduction in mid-1981 of a "Managerial Effectiveness Program," in which they had been trained in management skills. A variety of techniques for improving performance had been included in the training, but informal communication with field workers had indicated to POPCOM regional managers that the main element responsible for increasing MEM prevalence had been the use of Social Network Analysis (SNA) to supplement the efforts of FTOWs and BSP Officers (BSPOs). SNA enabled FTOWs and BSPOs to identify satisfied users of MEMs to act as "linkers" in efforts to motivate particular friends and relatives who had been targeted as potential MEM acceptors. The fact that relatively few FTOWs had succeeded in increasing MEM prevalence was attributed to the fact that the SNA training was not standardized and was just one of a variety of skills included in FTOW training. As a result, many FTOWs did not try to use SNA and others did so inefficiently.

**Study Objectives**

The present study was intended to test an improved and standardized SNA program, in which recommended procedures were to be spelled out in detail and SNA training was not to be diluted by training in other types of skills. The new program was intended to increase both overall and MEM prevalence more uniformly than the earlier, broader training. It was also anticipated that the focus on SNA rather than a wider range of management techniques would reduce input costs and therefore improve cost effectiveness.

The project was conducted in two phases. First, FTOWs were ranked according to the 1981-83 increase in contraceptive prevalence in their areas of coverage, and the top 36 FTOWs (15 percent of the total in the region) were selected for in-depth interviews to ascertain the extent to which they had relied on SNA and the manner in which they had employed it. The objective of this phase was to determine which elements of SNA were most
likely to result in increased contraceptive prevalence so that they could be incorporated into the new standardized SNA training.

In the second phase, the 20 lowest-performing districts in the region were selected and randomly divided into 10 districts (with 54 FTOWs) designated as treatment areas and 10 (with 57 FTOWs) designated as control areas. The FTOWs in the experimental areas received SNA training and were instructed to train their BSPOs in turn and implement the SNA during a one-year period.

Hypotheses

1. The use of the standardized SNA will result in a significant increase in the rate of MEM use; and

2. The use of the standardized SNA will significantly increase the overall contraceptive prevalence rate.

Research Design

The in-depth survey of FTOWs in Phase 1 provided an opportunity to gain a clearer understanding of how SNA is utilized by successful FTOWs and therefore to provide to program managers information useful for improving the design of SNA training.

In Phase 2, the experimental design permitted comparison between equivalent experimental and control areas. In each of the 57 experimental FTOW territories and in each of the 54 control FTOW territories, one BSP area was randomly selected for enumeration both before and after the one-year intervention period. These enumerations permitted the measurement of pretest and posttest contraceptive prevalence levels in representative samples of couples in the experimental and control areas.

In addition, program statistics were collected for all experimental and control BSP areas (including those not selected for special enumeration. Comparison between enumeration and service statistics data for the sample BSP areas permitted derivation of adjustment factors for correcting service statistics to compensate for systematic biases, and comparison of the adjusted service statistics prevalence rates permitted assessment of the SNA effects in non-sample areas. This latter comparison was necessary to ensure that FTOWs would not focus all their efforts on the sample BSP areas where they knew pretest and posttest enumerations were being undertaken.
Finally, to augment the dry quantitative findings from comparisons of prevalence levels and to help researchers and managers understand the mechanisms underlying both implementation of SNA and its effects on contraceptive prevalence, researchers visited all the experimental districts during the eighth and ninth months following FTOW training for observation and interviews. They interviewed the District Population Officers (responsible for supervision), the FTOWs, and a convenience sample of BSPOs. The guidelines for these interviews were similar to the guidelines for the interviews of successful FTOWs in the first phase.

**Major Findings**

The prevalence data indicated at best a weak positive effect of SNA on MEM prevalence and a negative effect of similar or somewhat greater degree on LEM prevalence. As a result, the net effect on overall prevalence was slightly negative but close to zero. In the sample BSP areas, female sterilization prevalence rose more in experimental areas than in control areas, but the former increase was only two percentage points greater than the latter; a similar positive effect was found for pills; there was no evidence in these areas that SNA had had any effect on vasectomy or IUD prevalence. On the other hand, adjusted service statistics estimates indicated small positive effects for pills and the IUD but no effect for female or male sterilization.

Qualitative assessment, however, reveals that the SNA approach did not receive a valid test. The POPCOM Regional Office learned more than six months after the initial training of FTOWs that most of the trainees had not begun to train their BSPOs or attempted to implement the intervention. This inaction was attributed to the fact that they had been told during training that the manual and forms for the SNA that had been designed before training would be revised on the basis of feedback from trainees, but that revised manuals had never been sent out. (Revised forms had been sent out to District Population Officers about two months after training but, in the absence of revised manuals or accompanying instructions, and with the coincidental devastation of large portions of the experimental areas by two successive typhoons about the same time, the revised forms were set aside.)

In the seventh month of the intervention period, when the POPCOM Regional Office became aware for the first time that the project was not being implemented by the great majority of FTOWs, a special training team was organized to go around to all the experimental districts, holding special one-day crash courses for training BSPOs and reorienting the FTOW to the SNA. The manual for FTOWs never was revised. Nor were there any written instructions for BSPOs. Most of this second round of training was
conducted during the eighth month of the intervention period.

Since fewer than four of the originally-scheduled twelve months remained for implementing the SNA following the second round of training, FTOWs and BSPOs in the experimental areas were instructed to place special emphasis on implementing the SNA. Since the SNA procedure was supposed to begin with a complete re-enumeration of each BSP area, this compression of available time placed especially great pressure on the FTOWs, who were expected to supervise SNA implementation by all of their BSPOs. Many FTOWs complained that their previous schedules for the revised intervention period had to be drastically revised.

As a result of the intensified pressure following the second round of training, it is difficult to know whether any gains observed in MEM prevalence should be attributed to the use of Social Network Analysis and the resultant enlistment of satisfied users as family planning motivators or to the pressure to set and meet unusually ambitious targets within a short period of time. It seems likely that intensified pressure to meet increased targets would produce a short-term effect more readily than careful implementation of an approach calling for enumeration of the area, identification of satisfied users who could act as "linkers," motivation of such persons to play the "linker" role, and the time required for the "linkers" and program workers to jointly motivate the target couples to go to a clinic and accept a more effective method.

**Program Implications**

Whether the introduction and implementation of the SNA approach can have a measurable, long-term, positive effect on overall or MEM prevalence remains an open question. Findings from the present study indicate a short term positive effect on MEM prevalence but a corresponding (or perhaps even greater) negative effect on LEM prevalence. However, it is not clear whether a longer period of implementation would have resulted in an increased or decreased long-term effect. Furthermore, it is not clear whether the observed short-term effect resulted from implementation of the SNA strategy or from the pressure to meet unusually high targets in a short period of time which was exerted as a result of the delay in the training of BSPOs.

Nevertheless, in interviews with field personnel during the eighth and ninth months of the intervention period (within the first month or two after implementation began in earnest) most of the workers stated that they felt the SNA approach was an improvement over past approaches to increasing contraceptive prevalence. This optimism among field level personnel, together with the mildly encouraging findings regarding increases in MEM prevalence in experimental and control areas, suggest that
further testing of the SNA approach would be worthwhile. Any future test of the strategy should be designed with safeguards to ensure that all phases of the intervention, including design, training, supervision, and field management, are carried out as intended. The interviews with field personnel provided much feedback about shortcomings of training, project management, and field supervision, which need to be taken into account in future efforts.
FAMILY PLANNING OPERATIONS RESEARCH

Title: A Detailed Investigation of Natural Family Planning Use in the Philippines

Location: Philippines (nationwide)

Sponsoring Institutions:
- Demographic Research and Development Foundation
- Office of Population Studies, San Carlos University
- Research Institute for Mindanao Culture, Xavier University

Principal Investigators:
- Dr. Zelda C. Zablan
- Fr. Wilhelm Flieger
- Fr. Francis C. Madigan
- Dr. Mercedes B. Concepcion

Starting Date: September 1983

Completion Date: January 1986
Problem Situation, Objectives, and Research Design

Periodic abstinence is of particular interest to family planning program managers and policy makers in the Philippines and to the donor agencies that help support the Philippine family planning program. Their interest has developed out of the consistent finding over the years that rhythm is one of the most popular contraceptive methods in the Philippines despite the fact that it has never been strongly promoted by the government's family planning program. Though it has been listed as a program method, owing to the fact that the Philippine population is predominantly Roman Catholic, it has not received the degree of attention accorded to sterilization, pills, condoms, or the IUD. The popularity of periodic abstinence has led to growing motivation to develop strategies for increasing its use-effectiveness. However, the development of new strategies has been hampered by a lack of detailed information about the practice of periodic abstinence in the Philippines.

