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FINAL REPORT
(7/1/69-8/31/72)

on

Contract USAID/csd-2512

"UTILIZATION OF FAMILY PLANNING SERVICES"

with the

BEHAVIORAL SCIENCES CENTER
BOWMAN GRAY SCHOOL OF MEDICINE
WAKE FOREST UNIVERSITY

And a Subcontract with

HUR/CESPO
UNIVERSITY OF COSTA RICA

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September 30, 1972

Final Report (7/1/69-8/31/72) to AID/W

From

Behavioral Sciences Center, Bowman Gray School of Medicine
Wake Forest University, Winston-Salem, N.C.

On

"Research in Utilization of Family Planning Services"

Contract No. AID/csd-2512

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REPORT SUMMARY

A. Contract Information

1. Project Title: "Research in Utilization of Family Planning Services"
   Contract No: AID/csd-2512
2. Principal Investigator: Clark E. Vincent, Ph.D.
   Contractor: Behavioral Sciences Center, Bowman Gray School of Medicine of Wake Forest University, Winston-Salem, N.C. 27103
   Key U.S. Personnel: Carl M. Cochrane, Ph.D., C. Allen Haney, Ph.D., Robert L. Michielutte, Ph.D.
3. Contract Period: From July 1, 1969 to August 31, 1972
4. Period Covered by Report: From July 1, 1969 to August 31, 1972
5. Total AID Funding of Contract: $360,303
6. Total Expenditures and Obligations Through Previous Contract Years: $211,639
7. Total Expenditures and Obligations for Current Year (7/1/71-8/31/72): $148,152
8. Estimated Expenditures for Next Contract Year: None -- Contract ended

B. Summary of Accomplishments and Utilization

An interview schedule consisting of pretested demographic, psychological, and sociological items was administered to 1,652 females comprising a stratified random quota sample drawn to produce four clinic-status categories ("Active," "Drop-out," "Never-Been-Aware," and "Never-Been-Unaware") in each of six communities (4 urban, 2 rural) served by FP clinics in Costa Rica. The emphasis of AID/Washington on increased utilization of FP services as the primary objective of the project, rather than research on motivation, led to processing of the survey data in the form of marginal frequencies on every item, by clinic community and by clinic-status category, and the early feedback of these data to the host country for use in designing community-action programs, and in changing clinic procedures. These descriptive data and the discussions of their implications comprised a 173-page report that was submitted by the Contractor to AID/Washington and that now is being published in three parts, in Spanish, by the University of Costa Rica. A separate 44-page report "Recommendations for Family Planning Programs in Costa Rica," prepared by the Contractor during the third year of the contract and based on respondents' suggestions regarding FP services and on analysis of their changes in clinic-status during action programs, is also being published in Spanish by the University of Costa Rica.

The feedback of survey data has been accompanied by (a) upgrading of clinic records, (b) training of community-action personnel, (c) evaluation and innovation of community-action programs for both males and females, (d) opening two "non-medical" clinics, (e) changes in clinic procedures suggested by respondents, and (f) the Costa Rican Ministry of Health's acceptance of a number of the project recommendations that are now being implemented on a national level. Although the utilization of FP services has increased markedly throughout Costa Rica during the 3-year period of the project, the increases in new patients at the six experimental clinics have been nearly double the increases reported by other FP clinics in Costa Rica, and nearly triple the new cases for other comparable FP clinics within the same Provinces as the six experimental clinics. Reports include the four being published in Spanish in Costa Rica, several descriptive and programmatic guides being prepared by the Costa Rican personnel, three papers submitted for publication and six in preparation by U.S. personnel who, with the end of the AID contract, will continue analytic treatment of the data with support from other sources.

September 30, 1972

FINAL REPORT
"Research in Utilization of Family Planning Services"
AID/csd-2512
Behavioral Sciences Center, Bowman Gray School of Medicine

A. GENERAL BACKGROUND

On the basis of an ongoing FP research and demonstration project on "the hard-to-reach" in North Carolina, the principal investigator was invited by AID/W to submit a 5-year research proposal to replicate relevant aspects of this project in two LDCs, with an emphasis on motivational variables related to utilization of FP services. A major rationale for this emphasis was the assumption that, after the initial focus of the AID population program on the development and delivery of FP information and services succeeds in making such information and services appropriately available, there would be an increasing need for research on factors associated with motivating the hard-to-reach to use such FP information and services.

B. STATEMENT OF PROJECT OBJECTIVES AS STATED IN THE CONTRACT

The general objectives of the project were "to ascertain and evaluate those factors which contribute significantly toward fertility control, those which contribute to indifference or apathy, and those which contribute to strong resistance." These general objectives were specified by contract to involve a program of research that was projected for three years each in two LDCs, with the third or middle year involving completion in the first country and initiation of the project in the second country. Research in the first country (Costa Rica) was to be followed by similar research in an African or Asian country <u>if</u> at the end of the first two years the progress of the project in the first country was considered by AID/W to be satisfactory.

Progress was not considered by AID/W to be satisfactory at the end of the first two years, and third-year funding was provided to complete the project in Costa Rica; an additional extension of two months through August 31, 1972 was granted to obtain clinic data and expenditures reports from Costa Rica through June 30, 1972.

The specific objectives of the research to be conducted in the "action-demonstration evaluation context" included:

"(1) Discover which females do and do not utilize family planning services and why they do or do not.

"(2) Implement changes as agreed upon with host country officials in the procedures, methods, and approaches of existing family planning services (or create new ones) which the respondents indicate would increase their participation and effectual practice of birth control.

"(3) Ascertain the birth control methods, the personnel and approaches that are the most effective in reaching these females and helping them to become and remain consistent and effectual in the practice of birth control.

"(4) Provide a continuous feedback of information for the training of field personnel, community leaders, and volunteers in the methods, problems and approaches related to achieving the overall objective of the project."

The research procedures stipulated by contract for achieving the foregoing objectives included: (1) the designing, pretesting, and post-study revising, of a field instrument; (2) the interviewing of women in samples that included at least three clinic-status categories, as drawn from at

least three communities (2 urban, 1 rural) served by FP clinics; (3) the establishment of at least two non-medical model FP clinics. The Contractor changed these procedures to expand from three to six (4 urban, 2 rural) the number of communities studied, and to expand from three to four the number of clinic-status categories (Actives, Drop-outs, Never-Been-Aware, and Never-Been-Unaware).

The most important change in project objectives involved a shift from research to action-demonstration emphasis at the end of the first year. This shift reflected a difference in interpretations concerning the primary objective of the project. The Contractor perceived research on motivation variables related to utilization of FP services as the primary objective of the project; AID/W perceived the primary objective of the project to be that of effecting increases in utilization of FP services in the host country. The emphasis desired by the host country changed from research, to action, and then back to research, reflecting somewhat the three changes in Directors of CESPO during the project period. Thus this final report, as was true of the 190 pages of reports at the end of the second year, reflects the emphasis of AID/W and is focused more on action programs than on research results.

C. CONTINUED RELEVANCE OF OBJECTIVES

The objectives related to increased utilization and evaluation thereof continue to be relevant and important: (1) as discussed in the following sections "D" and "E," (2) as part of the Contractor's plans to provide further data summaries to the host country after the contract expires, and (3) as ongoing objectives of the host country with separate funding from AID/W and the Ford Foundation.

The objectives related to research and evaluation continue to be relevant and will continue to be pursued by HUR/CESPO in Costa Rica with other funding and by other U.S. personnel permitted extended duty in Costa Rica. These research objectives will also become the concerted focus of two key U.S. personnel of the Bowman Gray team (Drs. Haney and Michielutte) who will use other sources of funding to carry out more analytic and complex treatment of the voluminous data that up to now have been processed primarily for descriptive, comparative, and action-program purposes.

D. ACCOMPLISHMENTS TO DATE

1. General

(a) The field instrument that was designed, pretested, and used for collection of "before" data in 1970, was shortened and revised on the basis of individual-item analysis of responses. This revised instrument (Addendum A) included items for a modified "Semantic Differential Scale," a modified Rotter Internal-External Control Scale, a constructed "Need Evaluation Test" (NET), and a constructed "Internal-External Blame Attribution Scale" (I-E-B).

(b) The basic survey data that were obtained in 1,652 interviews (1,498 usable) and then coded and transferred to approximately 26,000 computer cards, were returned to the host country in the form of (1) a complete duplicate deck, (2) printouts of marginal frequencies on every item, by clinic community and by clinic-status category, (3) a descriptive and comparative report of 173 pages, and (4) copies of working papers.

(c) A number of forms were designed and procedures suggested for improved record keeping at clinics and for evaluation of action programs. These suggested forms and procedures (see Sections I and II of first 2-year report) provided information (1) that has been processed in descriptive form and returned to the host country in the form of a 44-page report (Addendum B) and a 24-page report (Addendum C), and (2) that will continue to be collected and evaluated by HUR/CESPO after the contract is ended.

(d) Two non-medical model units were established during the second year of the project, one in an urban area (Sagrada Familia) and one in a rural area (Limon). Each of these units has now become a "Centro de Información Sobre Planificación Familiar" (CIPF). The initial activities of these units, modeled after the C.S. Units in the U.S., are described on pages 15-17 of our two-year report and on pages 10-12 of Addendum D to the present report.

Increases in utilization of these units, and in utilization by males are encouraging:

- during the last six months of 1971, there were 232 cases -- of which 47% were males requesting condoms;
- during the first six months of 1972, there were 474 cases -- of which 74% were males requesting condoms.

(e) The implementing of "changes as agreed upon with host country officials in the procedures, methods, and approaches of existing FP services" has been an ongoing accomplishment during the three-year project. It has been possible to implement many of the changes suggested by respondents in the initial baseline study, by home-meeting attenders, by field workers, by clinic patients,

and by the Contractor on the basis of the North Carolina project. The changes suggested by the respondents during the initial survey included, for example: (1) more freedom to choose their own method, (2) the presence of a nurse during the pelvic examination, (3) doctors being more punctual to reduce waiting time, and (4) clinic hours to coincide with nonworking hours of patients, and (5) individual rather than group consultations prior to pelvic examination. Many of these and other suggested changes (presented in detail, by selected characteristics of those making the suggestions, in the two-year report) have been tested and implemented through the considerable influence of Dr. Alfaro who has been the part-time medical coordinator on our subcontract payroll, and who has served as Director of CESPO, the Director of Population, and currently as number two man in the Ministry of Health.

(f) There was increased utilization of services at the six "experimental" clinics, as shown in the following comparisons:

Year	Average No. of New Cases Per Clinic	
	6 "Experimental" Clinics	Remainder of Clinics*
	#	#
1969	232	no data
1970	273	135
1971	315	182
1972**	325	146

* 82 in 1970, 89 in 1971, 91 in 1972
** Projected for full year on basis of 1st 6 months

When comparisons are restricted to only those clinics (1) that were in the same two provinces as the six study clinics, (2) that will have been operating a minimum of three years by December 1, 1972,

and (3) that had approximately the same number of clinic hours per week:

- the six study clinics
  - had a total of 9,959 new cases, with an 11% overall drop-out rate since they began operating, and
  - in 1972 (the 3rd or 4th year of operation) averaged 325 new patients per clinic, with a drop-out rate of 15%;
- the remaining 13 clinics
  - had a total of 8,975 new cases, with a 21% overall drop-out rate since they began operating, and
  - in 1972 (the 3rd or 4th year of operation) averaged 130 new patients per clinic, with a drop-out rate of 31%.

As discussed in Section II of the two-year report, however, the foregoing and other results from the action program reflect the projects and efforts of many organizations directed toward family planning in Costa Rica. Also, previous experiences with community-action programs had led us to expect at least three factors to complicate any evaluation of changes in utilization. First was the phenomenon of a "newness response" which consists of the tendency for each new approach or method to have an initial period of numerical success, followed by a leveling off or plateau phase, and then followed by declining success. This pattern was evident in the tabular data presented in the two-year report. This "newness response" phenomenon is similar to the "Hawthorne Effect" -- a positive response of the subjects to any method or approach that they interpret as reflecting an interest in them. This suggests (1) that a particular

method or approach may be secondary to the fact that it communicates an interest in the subjects, and (2) that the methods and approaches need to be changed periodically when "old" or familiar methods are taken for granted and thereby not interpreted by the subjects as an interest in them.

The second factor consisted of the attitude of an unknown number of women who are "ready and waiting" for contraceptive services to be made available. The combination of these first two factors means that the initial offering of family planning services and the initial action programs are quite likely to produce the kinds of results that comprise reports on early "successes" in increasing utilization. (See Cristo Rey and Filadelfia as examples in Table 72 of the two-year report.)

The third factor was the decreasing pool of potential new cases, which is chronologically a consequence of the first two factors. This decreasing pool means that eventually there is a leveling out if not a decrease in new cases, at the same time that there is an almost inevitable increase in clinic drop-outs from among the early attenders. (See 1972 drop-out percentages in foregoing comparisons.) In view of the decreasing pool of potential new cases, the foregoing figures on new cases in 1972 are quite encouraging.

A fourth factor which complicates evaluation of any single program in-put in the case of Costa Rica is a composite of (1) the past and ongoing use of mass media at the national level to inform audiences about family planning, (2) the fact that early educational efforts in the "study" communities spilled over to adjacent "non-study" communities and were subsequently used in the latter communities,

and (3) the preference of some study subjects to attend a clinic not located in their home community.

(g) That the involvement of males (an early objective based on prior experience in North Carolina, and described in the two-year report) has increased utilization is indicated by the figures on the males attending the non-medical units (section "d"). It is also indicated by the data obtained by asking new patients what influenced them to come to the clinic. The latter data from one urban clinic show that 13% of the new patients were influenced by their husbands to come to a clinic in 1968, but that 32% were similarly influenced in 1972. The respective percentages for a rural clinic were 2% in 1968, but 29% in 1972 (see Addendum E). The forms that were designed to obtain this information provide monthly data from each clinic, showing for each new patient the factor (person) influencing them to come, by age, parity, income, and marital status (see Addendum F). These data enable the clinic personnel to remain reasonably up-to-date on which programmatic efforts are influencing which types of women remaining in the untapped pool of non-patients.

The involvement of males is also reflected in the monthly reports of educational activities. During the most recent six months for which full data are available on the six study clinics, 31 educational activities were held for a total of 1,560 individuals -- 52% of whom were males. These activities include lectures in factories and for workers in agricultural institutions, and the development of "clubs for fathers" similar to the "Mother's Clubs" which function as part of the FP clinics (Sanitary Units).

2. Summary of Action Findings and Recommendations

As noted previously the data obtained during the project were processed and reported initially with an emphasis on descriptive and comparative aspects relevant to action programs. A more analytic treatment of the data has been undertaken whenever time permitted, particularly during the two months extension of July and August of 1972. This section contains brief summaries of some of the major recommendations and findings relevant to action programs and research.

The majority of findings relevant to action programs have been incorporated into a series of recommendations for family planning programs in Costa Rica. These recommendations discussed in more detail in Addendum C, have been shared (verbally and in writing) with the appropriate Costa Rican personnel throughout the period of the contract.

(a) Interest in Family Planning

(1) A careful evaluation should be made of the effectiveness of home meetings. It may be that their only value is in making most women aware of family planning and clinic services, rather than convincing them to practice family planning. If this is the case, the dissemination of information could be accomplished more cheaply on a broader scale and as effectively by other means such as the mass media.

(2) It may well be, however, that the meetings play a role in convincing women to make a visit to the clinic, at which time their decision to actually begin family planning is made. If this is the case, the emphasis of the home meetings should be placed on eliminating resistance to visiting a clinic. The suggested evaluation will provide information on whether or not to take this approach.

(3) The data would seem to indicate that meetings at the clinics would be much more effective. Therefore, it is suggested that more emphasis be placed on clinic activities (e.g., special lectures) as a means of stimulating interest in family planning and providing information designed to facilitate the making of firm decisions about family planning.

(b) Contraception

(1) A detailed inquiry should be made into the reasons for contraceptive failure among so many women. Is it lack of initiative on the part of the women, faulty instruction in the clinics, faulty contraceptives, or some other unspecified reason? The answer to this question would point out weak links in the overall family planning program in Costa Rica.

(2) A study should be conducted to determine why so many women quit using the pill for reasons of health. How often is this a reaction to the actual side effects of the birth control pill, imagined fears, or some combination of these reasons? This would help to determine what changes should be made in the educational program (and possibly mass media campaigns), and whether or not a different type of pill should be distributed. Special emphasis should be placed on determining why this problem is particularly prevalent among women with more education and higher income, and among older women.

(3) Even before conducting the study suggested in the foregoing paragraph, at the clinics more attention should be devoted to discussion with the clients about what the actual contraindications for the pill are, what common misconceptions are false, possible side effects and their importance, and other topics aimed at better informing the clients. This is particularly true for the better educated women.

(4) A study should be conducted to determine exactly what aspects of using the pill are considered too complicated by the women. This would lead to specific modifications in the program of instruction.

(5) Both of these studies could be conducted fairly simply by having the physicians or other medical personnel keep a record as they talk to the women in the clinics.

(6) A study should be conducted to determine why so many women discontinued use of the IUD for reasons of health. Is this a reaction to the physical problems (e.g., discomfort) encountered in the use of the IUD, imagined fears, or some combination of these reasons? Special emphasis should be placed on determining why the problem is particularly prevalent among older and younger women, and women in the higher education and income groups.

(7) As with the pill, more specific discussion should be offered to better inform the clients about health dangers with the IUD.

(8) Referring back to recommendation #1, apparently the problem of contraceptive failure is more prevalent for the IUD. Since the failure rate is typically higher for this method than for the pill, we would recommend a careful evaluation of the examination procedure and instructions given to women who choose this method, with the goal of reducing the failure rate.

(9) A wider variety of contraceptives should be made available to women who attend the clinics based on the medical model. This recommendation will be discussed further in a later section.

(10) Unless there are valid health reasons for encouraging a woman to select a particular type of contraceptive, she should be allowed to choose the technique with which she feels most comfortable.

(11) Many contraceptives do not require a medical exam and can be communicated easily to large numbers of women. They are: (a) condom, (b) foam tablet, (c) rhythm method, (d) withdrawal, (e) jelly, and (f) suppositories. Of these only the condom is currently known by appreciable numbers of women. Steps should be taken to disseminate information on these techniques, both to men and women.

(12) Increased emphasis should continue to be placed on the mass media as a source of information about a variety of contraceptive techniques.

(13) Special attention should continue to be directed toward developing and using family planning messages that can be transmitted to and understood by lower class women and men. This includes, among other things, a continuing use of the special printed materials and radio messages for outlying villages, and continued experimentation with the comic-book-type approach now being used.

(c) <u>Improvements in Clinic Procedures</u>

(1) It is essential to experiment with different procedures in order to find the most efficient methods of handling problems such as inadequate instruction on methods of contraception. Specifically, we would recommend again the procedure suggested by the respondents that clinics try setting up appointments for the women. If not by the hour, at least by the day. Secondly, when the doctors or other personnel meet the women they should reserve certain appointments for discussion of family planning and contraceptives only. This should also help provide better instruction on contraceptive methods. Implementation of these procedures would, of course, require a high degree of cooperation from the medical personnel.

(2) Although it is highly desirable to interest as many women as possible in family planning, the clinics should not try to bring in more women than can be adequately handled. The importance women place on the problem of long waits suggests that a clinic which tries to handle too many women may actually hurt the family planning program by producing negative feelings among the women. Recruitment campaigns should be geared to attracting only as many women as can be adequately treated in the clinics.

(3) Clinic hours should continue to be varied in each clinic area until a schedule is found which effects the best compromise between the personnel in the clinics and the clients. We would further recommend that at least one clinic experiment with almost continuous hours. This would be expensive, but may pay off in terms of more successful family planners. It may be, for example, that one centrally located clinic open all reasonable hours will attract more women and develop more successful family planners than two clinics open at special hours.

(4) In order to reduce the stigma attached to a free clinic, a nominal fee could be charged. This could be on a sliding scale according to income.

(5) As noted in an earlier section, the data indicate a need for improvement in that part of the educational program concerned with the dangers of contraceptive use and what can be done to minimize these dangers.

(6) A comparison should be made between the urban and rural clinics with respect to clinic procedures in order to determine if the favorable attitudes of rural women result from differences in operation.

(7) A comparison of clinic procedures in Alajuelita and Nicoya should be made to determine if these clinics differ in the way they relate to husbands in the community. (See detailed data in two-year report.)

(d) Sources of Information on Family Planning

(1) Since the mass media are the most effective methods of spreading information on family planning quickly and with low cost, they should continue to be fully utilized. They could be made more effective, however, by taking advantage of the high regard with which professional persons are held. Printed materials, for example, could be endorsed and associated with doctors and nurses, and special radio or television segments could be presented by doctors or educators.

(2) A program designed to convince people that it is desirable to talk about family planning and contraception may have positive results with respect to the influence of friends, relatives, and neighbors on one another.

(e) Changes in Clinic Status

The preceding recommendations are based on data obtained in the initial survey. Additional data were obtained over time which showed the changes in clinic status of women in the original sample (Addendum B). Some major findings based on preliminary analysis of these data are as follows:

(1) Of the original actives, those women who dropped out were somewhat higher in the class structure than the women who remained active.

(2) The rural clinics lost proportionally fewer of the women originally classified as active in the baseline sample than did the urban clinics.

(3) A larger proportion of the active women who dropped out were ambivalent toward family planning at the time of the initial interview than was the case for women who remained active.

(4) Of the original women in the drop-out and never-been categories, those who became active were somewhat lower in the class structure than the women who remained drop-out or never-been.

(5) Rural clinics had a larger proportion of new actives (formerly never-been status) and drop-outs who returned to active status than did urban clinics.

(6) A larger proportion of women who remained drop-out were ambivalent toward family planning at the time of the initial interview than were those who returned to active status.

3. Summary of Analytic Research

Only a few analytic findings were presented in the two-year report, because of the emphasis at that time on descriptive material and information relevant to action programs. Part of the material in that report has been utilized for the testing of research hypotheses, and additional analyses concerned with fundamental research questions have been conducted.

Three of these have been summarized as research papers (Addenda I, J, and K). Data analysis has been completed on a fourth and will soon be in preliminary draft form. A brief summary of the major findings is presented below:

(a) Credibility of Sources of Information on Family Planning

The data did not support the hypothesis that friends, relatives, and neighbors would be perceived as the most credible sources of information on family planning. Additional information, however, indicates that personal sources are important. It was suggested that the concepts of credibility and influence must be separated. Thus, personal sources are seen as influential but not necessarily credible. The most important factor in communication between friends, relatives, and neighbors is not the quality of the information but the positive or negative reinforcement accompanying the communication.

(b) Factors Associated with Utilization of Family Planning Clinics in Costa Rica

The most important results with respect to clinic attendance suggested that psychological variables may be of greater importance than previously believed. The results with regard to clinic continuation suggested that fears and negative experiences relating to contraception and clinic procedures, and contraceptive failure, are more important than characteristics of the women in predicting whether they would be actives or drop-outs.

(c) Characteristics of Consensual and Legal Marital Unions in Costa Rica

The data clearly indicated that women in consensual unions differ from women in legal unions with respect to indicators of social class and class-related factors such as sexual knowledge, sexual experience, and medical care. As a group, women in consensual unions are lower in the class structure, have less sexual knowledge, less favorable medical care, and marry, have intercourse, etc. at an earlier age.

The data also indicated, however, that the reproductive behavior of women in consensual and legal unions is quite similar, regardless of age, marital stability, or social class.

(d) Rural-Urban Differences in Fetal and Infant Mortality

Preliminary analysis of these data indicate that fetal mortality is slightly higher in urban areas, while infant mortality is slightly higher in the rural areas. However, the differences are quite small, suggesting that the considerable differences in infant mortality often found between rural and urban areas with period data may not obtain when examining the total mortality experience of a cohort of women.

(e) Preliminary Psychological Findings (Addenda L and M)

The psychological measurement properties of the instruments in their initial form were not stable transnationally (U.S. and Costa Rica.) After initial factor analytic analyses: (1) the Internal-External Control Scale was split into two dimensions (an "Activism" versus a "Fatalism" Scale, and a scale we believe to measure tendencies to allot blame and criticism), and (2) the Semantic Differential Scale was modified to include only the dimensions of "Evaluation" and "Potency."

-- Becoming and staying active in family planning are positively associated with the belief that one can control one's own life rather than being a victim of external forces.

-- Women who are aware of clinics and will not attend are more fault finding and critical than are those who are aware and attend.

-- The Semantic Differential ratings for "Evaluation" were associated with beginning attendance at a clinic but not to continuation -- the "Actives" and "Drop-outs" being equal, but different from those who would not attend.

-- The tendency of the "Actives" to rate a variety of people and activities more favorably was interpreted as indicating a generally more positive and optimistic set toward life.

-- What we have called the "Power" ratings (powerful, vigorous) show that those who quit or will not attend clinics have less faith in doctors and family planning as powerful.

-- Those who do not attend see authority and institutions (judge, husband, church) as less powerful.

-- Ratings of self confirm the I-E Scale findings; both the initiation and continuation of family planning are positively related to seeing self as relatively powerful, rather than weak.

-- Implications of the foregoing include using the current experimenting with forms of encounter group and sensitivity training in Costa Rica: (1) to emphasize family planning as a means of controlling one's life (not being a victim of fate), and (2) to alter fatalistic attitudes.

E. DISSEMINATION AND UTILIZATION OF RESULTS

1. Efforts to Disseminate Results in the Host Country

The specific contractual objective (#4) of providing the host country with a "continuous feedback of information for the training of field personnel, community leaders, and volunteers..." involved (a) the processing and feedback to the host country of the considerable survey data described on pages 6-7 of the two-year report, (b) the descriptive and comparative reports of 173 pages, 44 pages (Addendum B), and 24 pages (Addendum C), (c) the visits of U.S. personnel to Costa Rica (214 days) and the visits by Dr. Alfaro and Mr. Gonzalez (47 days) to observe various action programs and clinic record keeping in Winston-Salem, and (d) materials and consultations for the training of 23 interviewers, 13 community-action educators, and 5 persons for the non-medical units in Costa Rica.

2. Use of Findings in the Host Country

That the survey data and reports thereof prepared by the Contractor were deemed useful by the host country is evidenced by (a) the circulation among field workers of the resumes (in Spanish) of the earliest feedback information (see Addendum G, in English), (b) the translation to Spanish and publication: (1) of a 173-page report in three parts (see Addendum H for Part 1; Parts II and III will be available in November), (2) of a 44-page report on "Recommendations" (Addendum C), and (3) of some survey and action-program data in various mimeographed reports issued by CESPO.

3. Other Uses of or Requests for Findings

Requests for information, methods, results, and reports have been received from personnel at the Universities of Alabama, California (Berkeley), Columbia, Cornell, Florida, Michigan, Princeton and Tulane;

from the Latin American Bureau, the Population Center of the University of North Carolina, the Ford Foundation, and NICHD; from Guatamala, Indonesia, the Alaska Native Health Service, and the Philippines; from the Community and Family Study Center of the University of Chicago, the International Research Institute, the Office of Economic Opportunity, Planned Parenthood of New York, and Planned Parenthood World Population.

Some of these requests, as well as others from individuals, are undoubtedly routine and we have no way of assessing the use made of the materials sent. Dr. Harrison Gough of the University of California (Berkeley) has been particularly interested in the psychological measures developed, as has Dr. Klein, Director of the Division of Human Development in Guatamala, for whom Dr. Cochrane provided a consultation visit in Guatamala.

4. Involvement of LDC Personnel

During the first three months of the contract arrangements were made to locate the project within the organizational structure of Centro de Estudio Sociales y de Población (CESPO) which is part of the University of Costa Rica. This decision was made jointly by personnel from AID/San Jose, the University of Costa Rica, the Costa Rica Demographic Association and the Bowman Gray team. The project was given the designation, HUR/CESPO (Health Utilization Research/CESPO). With the recommendation of Drs. Huyck, Morgan, and Alfaro, Mr. Daniel Gonzalez was selected as the full-time Costa Rican Field Director of HUR/CESPO. Dr. Oscar Alfaro was designated as the Costa Rican Medical Coordinator.

Drs. Cochrane and Haney of the U.S. worked together with their Costa Rican counterparts (Dr. Gonzalo Adis, Dr. Eugenio Fonseca, and Dr. Ferdinand Rath who had participated in the CELADE fertility study) in revising the

U.S. research instruments for applicability to Costa Rica. Additional items were included at the request of Costa Rican social scientists (primarily Drs. Adis, Fonseca, and Rath), to replicate existing research, and to investigate some closely related variables which they indicated had been neglected in other related research. Additional items for the field instrument were also suggested by Dr. Earl Huyck, Population Officer of AID/San Jose.

Key personnel at the University of Costa Rica and CESPO involved directly or indirectly in the HUR project include: Mr. Daniel Gonzalez, Project Director of HUR/CESPO, Dr. Rodrigo Gutierrez (M.D.), Dean of the Medical School; Lic. Ricardo Jimenez, current Executive Director of CESPO; Dr. Oscar Alfaro (M.D.), Medical Coordinator for the HUR/CESPO project and former Director of CESPO, and now Director of the Population Office at the Ministry of Health; Dr. Amador, former Director of CESPO; Lic. Eugenio Fonseca, Sociologist; Dr. Gonzalo Adis, Psychologist; Dr. Ferdinand Rath, United Nations -- Latin American Demographic Center. Mr. Gonzalez' staff included Miss Ilse Ascosta, Psychologist Advisor and Field Supervisor for the community action programs; a fluctuating number of interviewers, community educators, and various secretarial and clerical personnel.

A number of other Costa Rican professional persons and agencies whose activities are interrelated with the HUR/CESPO project and with the overall results of increased utilization of family planning services were referred to in the two-year report. The "Administrative Section" of that report also described in more detail the involvement of LDC personnel.

The contract stipulation that there was to be no extended duty of U.S. personnel in Costa Rica furthered the reliance on Costa Rican personnel.

This factor slowed project progress initially, but in the long run has had many beneficial results as evidenced by the continuation of most of the action-evaluation aspects of the project by Costa Rican personnel with other funding after the termination of the subcontract.

Report and Addenda Prepared By:

Carl M. Cochrane, Ph.D.
C. Allen Haney, Ph.D.
Robert L. Michielutte, Ph.D.
Clark E. Vincent, Ph.D. (Project Director)

F. STATEMENT OF TIME EFFORT AND EXPENDITURES

1. Time Effort

Contract AID/csd-2512, as amended, stipulated that a total of 227.0 man-months were to be provided during the contract period of three years. The actual total provided by the Contractor was 377.0 man-months, as shown below, which includes the 9.5 man-months during the two-month's extension of July-August, 1972.

	Contract Stipulation of U.S. Man Months (Total Contract Period)	Actual Man Months (Total Contract Period)
U.S. Personnel		
Professional	59.2	75.0
Technical	108.4	152.0
Secretarial	26.2	109.0
U.S. Total	193.8	336.0
Costa Rican Personnel		
Professional	33.2	41.0
Total	227.0	377.0

2. Research Assistants

(Contract stipulated that only 50% of costs for Research Assistants on the project could be paid from AID funds)

Research Assistants' Salaries (Total Contract Period)

AID Funds	Non-AID Sources	Total
$30,536	$41,280	$71,816

3. Computer Time

(Contract stipulated that only 50% of costs for computer time on project could be paid from AID funds)

Computer Time Expenditures (Total Contract Period)

AID Funds	Non-AID Sources	Total
$11,558	$12,424	$23,982

4. Supplies

(Contract stipulated only 50% of AID funds could be paid for supplies)

Supplies Expenditures (Total Contract Period)

AID Funds	Non-AID Sources	Total
$6,910	$11,124	$18,034

5. Secretarial

(Contract stipulated for the third Year only that 50% of secretarial/clerical costs could be paid from AID funds)

*Includes $3,736 of clerical help at Costa Rica FP Clinics

Secretarial Salaries (Third Year Only)

AID Funds	Non-AID Sources	Total
$16,486*	$16,065	$32,551

6. Expenditures Report

The following six pages of expenditures reports, by line item for U.S. and Costa Rica, cover the period of three years and two months (7/1/69-9/31/72) of Contract AID/csd-2512, as amended.

Contract AID/csd-2512

Behavioral Sciences Center
Bowman Gray School of Medicine
Wake Forest University

CUMULATIVE
LINE-ITEM SUMMARY OF
THREE-YEAR + TWO MONTH'S EXPENDITURES
7/1/69-8/31/72

Line Item	Actual Expenditures (2-Yr. Report) 7/1/69-6/30/72	Actual Expenditures (3rd Year) 7/1/71-6/30/72	July/August 1972 Extension Expenditures	Total Contract Expenditures 7/1/69-8/31/72	Total Award for Estimated Costs Amendment No.4	Final Balance* 8/31/72
Salaries and Wages	$128,036	$ 75,975	$ 9,357	$213,368	$207,721	$(-5,647)
Fringe Benefits	7,793	10,956	970	19,719	21,176	1,457
Overhead	38,228	30,997	4,647	73,872	73,775	(- 97)
Travel and Per Diem	18,515	4,844	166	23,525	25,205	1,680
Equipment & Space Rental	7,036	1,361	-	8,397	9,862	1,465
Supplies	5,200	1,710	-	6,910	8,604	1,694
Other Direct Costs (Including IBM)	6,831	7,124	45	14,000	13,960	(- 40)
Totals	$211,639	$132,967	$ 15,185	$359,791	$360,303	$ 512*

*Oct/Nov trip to AID/W for Review Meeting
4 round trip air tickets @ $56 = $224
Ground Transportation/Meals @ $10 40 264
Final Balance $ 248

Clark E. Vincent, Ph.D.
Project Director

Contract
AID/csd-2512

Behavioral Sciences Center
Bowman Gray School of Medicine
Wake Forest University

CUMULATIVE
REPORT
ACTUAL EXPENDITURES
(BY LINE ITEMS FOR U.S.A.)
July 1, 1969-August 31, 1972

	Man Months	% Time On Project*	Total Grant Amount
SALARIES AND WAGES			
Professional Personnel			
Vincent, C.E., Ph.D. (Project Director)	15.4	40%	$ -
Cochrane, C.M., Ph.D. (Psychologist)	12.0	30%	20,145
Evans, D.K., Ph.D. (Field Coordinator)	11.8	30%	16,196
Gobble, F.L., M.D. (Medical Coordinator)	4.8	15%	6,100
Haney, C.A., Ph.D. (Sociologist)	18.6	50%	23,420
Michielutte, R.L., Ph.D. (Sociologist)	12.4	50%	10,058
	75		
Technical Personnel			
Research Assistants			
Carter, M. (26 1/2 Months)		100%	5,996
Casey, D. (9 Months)		100%	1,443
Earl, H. (13 Months)		100%	2,552
Hartley, S. (14 Months)		100%	3,247
Foulds, S. (1 Month)		100%	353
Moore, L. (2 Months)		100%	554
Nicholson, J. (20 Months)		100%	3,388
Van Komen, S. (31 Months)		100%	5,533
Skamarak, C. (10 1/2 Months)		100%	2,763
Strickland, C. (7 Months)		100%	1,132
Wiist, S. (18 Months)		100%	3,575
Secretarial/Translator/Typist			
Colville, S. (11 Months)		100%	2,798
Crawford, L. (16 Months)		100%	3,800
Mauldin, J. (10 Months)		100%	1,883
Rapela, C. (2 Months)		as needed	152
Salas, L. (5 weeks)		100%	425
Seawell, P. (26 Months)		100%	6,138
White, J. (4 Months)		100%	846
White, M. (26 Months)		100%	9,093
Wilcox, A. (2 Months)		100%	431
Villalon, T. (11 Months)		100%	3,458
		Total Salaries & Wages	$135,479
FRINGE BENEFITS			10,644
TRAVEL AND PER DIEM			14,432
EQUIPMENT AND SPACE RENTAL			1,820
SUPPLIES			1,012
OTHER DIRECT COSTS			
IBM			11,558
Telephone			1,361
OVERHEAD			73,872
		Total Expenditures USA	$250,178

*Although the research assistants and secretarial personnel (3rd year only) were 100% on the family planning research for the period of times indicated, the per cent of their total salaries were never more than 50% paid from the AID/csd grant, as per contract.

Clark E. Vincent, Ph.D.
Project Director

Contract
AID/csd-2512

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Behavioral Sciences Center
Bowman Gray School of Medicine
Wake Forest University

THIRD YEAR
REPORT
ACTUAL EXPENDITURES
(BY LINE ITEMS FOR U.S.A.)
July 1, 1971-June 30, 1972

	Man Months	% Time On Project*	Amount
SALARIES AND WAGES			
Professional Personnel			
Vincent, C.E., Ph.D. (Project Director)	4.8	40%	$ -
Cochrane, C.M., Ph.D. (Psychologist)	4.0	25%	6,624.96
Evans, D.K., Ph.D. (Field Coordinator)	2.2	15%	3,000.03
Haney, C.A., Ph.D. (Sociologist)	7.0	60%	8,199.96
Michielutte, R.L., Ph.D. (Sociologist)	6.0	60%	7,729.18
Technical Personnel			
Research Assistants			
Carter, M. (12 Months)		100%	2,389.58
Earl, H. (1 Month)		100%	152.33
Hartley, S. (12 Months)		100%	2,360.51
Van Komen, S. (11 Months)		100%	1,759.78
Wiist, S. (8 Months)		100%	1,716.90
Skamarak, C. (9 Months)		100%	2,025.00
Foulds, S. (1 Month)		100%	353.09
Secretarial/Translator/Typist			
Colville, S. (3 Months)		100%	516.93
Crawford, L. (12 Months)		100%	2,880.00
Mauldin, J. (10 Months)		100%	1,883.07
Rapela, C. (6 Months)		as needed	152.00
Seawell, P. (12 Months)		100%	2,363.37
White, M. (12 Months)		100%	2,799.96
		Total Salaries & Wages	$ 46,906.65
FRINGE BENEFITS			4,241.80
TRAVEL AND PER DIEM			2,433.82
SUPPLIES			62.62
OTHER DIRECT COSTS			
IBM			6,000.00
Telephone			645.16
OVERHEAD			30,997.17
		Total Expenditures USA	$ 91,287.22

*Although the research assistants and secretarial personnel were 100% on the family planning research for the period of times indicated, the per cent of their total salaries were never more than 50% paid from the AID/csd grant, as per contract.

Clark E. Vincent, Ph.D.
Project Director

Contract
AID/csd-2512

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Behavioral Sciences Center
Bowman Gray School of Medicine
Wake Forest University

EXTENSION PERIOD
U.S.A.
ACTUAL EXPENDITURES
July and August, 1972

	Man Months	% Time On Project	Amount
SALARIES AND WAGES			
Professional Personnel			
Vincent, Clark E., Ph.D. (Project Director)	1.0	50%	$ -
Cochrane, C.M., Ph.D. (Psychologist)	2.0	100%	1,395.00
Haney, C.A., Ph.D. (Sociologist)	2.0	100%	1,800.00
Michielutte, R.L., Ph.D. (Sociologist)	1.6	75%	2,328.33
Technical Personnel			
Research Assistants			
Carter, M. (1 1/2 Months)		100%	645.12
Skamarak, C. (1 1/2 Months)		100%	738.04
Secretarial/Translator/Typist			
Seawell, P. (2 Months)		100%	1,100.00
White, M. (2 Months)		100%	1,350.00
		Total Salaries & Wages	$ 9,356.49
FRINGE BENEFITS			970.00
TRAVEL & PER DIEM			166.42
OTHER DIRECT COSTS			
Telephone			45.30
OVERHEAD			4,647.00
		Total Expenditures	$15,185.21

Clark E. Vincent, Ph.D.
Project Director

Contract
AID/csd-2512

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Behavioral Sciences Center
Bowman Gray School of Medicine
Wake Forest University

CUMULATIVE
REPORT
ACTUAL EXPENDITURES
(BY LINE ITEMS FOR COSTA RICA)
July 1, 1969-June 30, 1972

	Man Months	Total Three Years
SALARIES AND WAGES		
Professional Personnel		
Gonzalez-Dobles, D. (HUR Project Director)	24.0	$ 20,447
Alfaro, Oscar, M.D. (Medical Director)	8.0	3,164
Social Scientists	9.0	7,614
Field Supervisor	41.0	2,960
Medical/Nursing		651
Health Educator Trainee		1,988
Technical Personnel		
Community Educators		3,916
Secretarial/Translators		9,211
Interviewers		12,471
Clerical Help/Clinics		5,467
Total Salaries & Wages		$ 77,889
FRINGE BENEFITS		9,075
TRAVEL AND PER DIEM		9,093
EQUIPMENT AND SPACE RENTAL		6,577
SUPPLIES (Including Family Planning Meetings)		5,897
OTHER DIRECT COSTS		
Telephone/Telegrams		1,081
Total Expenditures CR		$ 109,612

Clark E. Vincent, Ph.D.
Project Director

Contract
AID/csd-2512

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Behavioral Sciences Center
Bowman Gray School of Medicine
Wake Forest University

THIRD YEAR
REPORT
ACTUAL EXPENDITURES
(BY LINE ITEMS FOR COSTA RICA)
July 1, 1971-June 30, 1972

	Man Hours	Amount
SALARIES AND WAGES		
Professional Personnel		
Gonzales-Dobles, D. (HUR Project Director)	12.0	$ 6,360.72
Alfaro, Oscar, M.D. (Medical Director)	2.0	1,676.76
Social Scientist	6.0	2,815.72
Field Supervisor		2,960.15
Medical/Nursing		9.44
Technical Personnel		
Community Educators		6,372.30
Secretarial		2,175.32
Translators		2,961.28
Clerical Help/Clinics		3,736.43
Total Salaries & Wages		$29,068.12
FRINGE BENEFITS		6,714.30
TRAVEL AND PER DIEM		2,410.33
EQUIPMENT AND SPACE RENTAL		1,360.58
SUPPLIES (Including Family Planning Meetings)		1,646.98
OTHER DIRECT COSTS		
Telephone/Telegrams		478.42
Total Expenditures CR		$41,678.73

Clark E. Vincent, Ph.D.
Project Director

"ADDENDUM A
AID/CSD-2512"

CODE	INTERVIEWER No.	DATE	AREA	QUESTIONNAIRE No.

REVISED FIELD INSTRUMENT

Developed Under

Contract AID/csd-2512
"Research in Utilization of Family Planning Services"

with the

BEHAVIORAL SCIENCES CENTER
BOWMAN GRAY SCHOOL OF MEDICINE
WAKE FOREST UNIVERSITY

and a Subcontract with

HUR/CESPO
UNIVERSITY OF COSTA RICA

SAMPLE SELECTION ITEMS

A. (1) **Do you know of any clinic or facility where family planning services are provided for the public?**

1 [ ] Yes
2 [ ] No

(2) **If yes, what is the name of this clinic or facility?**

_____

B. **Have you ever gone to such a clinic or facility for a consultation? If yes, ask question C.**

1 [ ] Yes
2 [ ] No

C. **Have you ever made use of any of the family planning services of this clinic? If yes, ask question D.**

1 [ ] Yes
2 [ ] No
3 [ ] Has Never Gone

D. **Are you using the services of this clinic now?**

1 [ ] Yes
2 [ ] No
3 [ ] Has Never Gone

ON THE BASIS OF THE ABOVE QUESTIONS, CLASSIFY STATUS (QUESTION 1 BELOW)

1. **Activity Status**

1 [ ] Active
2 [ ] Dropout
3 [ ] Been to Clinic, but never used
4 [ ] Never been to Clinic – aware
5 [ ] Never been to Clinic – unaware

*2. **Clinic Area**

Codes to be determined

GENERAL INFORMATION

*3. a. **In what year and month were you born?**

Year _____

Month _____

b. **How old are you? (Check against (a) after completing interview)**

Years _____

c. **Age Group – Based on (b)**

1 [ ] 15-19
2 [ ] 20-24
3 [ ] 25-29
4 [ ] 30-34
5 [ ] 35-39
6 [ ] 40-44
7 [ ] 45-49
8 [ ] 50+

*4. **Where were you born?**

1 [ ] This country
2 [ ] Another country
(Area codes to be determined)

*5. a. **How long have you lived in this community?**

0 [ ] Less than 1 year
1 [ ] One year
2 [ ] Two years
3 [ ] Three years
4 [ ] Four years
5 [ ] Five-Ten years
6 [ ] Eleven-Fifteen years
7 [ ] Sixteen or more (Not all my life)
8 [ ] All my life

b. **How long have you lived at this address?**

0 [ ] Less than 1 year
1 [ ] One year
2 [ ] Two years
3 [ ] Three years
4 [ ] Four years
5 [ ] Five-Ten years
6 [ ] Eleven-Fifteen years
7 [ ] Sixteen or more (Not all my life)
8 [ ] All my life

*6. **How many people are permanently living with you in this household?**

Number of People _____

*7. **How many of your own children are living with you in this household?**

Number of Children _____

*8. **What is your present marital status?**

1 [ ] Single
2 [ ] Unmarried (living together)
3 [ ] Married (church)
4 [ ] Married (civil)
5 [ ] Widowed
6 [ ] Separated
7 [ ] Divorced

*9. **How many times have you gotten married or started living together?**

Number of times _____

*10. **How old were you when you first got married or started living together?**

Years _____

*11. a. **How long did your first union last?**
00 -- no first union

Years _____

b. **How long did your second union last?**
00 -- no second union

Years _____

*12. a. **Do you consider it difficult for a woman that has had children before marriage to marry?**

0 [ ] Don't know
1 [ ] Yes
2 [ ] No

b. **If yes, how many children?**

Number of children _____

c. If yes or no, why? _____

13. a. If you could be a wife or mother, but not the two things at the same time, which one would you choose?

1 [ ] Wife
2 [ ] Mother

b. Why? _____

COMMUNICATION

(Interviewer: Please hand Card No. 1 to respondent. Determine if respondent can read card and check the following.)

*14 Reading ability

1 [ ] Can read
2 [ ] Cannot read

If respondent cannot read, go over answers with her until she understands them. Then ask:

If you heard some information related to family planning, how would you consider the reliability of the following sources of information?

(Which response on the card best fits each source of information?)

Card No. 1

1 – Completely reliable
2 – Reliable with only small doubt
3 – About 50% reliable
4 – Serious doubts about reliability
5 – Completely unreliable

*15. Television
1 2 3 4 5

*16. Newspapers
1 2 3 4 5

*17. Radio
1 2 3 4 5

*18. Magazines, Pamphlets, Bulletins
1 2 3 4 5

*19. School Teacher personally known to you
1 2 3 4 5

*20. School Teacher not personally known to you
1 2 3 4 5

*21. Medical Doctor personally known to you
1 2 3 4 5

*22. Medical Doctor not personally known to you
1 2 3 4 5

*23. Nurse personally known to you
1 2 3 4 5

*24. Nurse not personally known to you
1 2 3 4 5

*25. Midwife personally known to you
1 2 3 4 5

*26. Midwife not personally known to you
1 2 3 4 5

*27. Priest, Minister, Holy man personally known to you
1 2 3 4 5

*28. Priest, Minister, Holy man not personally known to you
1 2 3 4 5

*29. Your relatives
1 2 3 4 5

*30. Your close friends
1 2 3 4 5

*31. Your neighbors
1 2 3 4 5

*32. Other (specify) _____
1 2 3 4 5

HISTORY OF PREGNANCIES

33. a. Please tell me the names of each of your children presently living. Begin with the oldest.

Record on Pregnancy Sheet Provided

b. Now tell me how old is each one.

Record on Pregnancy Sheet Provided

c. What are their dates of birth?

Record on Pregnancy Sheet Provided

d. Write the sex of each one of them.

Record on Pregnancy Sheet Provided

34. a. Have you had other children who have died?

1 [ ] Yes
2 [ ] No

b. If yes, tell me their dates of birth, their sex, and the years in which they died.

Record on Pregnancy Sheet Provided

35. a. Many women have pregnancies that end with a miscarriage, abortion, or a stillbirth. Have you ever had a miscarriage, abortion or stillborn?

1 [ ] Yes
2 [ ] No

b. **If yes, between which children did this occur? What year did this happen? (Try to determine if each miscarriage-abortion was induced or spontaneous**

Record on Pregnancy Sheet Provided

Now go over the pregnancy sheet. Ask for any information that may be missing. Check again with the respondent to see if she has forgotten any pregnancies. If there is an interval of two or more years between two births or miscarriages, ask her and write.

Why so much time between your _____ and your _____ pregnancy?

_____
_____
_____
_____
_____
_____

Then ask:

36. a. **Are you pregnant now?**

1 [ ] Yes
2 [ ] No

b. **If yes, ask her: When do you expect the baby?**

Record on Pregnancy Sheet Columns 4-5

SUMMARY OF PREGNANCY HISTORY

INTERVIEWER: Please skip this section and go to question number 41.

37. a. **Number of Total Conceptions**

Number _____

b. **Number of Total Live Births**

Number _____

c. **Number of Stillbirths**

Number _____

d. **Number of Miscarriages**

Number _____

e. **Number of Abortions**

Number _____

f. **Number of Live Births Now Dead**

Number _____

g. **Number of Live Births Surviving After One Year**

Number _____

38. **Age at First Six Conceptions**
00 -- No conception this number
01 -- Can't determine

First _____
Second _____
Third _____
Fourth _____
Fifth _____
Sixth _____

39. **Age at First Four Abortions/Miscarriages**
00 -- No abortion this number
01 -- Can't determine

First _____
Second _____
Third _____
Fourth _____

40. **Respondents pattern of child-spacing, First Six Children**

0 -- 12 months or less
1 -- 13-18 months
2 -- 19-24 months
3 -- 25-31 months
4 -- 32-36 months
5 -- 37-42 months
6 -- 43-48 months
7 -- more than 48 months
8 -- no child this number
9 -- can't determine this number

1-2 _____
2-3 _____
3-4 _____
4-5 _____
5-6 _____

FAMILY ASPECTS

*41. **What do you think is the ideal number of children for a family like yours?**

Number of Children _____

*42. **How many children would there have to be in a family before you consider it large?**

Number of Children _____

*43. **How many children would there have to be in a family before you consider it small?**

Number of Children _____

*44. **If you could start all over again, would you like to have children? (If answer is NO, mark 00 for number of children)**

If answer is Yes, how many children would you like to have?

Number of Children _____

*45 **How many years of school would you like your sons to get?**

Code to be Determined

*46. **How many years of school would you like your daughters to get?**

Code to be Determined

*47. **What kind of job would you like your sons to do when they grow up?**

_____
_____
_____
_____

Code to be Determined

PREGNANCY HISTORY

PREGNANCY NUMBER		33. LIVE BIRTHS						34. LIVE BIRTHS NOW DEAD		35. NOT ALIVE			
NO.	CODE	NAME	AGE	BIRTH DATE		SEX		DATE OF DEATH		STILL-BORN	MISCAR-RIAGE	ABOR-TION	YEAR OCCURRED
				MO.	YEAR	M	F	MO.	YEAR				
1		2	3	4	5	6	7	8	9	10	11	12	13
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													

*48. a. Who do you think should make the decision about the number of children a couple should have?

1 [ ] The husband
2 [ ] The wife
3 [ ] Both
4 [ ] Other

b. Reason for answer

_____
_____
_____
_____

*49. Do you ever talk with your partner about the number of children a couple should have.

1 [ ] Never
2 [ ] Hardly ever
3 [ ] Now and then
4 [ ] Very often

*50. a. How old were you when you learned how a woman gets pregnant?
00 -- Doesn't know

Age _____

b. From whom did you learn it?
(If 50a is doesn't know, circle code 9)

0 [ ] When I got pregnant
1 [ ] My friends
2 [ ] My mother
3 [ ] My husband
4 [ ] The teacher
5 [ ] Relatives
6 [ ] The doctor
7 [ ] The publications
8 [ ] Other
9 [ ] Doesn't know

51. What do you enjoy and not enjoy about pregnancy?

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

*52 a. How old were you when you learned that women could use "something" to avoid getting pregnant?
00 -- Doesn't know

Age _____

b. From whom did you learn that women could use "something?"
(If 52a doesn't know, circle code 9)

0 [ ] After I got pregnant
1 [ ] My friends
2 [ ] My mother
3 [ ] My husband
4 [ ] The teacher
5 [ ] Relatives
6 [ ] The doctor
7 [ ] The publications
8 [ ] Other
9 [ ] Doesn't know

*53. How old were you when you first had sex relations?

Age _____

*54. How long can you go without sex and still feel good?

Number of days _____

*55. How long can your husband go without sex and still feel good?

Number of days _____

Now I am going to ask you some things about human reproduction.

When the respondent has an erroneous knowledge, circle 1

When the respondent has a fair knowledge, circle 2

When the respondent has a good knowledge, circle 3

*56. How do you think a woman gets pregnant?

1 2 3

*57. What is the function of the testicles?

1 2 3

*58. What is the function of the ovaries?

1 2 3

*59. What is the spermatozoid?

1 2 3

*60. What is the function of the spermatozoid?

1 2 3

*61. What is the feminine ovum?

1 2 3

*62. What is the function of the feminine ova?

1 2 3

*63. Where and how is the child formed?

1 2 3

Now I would like to ask you about some of the methods people are using to plan the size of the families. (Hand Card Number 2 to the respondent and ask her which methods mentioned on the card does she know. If the respondent cannot read, go over each method with her.)

ASK HER:

*64. a. **Have you heard of the method; have you used it?**

Record on Contraceptive Knowledge Sheet

b. **If she has used the method, ask:**
How old were you when you first used it?
00 -- Never used it

Record on Contraceptive Knowledge Sheet

c. **If she has used the method, ask:**
Do you like this method?

Record on Contraceptive Knowledge Sheet

d. **How does it work?**

Record on Contraceptive Knowledge Sheet

*65. a. **If a couple is going to use contraceptives in general, who do you think should use the contraceptive, the man or the woman?**

1 [ ] The man
2 [ ] The woman
3 [ ] Either or both

b. **Why?**

_____
_____
_____

*66. **In your case, who uses it?**

1 [ ] I
2 [ ] My partner
3 [ ] Both
4 [ ] Neither

*67. **Where do you get your contraceptives?**

1 [ ] In the Sanitary Unit
2 [ ] In the drugstore (without medical prescription)
3 [ ] From private doctor
4 [ ] Other _____
5 [ ] Other _____

*68. **Whom would you be most comfortable with in talking about family planning and contraceptive methods?**

0 [ ] No one
1 [ ] Doctor
2 [ ] Nurse
3 [ ] Social Worker
4 [ ] Friend
5 [ ] Minister/Priest
6 [ ] Relatives
7 [ ] Other _____

Now I would like to get back to some questions about family planning clinics and services.