Since the late 1960s, a substantial body of research findings has accumulated regarding periodic abstinence. The findings of studies completed by the end of 1983 have previously been summarized in a paper by Laing (1984). However, most of the findings cited there were based on small-scale studies involving non-representative samples of rhythm users. To determine whether these findings can be generalized to the national level and to explore further questions not addressed or fully answered by earlier research, a national survey of periodic abstinence users was designed in 1983 and conducted in March-May 1984. The present paper is a summary of the findings from that survey, which was called the Natural Family Planning Survey (NFPS).

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 that survey (July-October 1983). The NDS covered a scientifically selected representative national sample of ever-married women in the ages 15-49, of whom 811 reported current use of periodic abstinence. In the NFPS, 607 (75 percent) of these cases were successfully followed up and re-interviewed. The main reasons for loss to follow-up were remote place of residence (rendering

1. The terms "periodic abstinence," "rhythm," "natural family planning" (NFP) are all used here to refer to contraceptive methods that rely on indicators of "safe" and "unsafe" days as a guide to timing sexual activity so as to minimize the risk of conception.
follow-up too costly), change of residence, temporary absence, and refusal. While the systematic exclusion of respondents in remote areas undoubtedly introduced an element of bias into the NFPS sample, the effect of this bias on the validity of the findings does not seem likely to have been great.

Nationally representative data from past studies had been limited by the fact that these studies were structured surveys with a broad range of topics, in which periodic abstinence played only a small part. Such studies provided primarily information on the prevalence and use-effectiveness of periodic abstinence. Most other research findings about periodic abstinence had been obtained from more intensive studies of small samples drawn from limited geographic areas. These studies provided more qualitative data about the ways in which periodic abstinence methods were perceived and used. The NFPS combined advantages of both types of studies. It employed a highly detailed, semistructured interview schedule focused exclusively on periodic abstinence. Its respondents were limited to present and recent past users of periodic abstinence, minimizing recall problems and facilitating the focus of attention on the subject matter of interest. The sample was large enough to permit national-level generalization but small enough to permit limitation of the field staff to the most skilled interviewers and to permit qualitative analysis of relatively superficial quantitative data typical of large-scale, structured surveys.

The NDS and NFPS were both conducted by a consortium of three demographic centers, 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). These centers are located in the three major island groups of the Philippines: UPPI on the northern island of Luzon; OPS in the central Visayan Islands; and RIMCU on the southern island of Mindanao. Each institution administered the collection, processing, and initial analysis of data for its own island group (with the exception that the Bicol Region of Southern Luzon was covered by OPS rather than UPPI). The initial institution-specific analyses were prepared and presented in three reports (Madigan et. al., 1984: Avila, 1985; Zablan, 1985). These reports were limited primarily to presentation of qualitative results for the respective island groups. Subsequently, two national-level reports were prepared and issued, one focusing again on qualitative results but collating the information on the three island groups (Madigan, 1985), and the other presenting detailed quantitative data both for the Philippines as a whole and for each of the major island groups (Zablan, 1986).
Finally, a full length paper presenting highlights from all five reports was prepared by the Population Council's project monitor in Bangkok (Laing, 1986) and distributed as part of the Council's Regional Paper Series. The summary of key findings and implications presented here is drawn from that paper.

**Key Findings and Implications**

1. Periodic abstinence was used by more couples than any other method except sterilization. This continuing high prevalence level reinforces the need for the family planning program to pay special attention to the various periodic abstinence methods.

2. Calendar rhythm is nearly universally practiced by couples who report use of periodic abstinence. This finding indicates a need for special attention to calendar rhythm in particular for improving users' knowledge and practice and providing adequate training for field personnel.

3. Nearly all rhythm users rely on rigid formulas, many of which are at variance with the Ogino formulation, indicating a need to educate calendar rhythm users and potential users about the importance of and procedure for taking cycle variation into account.

4. Most rhythm users do not keep written records on cycle length and are reluctant to keep even simple written records (such as marking a calendar) to help them keep track of safe and unsafe days, indicating a need to provide motivation, training, and simple aids for record keeping.

5. There is widespread reliance on unconventional and probably unreliable indicators to augment calendar calculations (e.g., "black spots" on the thighs or abdominal pain). While the use of such supplementary indicators indicates a healthy effort to improve upon simple calendar formulas, it also reveals a lack of awareness that most of the indicators used are probably unreliable. The family planning program should help rhythm users identify which indicators are likely to be reliable and which not.

6. The NFPS respondents reported a high incidence of chance-taking (unprotected sex during the unsafe days). Furthermore, difficulty of abstaining was by far the most commonly reported problem encountered by rhythm users, and chance-taking was the most frequently cited reason for accidental pregnancy. These findings point to a need to take steps either to reduce the incidence of sex on unsafe days (e.g., by shortening the abstinence period through more precise measurement of the timing of ovulation or by
increasing motivation to avoid sex during the unsafe days) or to decrease the risk of pregnancy associated with sex during the unsafe days (e.g., use of back-up methods by couples whose religious convictions permit, limitation of chance-taking to early or late unsafe days, when the risks are relatively low, rather than the middle days nearest the likely ovulation day).

7. The data on both nature of use and knowledge about periodic abstinence showed a great deal of variation in users' knowledge and skill, pointing to a need to design a broad range of instruction materials and techniques appropriate for different levels of sophistication. For instance, detailed instruction in a combination of Ogino and mucus techniques may be very appropriate for a relatively well-educated, experienced user but serve only to confuse a beginner or a person who has relied solely on a simple formula without any understanding of reproductive physiology.

8. When asked whether rhythm users should teach potential new acceptors their own formula, most clients answered in the affirmative, indicating a need to alert users to the importance of taking into account individual differences in providing periodic abstinence instructions and to enlist their support in referring potential users to properly trained instructors.

9. A majority of NFP users were not even aware of the mucus or thermometer method, and very few reported that they knew how these methods are used. The family planning program could provide instruction in these tested indicators and encourage couples to use them in combination with calendar calculations to improve the accuracy with which safe and unsafe days are estimated.

10. Questions on the timing of ovulation and the variation of risks in the safe days or in the unsafe days revealed widespread lack of awareness of underlying physiology or its practical implications for variation in pregnancy risk; instruction in relevant aspects of reproductive physiology would help users to understand and remember the rules and formulas for effective practice of periodic abstinence.

11. Large proportions of users cited doctors, nurses, or midwives as sources of information about rhythm. This is surprising because of the lack of emphasis on rhythm as a program method and the minimal training in rhythm provided to medical and paramedical personnel. The low level of knowledge and use of rhythm by the NFPS respondents indicates, however, that the instruction presently being provided by such workers is deficient. As a result it ap-
pears that medical and paramedical personnel need improved training in periodic abstinence methods. The importance of improved training for such workers is intensified by the NFFS finding that they are by far the most preferred source of instruction.