*69. **Do you know of a clinic where family planning services are proviced?**

1 [ ] Yes
2 [ ] No

IF NO, GO DIRECTLY TO QUESTION 80. SKIP THE OTHER QUESTIONS. AFTER THE INTERVIEW IS COMPLETED, RETURN TO QUESTIONS 70-79 AND MARK NOT APPLICABLE

IF THE ANSWER TO QUESTION 69 WAS YES, GO ON WITH THE FOLLOWING QUESTIONS:

*70. **Which clinic is it that you know of?**
0 -- Not applicable

Codes to be determined

*71. **When did you first hear about it?**
0 -- Not applicable

Codes to be determined

*72. **From whom did you hear about it?**

0 [ ] Not applicable
1 [ ] Doctor
2 [ ] Nurse
3 [ ] Social Worker
4 [ ] Friend
5 [ ] Minister/Priest
6 [ ] Relatives
7 [ ] Printed Material
8 [ ] Other _____

*73. a. **Have you told your relatives and friends about these services?**
(If answer is no, mark 00 for number).

Number _____

b. **If answer is yes, ASK: How many persons have you told? and mark this number.**
99 -- Not applicable

*74. **If answer to previous questions was yes, ASK: Are you responsible for any of them going to the clinic? If answer was no, mark: "did not tell anybody."**

0 [ ] Not applicable
1 [ ] Yes
2 [ ] No
3 [ ] Doesn't know
4 [ ] Did not tell anybody

75. a. **Have you ever gone for a consultation at the family planning clinic?**
(IF THEY ANSWER NO, SKIP TO 80)

0 [ ] Not applicable
1 [ ] Yes
2 [ ] No

b. **How long ago did you first go?**

0 [ ] Not applicable
1 [ ] Less than 6 months
2 [ ] 6-12 months
3 [ ] 13-24 months
4 [ ] 25-36 months
5 [ ] 37-48 months
6 [ ] Over 4 years

CONTRACEPTIVE KNOWLEDGE SHEET

64. Contraceptive Method	A Has never heard of . . . . . 1 Has heard of . . . . . 2 Has used . . . . . 3 Is currently using. 4	B At what age used it 00 -- Never heard 01 -- Never used	C Never used . . . . . 0 Likes . . . . . 1 Indifferent . . . . . 2 Doesn't like 3	D Knows well . . . . 1 Knows some . . . 2 Doesn't know . . . 3 (Includes never heard of it)
Rhythm	1 2 3 4		0 1 2 3	1 2 3
Douche	1 2 3 4		0 1 2 3	1 2 3
Sterilization	1 2 3 4		0 1 2 3	1 2 3
Pills	1 2 3 4		0 1 2 3	1 2 3
Withdrawal	1 2 3 4		0 1 2 3	1 2 3
Diaphragm	1 2 3 4		0 1 2 3	1 2 3
IUD	1 2 3 4		0 1 2 3	1 2 3
Jelly	1 2 3 4		0 1 2 3	1 2 3
Suppositories	1 2 3 4		0 1 2 3	1 2 3
Abortion	1 2 3 4		0 1 2 3	1 2 3
Condom	1 2 3 4		0 1 2 3	1 2 3
Abstinence	1 2 3 4		0 1 2 3	1 2 3

c. Why did you go? _____

76. a. What family planning method did you choose?

00 [ ] Not applicable
01 [ ] Rhythm
02 [ ] Douche
03 [ ] Sterilization
04 [ ] Pills
05 [ ] Withdrawal
06 [ ] Diaphragm
07 [ ] IUD
08 [ ] Jelly
09 [ ] Suppositories
10 [ ] Abortion
11 [ ] Condom
12 [ ] Abstinence
13 [ ] Other _____
14 [ ] Did not choose method

b. Are you still using the method?

0 [ ] Not applicable
1 [ ] Yes
2 [ ] No
3 [ ] Did not choose method

c. If no, why? _____

77. a. Are you now using another method?

0 [ ] Not applicable
1 [ ] Yes
2 [ ] No

b. If yes, what method?

00 [ ] Not applicable
01 [ ] Rhythm
02 [ ] Douche
03 [ ] Sterilization
04 [ ] Pills
05 [ ] Withdrawal
06 [ ] Diaphragm
07 [ ] IUD
08 [ ] Jelly
09 [ ] Suppositories
10 [ ] Abortion
11 [ ] Condom
12 [ ] Abstinence
13 [ ] Other _____
14 [ ] Not using another

c. If yes, why did you choose this method?

78. a. Are you using the services of the family planning clinic now?

0 [ ] Not applicable
1 [ ] Yes
2 [ ] No

b. If no, why did you drop it? _____

79. Now I will read you some things that might be wrong with the family planning services. Please tell me if you agree with these complaints.

0 – Not applicable
1 – Yes
2 – No

a. The doctor is not punctual

0 1 2

b. There is not enough privacy between the doctor and patient.

0 1 2

c. There is not enough instruction on contraceptive methods.

0 1 2

d. There is no opportunity to choose and change the method.

0 1 2

e. Family planning consultations should be separate from other consultations.

0 1 2

f. The consultation schedule should be changed to more comfortable hours.

0 1 2

If yes, what hours?

0 [ ] Not applicable
1 [ ] Morning
2 [ ] Afternoon
3 [ ] Evening

g. The clinic is too small and uncomfortable.

0 1 2

h. The personnel are not helpful and courteous.

0 1 2

i. There is not enough information about the services provided.

0 1 2

j. The contraceptives should be sold at the same clinic.

0 1 2

k. The clinic location is too far away.

0 1 2

l. There is not enough time allowed in case the patients are late.

0 1 2

m. There is nobody to take care of the children while I go to the clinic.

0 1 2

n. Do you have any other suggestions or complaints about the clinic, the doctor, the nurse, or somebody else there?

_____

_____

_____

_____

_____

_____

*80. At what age would you favor family planning information for your children in school?

Age _____

INTERVIEWER: THE NEXT SECTION ON SEMANTIC DIFFERENCES IS TO BE FILLED OUT BY THE RESPONDENT. IF RESPONDENT CANNOT READ, PLEASE READ THE INSTRUCTIONS TO HER AND MAKE SURE SHE UNDERSTANDS WHAT IS TO BE DONE. THEN GO OVER THE LIST OF CONCEPTS AND WORDS WITH HER.

SEMANTIC DIFFERENCES

INSTRUCTIONS TO FILL OUT THE SEMANTIC DIFFERENCES.

In this part of the questionnaire, you will decide how to answer according to the procedure illustrated in the following example:

Here you will find two words with opposite meanings. For example, if you mark number 4 in the line, that would indicate that "to eat" is neither "bad" nor "good" for you. If you had marked number 3, you would be indicating that "to eat" is "good," and number 1 would mean "very good." Now to indicate that to eat is "very bad," you would mark number 7. For example:

Good 1 2 3 4 5 6 (7) Bad

Here are the concepts: Marriage, yourself, family planning, the church, husband, men and having babies. They are seven concepts that indicate ideas or different persons. Circle number according to your opinion.

*81. Marriage

a.	Kind	1	2	3	4	5	6	7	Inconsiderate
b.	Soft	1	2	3	4	5	6	7	Hard
c.	Dishonest	1	2	3	4	5	6	7	Honest
d.	Robust	1	2	3	4	5	6	7	Thin
e.	Fast	1	2	3	4	5	6	7	Slow
f.	Just	1	2	3	4	5	6	7	Unjust
g.	Big	1	2	3	4	5	6	7	Small
h.	Bad	1	2	3	4	5	6	7	Good
i.	Weak	1	2	3	4	5	6	7	Strong
j.	Active	1	2	3	4	5	6	7	Passive

*82. Yourself

a.	Kind	1	2	3	4	5	6	7	Inconsiderate
b.	Soft	1	2	3	4	5	6	7	Hard
c.	Dishonest	1	2	3	4	5	6	7	Honest
d.	Robust	1	2	3	4	5	6	7	Thin
e.	Fast	1	2	3	4	5	6	7	Slow
f.	Just	1	2	3	4	5	6	7	Unjust
g.	Big	1	2	3	4	5	6	7	Small
h.	Bad	1	2	3	4	5	6	7	Good
i.	Weak	1	2	3	4	5	6	7	Strong
j.	Active	1	2	3	4	5	6	7	Passive

*83. Family Planning

a.	Kind	1	2	3	4	5	6	7	Inconsiderate
b.	Soft	1	2	3	4	5	6	7	Hard
c.	Dishonest	1	2	3	4	5	6	7	Honest
d.	Robust	1	2	3	4	5	6	7	Thin
e.	Fast	1	2	3	4	5	6	7	Slow
f.	Just	1	2	3	4	5	6	7	Unjust
g.	Big	1	2	3	4	5	6	7	Small
h.	Bad	1	2	3	4	5	6	7	Good
i.	Weak	1	2	3	4	5	6	7	Strong
j.	Active	1	2	3	4	5	6	7	Passive

*84. The Church

a.	Kind	1	2	3	4	5	6	7	Inconsiderate
b.	Soft	1	2	3	4	5	6	7	Hard
c.	Dishonest	1	2	3	4	5	6	7	Honest
d.	Robust	1	2	3	4	5	6	7	Thin
e.	Fast	1	2	3	4	5	6	7	Slow
f.	Just	1	2	3	4	5	6	7	Unjust
g.	Big	1	2	3	4	5	6	7	Small
h.	Bad	1	2	3	4	5	6	7	Good
i.	Weak	1	2	3	4	5	6	7	Strong
j.	Active	1	2	3	4	5	6	7	Passive

*85. Husband

a.	Kind	1	2	3	4	5	6	7	Inconsiderate
b.	Soft	1	2	3	4	5	6	7	Hard
c.	Dishonest	1	2	3	4	5	6	7	Honest
d.	Robust	1	2	3	4	5	6	7	Thin
e.	Fast	1	2	3	4	5	6	7	Slow
f.	Just	1	2	3	4	5	6	7	Unjust
g.	Big	1	2	3	4	5	6	7	Small
h.	Bad	1	2	3	4	5	6	7	Good
i.	Weak	1	2	3	4	5	6	7	Strong
j.	Active	1	2	3	4	5	6	7	Passive

*86. Men

a.	Kind	1	2	3	4	5	6	7	Inconsiderate
b.	Soft	1	2	3	4	5	6	7	Hard
c.	Dishonest	1	2	3	4	5	6	7	Honest
d.	Robust	1	2	3	4	5	6	7	Thin
e.	Fast	1	2	3	4	5	6	7	Slow
f.	Just	1	2	3	4	5	6	7	Unjust
g.	Big	1	2	3	4	5	6	7	Small
h.	Bad	1	2	3	4	5	6	7	Good
i.	Weak	1	2	3	4	5	6	7	Strong
j.	Active	1	2	3	4	5	6	7	Passive

*87. Having Babies

a.	Kind	1	2	3	4	5	6	7	Inconsiderate
b.	Soft	1	2	3	4	5	6	7	Hard
c.	Dishonest	1	2	3	4	5	6	7	Honest
d.	Robust	1	2	3	4	5	6	7	Thin
e.	Fast	1	2	3	4	5	6	7	Slow
f.	Just	1	2	3	4	5	6	7	Unjust
g.	Big	1	2	3	4	5	6	7	Small
h.	Bad	1	2	3	4	5	6	7	Good
i.	Weak	1	2	3	4	5	6	7	Strong
j.	Active	1	2	3	4	5	6	7	Passive

NEGATIVE ASPECTS OF FAMILY PLANNING

Some persons don't use the family planning services. I am going to mention some of the reasons why they may not want to use these services.

Tell me first if you think that many people think that way, and also tell me if you think that way.

*88. Afraid friends and neighbors think she is doing something wrong.

Many People	You
1 [ ] Yes	1 [ ] Yes
2 [ ] No	2 [ ] No

*89. Think that to practice family planning is a sin.

Many People	You
1 [ ] Yes	1 [ ] Yes
2 [ ] No	2 [ ] No

*90. Afraid contraceptives will make them sick.

Many People	You
1 [ ] Yes	1 [ ] Yes
2 [ ] No	2 [ ] No

*91. Afraid contraceptives cause cancer.

Many People	You
1 [ ] Yes	1 [ ] Yes
2 [ ] No	2 [ ] No

*92. Afraid contraceptives reduce sexual pleasure.

Many People	You
1 [ ] Yes	1 [ ] Yes
2 [ ] No	2 [ ] No

*93. Afraid contraceptives will eliminate sexual desire.

Many People	You
1 [ ] Yes	1 [ ] Yes
2 [ ] No	2 [ ] No

*94. Don't like clinic personnel to mind their business.

Many People	You
1 [ ] Yes	1 [ ] Yes
2 [ ] No	2 [ ] No

*95. Don't like the medical exam.

Many People	You
1 [ ] Yes	1 [ ] Yes
2 [ ] No	2 [ ] No

*96. Afraid the doctor will hurt them.

Many People	You
1 [ ] Yes	1 [ ] Yes
2 [ ] No	2 [ ] No

*97. It is uncomfortable to talk about sex with the clinic personnel.

Many People	You
1 [ ] Yes	1 [ ] Yes
2 [ ] No	2 [ ] No

*98. Don't think a free clinic is any good.

Many People	You
1 [ ] Yes	1 [ ] Yes
2 [ ] No	2 [ ] No

*99. Don't like to wait too long to be seen.

Many People	You
1 [ ] Yes	1 [ ] Yes
2 [ ] No	2 [ ] No

100. Afraid their husbands might not like their going to the clinic.

Many People	You
1 [ ] Yes	1 [ ] Yes
2 [ ] No	2 [ ] No

101. If the answer to Question 100 is yes for the respondent, find out why her husband doesn't want her to go to the clinic.

_____
_____
_____
_____
_____

*102. a. Would you be interested in having couples or women in your home to discuss family planning?

1 [ ] Yes, couples only
2 [ ] Yes, women only
3 [ ] Yes, both
4 [ ] No

b. Would you be interested in participating in meetings of this type at other people's homes?

1 [ ] Yes
2 [ ] No

c. Do you feel it would be better to have meetings of this type in people's homes or to have them at the family planning clinics?

1 [ ] People's homes
2 [ ] At the clinics

Information about the Family

*103. How many brothers and sisters do you have?

Number_____

*104. How many years of school do you have?

Code to be determined

*105. Are you:

1 [ ] Housewife
2 [ ] Student
3 [ ] Pensioned
4 [ ] Employed
5 [ ] Other_____

*106. Who is the main wage earner in your home?

1 [ ] The respondent
2 [ ] Husband or Partner
3 [ ] Both the same
4 [ ] Other_____

*107. Counting all wages, rents, interests, salaries and things like that, how much is your total monthly income?

(If they receive earnings from different sources, help them to calculate the total income.)

Code to be determined

*108 What is your religion?

Code to be determined

*109. How often do you attend religious services?

1 [ ] Never
2 [ ] Once a year
3 [ ] Several times a year
4 [ ] Once a month
5 [ ] 2-3 times a month
6 [ ] Once a week
7 [ ] More than once a week

*110. (For women with husbands or permanent partners) How many years of school does your partner have?

Code to be determined

*111. What kind of work does your husband or partner do?

Code to be determined

I-E SCALE

In this section, I am going to read you sets of two phrases. Tell me the one you agree with.

*112. a. Many of the unhappy things in people's lives are due to bad luck

1 [ ]

b. People's misfortunes result from the mistakes they make.

2 [ ]

*113. a. In the long run people get the respect they deserve in this world.

1 [ ]

b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

2 [ ]

*114. a. Children get into trouble because their parents punish them too much.

1 [ ]

b. The trouble with most children nowadays is that their parents are too easy with them.

2 [ ]

*115. a. Without the right breaks one cannot be an effective leader.

1 [ ]

b. Capable people who fail to become leaders have not taken advantage of their opportunities.

2 [ ]

*116. a. No matter how hard you try some people just don't like you.

1 [ ]

b. People who can't get others to like them don't understand how to get along with others.

2 [ ]

*117. a. Heredity plays the major role in determining one's personality.

1 [ ]

b. It is one's experiences in life which determine what they're like.

2 [ ]

*118. a. When I make plans, I am almost certain that I can make them work.

1 [ ]

b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

2 [ ]

*119. a. Who gets to be the boss often depends on who was lucky enough to get in the right place first.

1 [ ]

b. Getting people to do the right things depends upon ability; luck has little or nothing to do with it.

2 [ ]

*120. a. There are certain people who are just no good.

1 [ ]

b. There is some good in everybody.

2 [ ]

*121. a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.

1 [ ]

b. By taking an active part in political and social affairs, the people can control world events.

2 [ ]

*122. a. Most of the people don't realize the extent to which their lives are controlled by accidental happenings.

1 [ ]

b. There really is no such thing as "luck."

2 [ ]

*123. a. One should always be willing to admit mistakes.

1 [ ]

b. It is usually best to cover up one's mistakes.

2 [ ]

*124. a. It is hard to know whether or not a person really likes you.

1 [ ]

b. How many friends you have depends upon how nice a person you are.

2 [ ]

*125 a. Many times I feel that I have little influence over the things that happen to me.

1 [ ]

b. It is impossible for me to believe that chance and luck play an important role in my life.

2 [ ]

IF THE RESPONDENT INDICATED NO KNOWLEDGE OF FAMILY PLANNING CLINICS, GIVE HER A DETAILED EXPLANATION OF THE FAMILY PLANNING SERVICES. ASK HER IF SHE HAS ANY QUESTIONS AND ANSWER HER.

Questions (Write the questions asked by the respondent.)

1. _____

2. _____

3. _____

4. _____

*Questions marked with an asterik could also be asked, (with some modification) of a male sample.

GENERAL INFORMATION

To be filled out by the interviewer

OBSERVE AND WRITE

1. Interviewee's race.

1 [ ] White
2 [ ] Black
3 [ ] Indian
4 [ ] Oriental
5 [ ] Other _____

2. Type of house

1 [ ] Very poor (marginal)
2 [ ] Poor
3 [ ] Modest with comfort
4 [ ] Comfortable
5 [ ] Luxurious
6 [ ] Impossible to classify

3. Presence of other persons

1 [ ] Husband or partner
2 [ ] Mother
3 [ ] Adult woman
4 [ ] Adult man
5 [ ] Small children
6 [ ] Nobody

4. Duration of the interview

Hour(s) _____
Minutes _____

5. Cooperation

1 [ ] Bad
2 [ ] Fair
3 [ ] Good
4 [ ] Very good

6. Precision of the answers

1 [ ] Totally reliable
2 [ ] Partially reliable
3 [ ] Not reliable

Preliminary Draft

"Addendum C
AID/csd-2512"

RECOMMENDATIONS FOR FAMILY PLANNING PROGRAMS IN COSTA RICA

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This report is part of the project being carried out in Costa Rica by the Centro de Estudios Sociales y de Poblacion (CESPO) of the University of Costa Rica, under subcontract of the Behavioral Sciences Center of the Bowman Gray School of Medicine of Wake Forest University, with HUR/CESPO Costa Rica, as per Contract AID/csd-2512 with the Behavioral Sciences Center of the Bowman Gray School of Medicine of Wake Forest University.

INTRODUCTION

A wide variety of information on family planning, contraception, and clinic utilization was presented in the two-year report on the family planning program in Costa Rica. Due to the broad scope of this report, much of the information, while of considerable programmatic importance, has not yet been utilized as a basis for suggesting changes in the family planning program. The purpose of the present report is to reexamine some of the most important information presented in the earlier report in order to develop specific recommendations for improvement of the family planning program. With this goal in mind, additional data analyses have been conducted to complement these earlier findings.

One of the most important results of this investigation has been to point out and emphasize the areas of knowledge in which there is insufficient information. Therefore, some of our recommendations suggest research that should be undertaken to provide the missing information which can be used to direct future action and implementation.

The topics considered in this report include: (1) interest in family planning, (2) contraception, including contraceptive practice and knowledge, (3) means of improving clinic procedures, and (4) credibility of information sources in family planning.

INTEREST IN FAMILY PLANNING

The initial findings with respect to home meetings as a method of stimulating interest in the family planning clinics indicated that approximately

sixty-nine percent of the women were willing to attend home meetings. Also, about sixty-nine percent were willing to hostess meetings for couples or women. An analysis by various control variables revealed essentially the same findings. Well over fifty percent of the women in every subcategory were willing to attend and hostess these meetings.

Thus, these results suggested that home meetings would be an important means of presenting information about family planning. However, the responses to another question which required women to evaluate various methods of convincing couples to practice family planning did not reveal the same high regard for meetings. Only twenty-eight percent of the women indicated that they felt having meetings was a good idea, as compared to sixty-seven percent who responded positively to the suggestion that women be taken to the clinics to hear lectures. This finding essentially indicates that, although women are willing to attend home meetings, not many of them believe the meetings are a particularly effective means of convincing couples to practice family planning. A more complete analysis of these data is presented in Table 1.

Table 1 shows, within categories of selected variables, the percentage of women who believe that certain methods of convincing couples to practice family planning are effective. The methods shown are (1) have the couples consult with a doctor, (2) have meetings, and (3) have the couples come to clinics to hear lectures. Also shown is the proportion of women who don't think it is a good idea to convince couples to practice family planning.

The percentages within categories of the control variables are consistent with the results previously mentioned. In all instances, a much larger percentage of women believe coming to the clinics or consulting with a doctor would be a more effective method than having meetings. It is also interesting

to note that in general a very small percentage of women feel nothing should be done (9.3 percent for the total sample). It is significant, however, that the oldest group of women (40-49), those with the least education and income, and those with the highest parity, and those in the never-been unaware group show the highest percentages who feel nothing should be done.

On the basis of these results we would make three recommendations with respect to the use of home meetings:

1. A careful evaluation should be made of the effectiveness of home meetings. It may be that their only value is in making most women aware of family planning and clinic services, rather than convincing them to practice family planning. If this is the case, the dissemination of information could be accomplished more cheaply on a broader scale and as effectively by other means such as the mass media.

2. It may well be, however, that the meetings play a role in convincing women to make a visit to the clinic, at which place their decision to actually begin family planning is made. If this is the case, the emphasis of the home meetings should be placed on eliminating resistance to visiting a clinic. The suggested evaluation will provide information on whether or not to take this approach.

3. The data would seem to indicate that meetings at the clinics would be much more effective. Therefore, it is suggested that more emphasis be placed on clinic activities (e.g., special lectures) as a means of stimulating interest in family planning and providing information designed to facilitate the making of firm decisions about family planning.

TABLE

PERCENTAGE OF WOMEN WHO AGREE WITH SPECIFIC SUGGESTIONS FOR CONVINCING COUPLES TO PRACTICE FAMILY PLANNING, BY SELECTED CONTROL VARIABLES

Variable	N	Respect Areas 1*	2	3	4
Total Sample	1498	46.1	26.6	67.2	9.3
Race					
White	1192	42.9	25.3	67.9	9.0
Nonwhite	306	58.5	36.2	64.4	10.5
Age					
15-24	386	47.4	32.9	76.9	6.2
25-29	312	42.6	26.3	65.7	9.9
30-34	286	44.4	25.2	63.3	10.1
35-39	223	51.6	27.4	65.9	6.7
40-49	291	45.4	26.5	60.5	13.8
Education					
None-Primary Incomplete	844	45.6	27.1	64.4	11.7
Primary Complete	400	47.0	28.5	65.5	7.8
High School +	254	46.1	29.9	78.7	3.5
Income					
0-399¢	616	42.2	26.8	62.5	10.2
400-699¢	365	45.2	25.8	67.1	8.5
700-999¢	156	43.6	26.3	73.7	7.7
1000+ ¢	137	41.6	24.1	74.4	5.1
Unknown	224	62.5	38.4	71.0	11.6
Clinic Status					
Active	519	41.8	27.6	71.3	5.0
Dropout	283	42.8	27.6	67.5	11.3
Never-Been Aware	383	55.6	33.7	66.3	8.4
Never-Been Unaware	313	44.4	22.0	61.0	15.3

TABLE 1
(continued)

Variable	N	Percent Agree 1*	2	3	4
Clinic Area					
Urban					
Alajuelita	156	49.4	22.4	66.7	11.5
Claret	101	48.5	19.8	74.3	7.9
Cinco Esquinas	306	44.8	28.4	74.8	9.5
Natillo	341	39.6	24.3	71.0	8.5
Rural					
Nicoya	287	53.0	35.9	61.3	10.1
Santa Cruz	307	45.6	29.6	58.6	8.5
Parity					
0-1	215	44.2	29.3	71.6	6.5
2	242	45.9	29.8	68.6	10.3
3	195	45.6	29.7	67.2	10.3
4	171	48.0	27.5	67.2	10.5
5	154	43.5	23.4	64.3	10.4
6	134	52.2	29.8	70.9	5.2
7	114	45.6	25.4	70.2	5.3
8+	273	45.4	27.1	60.8	12.1

*1- Have couples consult with a doctor

2- Have meetings

3- Have couples come to clinic to hear lectures

4- Would not like to convince couples

CONTRACEPTION

The initial analysis of reasons for dropping out of the clinics revealed that pregnancy (24%), health reasons (10%), and dislike of the contraceptive method (10%) were the factors most frequently mentioned by the women. All of these reasons essentially refer to some problem with the contraceptive method, and therefore suggest that special attention should be devoted to contraceptive techniques and the problems encountered by women in using these methods. Since over twice as many women indicated that pregnancy was the reason for dropping out as compared to any other reason, we would first recommend the following:

1. A detailed inquiry should be made into the reasons for contraceptive failure among so many women. Is it lack of initiative on the part of the women, faulty instruction in the clinics, faulty contraceptives, or some other unspecified reason? The answer to this question would point out weak links in the overall family planning program in Costa Rica.

Since the major reasons for dropping out of the clinics concern problems with the contraceptives, a more detailed analysis of women who have discontinued use of the two most popular contraceptive techniques, the pill and IUD, has been conducted. The results of this analysis are shown in Tables 2 and 3.

Pill. The data in Table 2 indicate that approximately sixty-eight percent of the women who discontinued use of the pill quit for reasons directly concerned with the contraceptive method. By far the most important reason mentioned is that the women feel this method is harmful to their health. Also important is the fact that slightly over sixteen percent of the women indicated that the pill is too complicated, while less than six percent indicated that contraceptive failure was the reason for discontinuing use.

The same patterns are found within categories of the control variables. It is significant, however, that older women (40-49) show the largest percentage who believe the pill is harmful to their health. It may be that these women suffer more from the side effects of the birth control pill.

The differences by education and income are perhaps surprising. As would be expected, a smaller percentage of better educated women and women of higher income feel this method is too complicated. However, a larger percentage of these women indicated that the pill is harmful to their health. This differential is also reflected in the urban and rural clinics, where generally a larger proportion of women in the urban clinics feel the pill is harmful to their health. Apparently, women with relatively higher social status are more concerned with the real and imagined side effects of the birth control pill. It is possible that this is due to these women being better informed but not truly well enough informed. Reading more, they may have encountered "scare" articles in popular publications about the side effects of contraceptives.