12. As expected, large proportions of users cited other rhythm users and even friends or relatives who were not rhythm users as information sources, indicating a need to increase the availability of more reliable instruction by training larger numbers of field workers (especially non-clinical workers) than are presently offering such instruction. Non-medical field workers were rarely mentioned as sources of periodic abstinence instructions, indicating that more trained workers are needed who can offer periodic abstinence outside the clinical setting.

13. Most respondents reported that they had received at most one hour of training and that their training had been conducted in one session. One hour is insufficient for conveying the complexities of any of the periodic abstinence methods. Provision for longer duration of instruction, preferably spread over several sessions, is essential for improving users' understanding and practice.

14. Nearly half of the respondents had attended classes or other group sessions. However, most respondents also indicated that they were trained in only one session and for only one hour or less. These findings indicate that many couples were not receiving the individual counselling necessary for selecting the specific periodic abstinence techniques appropriate for each couple. Instruction should include both classroom lecturing and discussion on the one hand and individual counselling on the other.

15. Though the NFPS did not ask explicitly about follow-up instruction, the evidence on number of training sessions indicates that very few couples were followed up after the initial instruction period or attended follow-up meetings to determine whether they were practicing the method correctly and whether they were having problems requiring further instruction. Follow-up instruction is essential to maximizing use-effectiveness.

16. Few of the respondents had received printed materials or aids for the practice of periodic abstinence; about half of the remainder said that they would like to have such materials. Larger quantities of printed periodic abstinence materials, and aids should be produced and distributed by the family planning program to couples in need of them.
17. Nearly half of the respondents who had printed materials reported that these materials were in English. However, almost all of the respondents who said they wanted printed materials stipulated that they wanted them to be in Philippine dialects rather than in English. The use of English in printed materials should be at least curtailed.

18. About half of the respondents who said that they knew where they could get high-quality periodic abstinence instruction (mostly at clinics) admitted that they had not sought instruction there. This is a common problem with family planning methods in general, and the usual solution is to bring the services to the villages whenever possible. In addition to training more non-medical field workers, recommended above, the program could organize teams to hold periodic abstinence seminars (for both initial training and refresher training later on) in selected villages. Field workers could be enlisted to assist with individual counselling at the time of the seminar and conduct follow-up home visits afterwards.

19. Some respondents cited effectiveness as an advantage of periodic abstinence. This finding suggests that the program needs to emphasize the relative ineffectiveness of periodic abstinence in its communications to users and potential users so that they realize that effectiveness should not be viewed as a reason for use but rather as a risk factor that should be balanced against other types of advantages in the method-selection process.

20. Many husbands were already voluntarily and actively involved in periodic abstinence practice and could therefore be viewed as an important target group to be reached with communications designed to improve the quality of periodic abstinence knowledge and practice. Accordingly, special techniques should be developed for reaching husbands, and interpersonal communication strategies and printed materials should be developed expressly for them.

21. Use-effectiveness analysis revealed low continuation rates and high failure rates for periodic abstinence, indicating that there is much room for improvement. Couples who are dissatisfied with periodic abstinence but will not shift to "artificial" methods should receive counselling to help them find more satisfying ways of continuing periodic abstinence practice. Failure rates can probably be greatly reduced by improved instruction in techniques for estimating safe and unsafe days and by promoting practices likely to reduce the temptation to take chances.
The use-effectiveness analysis also indicated lower failure rates for users of rhythm in combination with withdrawal than for rhythm alone, indicating the value of using backup methods. The program should promote the use of backup methods by couples whose religious convictions permit. Though there were too few cases reporting combined use of rhythm plus condoms in the NFPS to permit general conclusions about the use-effectiveness of this combination, the limited available data support earlier findings that this combination does not improve effectiveness nearly as much as the rhythm-withdrawal combination. (This difference is probably due to the inconvenience associated with condom resupply as well as the greater popularity and effectiveness of withdrawal indicated in past surveys). Generally, program promotion of backup methods in the past has been limited to condoms; the use-effectiveness findings suggest that the program would do better to promote withdrawal as the preferred backup method.

After chance-taking, calculation error was the main reason reported for accidental pregnancy. This finding underscores the need for clear instructions in terms of simple step-by-step procedures that can be used for calculating safe and unsafe days. Such instructions would be facilitated by the provision of simple worksheets that could serve both as a guide for the calculation procedures and as a written record to which the couple could refer so that they would not have to rely on their memories for keeping track of the safe and unsafe days.

References


The following Population Council professional staff participate in the O.R. Project:

<table>
<thead>
<tr>
<th>Role</th>
<th>Staff</th>
<th>Location</th>
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<tbody>
<tr>
<td>Project Manager</td>
<td>Barnett Baron, Ph.D.</td>
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<td></td>
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<td>Driver</td>
<td>Prasert Gorpa</td>
<td>Bangkok</td>
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Note: Fisher arrived in Bangkok September 12, 1981. All Population Council staff associated with the O.R. Project were available for work as of September 29, 1981, when the contract was signed with AID.

23 Person-months per year were available under the O.R. contract. Fisher was the only full-time staff.
## APPENDIX B

### PARTICIPANTS AT O.R. DESIGN WORKSHOPS AND PROPOSALS GENERATED

#### A. Workshop: Bangkok, Thailand, March 22 - 27, 1982

14 Participants

<table>
<thead>
<tr>
<th>Participant Name and Country</th>
<th>Job Category</th>
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<td>Hertono Broto, Statistical Division, Faculty of Public Health, University of Indonesia, INDONESIA</td>
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<tr>
<td>Ramon de la Fuente, POPCOM Regional Officer, PHILIPPINES</td>
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<td>&quot;A study to determine the Effect on DMPA Acceptance of Different Pricing Levels&quot;</td>
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<td>&quot;An Experimental Study to Involve Ayurvedic Physicians in Family Planning Service Delivery&quot;</td>
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<td>&quot;A Study to Determine the Factors Associated with the Use of Traditional Contraceptive Methods and the Use Effectiveness of These Methods&quot;</td>
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<td>&quot;The Introduction and Evaluation of Sterilization IEC Package for Rural Women of Maguindanao&quot;</td>
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<td>&quot;Effectiveness and Ineffectiveness of Metro Manila Outreach Program&quot;</td>
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B. **Workshop**: Bangkok, Thailand, September 27 - October 2, 1982  
16 Participants

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<th>Participant Name and Country</th>
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<tr>
<td>Maria Lourdes Ocampo Planning Research POPCOM PHILIPPINES</td>
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Proposals from September - October 1982 Bangkok Regional Workshop

1. Nepal  
   "A Study of Factors Related to Vasectomy Camp Performance in the Hilly Districts of Nepal"

2. Thailand  
   "An Intervention Study on the Utilization of Vasectomy Acceptors"
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<td>&quot;The Impact of Population Education on Students' Attitude Toward Small Family Size&quot;</td>
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<td>&quot;An Evaluation of the Effectiveness of a Male Specific IEC Services Delivery Campaign&quot;</td>
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<td>8</td>
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<td>&quot;An Introduction of an Experimental Service Delivery Program to Improve Contraceptive Use-Effectiveness Among Less Effective Method (LEM) Users in Region XII, Philippines&quot;</td>
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C. Workshop: Bangkok, Thailand, May 9 - 14, 1983