It is also significant to note that the majority of actives who quit using the pill reported they changed methods as opposed to citing a specific reason. On the other hand, none of the dropouts changed methods, rather they quit using contraceptives altogether.

On the basis of these findings we would recommend the following with respect to use of the birth control pill:

2. A study should be conducted to determine why so many women quit using the pill for reasons of health. How often is this a reaction to the actual side effects of the birth control pill, imagined fears, or some combination of these reasons? This would help to determine what changes should be made in the educational program (and possibly mass media campaigns), and whether or not a different type of pill should be distributed. Special emphasis should be placed on determining why this problem is particularly prevalent among women with more education and higher income, and among older women.

3. Even before conducting the study suggested in (2), at the clinics, more attention should be devoted to discussion with the clients about what the actual contraindications for the pill are, what common misconceptions are false,

possible side effects and their importance, and other topics aimed at better informing the clients. This is particularly true for the better educated women.

4. A study should be conducted to determine exactly what aspects of using the pill are considered too complicated by the women. This would lead to specific modifications in the program of instruction.

5. Both of these studies could be conducted fairly simply by having the physicians or other medical personnel keep a record as they talk to the women in the clinics.

IUD. The data shown in Table 3 indicate that, as was the case with the pill, the major reason reported for discontinuing use of the IUD is concerned with health problems. Almost forty percent of the women who quit using the IUD indicated that it was bad for their health. In contrast to the findings reported for the pill, however, the second most important reason for discontinuing use of the IUD is that the method failed. Slightly less than eight percent believe the IUD is more complicated.

Within categories of the control variables, essentially the same patterns as found for the pill can be seen to exist with respect to the most important reason for discontinuing use of the IUD. A larger percentage of women who have a higher level of education and income, and who are in the urban clinics reported they quit the IUD for reasons of health. Age, on the other hand, shows some deviation from the pattern observed for the pill. Women in the oldest and youngest groups show the largest percentage reporting the IUD is bad for their health. By clinic status, most actives reported they changed methods (from the IUD to the pill) rather than citing a reason for discontinuing use of the IUD, while almost forty-four percent of the dropouts cited health reasons.

Focusing on contraceptive failure, a smaller percentage of older women, those with higher levels of income and education, women in the urban clinics,

and women of low parity reported they discontinued use due to failure of the IUD to prevent pregnancy. Also, a much larger proportion of dropouts reported the method failed.

On the basis of these results we would recommend the following with respect to use of the IUD:

6. A study should be conducted to determine why so many women discontinued use of the IUD for reasons of health. Is this a reaction to the physical problems (e.g., discomfort) encountered in the use of the IUD, imagined fears, or some combination of these reasons? Special emphasis should be placed on determining why the problem is particularly prevalent among older and younger women, and women in the higher education and income groups.

7. As with the pill, more specific discussion should be offered to better inform the clients about health dangers with the IUD.

8. Referring back to recommendation (1), apparently the problem of contraceptive failure is more prevalent for the IUD. Since the failure rate is typically higher for this method than for the pill, we would recommend a careful evaluation of the examination procedure and instructions given to women who choose this method, with the goal of reducing the failure rate.

Choice of Contraceptive. The focus in the preceding discussion on the pill and IUD implies that these are the most popular contraceptive techniques provided by the clinics. In fact, virtually all of the women who have attended the clinics were initially given the pill (78.4 percent) or the IUD (18.6 percent). Only three percent of the actives or dropouts originally selected another method. Although the pill and IUD are among the most reliable contraceptive techniques, family planning programs should not be limited to these methods. For some women, health or psychological factors may suggest the use of other methods. Therefore, we would recommend the following:

9. A wider variety of contraceptives should be made available to women who attend the clinics based on the medical model. This recommendation will be discussed further in a later section.

Given the current emphasis on the pill and IUD, however, it is instructive to examine variations in their use by relevant background variables. Table 4 shows the results of this analysis. These data indicate that women who are older, of higher parity, lower educational attainment and lower income are more likely to have chosen the IUD. Also, actives are more likely to have chosen the IUD than dropouts.

The data for clinic areas show wide variations in the percentages of women selecting the pill and IUD. In one rural clinic, Santa Cruz, over fifty percent of the women selected the IUD, while in the other rural clinic, Nicoya, less than sixteen percent chose the IUD. The variation is somewhat less in the urban clinics, but even here the percentage of women selecting the IUD ranges from approximately thirty-nine percent in Alajuelita to slightly less than fourteen percent in Cinco Esquinas and Matillo. These variations apparently reflect biases on the part of the medical personnel in the clinics. Such biases, however, can be detrimental to the eventual success of a family planning program. Therefore, we would recommend the following:

10. Unless there are valid health reasons for encouraging a woman to select a particular type of contraceptive, she should be allowed to choose the technique with which she feels most comfortable.

Contraceptive Knowledge. The strong emphasis on the pill and IUD in the clinics is reflected in the general level of contraceptive knowledge for all women in the baseline sample. Slightly over eighty-nine percent of the women have at least heard of the birth control pill, and approximately sixty-six percent have heard of the IUD. The only other technique that approaches these

percentages, however, is the condom. Approximately sixty-two percent of the women have heard of this technique. Less than thirty percent of the women have heard of any of the other methods of birth control. This would appear to be a serious limitation in the family planning program. Therefore, we would recommend the following:

11. Many contraceptives do not require a medical exam and can be communicated easily to large numbers of women. They are: (a) condom, (b) foam tablet, (c) rhythm method, (d) withdrawal, (e) jelly, and (f) suppositories. Of these only the condom is currently known by appreciable numbers of women. Steps should be taken to disseminate information on these techniques, both to men and women.

Logically, one of the most effective methods of communicating this information would be the mass media. In this light, it is instructive to examine the means by which women in the sample have learned about the pill and IUD. This information is shown in Table 7. These data indicate that the most important single source of information for both the pill and IUD is "friends." Medical sources, however, form the most important category of sources for both the pill and IUD. It is particularly significant to note that very few of the women learned of either method through the mass media.

Although some interesting variations can be seen in the breakdown by relevant background variables (Tables 6 and 7), essentially the same conclusion holds within categories of each control variable. The mass media are relatively under-utilized sources of information, even among women in the higher education and income categories. Therefore, given the capacity of the mass media to reach large numbers of people, we would recommend the following:

12. Increased emphasis should be placed on the mass media as a source of information about a variety of contraceptive techniques.

It should be noted that this recommendation has already been followed to some extent. Since these data were collected, more extensive use has been made of the mass media.

Opinion of Pill and IUD. In general, the preceding discussion has suggested that the level of contraceptive knowledge is low in Costa Rica. This is true even for the most widely known methods, the pill and IUD. The data in Table 8 report the women's general opinion of these methods. Taken together with the data presented in the preceding section, these percentages clearly demonstrate the general lack of knowledge. While almost ninety percent of the women had heard of the pill, over forty-three percent were not familiar enough with the techniques to state an opinion. Furthermore, over sixty-five percent of the women did not state an opinion of the IUD. It is significant, however, that among women who did state an opinion, the pill appears to be more highly regarded than the IUD.

Within categories of the selected background variables, the information shown in Tables 9 and 10 suggests a general pattern in terms of the characteristics of women who failed to state an opinion of the pill and IUD. This pattern essentially suggests that the presence or absence of an opinion on these methods is at least partially a function of social class, lower-class women being less likely to have an opinion on these methods of contraception. This conclusion is based on the assumption that race, age, education, income, parity, and clinic area (urban vs. rural clinics) can be considered indirect indicators of social class in Costa Rica.

Additional data presented in the earlier report also support this conclusion. It was found that many of the factors most closely related to a contraceptive knowledge score based on all contraceptive methods were indicators of social class.

Since it would be expected that lower-class women will have a lower degree of contraceptive knowledge and therefore be less likely to have an opinion of each method, these findings are not startling or unusual. However, they document the generally low degree of contraceptive knowledge, and point out the need for special emphasis on bringing information to lower class women. Thus, we would recommend the following:

13. Special attention should be directed toward developing family planning messages that can be transmitted to and understood by lower class women (and men). This may mean, among other things, delivery of special printed materials to villages, provision of a radio or possibly taped messages for remote villages. A variety of techniques should be considered.

TABLE 2

DISTRIBUTION OF REASONS FOR DISCONTINUING USE OF PILL, BY SELECTED CONTROL VARIABLES

Variable	N	Reason 1*	2	3	4	5	Total
Total Sample	247	36.8	5.7	16.2	8.9	32.4	100.0
Race							
White	221	36.6	5.4	16.7	9.0	32.3	100.0
Nonwhite	26	38.5	7.7	11.5	7.7	34.6	100.0
Age							
15-24	82	23.2	4.9	17.1	4.9	49.9	100.0
25-29	61	41.0	6.6	14.8	9.8	27.8	100.0
30-34	50	48.0	4.0	20.0	14.0	14.0	100.0
35-39	36	36.1	11.1	13.9	5.6	33.3	100.0
40-49	18	55.6	0.0	11.1	16.7	16.6	100.0
Education							
None-Primary Incomplete	143	35.0	5.6	17.5	9.1	32.8	100.0
Primary Complete	65	36.9	7.7	16.9	7.7	30.8	100.0
High School +	39	43.6	2.6	10.3	10.3	33.2	100.0
Income							
0-399¢	112	33.0	7.1	17.0	4.5	38.4	100.0
400-699¢	68	36.8	4.4	22.1	11.8	24.9	100.0
700 + ¢	42	47.6	2.4	4.8	19.0	26.2	100.0
Unknown	25	36.0	8.0	16.0	4.0	36.0	100.0
Clinic Status							
Active	37	13.5	8.1	13.5	51.4	13.5	100.0
Dropout	210	41.0	5.2	16.7	1.4	35.7	100.0
Clinic Area							
Urban							
Alajuelita	28	39.3	3.6	10.7	0.0	46.4	100.0
Claret	16	50.0	0.0	12.5	6.2	31.3	100.0
Cinco Esquinas	60	41.7	8.3	20.0	6.7	23.3	100.0
Hatillo	67	32.8	6.0	17.9	10.4	32.9	100.0
Rural							
Nicoya	46	37.0	6.5	13.0	8.7	34.8	100.0
Santa Cruz	30	26.7	3.3	16.7	20.0	33.3	100.0

TABLE 2
(continued)

Variable	N	Reason 1*	2	3	4	5	Total
Parity							
0-1	33	24.2	6.1	12.1	6.1	51.5	100.0
2	46	34.8	2.2	17.4	4.4	41.2	100.0
3	30	33.3	3.3	20.0	6.7	36.7	100.0
4	33	45.4	3.0	12.1	12.1	27.4	100.0
5	18	33.3	11.1	5.6	11.1	38.9	100.0
6	33	33.3	9.1	21.2	9.1	27.3	100.0
7	18	44.4	5.6	27.8	5.6	16.6	100.0
8+	36	47.2	8.3	13.9	16.7	13.9	100.0

*1- Bad for health

2- Method failed

3- Method too complicated

4- Changed method

5- All other (wanted baby, lives alone, husband against it, moral or economic reasons, couldn't return to health unit)

TABLE 3

DISTRIBUTION OF REASONS FOR DISCONTINUING USE

OF IUD, BY SELECTED CONTROL VARIABLES

Variable	N	Reason 1*	2	3	4	5	Total
Total Sample	66	39.4	21.2	7.6	16.7	15.1	100.0
Race							
White	60	40.0	21.7	8.3	16.7	13.3	100.0
Nonwhite	6	--	--	--	--	--	---
Age							
15-24	16	43.8	25.0	0.0	25.0	6.2	100.0
25-29	22	31.8	22.7	4.6	18.2	22.7	100.0
30-49	28	42.8	17.8	14.3	10.7	14.4	100.0
Education							
None-Primary Incomplete	46	37.0	23.9	10.9	15.2	13.0	100.0
Primary Complete +	20	45.0	15.0	0.0	20.0	20.0	100.0
Income							
0-399¢	41	31.7	26.8	9.8	9.8	21.9	100.0
400 + ¢	18	50.0	11.1	0.0	33.3	5.6	100.0
Unknown	7	--	--	--	--	--	---
Clinic Status							
Active	18	27.8	11.1	0.0	61.1	0.0	100.0
Dropout	48	43.8	25.0	10.4	0.0	20.8	100.0
Clinic Area							
Urban Clinics	36	47.2	16.7	5.6	22.2	8.3	100.0
Rural Clinics	30	30.0	26.7	10.0	10.0	23.3	100.0
Parity							
0-3	24	41.7	16.7	0.0	29.2	12.4	100.0
4-7	22	36.4	27.3	9.1	9.1	18.2	100.1
8+	20	40.0	20.0	15.0	10.0	15.0	100.0

*1- Bad for health
2- method failed
3- Method too complicated
4- Changed method
5- All other

TABLE 4

PERCENTAGE OF WOMEN (ACTIVES AND DROPOUTS) WHO CHOSE PILL OR IUD AT THE CLINIC, BY SELECTED CONTROL VARIABLES

Variable	N	Method		
		Pill	IUD	Total
Total (Actives & Dropouts)	764	73.6	26.4	100.0
Race				
White	671	73.5	26.5	100.0
Nonwhite	93	74.2	25.8	100.0
Age				
15-24	226	80.1	19.9	100.0
25-29	198	72.2	27.8	100.0
30-34	150	76.0	24.0	100.0
35-39	112	61.6	38.4	100.0
40-49	78	70.5	29.5	100.0
Education				
None-Primary Incomplete	448	69.0	31.0	100.0
Primary Complete	197	78.7	21.3	100.0
High School +	119	82.4	17.6	100.0
Income				
0-399¢	382	66.2	33.8	100.0
400-699¢	186	81.2	18.8	100.0
700-999¢	72	88.9	11.1	100.0
1000+ ¢	47	85.1	14.9	100.0
Unknown	77	70.1	29.9	100.0
Clinic Status				
Active	504	69.8	30.2	100.0
Dropout	260	80.8	19.2	100.0

TABLE 4
(continued)

Variable	N	Method		
		Pill	IUD	Total
Clinic Area				
Urban				
Alajuelita	83	61.4	38.6	100.0
Claret	54	72.2	27.8	100.0
Cinco Esquinas	158	86.1	13.9	100.0
Hatillo	175	86.3	13.7	100.0
Rural				
Nicoya	140	84.3	15.7	100.0
Santa Cruz	154	43.5	56.5	100.0
Parity				
0-1	81	82.7	17.3	100.0
2	122	80.3	19.7	100.0
3	108	78.7	21.3	100.0
4	98	81.6	18.4	100.0
5	81	72.8	27.2	100.0
6	77	72.7	27.3	100.0
7	59	67.8	32.2	100.0
8+	138	55.8	44.2	100.0

TABLE 5

SOURCES OF INFORMATION ON PILL AND IUD

Source	Pill N	Pill %	IUD N	IUD %
PILL				
Hospital or Health Unit	147	9.8	140	9.3
Physician	295	19.7	239	16.0
Nurse	169	11.3	160	10.7
Friends	450	30.0	284	19.0
Neighbors	65	4.3	53	3.5
Husband or Other Family	81	5.4	50	3.3
Relatives	32	2.1	19	1.3
Mass Media	53	3.5	16	1.1
Other	28	1.9	9	0.6
No Answer/Don't Know	178	11.9	528	35.3
TOTAL	1498	99.9	1498	100.1

TABLE 6

SOURCES OF INFORMATION ON PILL,

BY SELECTED CONTROL VARIABLES

Variable	N	Source: Medical[a]	Personal[b]	Mass Media[c]	Other	Don't Know No Answer	Total
Race							
White	1192	42.6	40.5	3.6	1.8	11.5	100.0
Nonwhite	306	33.6	47.0	4.3	2.0	13.1	100.0
Age							
15-24	386	42.0	43.1	4.6	1.6	8.8	100.1
25-29	312	47.4	40.3	2.3	2.2	7.7	99.9
30-34	286	42.6	42.3	2.4	1.4	11.2	99.9
35-39	223	41.3	41.6	1.8	1.8	13.5	100.0
40-49	291	29.9	41.9	5.8	2.4	19.9	99.9
Education							
None-Primary Incomplete	844	41.6	41.1	3.9	1.2	12.2	100.0
Primary (Complete)	400	41.7	42.1	2.1	2.0	12.1	100.0
High School +	254	36.6	44.6	4.3	3.9	10.6	100.0
Income							
0-399¢	616	48.1	37.6	2.4	0.8	11.0	99.9
400-699¢	365	39.0	43.9	4.3	1.6	11.2	100.0
700-999¢	156	36.5	45.5	2.6	3.2	12.2	100.0
1000 + ¢	137	28.5	43.8	8.1	6.6	13.1	100.1
Unknown	224	34.4	46.8	3.1	1.3	14.3	99.9
Clinic Status							
Active	519	59.2	30.5	1.2	1.5	7.7	100.1
Dropout	283	67.2	25.8	1.4	0.7	4.9	100.0
Never-Been Aware	383	20.6	56.8	5.5	2.3	14.7	99.9
Never-Been Unaware	313	11.2	57.3	7.0	2.9	21.7	100.1

TABLE 6
(continued)

Variable	N	Source: Medical[a]	Source: Personal[b]	Source: Mass Media[c]	Source: Other	Source: Don't Know No Answer	Total
Clinic Area							
Urban							
Alajuelita	156	35.3	46.8	6.4	0.6	10.9	100.0
Claret	101	44.5	37.7	3.0	2.0	12.9	100.1
Cinco Esquinas	306	41.8	45.1	3.3	1.6	8.2	100.0
Hatillo	341	36.4	41.3	2.7	3.2	16.4	100.0
Rural							
Nicoya	287	41.8	41.8	5.9	2.4	8.0	99.9
Santa Cruz	307	45.3	38.4	1.3	0.7	14.3	100.0
Parity							
0-1	215	33.0	51.1	4.7	3.2	7.9	99.9
2	242	38.4	46.8	3.7	2.1	9.1	100.1
3	195	39.5	43.0	2.6	1.0	13.8	99.9
4	171	41.6	38.0	4.1	2.3	14.1	100.1
5	154	43.5	36.3	4.5	2.6	13.0	99.9
6	134	46.2	41.8	2.2	-	9.8	100.0
7	114	44.7	42.1	2.6	1.8	8.8	100.0
8+	273	43.6	35.2	3.3	1.5	16.5	100.1

[a] Hospital or health unit, physician, nurse

[b] Friends, neighbors, husband, immediate family, relatives

[c] Printed material, TV, radio

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TABLE 7

SOURCES OF INFORMATION ON IUD,

BY SELECTED CONTROL VARIABLES

Variable	N	Source: Medical[a]	Personal[b]	Mass Media[c]	Other	Don't Know No Answer	Total
Race							
White	1192	37.4	27.6	1.0	0.6	33.4	100.0
Nonwhite	306	30.8	25.1	1.3	0.7	42.1	100.0
Age							
15-24	386	34.5	29.0	2.4	0.8	33.4	100.1
25-29	312	41.6	28.2	0.3	0.3	29.5	99.9
30-34	286	44.1	22.7	0.3	1.0	31.8	99.9
35-39	223	37.6	25.0	1.0	0.0	36.4	100.0
40-49	291	22.8	29.3	1.0	0.7	46.3	100.1
Education							
[illegible] (Inc.)	844	37.4	26.9	0.8	0.4	34.5	100.0
[illegible] (Complete)	400	37.5	27.0	0.8	0.5	34.3	100.1
[illegible] School +	254	28.8	27.9	2.4	1.6	39.4	100.1
[illegible]							
0-399¢	616	42.4	22.3	0.5	0.5	34.4	100.1
400-699¢	365	31.3	33.1	0.8	0.5	34.2	99.9
700-999¢	156	31.4	32.6	1.9	1.3	32.7	99.9
1000 + ¢	137	28.4	32.1	4.4	1.5	33.6	100.0
Unknown	224	33.9	23.7	0.4	0.0	42.0	100.0
Cl[illegible]c Status							
Active	519	53.5	21.4	0.8	0.2	24.1	100.0
Dropout	283	56.4	14.5	0.4	0.7	27.9	99.9
Never-Been Aware	383	18.3	37.4	1.3	1.3	41.7	100.0
Never-Been Unaware	313	9.9	35.4	1.9	0.3	52.4	99.9

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TABLE 7
(continued)

Variable	N	Source: Medical[a]	Personal[b]	Mass Media[c]	Other	Don't Know No Answer	Total
Clinic Area							
Urban							
Alajuelita	156	32.7	28.8	0.6	0.6	37.2	99.9
Cirrat	101	40.5	25.8	0.0	0.0	33.7	100.0
Cinco Esquinas	306	27.1	32.0	1.6	0.3	38.9	99.9
Latillo	341	34.0	27.0	1.8	0.6	36.7	100.1
Rural							
Nicoya	287	31.4	24.7	0.7	1.4	41.8	100.0
Santa Cruz	307	51.5	24.1	0.7	0.3	23.4	100.0
Parity							
0-1	215	24.6	31.2	2.4	1.9	40.0	100.1
2	242	31.8	30.6	1.6	0.4	35.5	99.9
3	195	33.8	30.3	1.0	0.5	34.3	99.9
4	171	37.4	25.1	0.6	0.0	36.9	100.0
5	154	35.0	22.7	0.0	0.6	41.6	99.9
6	134	43.2	24.6	0.0	0.0	32.1	99.9
7	114	43.9	23.7	0.9	0.9	30.7	100.1
8+	273	42.8	25.0	1.1	0.4	30.8	100.1

[a] Hospital or health unit, physician, nurse

[b] Friends, neighbors, husband, immediate family, relatives

[c] Printed material, TV, radio

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TABLE 8

OPINION OF PILL AND IUD

Opinion	Pill N	Pill %	IUD N	IUD %
Positive	602	40.2	208	13.9
Negative	242	16.2	314	21.0
Don't Know, No Answer	654	43.6	976	65.1
TOTAL	1498	100.0	1498	100.0

TABLE 9

OPINION OF PILL, BY

SELECTED CONTROL VARIABLES

Variable	N	Opinion: Positive	Negative	Don't Know No Answer	Total
Race					
White	1192	43.1	17.0	39.9	100.0
Nonwhite	306	28.7	13.1	58.2	100.0
Age					
15-24	386	49.4	10.9	39.7	100.0
25-29	312	51.0	13.7	35.3	100.0
30-34	286	37.0	23.1	39.9	100.0
35-39	223	35.4	16.1	48.4	99.9
40-49	291	23.0	18.9	58.1	100.0
Education					
None-Primary (Inc.)	844	36.3	16.2	47.5	100.0
Primary (Complete)	400	42.3	17.5	40.2	100.0
High School +	254	50.0	13.8	36.2	100.0
Income					
0-399¢	616	41.2	14.0	44.8	100.0
400-699¢	365	43.8	17.3	38.9	100.0
700-999¢	156	43.0	22.4	34.6	100.0
1000 + ¢	137	43.8	18.2	38.0	100.0
Unknown	224	27.2	14.7	58.0	99.9
Clinic Status					
Active	519	60.3	10.6	29.1	100.0
Dropout	283	50.5	17.3	32.2	100.0
Never-Been Aware	381	23.8	18.0	58.2	100.0
Never-Been Unaware	315	17.6	22.0	60.4	100.0

TABLE 9
(continued)

Variable	N	Opinion: Positive	Negative	Don't Know No Answer	Total
Clinic Area					
Urban					
Alajuelita	156	37.8	24.4	37.8	100.0
Claret	101	42.5	12.9	44.6	100.1
Cinco Esquinas	306	46.4	17.0	36.6	100.0
Hatillo	341	41.3	18.2	40.5	100.0
Rural					
Nicoya	287	40.1	12.5	47.4	100.0
Santa Cruz	307	33.2	13.4	53.4	100.0
Parity					
0-1	215	35.8	14.4	49.8	100.0
2	242	46.3	12.0	41.7	100.0
3	195	45.6	12.3	42.1	100.0
4	171	43.9	20.5	35.7	100.1
5	154	43.5	15.6	40.9	100.0
6	134	43.3	23.9	32.8	100.0
7	114	34.2	17.5	48.2	99.9
8+	273	31.1	17.2	51.7	100.0

TABLE 10

OPINION OF IUD, BY

SELECTED CONTROL VARIABLES

Variable	N	Opinion: Positive	Negative	Don't Know No Answer	Total
Race					
White	1192	14.8	22.3	62.9	100.0
Nonwhite	306	10.5	15.7	73.9	100.1
Age					
15-24	386	13.5	23.8	62.7	100.0
25-29	312	17.3	25.0	57.7	100.0
30-34	286	14.0	24.1	61.9	100.0
35-39	223	18.4	17.0	64.6	100.0
40-49	291	7.2	12.7	80.1	100.0
Education					
None-Primary (Inc.)	844	13.9	21.2	64.9	100.0
Primary (Complete)	400	13.5	20.3	66.2	100.0
High School +	254	14.6	21.2	64.2	100.0
Income					
0-399¢	616	16.6	20.9	62.5	100.0
400-699¢	365	13.7	20.8	65.5	100.0
700-999¢	156	12.2	28.2	59.6	100.0
1000 + ¢	137	14.6	24.1	61.3	100.0
Unknown	224	7.6	14.3	78.1	100.0
Clinic Status					
Active	519	24.5	22.5	53.0	100.0
Dropout	283	13.4	24.7	61.8	99.9
Never-Been Aware	383	7.3	19.3	73.4	100.0
Never-Been Unaware	313	4.8	16.9	78.3	100.0

TABLE 10
(continued)

Variable	N	Opinion: Positive	Negative	Don't Know No Answer	Total
Clinic Area					
Urban					
Alajuelita	156	12.2	23.7	64.1	100.0
Claret	101	16.8	21.8	61.4	100.0
Cinco Esquinas	306	10.8	25.5	63.7	100.0
Hatillo	341	11.7	19.6	68.6	99.9
Rural					
Nicoya	287	10.8	17.4	71.8	100.0
Santa Cruz	307	22.2	19.5	58.3	100.0
Parity					
0-1	215	9.8	21.4	68.8	100.0
2	242	10.7	21.1	68.2	100.0
3	195	14.4	26.2	59.5	100.1
4	171	16.4	19.9	63.7	100.0
5	154	13.0	19.5	67.5	100.0
6	134	14.9	17.9	67.2	100.0
7	114	14.9	19.3	65.8	100.0
8+	273	17.6	20.5	61.9	100.0

Improvements in Clinic Procedures. Data presented in the earlier report indicated that the medical improvements suggested by the largest percentage of actives and dropouts in the sample fall into three categories: (1) the doctor should be more punctual, (2) the family planning consultations should be separated from other consultations, and (3) more instruction should be given on the methods of contraception. Approximately twice as many women cited the first method as being the most important. This finding fits with other data, to be discussed later, which show that one of the most important specific complaints about clinics has to do with the long waiting period once women get to the clinics.

The initial analysis also indicated that, with slight variations, these reasons remained most important even when controlling for clinic area, education, age, race, parity, and frequency of church attendance. Thus, these results are not limited to particular subgroups of women.

On the basis of the preceding discussion we would recommend the following:

1. It is essential to experiment with different procedures in order to find the most efficient methods of handling problems such as inadequate instruction on methods of contraception. Specifically, we would recommend that some clinics try the procedure of setting up appointments for the women. If not by the hour, at least by the day. Secondly, when the doctors or other personnel meet the women they should reserve certain appointments for discussion of family planning and contraceptives only. This should also help provide better instruction on contraceptive methods. Implementation of these procedures would, of course, require a high degree of cooperation from the medical personnel.

2. Although it is highly desirable to interest as many women as possible in family planning, the clinics should not try to bring in more women than can be adequately handled. The importance women place on the problem of long waits suggests that a clinic which tries to handle too many women may actually hurt the family planning program by producing negative feelings among the women. Recruitment campaigns should be geared to attracting only as many women as can be adequately treated in the clinics.

A second area of suggested improvements dealt with in the initial report concerns administrative problems in the clinics. The most prevalent problem in this area is concerned with scheduling of clinic hours. Over sixty-five percent of the women felt the clinic hours could be improved in some way. Again, the results of controlling for the selected variables generally supported this finding. Thus, we would recommend the following:

3. Clinic hours should be varied in each clinic area until a schedule is found which effects the best compromise between the personnel in the clinics and the clients. We would further recommend that at least one clinic experiment with almost continuous hours. This would be expensive, but may pay off in terms of more successful family planners. It may be, for example, that one centrally located clinic open all reasonable hours will attract more women and develop more successful family planners than two clinics open at special hours.

Specific Complaints. In general, the women in the baseline sample have positive attitudes toward contraception, family planning, and the clinics. Analysis of a question concerned with specific complaints in these areas, however, revealed that certain criticisms and fears are common to many women in the sample. Data reported in the earlier report indicated that health and medical aspects of contraception, the fact that the clinics are free, and the long waiting period in utilizing the clinic services are the most prevalent complaints.

In order to determine if the percentage of women agreeing with these problems varies for certain subgroups of women, additional analyses have been conducted controlling for relevant background variables. These data are shown in Table 11.

Although some variations exist within categories of each control variable, the results tend to be fairly consistent. The percentage of women agreeing with each negative statement varies within a relatively restricted range. For

the total sample, the largest percentage is slightly over forty-four percent (fear of cancer), and the smallest is approximately thirty-six percent (don't like medical examinations). It should be emphasized at this point that some responses are partially based on experience and partially on conjecture. For example, a dislike for the medical examination in the clinic is based on experience among actives and dropouts, while it is based on an assumption by women in the never-been groups.

Despite the relatively small differences, the data indicate that certain subgroups of women place varying emphasis on specific problems. By race, a slightly larger percentage of white women dislike the waiting period in the clinics and fear that contraceptives will cause cancer or make them sick. By age, a larger percentage of older women are afraid contraceptives will cause cancer or make them sick, while a larger percentage of younger women are afraid the doctor will hurt them.

Only small differences exist by education. In general, the educational categories show small differences or, in some instances, women with less education report a larger percentage agreeing with each negative statement. A striking reversal of this pattern, however, exists for the last statement, the dislike for the long waiting period in the clinics. In this case, women in the highest educational category report the highest percentage of agreement. Although the results are highly inconsistent for the negative statements by categories of income, this same pattern is found for the item concerned with waiting in the clinics.

The results by clinic area are quite consistent for most items and indicate that a larger percentage of women in the urban clinics agree with the negative statements. This finding may suggest that the rural clinics are more successful in preparing the women for family planning.

On the basis of the preceding discussion, we would recommend the following:

4. Repeating the recommendation presented earlier, these data suggest that it is a mistake to try to accommodate too many women in the clinics. Overcrowding and long waiting periods may result in negative attitudes toward the clinics and family planning in general.

5. In order to reduce the stigma attached to a free clinic, a nominal fee could be charged. This could be on a sliding scale according to income.

6. As noted in an earlier section, the data indicate a need for improvement in that part of the educational program concerned with the dangers of contraceptive use and what can be done to minimize these dangers.

7. A comparison should be made between the urban and rural clinics with respect to clinic procedures in order to determine if the favorable attitudes of rural women result from differences in operation.

Resistance of Husbands. The final factor to be considered with respect to the clinics is concerned with the resistance on the part of husbands to their wives attending the family planning clinics. The percentage of husbands who don't like their wives attending the clinics is shown in Table 12. In general, this problem is not widespread among women in the baseline sample. Only 10.7 percent of the women have husbands who are not in favor of the clinics.

The differences by selected background characteristics are, for the most part, relatively small. One difference worth noting, however, is found by clinic area. Alajuelita, an urban clinic, has an unusually large percentage (16.0 percent) of women whose husbands don't like them to attend the clinics, while Nicoya, a rural clinic, has an unusually small percentage (6.3 percent). Since the data in Table 12 also indicates that husbands of older women (age 40-49) are less likely to negatively evaluate the clinics, this difference is

partly due to the fact that Nicoya has a larger percentage of women in this age group. However, it may also be that these clinics differ in the way they present family planning to the husbands. Thus, we would recommend:

8. A comparison of clinic procedures in Alajuelita and Nicoya should be made to determine if these clinics differ in the way they relate to husbands in the community.

Focusing on the women whose husbands have some objections to the clinics (N = 160), the women were presented with a list of possible reasons for their husband's objections. The complete list with the percentage of women who agreed with each reason is shown in Table 13.

From these data, it is apparent that no single factor lies behind the husbands' objections. Most of the women agreed with more than one reason, although it should be pointed out that many of the reasons overlap considerably in meaning, and some are almost identical (e.g., 6 and 10). Some factors stand out as being of particular importance, however. Jealously (6, 8, 10), dislike for family planning (7), health factors (11, 12), and the fact that the husband thinks the wife will waste time or gossip at the clinic (9, 14) are the most frequently mentioned factors. A more detailed analysis of these factors (omitting 10 and 14) by selected background variables is shown in Table 14.

Few clear patterns can be seen in these data, although it is interesting to note that a larger percentage of nonwhite women consistently agree with each reason shown in Table 14. The sample size is too small (N = 27) for reliable conclusions, but it may be that nonwhite husbands resist having their wives attend family planning clinics for a wider variety of reasons than is the case for white husbands.

It is also significant that both education and income are negatively related to agreement with item number 2, the husband doesn't want to practice family

planning. The difference between the highest income category and the other categories is particularly large, and indicate that disapproval of family planning is a particularly important reason why lower-class men don't want their wives to attend the clinics. Again, however, it should be emphasized that the sample sizes are small, and thus the results are somewhat unreliable.

TABLE 11

PERCENTAGE OF WOMEN WHO AGREE WITH SPECIFIC NEGATIVE STATEMENTS ABOUT CONTRACEPTIVES AND THE CLINICS, BY SELECTED CONTROL VARIABLES

Variable	N	Negative Statement 1*	2	3	4	5	6
Total Sample	1498	38.2	44.4	35.7	37.7	36.7	41.1
Race							
White	1192	39.4	45.6	34.8	38.5	37.2	43.1
Nonwhite	306	33.3	39.5	39.2	34.3	35.0	33.0
Age							
15-24	386	32.6	41.7	37.3	42.5	36.0	41.4
25-29	312	36.2	41.0	34.3	36.9	36.2	44.9
30-34	286	38.8	43.0	33.9	37.8	35.3	37.4
35-39	223	44.4	52.0	35.4	36.3	35.0	37.7
40-49	291	42.3	37.1	37.1	33.0	40.9	42.6
Education							
None-Primary (Inc.)	844	40.1	45.7	38.3	37.7	39.4	37.8
Primary (Complete)	400	36.8	41.5	32.0	36.0	34.5	42.2
High School +	254	34.2	44.5	33.1	40.2	31.0	50.0
Income							
0-399¢	616	34.1	39.0	34.9	36.5	35.4	33.9
400-699¢	365	40.8	44.9	41.1	41.6	38.4	45.8
700-999¢	156	43.6	55.1	31.4	37.2	37.8	46.2
1000 + ¢	137	41.6	50.4	32.8	30.7	32.1	59.8
Unknown	224	39.3	47.3	33.9	38.8	39.7	38.0
Clinic Status							
Active	519	21.0	28.5	32.2	29.3	30.4	36.2
Dropout	283	46.3	50.5	36.4	42.1	35.3	42.0
Never-Been Aware	383	46.2	51.2	38.6	38.9	44.4	41.5
Never-Been Unaware	313	49.5	56.9	37.4	46.0	39.0	47.6

TABLE 11
(continued)

Variable	N	Negative Statement 1*	2	3	4	5	6
Clinic Area							
Urban							
Alajuelita	156	45.5	48.7	40.4	44.2	35.3	42.3
Claret	101	40.6	40.6	32.7	36.6	38.6	45.5
Cinco Esquinas	306	44.4	47.4	33.3	40.8	44.4	44.1
Hatillo	341	41.9	53.7	40.2	43.1	32.0	54.0
Rural							
Nicoya	287	32.1	37.3	32.8	32.1	38.0	30.7
Santa Cruz	307	29.0	36.8	34.5	30.6	33.2	31.3
Parity							
0-1	215	35.4	40.9	30.2	41.4	36.7	42.3
2	242	40.9	47.1	39.7	40.1	34.3	44.2
3	195	39.0	44.6	35.9	33.8	38.5	41.5
4	171	35.1	47.4	33.3	40.4	35.7	45.6
5	154	40.9	46.1	39.6	40.3	39.6	41.6
6	134	40.0	45.5	32.1	32.1	35.1	41.8
7	114	33.3	38.6	38.6	36.0	36.0	37.7
8+	273	39.2	43.6	36.3	35.5	37.7	34.8

*1- Afraid contraceptives will make them sick

2- Afraid contraceptives cause cancer

3- Don't like medical examination

4- Afraid doctor will hurt them

5- Don't think a free clinic is any good

6- Don't like to wait too long to be seen

TABLE 12

PERCENTAGE OF WOMEN WHOSE HUSBANDS

DON'T LIKE THEM TO ATTEND FAMILY PLANNING CLINICS,

BY SELECTED CONTROL VARIABLES

Variable	N	Percentage Whose Husbands Don't Like Them To Attend Clinics
Total Sample	1498	10.7
Race		
White	1192	11.2
Nonwhite	306	8.8
Age		
15-24	386	10.1
25-29	312	13.5
30-34	286	13.3
35-39	223	9.9
40-49	291	6.5
Education		
None-Primary (Inc.)	844	10.5
Primary (Complete)	400	12.0
High School +	254	9.0
Income		
0-399¢	616	10.2
400-699¢	365	12.6
700-999¢	156	10.9
1000 + ¢	137	7.3
Unknown	224	10.7
Clinic Status		
Active	519	10.6
Dropout	283	14.5
Never-Been Aware	383	9.1
Never-Been Unaware	313	9.3

TABLE 12

Variable	N	Percentage Whose Husbands Don't Like Them To Attend Clinics
Clinic Area		
Urban		
Alajuelita	156	16.0
Claret	101	10.9
Cinco Esquinas	306	10.1
Hatillo	341	11.1
Rural		
Nicoya	287	6.3
Santa Cruz	307	12.0
Parity		
0-1	215	6.5
2	242	11.2
3	195	11.3
4	171	16.4
5	154	12.3
6	134	11.9
7	114	5.3
8+	273	10.2

TABLE 13

PERCENTAGE OF WOMEN WHO AGREE WITH REASONS WHY THEIR PARTNERS DON'T LIKE THEM TO ATTEND FAMILY PLANNING CLINICS (N = 160)

Reason	Percent Agree
1. Partner doesn't like wife to use anything to be with him	38.8
2. Religious objections	36.7
3. Partner will punish his wife when he finds out she did "something" to prevent a pregnancy	28.1
4. Partner thinks his wife will leave him if they use contraceptives	35.0
5. Partner says wife learns more things than she should know	41.2
6. Partner is jealous of doctors	53.8
7. Partner doesn't want to practice family planning	50.0
8. Partner thinks wife will waste her time	50.0
9. Partner thinks wife might be unfaithful	45.6
10. Partner doesn't like wife to be examined by doctor	46.2
11. Partner thinks wife's health will be affected	40.6
12. Partner thinks contraceptive method might cause cancer	45.0
13. Partner thinks wife will gain weight	27.5
14. Partner thinks women will gossip at the clinic	46.2

TABLE 14

PERCENTAGE OF WOMEN WHO AGREE WITH REASONS WHY THEIR PARTNERS DON'T LIKE THEM TO ATTEND FAMILY PLANNING CLINICS, BY SELECTED CONTROL VARIABLES

		Reason					
Variable	N	1*	2	3	4	5	6
Total Sample	160	53.8	50.0	45.6	50.0	40.6	45.0
Race							
White	133	48.1	45.9	42.1	46.6	37.6	42.1
Nonwhite	27	81.5	70.4	63.0	66.7	55.6	59.3
Age							
15-24	39	51.3	48.7	41.0	41.0	38.5	41.0
25-29	42	50.0	54.8	47.6	50.0	40.5	45.2
30-34	38	52.6	44.7	44.7	52.6	34.2	47.4
35-39	22	50.0	36.4	40.9	50.0	45.4	40.9
40-49	19	73.7	68.4	57.9	63.2	52.6	52.6
Education							
None-Primary (Inc.)	89	56.2	55.1	46.1	50.6	43.8	42.7
Primary (Complete)	48	47.9	43.8	43.8	50.0	33.3	43.8
High School +	23	56.5	43.5	47.8	47.8	43.5	56.5
Income							
0-399¢	63	50.8	50.8	46.0	57.1	44.4	42.9
400-699¢	46	50.0	56.5	41.3	45.6	39.1	45.6
700+ ¢	27	55.5	25.9	40.7	40.7	22.2	44.4
Unknown	24	66.7	62.5	58.3	50.0	54.2	50.0
Clinic Status							
Active	55	47.3	40.0	49.1	45.4	29.1	36.4
Dropout	41	43.9	43.9	34.2	46.3	46.3	46.3
Never-Been Aware	35	71.4	65.7	65.7	65.7	60.0	62.9
Never-Been Unaware	29	58.6	58.6	31.0	44.8	31.0	37.9

TABLE 14
(continued)

Variable	N	Reason 1*	2	3	4	5	6
Clinic Area							
Urban							
Alajuelita	25	60.0	52.0	56.0	68.0	48.0	64.0
Claret	11	--	--		--	--	--
Cinco Esquinas	31	67.7	45.2	54.8	51.6	54.8	48.4
Hatillo	38	55.3	50.0	36.8	47.4	36.8	47.4
Rural							
Nicoya	18	50.0	66.7	44.4	38.9	55.6	55.6
Santa Cruz	37	46.0	51.4	46.0	56.8	29.7	29.7
Parity							
0-2	41	51.2	56.1	41.5	43.9	31.7	39.0
3	22	45.4	40.9	31.8	31.8	40.9	45.4
4	28	60.7	57.1	64.3	50.0	46.4	50.0
5-7	41	61.0	43.9	48.8	63.4	41.5	48.8
8+	28	46.4	50.0	39.3	53.6	46.4	42.9

*1- Partner is jealous of doctors

2- Partner doesn't want to practice family planning

3- Partner thinks wife might be unfaithful

4- Partner thinks wife will waste her time

5- Partner thinks wife's health will be affected

6- Partner thinks contraceptive methods might cause cancer

SOURCES OF INFORMATION ON FAMILY PLANNING

Data presented in the earlier report and a subsequent paper tested the hypothesis that personal sources -- friends, relatives, and neighbors -- are perceived as the most credible sources of information on family planning. This hypothesis, however, was not supported. Both professional persons such as doctors, nurses, and school teachers and, with some exceptions, the mass media were rated more credible. It was suggested that the most plausible explanation for this finding lies in a separation of the concepts of credibility and influence. With respect to family planning information, the most important factor in personal communication between friends, relatives, and neighbors may not be the quality of the information, but the positive or negative reinforcement accompanying the communication.

Additional data suggest that another factor concerning information sources to be considered in Costa Rica is the ease with which women can talk about family planning and contraception. The results presented in Table 15 show the responses of women in the baseline sample when asked with whom they feel most comfortable in talking about family planning and contraception. It can be seen from these data that a large majority of the women feel most comfortable with doctors or nurses (83 percent), while very few women feel comfortable with friends or relatives (6.9 percent). This finding suggests that discussion of family planning and contraception may not be an easy topic of conversation among friends, etc.

However, the situation is such that while women do not see friends, relatives, and neighbors as being particularly credible sources of information on family planning, these sources are important. Additional data in 2000 new cases in 1971 revealed that approximately forty-four percent of the women

reported friends, relatives, or neighbors as having influenced them to attend the clinics. Thus, personal sources are important in spite of the fact that, in general, family planning and contraception may not be comfortable topics of conversation. It is possible that friends, relatives, and neighbors could become even more important as sources of information on family planning if efforts were made to convince men and women that family planning and contraception are not only acceptable, but even desirable topics of conversation.

On the basis of the preceding discussion, we would recommend the following:

1. Since the mass media are the most effective methods of spreading information on family planning quickly and with low cost, they should be fully utilized. They could be made more effective, however, by taking advantage of the high regard with which professional persons are held. Printed materials, for example, could be endorsed and to some extent distributed by doctors and nurses, and special radio or television segments could be presented by doctors or educators.

2. A program designed to convince people that it is desirable to talk about family planning and contraception may have positive results with respect to the influence of friends, relatives, and neighbors on one another.

TABLE 15

DISTRIBUTION OF PERSONS WOMEN ARE MOST COMFORTABLE WITH IN TALKING ABOUT FAMILY PLANNING AND CONTRACEPTION

Person	Family Planning		Contraception	
	N	%	N	%
Doctor	986	66.4	976	66.2
Nurse	251	16.9	247	16.8
Social Worker	98	6.6	93	6.3
Friend	50	3.4	58	3.9
Minister/Priest	33	2.2	26	1.8
Relatives	45	3.0	44	3.0
Other	21	1.4	30	2.0
TOTAL	1498	99.9	1474	100.0

"Addendum b
AID/csd-2512"

PROPOSAL FOR THE CREATION OF

FAMILY PLANNING EXPERIMENTAL CENTERS

"Translated from Spanish Version of
Discussion Paper"

1.- BACKGROUND :

In Costa Rica much effort has been directed towards Demography and Family Planning. This effort has had three main orientations; 1) divulgation and education. 2) surveys and investigations. 3) family planning services.

However, in the area of Family Planning Services, not enough attention has been given to the evaluation of programs and operational procedures, which can be equally important if we consider that there is a large number of patients that do not attend family planning services consistently, and that many of them abandon the programs, with the resultant waste of recourses in this area.

On the other hand since the Family Planning Services are clinically oriented, they only cover a very specific population. This population is composed of women of reproductive age, sexually active, most of them with several children and, in general, already conviced that Family Planning is necessary for them. Some other groups, such as men, adolescents of both sexes and grandparents, who play important roles in the process, are left out by the traditional medical services.

There will be evaluations which will measure the impact the innovations have on the program. The aim is (1) to find out there is an increase in the number of women of reproductive age using the services

and, (2) to see if the "activo" are more consistent in their family planning.

2.- OBJETIVES :

The general objetives mentioned in part I, will be accomplished through the following:

1.- Innovations in the family planning services at the Health Units, and measurement of their effectivity. Gathering data through intervies we obtained some information that will aid us in deciding the kind of innovations we can introduce in the services. The proposed changes consist in what the respondents indicated would increase their participation in the program. Once the changes are introduced in some of the clinics, their effectivity will be evaluated.

2.- Experimentation with "Centros de Información sobre Planificación Familiar" (Family Planning Information Centers) that will cover the population which, as previously mentioned is not attracted by the regular medical services. The centers will educate, inform and give orientation about responsible parenthood. They would also refer patients to the family planning medical services.

3.- Avoid non-wanted pregnancies. We believe that the women who attend family planning services, are, in most of the cases, ready and willing to stop having children. Very often such desire appears only after the birth of the sixth or even the tenth child. when the mother is in her late thirties. With the Family Planning Information Centers our aim is to intervene on time, particularly in the case of teen agers, proverty-level women who have already had children, and those who might get pregnant before they are 18 years old, especially when they are single.

4,- Educate men and grandparents and turn them into family planning positive agents. As it has been demonstrated, these people are negative factors in the woman's decision about family planning.

5.- By educating the masculine population and by dispensing condoms, we will attain, in a corollary, the prevention of venereal deseases and aid in its early detection.

6.- Training of medical and para-medical personnel in new educational techniques in family planning services.

7.- Evaluation of the effects of the new techniques.

II TWO EXPERIMENTAL MODELS

To accomplish the action and demonstration objetives, we will focus on two different types of models.

A medical model, which will try to introduce innovations in some of the Health Units.

A non-medical model, called CENTRO DE INFORMACION SOBRE PLANIFICACION FAMILIAR (Family Planning Information Center) which will aim to educate and offer non-medical services.

The baseline for the design of innovations introduced in both models will come from the information collected in the interviews (first phase of the project). Knowing the factors that would contribute significantly towards more effective family planning, or identifing those factors that generate passivity or resistance to the services, we hope to design programs that will be more useful to a larger number of patients. In order to do this we must get the feed back information from the Behavioral Sciences Center, who will do the analysis of the data gathered in the survey.

A.- MEDICAL MODEL

Several questions in the interview aimed to find out what women of reproductive age think about the Family Planning Services, presently offered by the Health Units. Based on the respondents suggestions, we hope to introduce some innovations for more profitable Family Planning Programs.

In the manual tabulation of some interviews, we found suggestions like the following:

The patient should have more freedom to choose the method she wants.

There should be more divulgation; more information should be offered on Family Planning and contraceptive methods.

Consultation hours should coincide with the patients' needs.

A nurse should be present when the physician does the pelvic examination.

Doctors should be more punctual.

Many other answers point out the need to dedicate greater educational efforts to Family Planning; therefore, we have foreseen the need to intensify or introduce educational type activities, and activities which will involve face to face interpersonal relations.

It would be ideal to introduce a Community Educator in each one of the experimental Health Units; considering the financial stituation of the Ministry of, we think it will be enough with the training of medical and para-medical personnel in the new techniques of the services. This will be accomplished by the "demonstration team".

The demonstration team will consist of:

a) A doctor: who will be responsible for the training of medical and para-medical personnel in the content and type of lectures to be offered. He will emphasize the type of consultation to be offered, the need to motivate the patient before the pelvic examination, the necessity of the nurse to be present during the examination, the need to explain to the patient what a citological exam is, and some other functions the physician is usually responsible for in a Family Planning Service. This does not simply consist in the mechanical insertion of an IUD, prescribing some pills, but in the emphasis of the educational aspects of the service, giving it the human aspect it should have. This physician will work for the project 10 hours a week, and must be able to visit the experimental Health Units.

b) A community educator who will be responsible for the training of the nurse and nurse's aid in educational lectures, small groups meetings, home meetings, follow up procedures and statistics

C) An assistant who will provide the necessary material for lectures; he will use and administer audiovisual equipment and other educational material, He will train personnel in the use of this material.

Innovations in the Family Planning Services will be accomplished through:

1.- Follow up :

a) To continue and intensify the visits to homes of patients who have missed appointments and introduction of new appointment methods, trying to get the patients to return to the utilization of the services.

b) To make short investigatory interviews, and administer short questionnaires designed by HUR, in order to find out the patient's opinion about changes introduced. Submit the writen reports.

2.- Information and Community Education :

In order to inform, and as far as possible educate the community on different topics such as the Physiology of Reproduction, Human Sexuality, Responsible Paronthood, Contraceptive Methods, and Venereal Diseases, advantage must be taken of the already existing recources. Through movies lectures, pannel discussions, small group meetings and home visits, the community educator will try

to convey relevant direct information to the community. Such activities will be for both males and females over fifteen years old, and will take place preferibly at night.

Small group meetings:

These meetings can take place in the neighborhood homes, the Health Unit or any other appropiate place. The filing index of interviewed patients in each area kept by this office will be extremaly helpful. We also have a listing of the patients who said were willing to participate in these activities. These activities have proved to be extremely helpful in allaying the patient's and other participant's fears and anxieties. In these meetings not only women of reproductive age (actives, drop-outs and never beens), but men and grandparents participate. The nurse and/or the community will be taken and the addresses of the participants will be kept for follow-up.

IV TECHNICAL AND ADMINISTRATIVE CHANGES:

Another group of this interview items aimed to find out about procedures in the services. As soon as the objections are analized -they are presently being processed- they will be given to the Director of the Population Office; in turn he will pass them, through the medical coordinator of the demonstration team to the Director of the Health Units being studied.

We assume that suggested changes will be oriented towards the fulfillment of minimal expectations, such as: to be treated kindly by the clinic personnel; to have more privacy; not to wait long; to receive some information, or, at least some explanation about the purposes and procedures of a pelvic examination or citological exam; to get more information about contraceptive methods; consultation hours according to their needs, etc.

The demonstration team community educator will train the family planning nurse in follow-up procedures, statistics, educational lectures, small groups meetings, etc. so that she can continue these activities. HUR will pay the nurse for those services which do not follow under her regular duties.

A particular month has been chosen in order at each one of the five clinics in which innovations will be introduced (see work schedule). For a month the demonstration team will train the medical and para-medical personnel in the techniques to be introduced; then the demonstration team will withdraw, but the Health Unit personnel will continue with the activities introduced . Obviously they can always count on the help and coordination of the demonstration team and HUR's office personnel. HUR will require monthy activity and progress reports and statistical data collected Insofar as possible, HUR will pay over time for this work or will send a community educator to do colaborate with these activities.

B.- NON-MEDICAL MODEL

It has been pointed out that, regarding family planning, the medical clinics are either not sufficient to take care of all possible patients, or are rejected by part of the population, on account of ignorance or some cultural patterns; let us take, for instance, the husband who does not let his wife go the clinic because he does not want her to be examined by a doctor, or the woman who refuses to have a pelvic examinatior or, is afraid to take the pill or have an IUD inserted. Besides, the efforts made by the Health Units do not reach a great part of the population, among which we could name: a large part of the masculine population, teen agers, and mainly those sexually active girls who still have not gotten pregnant for the first time.

The action and demonstration part of the program in the non-medical clinics aims to reach the types of people previously mentioned. The mechanic to reach them, initially, will be:

1) Meetings at Center or the neighbourhood homes. The Community Educator should make the necessary contacts for these meeting; she should talk to people who are willing to colaborate in getting some friends and telling them about the kind of meeting, place, time, lecturers, topics etc. Community leaders and the activities the community has will be taken into acount when organizing such meetings.

In these meetings we will use audiovisual material and literature published and made available by the Costa Rican Demographic Association and other institutions. We believe that showing movies and slides will attract the public's interest, and that a demonstration of how to use different contraceptive methods will reafirm knowledge.

2) Find a good follow up system for the participants at the meetings. Keep the people interested in current activities and demonstrate to them that their presence and participation is essential for the development and success of the Family Planning Information Center.

3) The information Center aim is to orient people towards the medical services. Special cards will be made in order to refer the patients from the Center to the Health Unit. The person in charge of the referral of patients must motivate and convince them, so that when they get to the unit, the doctor will offer fast and efficient service.

4) At the beginning, the Centers will be opened in the evenings. We believe the evening hours will be the most convenient ones for our type of patients, especially for house, wives and people who work.

5) A community educator will be in charge of each center; she will give orientation and information on contraceptive method reproduction, responsible parenthood, and general explanations on family planning. She will also dispense mechanical contraceptives such as condoms, jellies and foams, for which only a good explanation of their use is needed; the medical examination is not required in such cases.