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<tr>
<td>Lolita Cabaliza</td>
<td>University Teacher Researcher</td>
</tr>
<tr>
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<tr>
<td>Venencio Ardales</td>
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<tr>
<td>Manuel G. Arejola</td>
<td>Government Administrator</td>
</tr>
<tr>
<td>Program Coordinator POPCOM</td>
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<tr>
<td>Daya Abeywickrema</td>
<td>Private Organization Administrator</td>
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<tr>
<td>F.P. Association SRI LANKA</td>
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<tr>
<td>Sriani Basnayake</td>
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</tr>
<tr>
<td>F.P. Association SRI LANKA</td>
<td></td>
</tr>
<tr>
<td>Victor de Silva</td>
<td>Private Organization Researcher</td>
</tr>
<tr>
<td>F.P. Association SRI LANKA</td>
<td></td>
</tr>
<tr>
<td>Sompit Rugseree</td>
<td>Government Physician</td>
</tr>
<tr>
<td>MCH Center THAILAND</td>
<td></td>
</tr>
<tr>
<td>Montchai Chaiyaporn</td>
<td>Government Physician</td>
</tr>
<tr>
<td>MCH Center THAILAND</td>
<td></td>
</tr>
<tr>
<td>Paranee Vatanotai</td>
<td>Private Organization Administrator</td>
</tr>
<tr>
<td>Program Officer Voluntary Sterilization</td>
<td></td>
</tr>
<tr>
<td>THAILAND</td>
<td></td>
</tr>
</tbody>
</table>
Suwat Srisorrachart  
Private Organization Researcher  
Research and Evaluation Div.  
PDA  
THAILAND

Jakkri Bhumisawasdi  
Government Physician  
Rattanburi Hospital  
THAILAND

<table>
<thead>
<tr>
<th>Country</th>
<th>Proposal Title</th>
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<tbody>
<tr>
<td></td>
<td>&quot;The User of Social Network Analysis for Increasing and Improving Family Planning Practice&quot;</td>
</tr>
<tr>
<td>2. Thailand</td>
<td>&quot;A Comparative Study on The Use-Effectiveness of IUD Insertions Between District Hospitals and Midwifery Center Settings&quot;</td>
</tr>
<tr>
<td>Participant Name*</td>
<td>Job Category</td>
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<td>------------------</td>
<td>-------------------------------</td>
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<tr>
<td>Oscar Mabaiot</td>
<td>Govt. Research Coordinator</td>
</tr>
<tr>
<td>Leopoldo Caronan</td>
<td>&quot;</td>
</tr>
<tr>
<td>Aurora Quiray</td>
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<tr>
<td>Teresa Racsa</td>
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<td>Linda Marcayda</td>
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<td>Rex Serio</td>
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<td>Sandra Manuel</td>
<td>&quot;</td>
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<td>Reynalda Perez</td>
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<td>Lourdes Barrios</td>
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<td>Psyche Paler</td>
<td>&quot;</td>
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<tr>
<td>Concepcion Natividad</td>
<td>Government Research Admin.</td>
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<tr>
<td>Victoria Gaba</td>
<td>&quot;</td>
</tr>
<tr>
<td>Nenita Abiada</td>
<td>&quot;</td>
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<tr>
<td>Joe Obordo</td>
<td>Government Administrator</td>
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<tr>
<td>Armando Tolentino</td>
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<tr>
<td>Belle Caguia</td>
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<tr>
<td>Annie Cristobal</td>
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<tr>
<td>Rosario Lambino</td>
<td>&quot;</td>
</tr>
<tr>
<td>Cora Despabiladeras</td>
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</tr>
</tbody>
</table>

All with POPCOM, PHILIPPINES
Proposals from March 1983 Philippines Workshop

A. Evaluation of BSPO Performance
   1. "Evaluation of BSPO Performance"
   2. "Factors for Wide Variations in BSPO Performance"
   3. "Evaluation of BSPOs as a Multi Worker"

B. Utilization of SACs/SUGs as FP Motivators
   1. "Effectiveness of SACs/SUGs as FP Motivators"
   2. "Evaluation of Capital Assistance Self-Employment Project (Case) in Cabanatuan City"

C. Evaluation of Sterilization Centers/Doctors
   1. "Factors for Wide Variation in Performance of VSS-Trained Doctors"
   2. "Utilization of Sterilization Services of Locally-Trained Physicians"
   3. "Factors Affecting High/Low Performance of Sterilization Centers"

D. Evaluation of IEC Strategies
   1. "Factors Affecting Media Approaches for IEC Sectoral Concerns"
   2. "Study on Decentralization of Development and Production of IEC Materials"
   3. "Assessment of Impact of Development Theaters"

E. Evaluation of Training Program
   1. "Evaluation of 21-Day FTOW Basic Training Course"

F. Evaluation of Local Government Support
   2. "Factors Influencing Local Government Support for the Population Program"

G. Study on Rural Married Males
   1. "Study of the FP Knowledge/Acceptance of Rural Married Males"
E. Workshop: New Delhi, India, May 2 - 7, 1983

11 Participants

<table>
<thead>
<tr>
<th>Participant Name*</th>
<th>Job Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardev Singh</td>
<td>&quot;</td>
</tr>
<tr>
<td>Y.P. Gupta</td>
<td>&quot;</td>
</tr>
<tr>
<td>A.S. Ahluwalia</td>
<td>&quot;</td>
</tr>
<tr>
<td>A.C. Jain</td>
<td>&quot;</td>
</tr>
<tr>
<td>K.G. Gupta</td>
<td>&quot;</td>
</tr>
<tr>
<td>N.P. Gajjar</td>
<td>&quot;</td>
</tr>
<tr>
<td>P.J. Ramchandani</td>
<td>Government Researcher Evaluator</td>
</tr>
<tr>
<td>T.D. Khatri</td>
<td>&quot;</td>
</tr>
<tr>
<td>Kerekar</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

* All with State and Central Government Offices, INDIA

Proposal from May 1983 India Workshop

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1. Hamachal Pradesh</td>
<td>&quot;An Experimental Study Designed to Increase the Availability and Accessibility of Oral Pills by Using Village - Level Health Workers as Distributors&quot;</td>
</tr>
<tr>
<td>2. Punjab</td>
<td>&quot;An Experimental Study for Propagation of ORS in the Community as Treatment for Diarrhoenal Disease Amongst Children Under Five&quot;</td>
</tr>
<tr>
<td>3. Hayana</td>
<td>&quot;An Experimental Study to Test a New Approach of Supplementary Feeding to Undernourished Pregnant Women&quot;</td>
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</table>

B10
4. Gujarat

"An Experimental Study Designed to Increase IUD Acceptance through Retraining of Health Workers and More IEC Materials"

5. Maharashtra

"An Experimental Study Designed to Increase IUD Acceptance by Organizing IUD Camps in Areas of the State Not Previously Covered"
F. **Workshop**: Kathmandu, Nepal, February 27 - March 4, 1983  
12 Participants

<table>
<thead>
<tr>
<th>Participant Name*</th>
<th>Job Category</th>
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<tbody>
<tr>
<td>Ram Prasad Risal</td>
<td>Private Organization Researcher</td>
</tr>
<tr>
<td>Integrated Development Systems</td>
<td></td>
</tr>
<tr>
<td>Ashoke Shresthre</td>
<td>&quot;</td>
</tr>
<tr>
<td>New ERA</td>
<td></td>
</tr>
<tr>
<td>Sidharta Man Tuladhar</td>
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<tr>
<td>Shekhar Kumar Regmi</td>
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<tr>
<td>Projects Studies and Analysis Center</td>
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<tr>
<td>Ram Chandra Poudel</td>
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<td>East Consult</td>
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<td>Chitra Bahadur Karke</td>
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<td>Tribuvan University</td>
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<td>Uma Kant Silwal</td>
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<tr>
<td>Development Research &amp; Consulting</td>
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<tr>
<td>Purushottam Singh</td>
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<tr>
<td>Management Research Associates</td>
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<tr>
<td>Kush N. Shresthra</td>
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<tr>
<td>P.F. Association</td>
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<tr>
<td>Dileep Adhikary</td>
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<tr>
<td>Project Research and Management Associate</td>
<td></td>
</tr>
</tbody>
</table>

* All with non-governmental organizations, NEPAL

**Proposals from February/March 1983 Nepal Workshop**

**Proposal Title**


2. "An Experimental Study to Determine the Accuracy of Service Statistics Maintained by the FP/MCH Project's Panchayat Based health Workers"
5. "An Evaluation Study of the Sterilization Incentive Program of His Majesty's Government"
6. "Community Leadership Involvement in the Family Planning Program"
8. "An Evaluation of the Existing Family Planning Service Delivery System with Reference to Sterilization"
9. "A Study to Determine Readjustment Needs to Increase Family Planning Acceptance Through Program Reorientation"
APPENDIX C

OBJECTIVES FOR THE WORKSHOP ON
"FAMILY PLANNING RESEARCH PROPOSAL DEVELOPMENT"

The overall objectives of the Workshop on family planning operations research proposal development are:

1) To foster within the Asian region family planning research which has direct implications for program management;

2) To improve the capabilities of researchers to design, implement and disseminate the findings from research studies.