6) The action plan will be supplemented by educational lectures on topics of general interest such as Nutrition, Childcare, Prevention of Venereal Diseases, Early detection of cancer, etc.; the lectures will be expert in the various fields. No doubt these activities will aid in attracting a larger number of people to the Center, as well as to make it well known in the community.

V ORGANIZATION

As pinted out elsewhere, this proyect aims to experiment with two more efficient models in the family planning services. We hope that once the effectiveness of the program is proved, the Health Ministery will incorporate it into its regular family planning programs.

Since the second phase of the program consists of offering family planning services, the responsibility corresponds to both HUR/CESPO and the Ministery of Health Population Office, through its Director . Obvious

ly, some other institutions such as the Costa Rican Demographic Association, the Family Orientation Center, Social Wefare, amoung others, will indirectly participate, as collaborators.

The Director of HUR/CESPO will act as Director of the project. All personnel working for the project will be paid by HUR/CESPO and will be under the orders of its Director. However, the medical and para-medical personnel of the experimental Health Units will depend, in technical matters, on the Director of the Ministery of Health Population Office.

All decissions about introductions, activities, changes, innovations and demonstrations in the clinics must be reciprocally communicated between both the Director of HUR/CESPO Project and the Director of the Health Miniistery Population Office. All activities to be introduced in the medical clinics must be approved by the Director of the Population Office. All activity reports writen must be sent to both the Director of HUR/CESPO and the Director of the Population Office.

The Director of the Population Office will confer authority to the demonstration team medical coordinator and HUR Director so that changes can be introduced to the Family Planning Services at the experimental Health Units.

VI RECOURCES:

HUR/CESPO will cover expenses caused by extra personnel or over time requised by the innovations introdused at the Health Units; it will

also pay for all activities at the non-medical models. The Ministery of Health will provide, form its own resources, educational and information materials, medical and mechanical contraceptives and the physical plant of the medical units being studied and furniture. HUR/CESPO will rent or borrow the physical plants for the Family Planning Information Centers (non-medical models), and will supply the furniture during the year HUR participates in the program.

a) Necessary recourses for the functioning of a Family Planning Information Center.

1.- Physical Plant: an office with enough space for a large conference table and chairs; a desk, shelves for educational material and a closet for storage of equipment and literature. If possible, it is preferable to have a small room or cubicle for private conversations. It would be advisable to have the Center close to an auditorium or conference room.

2.- Location: The Center should be located near some other community organizations, so that their resources can be made available This would let us be close to groups that function or gather there, such as youth groups, boy scouts, mother's clubs, sports' groups, etc. We are interested in informing such groups (or specific occasions) about responsible Parenthood and Family Planning.

We assume that such groups gather there because of common interests and that, maybe, it would be difficult to get them together in order to talk about Family Planning, because they might not be interested in it.

3.- Furniture and Equipment (for each center)

1 desk and a chair
1 large conference table and 10 chairs
1 typewriter
3 AMPO filing books
shelves
blackboard
1 filing cabinet (for cards)
1 table for typewriter

4.- Mechanical Contraceptives: We will keep in storage a lr large enough supply of condoms, jellies and foams (that the Population Office will get) to distribute among clients. Inventory will be kept of the quantity of contraceptives in stock, as well as a record of who they have been given to.

5.- Printed Material: This will be provided by the Population Office form material it gets from the Demographic Association and other sources, its own publications as well as the ones of our design. Stationery will be supplied by HUR/CESPO.

6.- Educational equipment:. (for each center)

1 Slide proyector and 1 set of slides
2 16 mm movie proyector
1 " Family Planning Methods " demonstration set (from Ortho Pharmaceutical Company)
1 . Female pelvic model (plastic)
1 Set of visual aids ("Concepto de Planificación Familiar")
1 Sets of posters ("Qué es Planificación Familiar")

7.- Movies:

- Qúe es Planificación Familiar? - What is Family Planning?); Walt Disney's, color; narrated in Spanish; optical sound; 20 minutes.

- Familias Planeadas - Planned Families -, color, narrated in Spanish; optical sound; 15 minutes.

- La Reproducción Humana - Human Reproduction -., color; narrated in Spanish; optical sound; 21 minutes.

- Una mujer y dos destinos - A woman and two destinies black and white; Spanish; optical sound.

- Aborto - Abortion -; color; Spanish; optical sound.

And any other movies which might be relevant to topics of our interest. Movies and movie projectors will be lent by the Ministry.

8.- Personnel: The demonstration team will colaborate with activities at the Family Planning Information Centers, but at least a community educator and a janitor are needed.

a) Duties of the community educator in charge of the center:

- Organize home and community meetings
- Organize and give lectures in the community
- Keep all files and necessary statistics
- Follow up home visits
- Refer patients to the Family Planning Services in the Health Units, Pre-natal services, Venereal Desease Control or whenever it might correspond.
- Write monthly progress reports and activity reports; send copies to the Population Office and the HUR/CESPO Project.;
- Keep inventory of educational material and contraceptives in stock.
- Secretarial type work at the Center.
- Write montly work programs and get the lectures. The program have to be aproved by the HUR Director at the beginning of each month.

The community educator will work 44 hours a week, varying her schedule according to the events that are taking place, for instance at nights or during week ends.

b) Duties of the janitor:

- Do all errands
- Keep the office clean

Keep storage records of educational material and contraceptives in stock.

Answer the phone, take messanges and take care of the office when the Community Educator is absent.

b) Necessary recourses for the functioning of innovations in an Experimental Health Unit.

As it has been mentioned before, and according to the work sc schedule, changes will be introduced in the following clinics with the following schedule:

Claret in February;

Cinco Esquinas in March;

Alajuelita in April;

Santa Cruz in May and

Nicoya in June.

During the corresponding month the demonstration team will be introducing the innovations and the following month the clinic personnel will continue the activities introduced. Therefore, it is absolutly necessary for the physician and the rest of the demonstration team to be able to travel to the Center on specific ocassions during the corresponding months. The physician hired for the demonstration team will be trained in North Carolina for a week and visit the Family Planning Centers that our counterpart (Behavioral Sciences Center) has in USA.

a) Physician:

Will be the some one who normally works at the Family Planning Services at each Health Unit, if the Ministry does not decide to change him. If necessary, the Ministry will change consultations hours and techniques used, as suggested by the results of our study. This does not pre suppose any extra expenditures.

b) The nurse (or nurse assistant):

Will be responsible for the follow up, divulgation, community education and small group meetings; she will be paid for over-time, with a maximum of ten hours a week.

c) Audio-visual and writen material:

The same as used by the Family Planning Information Centers, it will be supplied by the Ministry.

d) Stationary:

Will be supplied by the Ministry.

VI EVALUATION

The HUR/CESPO personnel will systematically evaluate both models described in this project. The final evaluation will be submited when the contract is over. We will use the following wvaluation sources:

Shorts periodic interviews with "actives", drop-outs and people who have participated in our activities, in order to find out what they think about the innovations introduced. A short questionnaire will be used in order to mesaure quantitativoly their opinions in the areas of interest.

2.- Statistical analysis before, during and alter variables are introduced insofar as possible we will study variations in fertility rates in those areas covered by the project.

3.- We will measure frequency of consultations, trying to establish a relation for the fluctuations and the variables introduced by us (or form abroad).

4.- We will analyze quantity of contraceptives used by the area population, in terms of the quantities desponsed by the Centers and those supplied by other agencies (with or without medical prescription.)

5.- We will analyse the reports writen by the community educators. Other types of evaluation will result from the process.

translation of document - received in BSC 17/1/72

PHASE I: INFORMATION

Daniel Gonzalez
Director, Project HUR

ANNEX I

"ADDENDUM C
AID/csd-2512"

RELIABILITY OF SOME SOURCES OF INFORMATION IN FAMILY PLANNING

General Description:

This brief work on reliability of some sources of information in family planning comes directly from Project HUR in collaboration with the Unit of Evaluation of CESPO.

The material presented here is almost textual information selected and copied from the report presented by the Behavioral Sciences Center[1] with the supplementation of some specific material produced by the Project HUR in Costa Rica. When possible, the sources of information will be given in order to differentiate between data and the interpretation given to it.

Sources of Information:

1. The basic material of Chapter 1, "Reliability perceived in the sources of information in family planning," pp. 150-164 of the Bowman Gray report was selected from and worked with liberally. In order to acquaint the author with the terminology, we will give a brief description of the sample study which gave us the information on which we base our present analysis.[2]

The collection of data took place in the first semester of 1970 in six community clinics: Alajuelita, Hatillo, Claret, the metropolitan area of Cinco Esquinas and Nicoya and Santa Cruz in Guanacaste. Four strata were designed for the sample: First, women who were using the programs of Family Planning in their corresponding Unidad Sanitarias in the mentioned areas. These women we have termed "active." Secondly, women who use the services of Family Planning in their respective Unidad Sanitarias, but who later dropped out. This group we call "drop-outs. Thirdly, women in the fertile age, sexually active, who know of the program but who do not plan in their respective Unidad Sanitarias and which we will call "conscious

non-users." Fourthly, sexually active women, in the fertile age, who do not know of the program and who consequently do not plan in their respective Unidad Sanitarias. This last group we call "non-conscious non-users."

2. In the Project HUR of Costa Rica, there has been a collection of data, beginning in February and taking in the six Unidades Sanitarias of the study. Information on the factors which motivated or made the new patients decide to come for consultation in family planning was collected. Every new patient who came for consultations was interviewed by the nurse who collected in a sheet, among other things, information dealing with what motivated the patient to come for consultation. It is necessary, however, to make it clear that this information which was collected until July cannot be absolutely reliable because the excess of work of the nurses did not allow them to give all the time they wished to this activity plus the fact that they were not trained for the collection of data. Therefore, we should expect a bias in the answers. In order to correct this problem, personnel of HUR who are trained for the collection of data, are dedicating themselves to this activity, beginning in December.

General Analysis of Some Specific Sources of Information

In this occasion, and due to limited space, we will solely present examples in three tables, their analysis, and finally the conclusions which appear in the chapter of Bowman Gray's report previously mentioned. We will then add the impressions of the officials of HUR with the supplemented information as a base.

Table 67: Percentage Distribution of the Sources of Information in Family Planning in Order of Reliability

FUENTES DE INFORMACION	Rating (N=1498)						TOTAL
	Completamente confiable	Con poca duda	50% Confiable	Dudas serias	Completamente Desconfiable	No Responde	
Doctor							
Personalmente conocido	73.7	20.2	3.7	1.0	1.1	1.1	100.1
No conocido personalmente	54.3	22.1	7.9	5.1	9.5	1.1	100.0
Enfermera							
Personalmente conocida	62.4	26.2	6.1	2.2	2.1	0.9	99.9
No conocida personalmente	46.9	23.6	10.1	6.7	11.7	0.9	99.9
Maestro							
Personalmente conocido	38.6	38.1	11.6	6.2	4.3	1.2	100.0
No conocido personalmente	25.7	30.2	15.2	10.6	17.1	1.3	100.1
Sacerdote							
Personalmente conocido	36.1	32.4	13.8	7.9	8.3	1.5	100.0
No conocido personalmente	26.3	29.5	15.9	10.5	16.7	1.1	100.0
Partera							
Personalmente conocida	33.2	29.3	11.7	13.3	11.5	1.0	100.0
No conocida personalmente	20.1	21.1	15.4	14.2	28.1	1.1	100.0
Personal							
Familiares	19.9	30.9	20.2	14.7	13.2	1.2	100.1
Amigos intimos	14.4	23.0	18.6	18.5	20.2	1.2	99.9
Vecinos	11.7	16.7	17.6	17.7	35.2	1.1	100.0
Comunicación de Masas							
Revistas, Panfletos, Boletinos	18.5	32.4	22.8	11.7	11.6	2.9	99.9
Televisión	17.6	37.1	22.8	11.6	6.6	4.3	100.0
Radio	17.6	34.0	24.2	14.4	8.0	1.7	99.9
Periódicos	12.6	30.6	26.0	16.8	10.9	3.1	100.0

Table 67 shows the complete distribution of the given answers by the women of the sample with respect to the questions on reliability of various sources of information in Family Planning.

The results from table 67 suggest some interesting ideas which should be analyzed. For example, and as is expected, the professionals who are personally known are considered as more reliable sources of information than those who are not personally known. The doctors and nurses are considered as the most reliable source of information, followed by teachers who are in turn followed by religious ministers (Catholic or other denominations). It is important to note that these people are generally the most important formal leaders of opinion in the community.

The data also indicates that the family members, close friends, and neighbors are not particularly considered as trustworthy sources of information. In fact, more than 40% of the answers place the close friends and neighbors as untrustworthy sources of information. Due to the fact that family members, close friends, and neighbors are generally thought of as trustworthy sources, these findings deserve a commentary. These findings could be due to the fact that a distinction needs to be made between sources of information and sources of motivation in Family Planning.

In consideration of this latter distinction, we shall refer to the recollection of data which HUR CESPO has made of all the new patients who have come to the Unidades Sanitarias of the study since February.

The following table collects the information dealing with who influenced the patient to decide to consult Family Planning.

The previous table should be considered in the light of the theory which considers the function of the information with respect to the adoption of new ideas or practices in the following manner:

1. Phase of consciousness and collection of information:

In this phase the patient who is interested in Family Plannning basically receives the information from the mass source of information (radio, television, written material) and the degree of reliability which is attributed to each is very important.

2. Phase of Evaluation:

In this phase, the patient evaluated the information received. The family members, close friends and relatives, who function as the filter and transmitter of the evaluated information, actively participate. In this phase, the patients report having received information from person to person (groups, friends, family, discussions, etc.) From this source, the patients make the decision of trying the new idea or practice.

3. Trial Phase:

In this phase, the information comes basically from the personal experience of the patient, other sources vary in influence.

4. Adoption Phase:

Once the patient has decided to adopt the idea of practice, the exterior sources have a minor role; the personal experience and satisfaction seem to be the most important factors in the continuation of the practice or the new idea.

The results of the previous table seem to correspond with the previous theory in that the new patients who come for consultation (phase of trial) have been helpful in the evaluation of the information and to decide to come to converse (face-to-face

relation) with friends, family and neighbors. It is also to be noted that the radio (although classified as a not too reliable source) seems to be a very important source of motivation. The interviewed patients placed this source in the first place along the influence scale.

It is to be remembered that the leaders of opinion receive the most information from the sources of mass communication and are more ready to accept new ideas or practices. It could be that in the Family Plannning Program of Costa Rica, we have not as yet sufficiently stimulated by means of face-to-face relations within groups of equals (activities such as discussions, reunions in the homes, etc.) which as it was said, in theory motivate more in a second phase than in that which is previous to "trial," the "adoption". One the other hand, it could be that we are still attracting and receiving a group of patients of the type of "leaders of opinion" who are attracted by massive communication and that we are not reaching the group which needs the information by means of the leaders of opinion and transmitted by the social environment (face-to-face).

This point of view implies that the most important factor in the communication among friends, family and neighbors, is not the quality of information but rather the negative or positive reinforcement which accompanies the communication. At the moment in which an individual is evaluating Family Planning, the constant interaction with friends, family and neighbors constitutes an important source of information but not necessarily a reliable source of information. From the point of view of the women of the samples, this information is better obtained through mass communication.

The results dealing with mass communication suggest that the sources of newspapers, television and radio are considered as sources of information which are moderately reliable. A little over 50% of those who responded, consider these sources to be completely reliable. The newspaper, on the other hand, is a little less trustworthy.

Table 68: Percentage of Answers Indicating Complete Reliability of Selected Sources of Information in Family Planning in Accordance with the State of Use.

Fuente de Información	Estado de Utilización: Activa N=519	Abandono N=283	No usuaria consciente N=383	No usuaria no consciente N=313	TOTAL N=1498
Doctor					
Conocido personalmente	76.7[a]	72.1	73.9	66.4	73.0
No conocido personalmente	50.5	50.5	62.1	54.3	54.3
Enfermera					
Conocida personalmente	64.2	56.9	67.9	57.8	62.4
No conocida personalmente	43.0	40.6	55.6	48.2	46.9
Maestro					
Conocido personalmente	35.4	39.6	47.5	32.0	38.6
No conocido personalmente	20.6	24.4	36.0	22.0	25.7
Sacerdote					
Conocido personalmente	33.7	34.6	40.0	36.7	36.1
No conocido personalmente	22.0	23.7	33.4	27.2	26.3
Partera					
Conocida personalmente	32.2	27.6	40.7	30.7	33.2
No conocida personalmente	16.8	15.2	28.2	20.1	20.1
Personal					
Familiares	18.3	20.1	21.9	19.8	19.9
Amigos intimos	12.3	14.5	18.8	12.5	14.4
Vecinos	8.9	11.3	16.2	11.5	11.8
Comunicación de masas					
Revistas, Boletines, Panfletos	22.0	21.6	19.6	8.6	18.5
Televisión	19.3	19.8	20.9	8.9	17.6
Radio	16.8	20.5	21.9	11.2	17.6
Periódicos	12.1	14.8	16.2	7.0	12.6

[a] Un 100% es posible para cada casilla.

The most significant difference in the state of utility shown in Table 67 is in mass communication. The unconscious non-users consistently evaluate the means of communication of the mass as a source of information on Family Planning lower than the active and conscious non-users. It is possible that this difference is partially due to the lack of knowledge of the unconscious non-users. They also have less knowledge of the contraceptive methods and reproduction. Therefore, they are in a difficult position which does not enable them to check the information given by mass communication with other sources. Related to this latter idea, it is also significant to note that the unconscious non-user women evaluate the personally known doctor lower. If this speculation is correct, the low evaluation which these women give to mass communication and to professionals, suggest the necessity of more than one source of information in Family Planning for the women who have not knowledge of the services of Family Planning.

Conclusions:

In general the results indicate that the most highly evaluated sources of information are those which we may call formal leaders in a community. Doctors and nurses are the most highly evaluated with respect to reliability followed by teachers and religous persons. The following source is mass communication. Within mass communication, magazines and bulletins are considered to be the most trustworthy by a high percentage of women. All of the means of mass communication, with the exception of newspapers, are considered to be completely trustworthy, or trustworthy with little doubt, by more than 50% of those interviewed.

Friends, family and neighbors have a low reliability as a source of information, but, on the other hand, they appear to be strong motivators for the patient deciding to come for consultation, that is, to adopt the new idea or practice.

In its report, Bowman Gray recommends, we believe with much tact, that HUR should intensify mass communication, for it is the most economic means and which

takes the most information to a greater number of persons. Adding something to this line of thought, in HUR we suggest that this material include three principles: one that the reliability of the written and radio material be raised by using the figures of authority of the doctor, the nurse, and the religious persons. Second, that the message sent be reinforced by the principle of "multiple sources," that is that the message be associated in one instance by a figure of authority and in another instance by another figure. Third, that the written material reach the leaders of opinion who have shown to read the most, inform themselves more and retain more in order to later pass this information within a group of their equals and to motivate them towards it. One should not confuse the formal leaders of opinion with the group of equals -- who are motivators. The formal leaders of opinion are of a higher status and are not necessarily the motivators, but have a high reliability. This last group functions in the first phase of consciousness, and collection of information; but the first, in the second phase of evaluation. The contacts which CESPO has established with the community leaders who function in groups of equals could be an important way of giving out this information.

On the other hand, in HUR we think that it is important to promote the meetings in the homes, with couples, single women, friends, etc, in order to discuss and form the evaluation as a previous step to practice and trial of the new practice or idea.

In order that the third phase of trial and practice and the fourth of adoption be effective, it is necessary that the patients be satisfied and that their behavior be reinforced. Therefore, it is necessary to design services which fulfill this necessity. The following report in this series will be on the changes and innovations in clinics and administration which our study indicated would raise participation and constant use of our program.

translation - document received
BSC, 17/1/72

PHASE II: EVALUATION OF INFORMATION, OPINION-MAKING, ATTITUDE-FORMING

OBJECTIVES

1. Find where the method of conscious producing helps to accelerate the process of formation of opinion and actions dealing with family planning.
2. Measure the effectiveness of the method used so that the women who use family planning will continue to use it.
3. Reach the point in which the members of the circle think, analyze, and having come to a conclusion, act accordingly.
4. That the members of the previous "piaxis" culture come to a conclusion and act accordingly.

Draft:
Conscientization Program (?)

DEVELOPMENT OF THE PROJECT

It is composed of three fundamental phases which are sub-divided into phases and these in moments.

I. FIRST PHASE

Primary Investigation:

a. Investigate and determine those topics which form the "Universal theme." Object of the investigation is to know how the individuals think.

First Phase

"Existential Coding" - to code the existential strategic situations which interest the group.

a. To limit the area in which to work with and which later will be visited.

b. Collection of biographical data.

c. Exploration of the area; personal knowledge of the area, of its physical and human characteristics, locating the existing institutions, the ways of the people, their behavior in different activities, their language, their work.

d. Collection of the observations made in the meetings with the various observers, in order to determine the existential situations which should be photographed or drawn.

These scenes will be the existential codings.

Second Phase

Existential Coding

a. Election of the groups which will participate in the "Circles of Investigation"

b. First dialogues with the directors of the institutions already located and observed.

c. Realization of the meetings with the groups in order to finish the decodification.

The method used here is that of projective dialect (discussions dialogued according to a projection)

d. Collection of material related to all the meetings, transcription of this material, in order to determine the "Universal theme" of the community.

Third Phase

Verifying the Results

Once the material is collected, the route for the interviews shall be organized with the end result of comparing the results already obtained, now and through the indirect instrument.

II. SECOND PHASE

Eminently Pragmatic

It deals with the limitation and organization of a "Universal theme," suggested in the First Phase of Investigation.

First Phase

Analysis of the themes of the different specialists. The significant themes ought to be distributed among the different specialties, without this signifying that the elaboration of the program be made in a "Stable department."

Second Phase

Thematic Reduction

The specialist looks for the fundamental nucleus of its theme. At this moment, the necessity to bring out fundamental themes have not been suggested. For the better comprehension of the suggestions could be recognized.

Third Phase

Thematic Codification

Choose the best channel of communication, simple codifications can be made: visual, sensory, auditory, or composite -- all means at once.

Distribution by Clinics and Means of Motivation of al

DISTRIBUCION POR CLINICAS Y MEDIOS DE
LOS CASOS NUEVOS PRESENTADOS DE

1971

Medios	TOTAL N° Absoluto	TOTAL %	CLINICAS EN ESTUDIO: ALAJUELITA N° Absoluto	ALAJUELITA %	CLARET N° Absoluto	CLARET %	C N° A solu
TOTAL	309	100	80	100	100	100	74
Radio	294	38.34	31	38.75	22	22.0	16
Conversación	242	29.91	23	35.00	37	37.0	21
Vecina	111	13.72	11	13.75	22	22.0	1
Familiar	58	7.17	9	11.25	8	8.0	
Esposo	73	9.02	8	10.00	7	7.0	
Enfermera	120	14.83	7	8.75	22	22.0	13
Médico	65	8.03	5	6.25	3	3.0	2
Reunión Pla.Fa.	10	1.24	1	1.25	1	1.0	2
Artículo	1	.12	--	--	1	1.0	--
Otro	58	7.17	8	10.00	11	11.0	12
No responde	8	.99	--	--	--	--	8
Televisión	11	1.36	--	--	3	3.0	--

FUENTE: De las tarjetas llenadas especialmente para HUR por las enfermeras.

Source: All the cards filled by the nurses especially for HUR.

n by Clinics and Means of Motivation of all the New Cases Presented from April to Au

DISTRIBUCION POR CLINICAS Y MEDIOS DE MOTIVACION DE TODOS
LOS CASOS NUEVOS PRESENTADOS DE ABRIL-AGOSTO

1971

	CLINICAS EN ESTUDIO								
	ALAJUELITA		CLARET		CINCO ESQUINAS		HATILLO		
	N° Ab - soluto	%	N° Ab - soluto	%	N° Ab - soluto	%	N° Ab - soluto	%	N° Ab - soluto
	80	100	100	100	74	100	193	100	153
	31	38.75	22	22.0	16	21.62	57	29.53	76
	28	35.00	37	37.0	21	28.38	61	31.61	32
2	11	13.75	22	22.0	15	20.27	32	16.58	18
7	9	11.25	8	8.0	4	5.41	25	12.95	3
2	8	10.00	7	7.0	2	2.70	4	2.07	11
	7	8.75	22	22.0	13	17.57	33	17.10	33
	5	6.25	3	3.0	2	2.70	8	4.15	13
	1	1.25	1	1.0	2	2.70	6	3.11	--
	--	--	1	1.0	--	--	--	--	--
	8	10.00	11	11.0	12	16.22	20	10.36	4
	--	--	--	--	8	10.81	--	--	--
	--	--	3	3.0	--	--	8	4.15	--

pecialmente para HUR por las enfermeras.

by the nurses especially for HUR.

3c

the New Cases Presented from April to August

CTIVACION DE TODOS
BRIL-AGOSTO

INCO ESQUINAS		HATILLO		NICOYA		SANTA CRUZ	
b - to	%	N° Ab - soluto	%	N° Ab - soluto	%	N° Ab - soluto	%
	100	193	100	158	100	204	100
	21.62	57	29.53	76	48.10	92	45.10
	33.38	61	31.61	32	20.25	63	30.83
	20.27	32	16.58	18	11.39	13	6.37
	5.41	25	12.95	3	1.90	9	4.41
	2.70	4	2.07	11	6.96	41	20.10
	17.57	33	17.10	33	20.89	12	5.83
	2.70	8	4.15	13	8.23	34	16.67
	2.70	6	3.11	--	--	--	--
	--	--	--	--	--	--	--
	16.22	20	10.36	4	2.53	3	1.47
	10.81	--	--	--	--	--	--
	--	8	4.15	--	--	--	--

Fourth Phase

Putting together didactic material, photographs, slides, posters, literature, films, talks, dramatizations, etc.

III. THIRD PHASE

Eminent Pedagogues

After having prepared the material, the team educators shall be ready to develop the theme of the town.

First Phase

Presentation of the general program of labor, for those who will take part in the educative effort.

Second Phase

Decodification themes, from these will come permanent new themes so that the education will be transformed on a permanent basis.

NOTE: The project does not finish in this phase. The beginning is at this point-- the permanent and continued codification and problem-forming of the new themes.

The object of this investigation is not to see man as a "thing", but rather as a thought: what he thinks, how he thinks, on which terms does he think, what is his view of the world. It is not to see the family as an anatomical piece, but rather its thoughts, its ideals, its worries, its themes.

The ideas can never execute anything, men are heeded with their practical energy, to exist is to create, to educate.

IMPLEMENTATION

PROGRAM OF CONSENTIZATION

Staff

Berta Rodriquez A.	Nurse
Mariano Vargas P.	Doctor
Manuel Rojas B.	Sociologist
Daniel Gonzalez D.	Psychologist

Universal Themes of the Claret Community

From the reports of the meetings in the homes of Claret, various themes are seen which seem to be universal in all the communities.