The workshop is based on the assumption that technically sound research which addresses issues relevant to the operation of national family planning programs can help to increase the availability and accessibility of contraceptive services. The immediate objective is:

By the end of Workshop, each participant or group of participants from a country will have developed a technically sound family planning research proposal that subsequently can be implemented in their home country.
Workshop Schedule
Family Planning Operations Research

Monday

8:15 - 9:30  Introduction of workshop participants and staff

9:30 - 10:15  Objectives of the workshop and review of Research Handbook

10:15 - 10:30  TEA BREAK

10:30 - 11:00  Pretest

11:00 - 12:15  a) Identifying a research problem
b) Defining the problem
c) Justifying the importance of the problem

12:15 - 1:15  LUNCH

1:15 - 2:15  Discussion on needs in Asia for Family Planning Operations Research

2:15 - 4:15  Small group work on identifying, defining and justifying a Family Planning Research Problem

4:15 - 5:15  Presentations by small groups on their research problems identified, defined and justified
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td><strong>Tuesday</strong></td>
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<tr>
<td>8:15 - 9:00</td>
<td>Ultimate study objectives and immediate study objectives</td>
</tr>
<tr>
<td>9:00 - 10:30</td>
<td>Small group work on ultimate study objectives and immediate study objectives</td>
</tr>
<tr>
<td>10:30 - 11:15</td>
<td>Study hypotheses and operational definitions of variables and terms</td>
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<tr>
<td>11:15 - 12:15</td>
<td>Small group work on study objectives, hypotheses, and operational definitions</td>
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<tr>
<td>12:15 - 1:15</td>
<td>LUNCH</td>
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<tr>
<td>1:15 - 3:30</td>
<td>Small group work on study objectives, hypotheses, and operational definitions</td>
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<tr>
<td>3:30 - 5:00</td>
<td>Study Design</td>
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<td>a) Reliability and validity</td>
</tr>
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<td>b) Non-experimental designs</td>
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<td>c) Experimental designs</td>
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<td></td>
<td>d) Quasi-experimental designs</td>
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<tr>
<td><strong>Wednesday</strong></td>
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<tr>
<td>8:15 - 10:15</td>
<td>Sampling: Selecting a study area and a study population</td>
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<tr>
<td>10:15 - 10:30</td>
<td>TEA BREAK</td>
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<tr>
<td>10:30 - 12:15</td>
<td>Small group work on selecting a study design, study area, study sample</td>
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<tr>
<td>12:15 - 1:15</td>
<td>LUNCH</td>
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<tr>
<td>1:15 - 2:30</td>
<td>Continue small group work on selecting a study design, area and sample</td>
</tr>
<tr>
<td>2:30 - 3:45</td>
<td>Data collection techniques</td>
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<tr>
<td>3:45 - 5:00</td>
<td>Small group work on data collection techniques</td>
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</table>
Thursday

8:15 - 10:15  Plan for data tabulation and analysis
10:15 - 12:15 Small group work on plans for data tabulation and analysis (TEA available around 10:00)
12:15 - 1:15  LUNCH
1:15 - 2:00  Dummy tables and plans for analysis
2:00 - 4:00  Small group work on plan for data tabulation and analysis (construct dummy tables)

Friday

8:15 - 9:15  a) Plans for reporting findings
b) Limitations of the study
c) Budget
9:15 - 10:30 Small group work on budget
10:30 - 11:00 a) Work study schedule
b) Appendices
c) Abstract
11:00 - 12:15 Small group work on abstract
12:15 - 1:15  LUNCH
1:15 - 5:00  Small group work to finish study proposal and writing abstract

Saturday

8:15 - 9:15  Posttest and workshop evaluation
9:15 - 10:00 Small group work to finish proposals and prepare for presentations
10:00 - 12:00 PRESENTATIONS OF PROPOSALS TO PANEL
12:00 - 12:30 Closing Ceremony
APPENDIX D

ASIAN ORGANIZATIONS AND INDIVIDUALS ASSOCIATED WITH
THE POPULATION COUNCIL UNDER THE CURRENT OPERATIONS RESEARCH
IN ASIA PROJECT

Shown below are some of the key organizations and individuals who have been directly associated with the Population Council under the Operations Research in Asia Project. This is by no means a complete list and does not, for example, include non-Asian donor agencies such as USAID Missions, UNFPA, WHO, Ford Foundation, TAVS, Pathfinder, and others with whom we have had close contacts.

**BANGLADESH**

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Individuals</th>
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<tbody>
<tr>
<td>Center for Population Research and Management, Dhaka University</td>
<td>Dr. Rahim B. Talukdar, Director</td>
</tr>
<tr>
<td>Concerned Women’s Family Planning Project</td>
<td>Mrs. Mufaweza Khan</td>
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<tr>
<td>Dept. of OBGYN, Dhaka Medical College</td>
<td>Dr. Firoza Begum</td>
</tr>
<tr>
<td>Institute of Statistical Research and Training, Dhaka University</td>
<td>Dr. Mosleh Uddin</td>
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<tr>
<td>International Center for Diarrhoela Disease Research, Bangladesh (ICDDR,B)</td>
<td>Dr. William B. Greenough III, Director</td>
</tr>
<tr>
<td>Ministry of Health and Population Control</td>
<td>Dr. James Phillips</td>
</tr>
<tr>
<td>Mr. A.B.M. Ghulam Mustafa, Secretary</td>
<td></td>
</tr>
<tr>
<td>Mitra and Associates</td>
<td>Mr. S.N. Mitra, Executive Director</td>
</tr>
<tr>
<td>Mr. G.M. Kamal, Research Director</td>
<td></td>
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</tbody>
</table>
National Institute for Preventive and Social Medicine (NIPSOM)
National Institute of Population Research and Training (NIPORT)
Rajshahi University

INDIA
Center Health Education Bureau, New Delhi
Community Health and Family Welfare Unit, Ahmednagar District, Maharashtra
Indian Institute of Management, Ahmedabad
Family Planning Foundation, New Delhi
Indian Institute of Management, Center for Population and Management, Bangalore
Institute for Social and Economic Change, Bangalore
International Institute for Population Sciences, Bombay
Ministry of Health and Family Welfare, New Delhi

State Health Departments:
Haryana
Himachal Pradesh
Punjab

Dr. Ghyasuddin Ahmed
Dr. Syed Waliullah
Dr. M. Ameeruz Zaman Khan
Mr. M.G. Oswal
Mr. P.R. Gaikwad
Dr. J.K. Satia
Dr. R.M. Maru
Dr. Nirmala Murthy
Dr. J.C. Kavoori,
Executive Director
Mr. V.K. Ramabhadran
Dr. B. Ghosh
Dr. Jagdish C. Bhatia
Dr. S.K. Jain
Dr. K. Srinivasan,
Director
Mr. S.S. Nair, Director,
Evaluation
Mr. J.S. Kang, Director,
Planning
Mr. S.K. Sudhakar,
Joint Secretary
Dr. A.C. Jain
Dr. J.P. Yadav
Dr. J.C. Sharma
Dr. R.D. Nar
Dr. A.S. Ahluwalia
Gujarat
Maharashtra