Adults

- Role of father and mother in the family
- Authority, makes the decisions at home
- Religious factors
- Secondary effects of the methods

Adolescents

- Anatomy and physiology of reproduction

c.c. Berta Rodriquez - Nurse
Mariano Vargas - Doctor
Manuel Rojas - Sociologist
Archive

DEFINITIONS

1. Generator Theme: These are the themes which anyone, with any degree of understanding as well as the sort of action produced by this understanding, has the possibility of unfolding into other themes, which in turn provoke new tasks which need to be done.

2. Thematic Universe: Those themes which come forth in interaction.

3. Existential Situation: The recognition of the subject (ego) in the object (world) and the object in the situation of the subject.

4. Existential Codification: The representation of the existential situation, with some of its essential elements, in interaction.

5. Existential Decodification: The critical analysis of the codified situation.

6. Culture Circle: Term which substitutes "school".

7. Circle of Investigation: Group of specialists who come together in order to carry on the investigative action of the significant themes. At most, 20 persons in each group. As many groups as there are participants should exist. This latter constituting the 10% of the population of the area or of a sub-area of study.

8. Dialogue: Communication by mouth between two or more persons. /~~This~~ There is not a true word that is not a _____ between word and reflection (Piaxis). Conscientiousness should be horizontal, with love, humility, faith, trust, hope. The relation will be "sympathy among the poles searching for something."

9. Dialective Methodology: which is projective, or will be descriptive, analytical, progressive, and projective synthesis.

10. Stable Department: Place where the findings are deposited in order to not be studied.

11. Thematic Reduction: The specialist member of the Circle of Investigation looks for fundamental nucleus which forming themselves into unities of learning and establishment of a sequence among itself, give the general vision of the reduced theme.

12. Thematic Codification: It is the re-totaling of the theme, in the presentation of existential situations. Here we find the major channel of communication being:

Picturesque

a. Simple - Visual Canal - Photographic - Graphic

Audial

b. Whole - Simultaneity of channels

NOTE: All the representations correspond to existential situations. Never should one be arbitrarily pre-fabricated.

13. Thematic Decodification: At this point, one returns to the people -- what belongs to them, that is their existential situation, using the method of projective dialogue.

(abridged by Berta Rodriquez, Nurse Supervisor; Minister of Health, Mariano Vargas Pardo, Medical Supervisor, Office of Population, M.S.P.)

SUGGESTIONS FOR THE APPLICATION OF THE TERRESTIAL METHOD

Once the material is put together (slides, posters, etc.), the group of supervisors and coordinators, prepared, trained exclusively for the discussions of the situations already elaborated on, the work begins. It should be remembered that the material should be put together with situations to be discussed.

First: Before initiating the "circle of culture" it is recommended that the composition and structure of the group with whom one acts be explored. The feeling should be "the circle of culture in which all speak and criticize freely."

Second: Motivate the group. Set a date and briefly explain what will be done. One should not define the "circle of culture."

Third: In the Circle of Culture - with the group, decodify three or four blocks. Ask what is being done. From this discussion, the definition of Circle of Culture should come forth.

Fourth: Open the discussion. It can be done in two different ways.

a. Classic question - "What do we see here?"

b. Present a problem concerning an action, a celebrity, etc. of the square. The central idea should not be presented immediately. The fundamental idea should be taken apart by the group, the role of the coordinator should be that of collaboration (i.e., ask a person why he is there).

Fifth: The coordinator should present a problem to the group, i.e., "Why is that man acting in that manner?"

Sixth: In order that the group not deviate into too many tangents, the coordinator should proceed in the following manner:

a. Holds down the discussion, gives a synthesis in the most clear manner (here a blackboard may be used), pointing out the important facts of the discussion. He should give his opinion of the factors

which were brought out by the group. He should respect the ideas of others.

Seventh: In the case that there are persons who refuse to speak, the coordinator should emphasize the fact that all persons should participate so that experiences may be shared. He should observe the persons who do not participate in order to find those subjects which interest them. Once their interest is known, it will be easier to get their participation. If he speaks to these persons who do not participate, he should do so with great delicacy. If what is keeping them back is shyness, a direct question could have a negative effect.

Eighth: If two persons get in a strong discussion, the coordinator should tactfully bring in the remaining persons as judges. Discussions which are purely personal could be an obstacle.

Ninth: It is very important to remember that the coordinator should synthesize what has been discussed every so often. When possible, this synthesis should be made on a blackboard.

Tenth: In order that the conversation not become too specialized, the coordinator should have newspaper articles, magazines, books, etc., with him. He should be well acquainted with these references and should bring them up for discussion.

Eleventh: If one of the members brings out a subject, the coordinator should explain it to the remaining members of the group.

Twelfth: If someone asks the coordinator a question, he should in turn, ask the group.

Thirteenth: If the group wishes to discuss the coordinator's opinion, he should allow it and participate in the discussion himself. The coordinator

should remember that which was pointed out in No. 6.

GENERAL SUGGESTIONS

If the Circle of Culture is in the form of a dialogue, the following fundamental rules should be followed:

a. That there be a general, creative participation in the group. The coordinator should not attempt to decodify the blocks himself. The discussion should not be monopolized by 2 or 3 members of the group.

b. The coordinator should always remember that his task is to provoke and coordinate the discussion of the group. The discussion should come from the group. However, even though he is not the head of the group, he is still part of it. He may express his opinion in the following manner:

First: When he has created an atmosphere of confidence in which all the members of the group may express themselves without fear of ridicule.

Second: Give his opinion as a personal one and not one which appears to be an imposition on the group. Remind the group that they may discuss his opinion and need not necessarily discuss just the block.

c. The coordinator should not present material which will be decodified as if it were a guessing game; i.e., Coordinator: "This that we see here is a tree." Group: "Tree."

d. Once given an answer to any problematic situation, it should never be accepted as a definitive answer, but rather a problem should be formed from the answer which in turn provokes a new and more profound discussion.

e. The coordinator should not confront the discussion with a know-it-all attitude, nor with the feeling that he will lead the discussion in spite of the fact that he knows and the group does not.

f. One of the conditions of a good coordinator is humility. If a subject arises with which the coordinator is not familiar, he should ask the opinion of the group members; he should also ask them to continue discussing at their homes and tell them that he will also. At the next meeting, the coordinator should bring the topic up again.

g. The coordinator should not evaluate any ideas presented by the group. An exception is general recommendations. Let the group decide whether the ideas are good or not.

> NOTE: An important suggestion is that the members of the group sit in a circle and that each person be seated so that he may see and hear the rest of the members.

An attempt should be made to make the group feel comfortable, that they act naturally, they should become accustomed to using their first names, an informal feeling. The group should see the importance of the problem being discussed. Interest should not fall.

Example:

Suppose that in the block which is being decodified, there is a man and a dog. The classic question is, "What do we see here?" The group responds, "Two hunters," The group should modify the question, but should modify it by introducing a new problem element, saying, "very well, but in which way do they differ?" The answer could so be formed by amplifying or deepening in different ways, i.e., "very good, but why do they hunt?" The concept of necessity should be produced (which provoke work and all the problems connected with it) as opposed to diversion (it is not the same thing to hunt for diversion as it for the need of food). The role of diversion in the human life could be seen. One could also ask, "Very well, how does one distinguish one from the other?" The group could respond, "The man is intelligent while the animal is not." The discussion is then increased. From this point the following subjects may be discussed:

1. The difference of differences between a human and an animal.

2. From this point, the differences in the lives of these two types of beings (the influence or determination, the intelligence, the "type of life" of both beings.

3. The similarities or differences in the type of work of the two beings.

4. The differences between the social life of the man and of the animal, etc.

As it is seen from these examples, the task of presenting the problem after having the questions of the group is not so difficult.

IMPLEMENTATION

PROGRAM OF CONSCIOUS-MAKING

Staff:

Berta Rodriquez A	-	Nurse
Mariano Vargas P	-	Doctor
Manuel Rojas B	-	Sociologist
Daniel Gonzalez D	-	Psychologist

Universal Theme of the Community of Claret

From the report of the meetings in the homes of Claret, various themes appear which seem to be the universal themes of these communities.

Adults

- Role of father and mother in the family
- Authority, makes the decisions in the home
- Religious factor
- Secondary effect of the method.

Adolescents

c.c. Berta Rodriguez	-	Nurse
Mariano Vargas	-	Doctor
Manuel Rojas	-	Sociologist

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received BSC - 17/1/72

PHASE III

SOME RECOMMENDATIONS FOR THE SERVICES OF FAMILY PLANNING IN UNIDAD SANITARIAS

In the previous trimester report, we presented some aspects of communication in family planning. In this section, we will concentrate on the field services of family planning as seen by the users.

We need to make a synthesis of the theoretic scheme or that on which we base our work. In the first place, we cannot be sure of who or what motivates the women to become interested in family planning. In the first place, we cannot say whether they are the educative efforts which the National Program has produced or a new phenomenon produced by the change in the family, the change from an agricultural society to that of a pre-industrial one, or produced by a third factor. There are those who feel that information motivates and there are those who negate it. There are those who feel that the program of family planning has caused the decrease in birth rate in Costa Rica; there are those who feel that a pre-industrial society produces mobility, more education, necessitates living in smaller houses (urbanization), and so forth. These factors could all contribute to smaller families.

For this reason, we begin with the idea that some women, for one reason or other, are interested in family planning. Given this interest, their first step is to become informed, and this information should have certain characteristics. In the previous article, we mentioned some characteristics which seem to be necessary in a program of information as indicated in the previous study. These results were discussed with the Department of Education of the Demographic Association. Once the patient is well informed, the patient should evaluate the information in order to take a position. Sociological studies have shown that the person does not make this evaluation individually. A process is undertaken before making a personal evaluation.

In this process, there is, for example, the information which does not reach the person directly, but rather it passes through the leaders of opinion, of her reference groups, and is given to her already evaluated. At the same time, the evaluation is on a group level rather than on an individual level. With this data in mind, and with the collaboration of the Demographic Association and Public Health, HUR has designed two activities. Meetings in groups for group evaluation and information for the leaders of the community.

Once the woman has taken a position with respect to family planning, the third step is taken in which the woman decides to try or not to try planning. In this third phase, of trial, HUR is making the changes in service which the women have suggested. With these changes, we assume that the services will respond to the patients, and that those who abandon the services are those who decided not to continue family planning, that they will not abandon due to errors found in our services.

Conclusion

It is my opinion that in Costa Rica there has been too much preoccupation with the problem of abandonment. This excess could be due to the fact that the true causes for abandonment have not been found. In the first place, women who come for consultation, enroll, and never take contraceptives are considered as abandonments. Women who take contraceptives for two to three months and don't return, or women who have a long history of contraceptives and don't come back are considered abandonments. Each category refers to a completely different situation. Many women who come to the clinic for information are categorized as inscribed (enrolled?). This latter case is absurd for women should not search for an education in a service which is clinical . An example of this situation is the fact that nurses give information on medical service, when this phase of information and evaluation should be made through the community and through reference groups. Theoretically, if we

improve the program of information and of evaluation, we would not have women who search for information through the clinical service, but rather those who would like a trial period. Secondly, in the group of women who enroll and plan for a short period, it is logical to expect some abandonment. This group is merely in a trial period. Those which we should worry about are those who abandon the program because the service has not satisfied their necessities. Here is where we should intervene in order to have a program in accordance with the necessities of the users. By controlling the factors of adequate information, effective education, and a well-planned service in our experimental clinics, we will be able to measure the number of natural abandonments in the National Program. Finally, we should be concerned for those women who abandon our services after a long history of use of contraceptives. Here, once again, we should consider natural abandonment, for fear of pregnancy, for passing the age of fertility, due to medical problems, and abandonment caused by defects in the medical service and of the national, global problem.

"Addendum I
AID/csd-2512"

CREDIBILITY OF SOURCES OF INFORMATION ON FAMILY PLANNING*

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Carl M. Cochrane

Clark E. Vincent

Bowman Gray School of Medicine

*Supported in part by grants from the Agency for International Development (USAID/csd-2512), and from NICHD.

ABSTRACT

Data from a sample of Costa Rican women were examined to test the hypothesis that personal sources- friends, relatives, and neighbors- are perceived as the most credible sources of information on family planning. However, this hypothesis was not supported. Both professional persons and, with some exceptions, the mass media were rated more credible. It was suggested that the most plausible explanation for this finding lies in a separation of the concepts of credibility and influence. With respect to family planning information, the most important factor in personal communication between friends, relatives, and neighbors may not be the quality of the information, but the positive or negative reinforcement accompanying the communication.

CREDIBILITY OF SOURCES OF INFORMATION ON FAMILY PLANNING

INTRODUCTION

The results of KAP studies throughout the world have indicated a widespread interest in the practice of family planning (Berelson, 1969). These same data, however, suggest a pronounced lack of sufficient information to permit this interest to be acted upon. Communicating such information is obviously partially dependent upon the adequacy of the various sources of transmission (e.g. the mass media) and the nature of the culturally determined restrictions placed on open discussion of topics like family planning. Nevertheless, an important generalization of communications research is that "the entire process of an individual's reception of a communication from his milieu depends to a certain extent on the sources he deems credible" (Johnstone, 1967). Thus, one of the most important factors to be considered in the attempt to promote acceptance of family planning is the extent to which different sources of communication are perceived to be reliable.

In this context, it is currently believed that the most important and credible sources of information are friends, relatives, and neighbors (Bogue, 1967; Berelson, 1969). The purpose of this study has been to examine the credibility of various sources of information on family planning for a sample of Costa Rican women.[1] In the course of this analysis we have tested the hypothesis that

personal sources are perceived as the most credible. In addition, we have examined the responses of the women by selected social and psychological characteristics to determine if certain subgroups of women evaluate the sources differently.

METHOD

Sample. The sampling design used in the selection of women for analysis resulted in a modified cluster sample. Areas served by six family planning clinics in Costa Rica were selected as being representative of the larger target population, consisting of primarily low-income women. One important geographical area, however, was not included in the sampling frame. Most of the Negro population of Costa Rica (less than five percent of the total population) is located on the east coast in the province of Limon. Since there were no government-sponsored family planning clinics located in Limon at the time of the Survey (1970), and since Limon is isolated by mountains and jungle, this area was not sampled. Thus, virtually no Negroes were included in the final sample.

Within each clinic area households were randomly sampled, and eligible women in each household were interviewed. Criteria for eligibility were that the women be between the ages of fifteen and forty-nine, and had experienced at least one pregnancy.. Since an important goal of the study was to compare women who had never attended a family planning clinic with those who had attended, a further restriction was that approximately equal numbers

of women in each category be sampled. In order to obtain this distribution, the total number of interviews to be completed in each clinic area was determined (on the basis of a total sample of approximately 1500 women), and households were randomly sampled in each area until the proper distribution was obtained.

This procedure resulted in a sample of 1652 interviews, of which 1498 were found to be acceptable. The actual number of cases included for each analysis in the present paper, however, varies somewhat due to imcomplete responses on specific questions.

Definition of Variables. The subjects were asked to evaluate the credibility of the following sources of information on family planning: 1) doctor, 2) nurse, 3) school teacher, 4) clergyman, 5) midwife, 6) friends, relatives, and neighbors, and 7) the mass media. The question was worded as follows:

> If you heard some information related to family planning, how would you consider the reliability of the following sources of information?

The women were asked to rate each source of information along a five point Likert-type scale ranging from completely reliable to completely unreliable.

As noted earlier, the women's responses were also examined by selected social and psychological characteristics. The results of controlling for six variables are shown: 1) race/residence, 2) age, 3) church attendance, 4) clinic status, 5) evaluation of family planning scale, and 6) an internal-external control scale.[2] The method of measurement for the first three variables is evident from the categories presented in Table 3.

Women were placed in four categories of clinic status. Those designated as actives were women who were currently attending a family planning clinic at the time of the interview. Dropouts were women who had previously attended the clinics (more than once), but who had discontinued attendance at the time of the interview. Women classified as never-been aware had never attended a clinic but were aware that the clinics existed and that family planning services were available. Women in the never-been unaware category had never attended a clinic and did not know such clinics existed until told by the interviewer.

The evaluation of family planning scale is based on the evaluative dimension of the semantic differential technique (Osgood, et al., 1957). Briefly stated, in its original form the method uses pairs of adjectives to measure a subject's affective judgements about some object along three dimensions; evaluation, potency, and activity. The evaluative dimension essentially represents a positive versus negative judgment of any given concept. The four sets of evaluative adjectives used to compute the "family planning" scale were: 1) kind-inconsiderate, 2) honest-dishonest, 3) just-unjust, and 4) good-bad.

The responses to each set of adjectives were somewhat skewed toward the positive end of a scale of one to seven. In order to minimize the effect of extreme cases, the categories at the end of the scale were collapsed. The evaluation of family planning scale was computed by taking the mean of the collapsed scores for the four sets of adjectives. The scores range from a low of one to a high of four.

The internal-external control scale is a measure of a person's belief that he can control his own destiny rather than being a victim of fate or chance. The scale used in the present analysis is a short version of the original scale developed by Rotter (1966). The ten questions which correlated most highly with the total scale scores in Rotter's female sample were selected from the original twenty-three questions for use in Costa Rica. The responses (agree-disagree) to these ten questions were subjected to factor analysis and found to be multidimensional. A subset of four questions, however, appeared to represent the dimension of internal-external control. These four items were used to compute the current internal-external control score (I-E score). The score ranges form a low of zero to a high of four, the high end of the scale indicating a strong belief in the individual's ability to control his/her destiny.

RESULTS

Evaluation of Sources

Table 1 shows the complete distribution of responses to the question concerned with the reliability of various sources of information on family planning. These data reveal a number of interesting patterns. As might be expected, professional people personally known are perceived as being more reliable than those not known. Doctors and nurses are considered to be the most reliable of all the information sources, followed by school teachers

and clergymen. It is significant to note that; 1) these people are generally found to be the most important formal opinion leaders in a community, and 2) clergymen, although rated lower than the other professionals, are still considered to be a credible source of information on family planning by an appreciable number of women.

[TABLE 1 about here]

These data also indicate that relatives, friends, and neighbors are not considered to be particularly reliable sources of family planning information. In fact, over forty percent of the respondents perceive close friends as being unreliable. Since it was initially hypothesized that friends, relatives, and neighbors would be the most reliable sources of information on family planning, this finding will be discussed in more detail in a later section.

Finally, the results with respect to the mass media indicate that printed materials, television, and radio are seen as moderately reliable sources of information. Slightly over fifty percent of the respondents consider these sources completely reliable or reliable with small doubt. Newspapers, on the other hand, are believed to be somewhat less reliable. It is significant to note, however, that less than twenty percent of the women see each of the mass media as being completely reliable.

Evaluation of Sources by Selected Characteristics

Clinic Status. In order to determine if important differences in the evaluation of family planning communication sources are present by clinic status, the percentage of respondents evaluating each source as completely reliable was computed for each category of clinic status (Table 2).

[TABLE 2 about here]

These data show that women in all categories of clinic status tend to evaluate professionals personally known more highly than those not personally known. The differences, however, are consistently smaller for women in the never-been groups than for active and dropout women. This pattern is most clearly illustrated for the evaluation of doctors. Approximately seventy-seven percent of the active women feel doctors personally known are completely reliable, while only fifty percent feel doctors not personally known are completely reliable; a difference of twenty-seven percent. The corresponding differences for women in the dropout group is twenty-two percent. In contrast, this difference is only twelve percent for both groups of women who have never been to a clinic.

It is possible that this finding is partially due to the fact that active and dropout women have more contact with professionals in a family planning setting, and thus, tend to place more trust in those personally known. Women in the never-been

groups, on the other hand, have generally had less access to all types of family planning information, and have no real basis for distinguishing professionals personally known and those not personally known in terms of the particular type of information. In practical terms, this suggests that, at least initially, dissemination of information on family planning to women who have never attended a clinic would not necessarily depend on utilizing professionals personally known to the target population.

The most striking difference by clinic status is found for the mass media. Women in the never-been unaware group are consistently lower in their evaluation of the mass media as a completely reliable source of information on family planning than active, dropout, and never-been aware women. Since our data indicate that these women are not only unaware of the family planning clinics, but also have little information on contraceptive methods and little basic knowledge of the reproductive process, it is possible that their lower evaluation of the mass media is partially a result of the more limited information possessed by women in this group. They may be less able to check and thus verify the information provided in the mass media against other sources. In this regard, it is also significant to note that women in the never-been unaware group are somewhat lower in their evaluation of a doctor, nurse, and school teacher personally known. If the inability to "check" information is a factor for these women, it is reasonable to hypothesize that the relatively low evaluation never-been unaware women place on the mass media and some

professional people points out a need for more than one source of family planning information at the stage when women are completely unaware of family planning services. In support of this hypothesis, it has been suggested that an important factor in the success of family planning programs is the provision of more than one source of information (Bogue, 1967).

Other Characteristics. Table 3 shows the results of controlling for race/residence, church attendance, age, the evaluation of family planning scale, and the internal-external control scale. Since the results of controlling for these variables were almost identical for every source of information, only selected sources have been presented in Table 3. In general, the differences in the percentage of women evaluating the selected sources as completely reliable across categories of each variable are small. However, certain consistent patterns are present and merit attention.

[TABLE 3 about here]

The data indicate that white rural women tend to evaluate all sources of information on family planning as more credible than do white urban and nonwhite urban women. The explanation for this finding may be partially a matter of motivation, for this group of women also has the highest fertility. Mean parity by race/residence is as follows; white urban = 4.2, white rural = 5.5, nonwhite rural = 5.1. Thus, they may be generally more receptive to family planning information.

The percentage of women evaluating each source as completely reliable shows a curvilinear trend within categories of religion. Women who never attend church and those who attend most frequently have the lowest evaluation of each source. It may be that special attention should be devoted to these extreme groups with respect to the dissemination of family planning information.

The data also suggest that special attention should be devoted to the group of women scoring lowest on the evaluation of family planning variable. For all but one of the sources shown in Table 3, women with a low evaluation of family planning had the lowest percentage reporting each source as completely reliable.

The results with respect to age show little in the way of meaningful differences. It is interesting to note, however, that a slight linear trend exists across age categories in the evaluation of clergymen. Older women show a larger proportion reporting completely reliable than do young women. The difference between the youngest and oldest categories of age, however, is only 5.6 percent.

A more consistent trend is found for the final control variable, the internal-external control scale. With the exception of only one source, women with the lowest I-E scale score also have the highest percentage responding with a rating of completely reliable. Since the women in this group are those who feel least in control of their life, it seems logical that they would be less critical of external information sources. For this group of women, then, the more positive evaluations of the sources may

simply reflect their general tendency to be less independent and more accepting.

Although the findings discussed above indicate that differences in the perceived reliability of each source do exist by certain characteristics of women in the sample, perhaps the most important conclusion to be drawn from the data presented in Tables 2 and 3 is with respect to the ranking of the sources. The pattern for each control variable remains essentially the same as for the total sample. Doctors and nurses are considered most reliable, followed by school teachers and clergymen. Personal sources and the mass media rank the lowest.

DISCUSSION

The data presented here clearly do not support the hypothesis that friends, relatives, and neighbors are perceived as the most credible sources of information on family planning. Both for the total sample and within categories of the selected control variables, these personal sources are rated lower than professional people such as doctors, nurses, and school teachers. Although the results are not as consistent, many of the mass media also tend to rank higher than friends, relatives, and neighbors. Since this finding seemingly contradicts current thinking on the importance of personal sources, it is necessary to consider possible explanations for the differences.

A partial explanation may lie in the relatively unique nature of Costa Rica as compared to most developing conutries. It is more advanced economically, and consequently has a higher rate of literacy and better medical and educational facilities than is the case for many of the countries in Latin America, Africa, and Asia. This general situation may result in more contact with, and consequently, a greater willingness to place more credibility in doctors, nurses, and school teachers as sources of information. However, additional information on 2000 new cases in Costa Rican family planning clinics in 1971 revealed that approximately forty-four percent of the women reported friends, relatives, and neighbors as having influenced them to attend the clinics. Twenty-eight percent were influenced by doctors or nurses; twenty-one percent were influenced by radio; and seven percent were influenced by all other sources. It is important to note, however, that the differential between professional and personal sources partially reflects the fact that fewer women have had contacts with doctors and nurses in regard to family planning than have discussed it with friends, relatives, or neighbors. Nevertheless, these data indicate that personal sources are important sources of influence in Costa Rica.

Perhaps the most plausible explanation for our findings lies in a separation of the concepts of <u>credibility</u> and <u>influence</u>. Although highly credible sources are likely to also be highly influential, less credible sources may be equally or even more influential if they furnish strong affective support. A funda-

amental generalization of communications research on opinion change is that people are strongly influenced by others whom they interact with directly and by what they perceive to be others' definitions of correct behavior (Berelson, 1967).

In essence, then, we are suggesting that with respect to family planning information, the most important factor in personal communication between friends, neighbors, or relatives is not the quality of the information but the positive or negative reinforcement accompanying the communication. This point of view is generally congruent with Stycos (1967) assertion that friends and relatives are influential as "initiators" but that specific information is sought from "prescribers." Thus, at the point an individual is evaluating family planning, the constant interaction with personal sources constitutes an important source of motivation but not necessarily an important source of reliable information. From the perspective of the women in our sample, this information is better obtained from professional persons, including midwives, and to a lesser extent from the mass media.

In this light, although the most positive evaluations were found for professional persons such as doctors and nurses, the mass media are the most economical means of presenting information to large numbers of people. Ideally, an effective program to bring family planning information to the public will use as many sources of information as possible. We would suggest, however, that in countries of relatively high literacy, such as Costa Rica

that the mass media could be made more effective by utilizing the high regard with which professional persons are held. Printed materials, for example, could be endorsed and to some extent distributed by doctors and nurses, and special radio or television segments could be presented by professionals.

FOOTNOTES

[1]One other study dealing specifically with Costa Rican women has examined the credibility of different information sources (Waisanen and Durlak, 1966). Although concerned with all aspects of the women's personal life rather than family planning in particular, some results of this study are relevant to the present research. Of the personal sources, only relatives were considered highly credible sources of information. Both professional persons (including midwives) and the mass media were considered to be more credible and important than neighbors or friends.

[2]Three additional variables were initially examined; 1) parity, 2) education, and 3) income. However, since little in the way of meaningful patterns resulted from analysis, they have not been presented here.