National Institute of Health and Family Welfare, New Delhi
Operations Research Group, Baroda

INDONESIA

Central Bureau of Statistic Demographic Institute, Jakarta
Faculty of Public Health, University of Indonesia

Indonesian Family Planning Association,
Surabaya
Yogyakarta

National Family Planning Coordinating Board (BKKBN)

Yayasan Kusuma Buana
Yayasan Indonesia Sejahtera

Dr. O.P. Gupta
Dr. P.C. Shah

Dr. V. Srinivasan
Dr. Chandrikapure
Dr. Ramchandani
Dr. G.A. Panse
Dr. Kerekar

Dr. Somnath Roy, Director
Dr. D.C. Dubey
Dr. Prem Talwar

Dr. M.E. Khan
Dr. Ratanjeet Singh

Dr. Budi Soeraji
Mrs. Azwini Kartoyo

Dr. Alex Papilaya, Dean
Mr. Hertono Broto
Dr. Budi Utomo

Mrs. Lily M. Soekotjo
Mr. Cahyana E. Purnama

Dr. Haryono Suyono, Chairman
Dr. Peter Sumbung
Dr. Pudjo Rahardjo
Dr. E. Sri Hartati Pandi
Dr. Victor Darmokusumo
Dr. Sugeng Waluyo
Mr. Rachmat Santoso
Mr. Rohadi Haryanto
Mr. Wein Syamsuddin
Mr. N. Omastik

Dr. Firman Lubis, Executive Director

Dr. Lukas Hendrata, Executive Director
NEPAL

Himalayan Study Centre
Integrated Development Systems
Management Research Associates
National Commission on Population
Nepal Contraceptive Retail Sales Company
Nepal Ex-Servicemen's Organization
Nepal Family Planning and Maternal Child Health Project
Nepal Family Planning Association
New ERA
Project Research and Management Associates
Project Studies and Analysis Centre
Research and Communication Centre

Prof. Ganesh Raj Singh
Mr. Uma Kant Silwal
Mr. Ram Prasad Risal
Mr. Purushottam Singh
Mr. K.S. Sharma
Dr. Prakash Upreti
Dr. Puspa Lal Joshi
Mr. Hem Hamal
Col. Basnet
Dr. B.R. Pande
Dr. Jayanti Tuladhar
Mr. Gokarna P. Regmi
Mr. Madan K. Sharma
Mr. Kush N. Shrestha
Mr. Sunder G. Mulepati
Mr. Ashoke Shrestra
Mr. Sidharta Man Tuladhar
Mr. Dileep K. Adhikary
Mr. Shekhar Kumar Regmi
Mr. Chitra Bahadur Karki
PHILIPPINES

Asian Institute of Management
Center for Regional Development Operations, U.P. Cebu
Commission on Population

Family Planning Organization of the Philippines
Graduate Studies and Research Program, U.P. Tacloban
Institute of Mass Communications, University of the Philippines
Institute of Maternal and Child Health
Institute of Philippine Culture
Integrated Research Center, De La Salle University
Office of Population Studies, San Carlos University
Population Center Foundation
Program for the Introduction and Adaptation of Contraceptive Technology (PIACT)
Ramon Magsaysay Foundation Research Group

Dr. Eduardo Roberto
Dr. Esperanza Manuel
Mr. Antonio Lim
Atty. Ramon de la Fuente, Regional Officer (12)
Mr. Manuel Arejola, Regional Officer (6)
Mr. Leo Rama, Regional Officer (8)
Atty. Eugenia Jamias, Executive Director

Atty. Senon Posadas, Executive Director
Dr. Daisy Soledad
Mr. Dominador Mateo
Mr. Wilfred Barloso
Dr. Victor Valbuena
Dr. Cesar Mercado
Dr. Perla Sanchez, Director
Dr. Wilfredo Arce, Director
Dr. Ricardo Abad
Dr. Trinidad Osteria, Director
Fr. Wilhelm Flieger, SVD, Ph.D.

Ms. Aurora Silayan-Go, Director, Programs Division
Dr. Benjamin Carino

Ms. Cecilia Verzosa
Dr. Jean Miralao
Research Institute for Mindanao Culture, Xavier University  
School of Economics, University of the Philippines  
Social Science Research Unit, Central Philippine University  
Socio-Economic Research Center, Notre Dame University  
University of the Philippine Population Institute  

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Dr. Alejandro Herrin  
Dr. Vicente Paqueo  
Dr. Florian Alburo  
Dr. Venancio Ardales  
Mr. Fely David  
Ms. Eva Tan, Director  
Ms. Dolores Silva  
Mr. Alfonso Villegas  
Dr. Mercedes B. Concepcio, Dean  
Dr. Zelda Zablan  

SRI LANKA  
Community Development Services  
Family Health Bureau  
Family Planning Association of Sri Lanka  
Ministry of Colombo Hospitals and Family Health  
Ministry of Plan Implementation  

Brig. Dennis Hapugalle  
Dr. N.W. Vidyasagara  
Dr. Kusum Wickremasooria  
Mr. Daya Abeywickrema  
Mr. Victor de Silva  
Dr. Sriani Basnayake  
Mr. Tissa Devendra  
Dr. Wickrema Weerasooria  
Mr. D.P. Wijegoonasekera  
Mr. A.T.P.L. Abeykoon  

THAILAND  
Department of Management Sciences, Prince of Songkhla University  
Dept. of Public Administration, Prince of Songkhla University  
Faculty of Nursing, Khon Kaen University  

Mrs. Porntip Pongsupaht  
Mrs. Rachanee Kalayakunavuti  
Dr. Chavalit Siripirom  
Dr. Rangson Prasertsri  
Ms. Amporn Charoenchai  
Ms. Earmporn Thongkrajai  

D6
Family Health Division,
Ministry of Public Health

Family Planning Research Unit,
Ramathibodi Hospital

Institute for Population and
Social Research,
Mahidol University

Institute of Health Research,
Chulalongkorn University

Institute of Population Studies,
Chulalongkorn University

Mahidol University,
Faculty of Public Health

National Institute of Development
Administration

Population and Community
Development Association

Research and Development
Institute, Khon Kaen University

Dr. Morakot Kornkasem,
Director
Dr. Suvanee Satayapan
Mr. Suthon Panyadilok
Dr. Wannee Kolasatsenee

Dr. Vitura Osatananda

Dr. Pramote Prasartkul
Dr. Apichat Chamratrithirong

Dr. Nikorn Dusitsin,
Director

Dr. Pichit Pitaktepsombati,
Director
Dr. Napaporn Chayovan
Dr. Orapin Bunnag

Dr. Debsnahom Muangman, Dean
Dr. Orphan P. Matangkasombat

Dr. Peerasit Kamnuansilpa
Dr. Suchart Prasith-rathsint

Mr. Mechai Viravaidya,
Secretary-General
Miss Rachita Na Pattalung

Dr. Akin Rabibhadana
Prof. Wilaiwatt Grisanaputi
Ms. Manthana Samart
## APPENDIX E

### O.R. PROJECT STAFF TRAVEL FROM 10/1/81 THROUGH 3/31/86

<table>
<thead>
<tr>
<th>Staff Member</th>
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<tr>
<td>B. Baron</td>
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<td>Bangkok</td>
<td>Oct. 19-23</td>
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E3
J. Laing Manila Cotabato Dec. 20-21 Assist with proposal review
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<td>1</td>
<td>A. Fisher</td>
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<td>J. Stoeckel</td>
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<td>Kathmandu</td>
<td>Jan. 23-25</td>
<td>To prepare for Kathmandu O.R. workshop in March</td>
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<td>Hat Yai</td>
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<td>Feb. 26-</td>
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<td>Apr. 17-21</td>
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<td>Apr. 30</td>
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<td>18</td>
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<td>A. Fisher/</td>
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<td>Conduct O.R. Technical Support Workshop</td>
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<td>J. Laing</td>
<td>Manila</td>
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<td>Nov. 21-25</td>
<td>Present NFP Paper at IIIrd International Congress of The International Federation for Family Life Promotion</td>
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<td>Jan. 22-28</td>
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<td>Apr. 15-16</td>
<td>Meet with O.R. researchers</td>
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<td>Meet with IUD Study researchers</td>
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<td>Aug. 27 - Sept. 17</td>
<td>Meet with Philippine O.R. researchers</td>
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<td>B. Baron</td>
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<td>Sept. 9-21</td>
<td>Meet with USAID, ICDDR,B, and GOB officials on O.R. Possibilities</td>
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<td>Oct. 3-4</td>
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<td>J. Stoeckel</td>
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<td>Oct. 5-6</td>
<td>O.R. Project Monitoring (Not charged to O.R.)</td>
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<td>J. Stoeckel</td>
<td>Bangkok</td>
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<td>Oct. 29-31</td>
<td>Discuss Workshop Plans with Pop. Commission</td>
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<td>A. Fisher</td>
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<td>U.S.A.</td>
<td>Nov. 9-17</td>
<td>Present O.R. Papers at APHA</td>
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<td>J. Stoeckel</td>
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<td>Nov. 12-14</td>
<td>Present O.R. Papers at APHA</td>
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<td>Manila, Cebu, Tacloban</td>
<td>Jan. 9-19</td>
<td>Monitor six O.R. Projects</td>
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<td>Monitor IUD Study</td>
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<td>J. Laing</td>
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<td>J. Laing</td>
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<td>June 9-22</td>
<td>Technical Assistance to six O.R. studies</td>
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<td>Aug. 23-30</td>
<td>Final data tabulation and analysis of O.R. IUD study</td>
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<td>D. Leon</td>
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<td>Aug. 23-30</td>
<td>Assistance to O.R. study with computer programming</td>
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<td>Dec. 3-10</td>
<td>USAID Consultance on Condom and Pill Study</td>
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<td>A. Fisher</td>
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<td>Dec. 18-20</td>
<td>Make presentation at final O.R. seminar</td>
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<tr>
<td>1) &quot;Increasing Family Planning Through Development Program in Northeast Thailand&quot;</td>
<td>Nochal, Population and Community Development Association, Thailand</td>
<td>October 1981</td>
<td>Approved March 1982 for $52,710 plus additional $5,200 for total of $57,910</td>
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<td>2) &quot;Contraceptive Failure in Chiang Mai&quot;</td>
<td>Faculty of Medicine, Chiang Mai University, Thailand</td>
<td>November 21, 1981</td>
<td>Proposal withdrawn for submission elsewhere</td>
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<td>3) &quot;Family Planning Effectiveness in Java and Bali&quot;</td>
<td>Budi Soeradji, Bureau of Census, Indonesia</td>
<td>November 1981</td>
<td>Revisions requested. Second draft never submitted</td>
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<td>4) &quot;Determinants of Area Variation in Contraceptive Practice in Bangladesh&quot;</td>
<td>Muklisur Rahman, ICDDR, Bangladesh</td>
<td>January 1, 1982</td>
<td>Proposal rejected as not meeting O.R. criteria</td>
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<td>5) &quot;Impact of Development Programs on Fertility Behavior&quot;</td>
<td>Mosleh Uddin, Dhaka University, Bangladesh</td>
<td>January 4, 1982</td>
<td>Proposal rejected as not meeting O.R. criteria</td>
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<td>6) &quot;Contraceptive Use and Health Service Utilization&quot;</td>
<td>J. Abar &amp; U. Rob, ICDDR, Bangladesh</td>
<td>January 26, 1982</td>
<td>Proposal withdrawn for submission elsewhere</td>
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<td>8) &quot;Management Translation of Population Research in Bangladesh&quot;</td>
<td>Alimullah Miyan, Center for Population Management and Research, Dhaka University, Bangladesh</td>
<td>March 9, 1982</td>
<td>Proposal rejected as not meeting O.R. criteria</td>
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<td>Institution(s)</td>
<td>Date of Approval/Rejection</td>
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<td>9) &quot;First Use of Fetal Thyroid Among Pregnant Mothers&quot;</td>
<td>Syeda Fireza Begum, Dhaka Medical College, Dhaka University</td>
<td>BANGLADESH</td>
<td>September 25, 1982</td>
<td>Proposal rejected as not meeting O.R. criteria, Investigator referred to PRICOR</td>
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<tr>
<td>10) &quot;MIC &amp; Family Planning Services Delivery Project Through Indigenous Birth Practitioners&quot;</td>
<td>Syeda Fireza Begum, Dhaka Medical College, Dhaka University</td>
<td>BANGLADESH</td>
<td>September 25, 1982</td>
<td>Proposal rejected as not meeting O.R. criteria, Investigator referred to PRICOR</td>
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<tr>
<td>13) &quot;An Evaluation of the Cebu Male-Specific Campaign&quot;</td>
<td>Project Development, Population Center Foundation, Manila</td>
<td>PHILIPPINES</td>
<td>October 2, 1982</td>
<td>Proposal Approved June 13, 1983, for $12,000</td>
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<td>14) &quot;A Comparative Analysis of the Government and Private Family Planning Programs in Southern Region of Thailand&quot;</td>
<td>Dept. of Public Administration, Songkhla University, Haad Yai</td>
<td>THAILAND</td>
<td>November 9, 1982</td>
<td>Proposal Approved July 12, 1983, for $44,260</td>
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<tr>
<td>15) &quot;Comparative Effectiveness of Oral Pill Use being received from Clients and that from Field Workers&quot;</td>
<td>Nazohol Uddin, Dhaka University</td>
<td>BANGLADESH</td>
<td>November 10, 1982</td>
<td>Proposal revisions requested but never received</td>
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<td>16) &quot;Family Planning in Chiang Mai Northern Part of Thailand&quot;</td>
<td>Sumalee Svavasu, Associate Professor, Chiang Mai University</td>
<td>THAILAND</td>
<td>December 13, 1982</td>
<td>Proposal rejected as not meeting O.R. criteria</td>
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<td>17) &quot;The Implementation of Contraceptive Counselling Services as a Strategy to Induce Contraceptive Use&quot;</td>
<td>Dr. Willawat, Khon Kaen University</td>
<td>THAILAND</td>
<td>February 15, 1983</td>
<td>Proposal Approved August 9, 1983, for $28,651</td>
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<td>Institution(s)</td>
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<td>13) &quot;Family Planning Services in Thailand: A Comparative Study of the Northern and Northeastern Regions&quot;</td>
<td>Assistance Professor M. Ameeruz Zaman Khan, Rajshahi University</td>
<td>THAILAND</td>
<td>Proposal approved August 9, 1983 for $27,450.</td>
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<tr>
<td>14) &quot;Evaluating the Effectiveness of Information, Education, and Communication on F.P. in Bangladesh&quot;</td>
<td>Dr. Mrigendra Lal Singh, Management and Research Associates, Kathmandu</td>
<td>NEPAL</td>
<td>Proposal rejected because of substantial methodological deficiencies</td>
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<td>15) &quot;Reasons for Family Planning Methods Switching in Northeastern Thailand: An Experimental Study of a Motivational Strategy&quot;</td>
<td>Ram Prasad Shrestha, Project Studies and Analysis Centre, Kathmandu</td>
<td>NEPAL</td>
<td>Proposal rejected because of substantial methodological deficiencies</td>
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<td>16) &quot;Evaluation of Service Delivery System of Integrated and Vertical Program in Terms of Availability of F.P. Services&quot;</td>
<td>Ganesh Raj Singh, Himalayan Studies Centre, Kathmandu</td>
<td>NEPAL</td>
<td>Proposal rejected as not meeting O.R. criteria</td>
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<tr>
<td>17) &quot;A Comparative Study of Integrated and Non-Integrated Family Planning Programme&quot;</td>
<td>Suchart Prasitratnhsaint, Thit University Research Associates, Bangkok</td>
<td>THAILAND</td>
<td>Proposal revisions requested, second draft not yet received</td>
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<td>18) &quot;A Study of the Effectiveness of Village Health Volunteers and Village Health Communicators in Southern Thailand&quot;</td>
<td>Pornpdi Pongsupaht, Songkla University, Hat Yai</td>
<td>THAILAND</td>
<td>Proposal revisions requested, second draft not yet received</td>
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<tr>
<td>19) &quot;Role of Local Leaders in MNH Based F.P. Program: An Action Research Proposal&quot;</td>
<td>Dr. Ghayasuddin Ahmed, NIPSON, Dhaka</td>
<td>BANGLADESH</td>
<td>Proposal revisions requested, second draft not yet received</td>
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</tbody>
</table>
27) "Introduction of an IEC Package Promoting Use of Combinations of Methods to Improve Contraceptive Effectiveness"  
Dolores Silva  
BULACAN  
PHILIPPINES  
April 25, 1983  
Proposal Approved  
July 13, 1983, for $30,037.

28) "A Detailed Investigation of Natural Family Planning Use in the Philippines"  
Demographic Research and Development Foundation, Cagayan de Oro City  
PHILIPPINES  
May 5, 1983  
Proposal Approved  
June 17, 1983, for $52,196.

29) "Child Mortality Perceptions As a Determinant of Fertility Behavior"  
Dr. Santhat Sermarti  
Mahidol University  
Bangkok  
THAILAND  
May 18, 1983  
"Proposal rejected as not meeting O.R. criteria"

30) "Exploratory Study on the Use of Natural Family Planning Methods in Sri Lanka"  
Daya Abeywickrema,  
Family Planning Association of Sri Lanka, Colombo  
SRI LANKA  
May 14, 1983  
Proposal under review

31) "Strategy to Maximize F.P. Workers Performance Output and Minimize Supervision Costs"  
Dr. Perla Sanchez,  
Institute of MCH, Manila  
PHILIPPINES  
May 25, 1983  
Proposal under review

32) "An Investigation Into the Impact of Gonoshasthya Kendra Projects on Fertility, and Mortality of the Population of the Project Area at Savar"  
Dr. Mahbub Ahmed,  
GAUTI/Bangladesh  
Dhaka  
BANGLADESH  
June 12, 1983  
Proposal under review

33) "The Motivating Factor in Vasectomy"  
Dennis Hapugalle,  
Community Development Services, Colombo  
SRI LANKA  
July 12, 1983  
Proposal under review

34) "Socio-demographic and Economic Factors Affecting Fertility of Rural Filipino Women in Three Settings"  
Dr. Rhodelia Gabriel,  
University of the Philippines  
Los Banos  
PHILIPPINES  
July 27, 1983  
Proposal under review

35) "Mobilizing Satisfied Users for Promoting Family Planning"  
Daisy Soledad  
U.P. College Tacloban  
PHILIPPINES  
July 1983  
Approved November 1983 for $14,621.
<table>
<thead>
<tr>
<th>No.</th>
<th>Project Description</th>
<th>Implementer</th>
<th>Date</th>
<th>Status</th>
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<tr>
<td></td>
<td></td>
<td>Central Philippine University</td>
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<td>37</td>
<td>&quot;The Effect of Dina Anaprasta Program on the Use Effectiveness of Contraceptive Device&quot;</td>
<td>Soebagyo Martodipuro</td>
<td>August 1983</td>
<td>Rejected</td>
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<td>Indonesian Planned Parenthood Association, East Java</td>
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<td>IHS</td>
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<td>39</td>
<td>&quot;Extension of Mekhl F.P. Incentives Study&quot;</td>
<td>Mekhl/Rachitta</td>
<td>October 1983</td>
<td>Rejected, lack of O.R. funds</td>
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<td>40</td>
<td>&quot;Focus Group Research on Factors Affecting the IUD Insertion Rate Among Successful and Unsuccessful Midwives&quot;</td>
<td>Family Health Division</td>
<td>November, 1983</td>
<td>Proposal reviewed by Irv Sivin and funded with bi-lateral USAID money</td>
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<td>41</td>
<td>&quot;A Study to Determine the Contraceptive Prevalence Rate of Injectables and the IUD in Thailand&quot;</td>
<td>Family Health Division</td>
<td>November, 1983</td>
<td>Proposal reviewed by Irv Sivin and funded with bi-lateral USAID money</td>
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<td>42</td>
<td>&quot;A Comparative Evaluation of the Multi Load 250 IUD&quot;</td>
<td>Family Health Division</td>
<td>November, 1983</td>
<td>Proposal reviewed by Irv Sivin and funded with bi-lateral USAID money</td>
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</table>
This is an informal workshop for USAID health and population officers who are concerned with developing, reviewing, and administering operations research studies. The workshop will be held at the Population Council's office each morning from 8:30 to 11:30, November 28 through the 30th. The basic objectives for the workshop are:

1) To discuss and understand the major components of an operations research study.

2) To develop skills in reviewing and analyzing operations research study proposals, including reviewing standard statistical techniques and methods used in social science research.

3) To develop a better understanding of the difficulties encountered in implementing operations research field studies and the compromises that sometimes are necessary.

4) To discuss and outline procedures for increasing the dissemination and utilization of operations research findings for program improvement.
WORKSHOP SCHEDULE

Wednesday November 28

8:30 - 10:00
Review and discussion of some major components of an operations research study
1) Identifying a specific research problem from a larger program problem
2) Defining the research problem
3) Justifying the selection of a research problem
4) Specifying research study objective
5) Writing study hypotheses
6) Operationally defining key variables and terms

10:00 - 11:00
Review of proposals from three on-going studies.
(Participants will be given first drafts of three O.R. study proposals that were submitted to the Population Council. They will then be asked to develop a critical assessment of the proposals in terms of the six areas previously covered. Towards the end of the hour the final drafts of these same proposals will be provided to the participants).

11:00 - 11:30
Review of research study design issues. What to look for in a study design.

Possible homework (depending on level of resistance among participants): review the three draft study proposals in terms of research design issues.
Thursday November 29

8:30 - 9:00 Discussion of three draft O.R. proposals in terms of research design issues and the "Principle of the Three Multiples"

9:00 - 10:00 Sampling and sample size
1) How much is enough?
2) What's nice in theory isn't all that easy in practice.
3) What you can say about data that comes from a good probability sample.
4) What you can't say (but most people say anyway) about data that comes from a purposive or non-probability sample.
5) Simple rules of thumb for judging the adequacy of sample size.

10:00 - 10:30 Data Collection Techniques
1) Types of data collection techniques.
2) Common problems in data collection and common errors committed.
3) What you should look for in a proposal? (but probably won't find).

10:30 - 11:30 Data tabulation and analysis
1) Levels of measurement of variables
2) Attributes of data
3) Frequently used statistical measures and their meaning
4) What to look for in a statistical table?

Homework: Review Andrews' book

G3
Friday November 30

8:30 - 9:15 Administrative aspects of research

1) Realistic schedules for research study activities
2) Staff requirements for research studies
3) Budgets

9:15 - 10:00 The reporting, dissemination, and utilization of research findings.

1) Principles for preparing good reports.
2) Usual and unusual methods used for disseminating research findings.
3) Ways of increasing the likelihood that research findings will be understood and used by program managers and policy makers.

10:00 - 11:30 Detailed review and analysis of a study proposal.

(As a group, the workshop participants will review critically a research study proposal and develop a series of comments on the proposal and a series of questions for the researcher).

11:30 - 11:35 CLOSING CEREMONY.