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TABLE 1

PERCENTAGE DISTRIBUTION OF RATINGS BY

SOURCES OF INFORMATION ON FAMILY PLANNING

SOURCE	Rating (N=1498)						
	Completely Reliable	Reliable Small Doubt	50% Reliable	Serious Doubt	Completely Unreliable	No Response	Total
Doctor							
Personally Known	73.0	20.2	3.7	1.0	1.1	1.1	100.1
Not Known	54.3	22.1	7.9	5.1	9.5	1.1	100.0
Nurse							
Personally Known	62.4	26.2	6.1	2.2	2.1	0.9	99.9
Not Known	46.9	23.6	10.1	6.7	11.7	0.9	99.9
School Teacher							
Personally Known	38.6	38.1	11.6	6.2	4.3	1.2	100.0
Not Known	25.7	30.2	15.2	10.6	17.1	1.3	100.1
Clergyman							
Personally Known	36.1	32.4	13.8	7.9	8.3	1.5	100.0
Not Known	26.3	29.5	15.9	10.5	16.7	1.1	100.0
Midwife							
Personally Known	33.3	29.3	11.7	13.3	11.5	1.0	100.0
Not Known	20.1	21.1	15.4	14.2	28.1	1.1	100.0
Personal							
Relatives	19.9	30.9	20.2	14.7	13.2	1.2	100.1
Close Friends	14.4	23.0	18.6	18.5	24.2	1.2	99.9
Neighbors	11.7	16.7	17.6	17.7	35.2	1.1	100.0
Mass Media							
Magazines, Pamphlets, Bulletins	18.5	32.4	22.8	11.7	11.6	2.9	99.9
Television	17.6	37.1	22.8	11.6	6.6	4.3	100.0
Radio	17.6	34.0	24.2	14.4	8.0	1.7	99.9
Newspapers	12.6	30.6	26.0	16.8	10.9	3.1	100.0

TABLE 2

PERCENTAGE INDICATING COMPLETE RELIABILITY OF INFORMATION SOURCES ON FAMILY PLANNING, BY CLINIC STATUS

SOURCE	Active	Dropout	Never-Been Aware	Never-Been Unaware	Total
Doctor					
Personally Known	76.7[a]	72.1	73.9	66.4	73.0
Not Personally Known	50.5	50.5	62.1	54.3	54.3
Nurse					
Personally Known	64.2	56.9	67.9	57.8	62.4
Not Personally Known	43.0	40.6	55.6	48.2	46.9
School Teacher					
Personally Known	35.4	39.6	47.5	32.0	38.6
Not Personally Known	20.6	24.4	30.0	22.0	25.7
Clergyman					
Personally Known	33.7	34.6	40.0	36.7	36.1
Not Personally Known	22.0	23.7	33.4	27.2	26.3
Midwife					
Personally Known	32.2	27.6	40.7	30.7	33.3
Not Personally Known	16.8	15.2	28.2	20.1	20.1
Personal					
Relatives	18.3	20.1	21.9	19.8	19.9
Close Friends	12.3	14.5	18.8	12.5	14.4
Neighbors	8.9	11.3	16.2	11.5	11.7
Mass Media					
Magazines, Bulletins, Pamphlets	22.0	21.6	19.6	8.6	18.5
Television	19.3	19.8	20.9	8.9	17.6
Radio	16.8	20.5	21.9	11.2	17.6
Newspaper	12.1	14.8	16.2	7.0	12.6
N	519	283	383	313	1498

[a]A 100% response is possible for each cell.

TABLE 3

PERCENTAGE INDICATING COMPLETE RELIABILITY OF SELECTED INFORMATION SOURCES ON FAMILY PLANNING, BY SELECTED CONTROL VARIABLES

VARIABLE	N	SOURCE: Booklets, Pamphlets, Magazines	School Teacher[a]	Doctor[a]	Nurse[a]	Clergyman[a]	Relative	Close Friends
Race/ Residence								
White Urban	877	17.3[b]	34.3	70.8	57.4	33.3	19.2	13.6
White Rural	315	26.0	49.2	78.7	75.2	50.5	27.3	22.2
Nonwhite Urban	27	c	c	c	c	c	c	c
Nonwhite Rural	279	14.0	41.2	73.5	65.2	29.7	14.0	8.2
Church Attendance								
Never	257	16.3	37.0	68.1	59.1	29.2	18.7	14.0
One- Several Times A Year	354	23.2	41.8	79.1	66.7	41.5	21.8	17.2
One-Three Times A Month	331	20.5	40.2	74.9	65.3	37.8	20.8	13.6
Once A Week or More	528	15.2	36.4	69.9	59.3	35.6	18.4	12.9
Age								
15-24	386	19.2	34.2	72.0	62.7	33.2	20.2	16.3
25-29	312	20.8	38.5	74.0	59.9	36.2	21.8	13.8
30-34	286	15.4	39.9	76.2	64.0	36.0	22.0	14.7
35-39	223	19.7	43.5	72.2	61.9	37.7	17.9	14.3
40-49	291	17.2	39.5	70.4	63.2	38.8	16.8	12.4

TABLE 3
(continued)

PERCENTAGE INDICATING COMPLETE RELIABILITY OF SELECTED INFORMATION SOURCES ON FAMILY PLANNING, BY SELECTED CONTROL VARIABLES

VARAIBLE	N	SOURCE						
		Booklets, Pamphlets, Magazines	School Teacher[a]	Doctor[a]	Nurse[a]	Clergyman[a]	Relative	Close Friends
Evaluation of Family Planning								
1.0-1.9 (Low)	59	6.8	27.1	52.5	42.4	37.3	13.6	8.5
2.0-2.9	342	17.8	45.9	71.9	62.0	50.3	30.1	22.5
3.0-3.9	746	16.2	37.0	74.8	64.9	31.1	14.2	9.9
4.0 (High)	332	26.8	37.0	73.5	60.5	32.2	23.5	18.1
I-E Scale								
0 (Low)	158	36.7	50.6	86.7	81.0	42.4	29.1	25.3
1	284	20.8	38.7	70.1	59.2	30.3	17.3	12.7
2	414	15.0	37.7	72.9	60.9	32.1	18.4	13.3
3	371	14.0	33.2	69.8	57.7	36.4	16.4	9.7
4 (High)	233	14.6	40.3	71.2	63.9	43.8	24.0	17.2

[a]Personally known.

[b]A 100% response is possible for each cell.

[c]Insufficient sample size.

"Addendum J
AID/csd-2512"

FACTORS ASSOCIATED WITH UTILIZATION OF FAMILY PLANNING CLINICS IN COSTA RICA*

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FACTORS ASSOCIATED WITH UTILIZATION OF FAMILY PLANNING CLINICS IN COSTA RICA

The adoption of family planning and contraceptive use in a society is a function of the modernization process. Societies which are highly industrialized and urbanized are those which typically have the highest proportion of couples practicing family planning. In the process of moving toward an urban-industrial style of life, however, the rate of adoption differs for sub-groups in the population. In the West, the concept of family planning and the use of new contraceptive techniques were adopted first by the upper and middle classes, and by residents of urban areas (Hawthorn, 1970). Although these same differentials can now be found in many developing countries of Latin America, Asia, and Africa, a new variable in the form of organized family planning programs, both governmental and private, has been added.

In the developing countries, the results of surveys to determine the correlates of interest in family planning have shown that education, parity, age, and interval since last birth are consistently important variables (Berelson, 1969). Both education and parity tend to be positively related to interest in family planning, while interval since last birth is negatively related. Age has a curvilinear relationship, with women in the age groups between 25-34 showing the greatest interest. Religion, despite the fact that many people feel it

ought to be an important variable, generally shows little relationship to interest in family planning.

Interest in family planning is not, however, the same thing as practice. The basic philosophy of most family planning programs is that the concept of family planning and the use of contraceptives can be disseminated through all strata of society. Many family planning clinics are set up to reach the lower-income and less-educated segments of society, if not explicitly, at least implicitly by offering services free or at a low cost.

The basic questions to be addressed in this paper concern the correlates of clinic utilization. Are the factors found to be correlated with interest in family planning also related to clinic attendance, or do family planning clinics appeal only to a limited subgroup of those women interested in family planning? Secondly, what differences exist between women who drop out of clinics and those who remain active?

Since an examination of the first question requires comparing women who utilize family planning clinics with those who do not, most of the literature dealing with the characteristics of clinic attenders in developing countries is not directly relevant. A study of family planning clients in Barbados, however, has examined some characteristics of women attending family planning clinics in comparison to the characteristics of women in the total population (Ebanks, 1969). In this study it was found that clinic attenders tend to come from

the lower socio-economic groups, and are more likely to be married than women in the total population. As was the case for studies with interest in family planning, religious affiliation showed little relationship to clinic attendance.

In the United States, a study of low-income obstetric patients in Michigan found high parity, a high school education, hign accessibility to the clinics, and a short interval since the last birth to be associated with attendance at family clinics (Collier, et al., 1967). Age and interval since last birth were found to be important factors in studies of low-income women in Charlotte, North Carolina and black low-income women in New Orleans, Louisiana (Siegel, et al., 1970; McCalister and Thiesson, 1970). In both cases, younger women and those with recent pregnancies were more likely to be clinic attenders. It is interesting to note that in these studies, psychological factors were generally found to have little relationship to clinic attendance.

Concerning the second question, research on the correlates of continuation in family planning clinics has been somewhat inconsistent in its results. Speidel and Wiener (1966) note that several studies have not been able to establish a relationship between continuation and characteristics such as age, education, occupation, size of family, religion, income, or ethnicity. In their own study of low-income women in New York, however, Speidel and Wiener found that women who continued in the clinic tended to be younger (35 and under vs. over 35) and

have more children living at home than the women who dropped out.

In contrast to these limited findings, a study of clinic enrollees in North Carolina found that several demographic and social characteristics were correlated with continuation in family planning clinics (Seigel, et al., 1971). Clinic continuation was found to be positively related to age (under 20 vs. 20 and older), education, children living at home, and age at first intercourse (under 17 vs. 17 or older). Being white and married were also positively related to clinic continuation. On the other hand, like the studies of clinic attendance, psychological characteristics of the women showed no relationship to continuation in the clinics.

In general, then, the inconsistency of the published research, and the lack of information on developing countries, indicate a need for additional research on utilization of family planning clinics. The present paper reports some results of an exploratory study to identify demographic, social, sexual experience/knowledge, and psychological factors that are related to clinic utilization in a sample of Costa Rican women.

METHOD

Sample. The sampling design utilized in the selection of women for analysis resulted in what is best designated as a modified cluster sample. Areas served by six family planning clinics in Costa Rica were selected as being representative of

the larger target population, representing primarily low-income women. There was one exception, however. Most of the Negro population of Costa Rica (less than five percent of the total population) is located on the east coast in the province of Limon. Since there were no government sponsored family planning clinics located in Limon at the time of the survey (1970), and since Limon is isolated by mountains and jungle, this area was not sampled. Thus, virtually no Negroes were obtained in the final sample.

Within each clinic area households were randomly sampled, and eligible women in the household were interviewed. The requirements for eligibility were that the woman be between the ages of 15 and 49 and had experienced at least one pregnancy.

Since an important goal of the study was to compare women who had attended a family planning clinic with those who had never attended, a further restriction was that approximately equal numbers of women in the attended and never-attended categories be sampled. In order to obtain this distribution, the total number of interviews to be completed in each clinic area was determined (on the basis of a final sample size of approximately 1500) and households randomly sampled in each area until the proper distribution was obtained.

This procedure resulted in a sample of 1652 interviews of which 1498 were found to be usuable. The actual number of cases used for each analysis, however, varies somewhat due to missing responses on specific questions.

Definition of Variables. Two aspects of clinic utilization were studied, clinic attendance and clinic continuation. Clinic attendance was defined as a dummy variable in which women who ever attended (actives and dropouts) were assigned a score of one. Women who had never been to a clinic were assigned a score of zero.

The definition of clinic continuation as a dummy variable was based only on a comparison of actives and dropouts. Women who were still active at the time of the interview were assigned a score of zero. Women who had never attended were not considered in this part of the analysis.

Although the correlations between clinic attendance, clinic continuation, and all variables initially examined are shown in Table 1, space limitations do not allow a complete discussion of the operational definition for every independent variable. For this reason, only the variables found to be of some explanatory importance in a multiple regression analysis have been discussed in detail. In this regard, the criterion for retention of a variable was that it contribute an increment of at least one percent to the total explained variation in clinic attendance or clinic continuation.

[TABLE 1 about here]

It is important, however, to point out certain unusual features of some variables not retained for further analysis.

It was noted earlier that accessibility to clinics was one of the variables previously found to be correlated with clinic attendance. The one indirect measure of accessibility among the variables shown in Table 1 is that of urban-rural residence, the rural clinics being much more difficult for many women to attend. Unfortunately, the sampling design eliminates this variable as a factor in clinic attendance. The modified cluster sampling plan assured about an equal number of attenders and non-attenders in both urban and rural communities. Thus, no relationship between urban-rural residence and clinic attendance is possible. This variable is relevant for clinic continuation, however, and the fact that no relationship was found suggests that accessibility as measured by urban-rural residence is not an important factor in whether a women remains active or drops out.

With respect to the sexual experience/knowledge variables, the measures of reproductive and contraceptive knowledge cannot be used as predictors of clinic attendance. An important aspect of the family planning clinics in Costa Rica is a program of education in reproduction and contraception. Thus, to a large extent higher reproductive and contraceptive knowledge is a consequence rather than an antecedent of clinic attendance.

The final point to be discussed concerning the variables eliminated from the analysis is with respect to the problem of multicollinearity. An analysis of the intercorrelations of the independent variables revealed two clusters of intercor-

related variables. The first set includes age, age at first conception, age at first intercourse, and age first learned of contraception. These variables have an average intercorrelation of .45.

The relatively high correlations between age and the sexual experience variable are partially artifacts of the sampling design which included only women with at least one pregnancy. This assured that all the younger women in the sample had a young age at first conception, and to a lesser extent young age when first learned of contraception. The older women, on the other hand, constitute a more complete cohort of women who have ever had children, many having a higher age at first conception.

Since actual age showed the strongest direct relationship to clinic attendance it was retained for further analysis. It is important to note, however, that for this sample, age is also a crude indicator of the sexual experience variables.

A second cluster of variables to show high intercorrelations are the semantic-differential evaluation scales for the concepts of husband, self, having children, and the church. These variables all showed high intercorrelations (average r = .64) and all showed approximately the same positive relationship with clinic attendance. This suggested a kind of optimism-pessimism response set which influences evaluation of all concepts rated, despite specific content. This "set" varied with attendance, however, attenders having a more positive outlook.

The scale that appeared to most closely represent this set was the judgement of "self" and this measure was the only one retained. It should be emphasized, however, that the "self" scale has a somewhat broader meaning and must be interpreted with caution.

All other independent variables not included in the detailed analysis were eliminated on the basis of low partial correlations with clinic attendance and clinic continuation, and showed no unusual features. Of the variables considered, only seven were retained for further analysis. The first, age, was recorded as exact age in years. The other six were operationally defined as follows:

Income. Income was measured in colones, which had an exchange rate of approximately 6.6 to the dollar at the time of the interview. The family income of each woman was recorded in broad categories of width 300, except for the two end categories. Each woman was assigned the midpoint of the category in which she fell.

Race. It was stated earlier that virtually no Negroes were included in the sample. Thus, nonwhite refers primarily to persons of Indian ancestry. Race has been defined as a dummy variable in which nonwhites have been assigned a score of one and whites a score of zero. It should be noted here that in the present sample virtually all nonwhites are found in the rural clinic areas.

Self-Concept Scale. A complete discussion of the semantic differential can be found in Osgood, Suci, and Tannenbaum (1957). Briefly, the method uses pairs of adjectives to measure a subject's affective judgements about some object along three dimensions, evaluation, potency, and activity. The evaluative dimension essentially represents a positive versus negative judgement of any given concept. The four sets of evaluative adjectives used to compute the "self" scale are: 1) kind-inconsiderate, 2) honest-dishonest, 3) just-unjust, and 4) good-bad.

The responses to each set of adjectives were skewed toward the positive end on a scale of one to seven. In order to minimize the effect of extreme cases, the responses at the lower end of the scale were collapsed. The final scale used was the mean of the collapsed scores for the four sets of adjectives and ranged from a low of one to a high of four.

Internal-External Control Scale. The internal-external control scale (IE scale) essentially measures the strength of a person's belief that he can control his own destiny rather than being a victim of fate and chance. The score used in the present analysis is a very short version of the original scale developed by Rotter (1966). The ten questions which correlated best with the total scales in Rotter's female sample were selected from the original twenty-three questions. The responses (agree-disagree) to these ten questions were subjected to factor analysis and found to be multidimensional.

A subset of four questions, however, appeared to represent the dimension of internal-external control. These four items were used to compute the current IE score. The score ranges from a low of zero to a high of four, the high score indicating a strong belief in the individual's ability to control his/her own destiny.

Birth Control Score. The attitude toward birth control scale was computed from four items concerned with relationship of birth control to health, its expense, importance for national welfare, and the ease with which it can be understood. The women expressed agreement or disagreement with each statement on a five point scale ranging from strongly agree to strongly disagree. In computing the scale, the most negative answer was assigned a score of zero and the most positive answer a score of four. The scale consists of the sum of scores for all four items. Thus, a person with a completely negative attitude toward all aspects of birth control included in the four items would have a score of zero. A respondent with a highly positive attitude would have a score of sixteen.

Family Planning Score. The family planning score is a summary score based on response (agree-disagree) to thirteen negative statements about family planning, contraception, and clinic utilization. Since these statements are analyzed separately in Table 5 they will not be discussed in detail at this point, except to note that the summary score is based on a positive or negative response to these statements. The respon-

dent was assigned a zero if she agreed with the statement and a one if she disagreed. Thus a woman negative toward all aspects of family planning covered in the statements received a total score of zero. A woman agreeing with none of the negative statements received a score of thirteen.

It should be noted that the family planning scale and the birth control scale overlap conceptually to some extent. However, the correlation between them is not high (r = .21) and thus causes no problems of multicollinearity. The birth control score can best be thought of as measuring very general feelings about birth control, while the family planning score focuses on some specific aspects of contraception, family planning, and clinic procedures.

RESULTS

The basic technique used to examine these data was multiple regression analysis. The independent variables were first checked for possible nonlinear relationships, entered into a stepwise regression analysis, and then correlated in various combinations to check for possible suppressor relationships among variables that showed no initial correlation with clinic attendance or clinic continuation.

Although it would have been desirable to examine all variables and all possible interaction terms simultaneously, the capacity of the computer used for the analysis did not

allow this. Thus, only the variables retained according to the criterion of adding at least one percent to the total explained variation were checked for interaction. For these variables, no evidence of interaction was detected.

Given the nature of the sample and the large number of cases, little attention has been paid to tests of statistical significance in the interpretation of results. The results of such tests, however, are presented in the tables.

Clinic Attendance. The six variables found to be of some importance in predicting clinic attendance are income, age, race, the internal-external control (IE) scale, the family planning scale, and the self-concept scale. The intercorrelations between these variables and the zero-order correlations with clinic attendance are shown in Table 2. It can be seen that all the correlations with clinic attendance are relatively low, and there is very little intercorrelation among the independent variables.

[TABLE 2 about here]

The negative correlation between race and clinic attendance indicates that nonwhites are less likely to be clinic attenders than are whites. Since it was noted earlier that almost all the nonwhites in the sample are rural, it should be stressed that the observed relationship between race and clinic attendance is not a function of ruralness; white women in the urban and rural areas have higher rates of attendance than nonwhite women.

With respect to the IE score, women who have a stronger belief in their ability to control their own destiny are more likely to be clinic attenders, although in this case the correlation is quite low.

Women with a more positive attitude toward family planning are more likely to be clinic attenders, and lower income women are more likely to be clinic attenders. The relationship betwee income and clinic attendance is as expected since the clinics provide a number of free services aimed at reaching the poorer segment of the population.

The last two variables, age and the self-concept scale, were found to exhibit some nonlinearity. For age, a relatively low proportion of younger women are attenders, the proportion increases to a maximum between the ages of 25-29 and declines rapidly at the higher ages. The equation for this nonlinear relationship is $Y = a + bX - cX^2$, where Y is clinic attendance and X is age. The distribution of the self-concept scale is just reverse of age. A fairly high proportion of women with a low self-concept are attenders, the proportion of attenders declines for women in the middle-ranges of the self-concept scale, and is highest for women with a high self-concept. The equation for this nonlinear relationship is $Y = a - bX + cX^2$.

Only the linear component of both relationships is shown in Table 2. For age, the addition of the nonlinear component raises the explained variation from five to seven percent. For the self-concept scale, the nonlinear component raises the

explained variation from five to six percent. The increment in the multiple regression coefficient from the nonlinear components raises the total explained variation (for all variables) from nineteen to twenty-two percent.

The multiple regression analysis of all variables is shown in Table 3. The explained variation of twenty-two percent suggests that the six variables are of some importance in distinguishing between attenders and non-attenders. The standardized regression coefficients indicate that income, race, and the self-concept scale are about equally important in terms of their ability to produce a change (statistically) in the proportion of attenders. Age and the family planning scale are only slightly less important, while the IE scale is least important. The direction of each partial relationship is the same as for the zero-order correlations.

[TABLE 3 about here]

Clinic Continuation. Only three variables were found to bear some relationship to clinic continuation: the birth control scale, the IE scale, and the family planning scale. It is significant to note that only psychological items were found to be important here. Apparently the decision to remain active or drop out of a clinic is not directly dependent on the background characteristics or sexual experience/knowledge of a woman.

The intercorrelations between the independent variables and the correlations with clinic continuation are shown in Table 4. All were found to be basically linear in form and all are relatively low. Women more favorable toward birth control, who have a stronger belief in their ability to control their own destiny, and who have a more favorable attitude toward the various aspects of family planning are more likely to remain active in the family planning clinics.

[TABLE 4 about here]

The multiple regression analysis shown in Table 5 indicates that only about seven percent of the variation in clinic continuation can be explained by the three variables acting together. The standardized regression coefficients indicate that family planning score is approximately twice as powerful as either of the other independent variables in producing a change in the proportion of attenders remaining active. The direction of all partial relationships remains the same as for the zero-order correlations.

[TABLE 5 about here]

Family Planning Scale. Two variables were found to be related to both clinic attendance and clinic continuation. Interpretation of the IE scale is fairly straightforward. The correlations were low, but suggested that women who feel they

have more control over their lives are more likely to attend family planning clinics and also to remain active.

The family planning scale, however, is somewhat more complicated. It is composed of many diverse items, and a more specific examination of the separate items will be helpful in understanding this scale's relationship to clinic attendance and clinic continuation. Table 6 shows the proportion of women in each clinic category who agree with the specific items.

[TABLE 6 about here]

The results shown in Table 6 indicate that women classified as active in the clinics generally have a lower percentage with negative feelings about these aspects of family planning than either the dropout or never-been groups. The latter two groups are quite close on almost all of the items.

For all groups, the health and medical exam aspects of family planning (Items 1, 3, 4, 6) and those items concerned with the fact that the clinics are free (5) and that women have to wait too long to be seen (2) show the highest proportion of women with negative responses. The fear that contraceptives will cause cancer or other illnesses (1, 3) is particularly strong among the dropout and never-been groups. This fact and the finding that a relatively large proportion of women in all clinic categories have negative feelings toward the fact that the clinics are free suggests that two points which should be emphasized by family planning educational programs

are the negation of health fears and reassurance about quality of service despite the lack of charges.

It is also important to note that resistance on the part of the husbands (13), negative reinforcement from friends and neighbors (11), and religious objections (12) apparently are of little importance to most of the women in all three groups. The results with respect to religion are in accord with the findings noted earlier, while the negative results with respect to worry about resistance on the part of husbands and negative reinforcement from friends and neighbors tends to contradict much current thinking in the area of family planning (Bogue, 1967). It should be noted, however, that these results may be specific to Costa Rican family structure.

Reasons for Discontinuing Clinic Attendance. The analysis of clinic continuation suggested that background and sexual experience/knowledge factors were of little predictive importance. Psychological variables were found to be of some importance; but two of the three were concerned with attitudes about birth control and family planning/clinic procedures. This finding, the preceding analysis of the specific negative statements about family planning, and the results of the other studies concerned with specific clinic procedures and problems (Speidel and Wiener, 1970) leads to the hypothesis that experiences in the clinic setting may be more important than characteristics of the women in predicting dropouts. If this is the case, some insight can be gained by examining the reasons

for discontinuing clinic attendance. The reasons reported by the dropouts in this sample are shown in Table 7.

[TABLE 7 about here]

These data indicate that pregnancy is by far the most important reason for dropping out. The responses in this category refer primarily to contraceptive failure, since a different response was made by women who wanted another baby. Most of the women reporting pregnancy were using the IUD, which along with the birth control pill is a highly popular contraceptive technique in Costa Rica.

The second most important factor, health reasons, refers primarily to fear of contraception, medical exams, etc, reported in the preceding section. The next most important reason, the method didn't suit the respondent, refers to the contraceptive technique itself.

Overall, the responses suggest that physical and psychological problems with the method of contraception are the most important reasons for dropping out of the clinic. In addition, the earlier analyses, which failed to predict clinic continuation well, suggest that these problems are not specific to particular subgroups of women.

DISCUSSION

The most important results with respect to clinic attendance suggest that psychological variables may be of greater importance than previously believed. The curvilinear relationship between self-concept and clinic attendance is difficult to assess, but apparently the clinics appeal more to women with either high or low self-concepts. It should be recalled, however, that the self-concept score is part of a set which reflects a generally positive or negative orientation much broader than the self, so that interpretation is complicated.

The IE score results are more straightforward. Women who feel more in control of their lives are more likely to attend clinics, and to remain active once they have begun participation.

This scale, and other measures of the activism-fatalism dimension, have been shown to be related to birth control behavior and attitudes in a number of studies in different countries and with differing types of subjects (Williamson, 1970; MacDonald, 1970; Rainwater, 1965; Hill, et al., 1959). Elsewhere we have pointed out the need for research on the psychological variables which mediate between social forces and reproductive behavior, with the object of identifying motives or attitudes which can be altered by educational or other techniques (Cochrane, et al., 1971). The activism dimension would clearly

appear to be one such motive with respect to attendance at family planning clinics.

The results with respect to clinic continuation are important in that they suggest that fears and negative experiences relating to contraception and clinic procedures, and contraceptive failure, are more important than characteristics of the women in predicting dropping out.

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TABLE 1

CORRELATIONS BETWEEN SELECTED VARIABLES, CLINIC ATTENDANCE AND CLINIC CONTINUATION

VARIABLES	Clinic Attendance N	Clinic Attendance r	Clinic Continuation N	Clinic Continuation r
Demographic-Social				
Parity	1498	.05	802	.04
Education	1498	-.0[illegible]*	802	.06
Income	1274	-.18**	721	.06
Family Type (nuclear vs. extended)	1498	-.06	802	-.02
Age	1498	-.22**	802	.02
Frequency of Church Attendance	1470	-.10**	787	-.04
Frequency of Communion (Catholics)	1394	-.10**	747	-.06
Race (white vs. nonwhite)	1498	-.23**	802	.06
Ideal Number of Children	1498	-.04	802	-.02
Urban-Rural Residence	a	a	802	-.09
Sexual Experience/Knowledge				
Age First Married	1462	-.16**	787	.002
Age First Conception	1468	-.16**	7[illegible]	-.03
Reproductive Knowledge Scale	a	a	768	.05
Age First Learned of Contraception	1484	-.13**	799	.04
Age First Intercourse	1497	.03	801	-.03
Contraceptive Knowledge Scale	a	a	617	.07
Psychological				
Attitude toward Birth Control Scale	1491	.13**	800	.15**
IE Scale[b]	1460	.13**	779	.08
Attitude toward Husband Scale[c]	1472	.16**	781	.05
Self Concept Scale[c]	1492	.19**	802	.02
Attitude toward the Church[c]	1478	.20**	793	.001
Attitude toward having Children[c]	1485	.18**	794	.03
Summary Family Planning Scale	1485	.17**	798	.23**

[a]Not applicable

[b]Rotter's (1966) internal-external control scale

[c]Semantic differential scales which measure the evaluative dimension

* $P < .01$ ** $P < .001$

TABLE 2

Intercorrelation of Variables Predicting

Clinic Attendance

Variable		(1)	(2)	(3)	(4)	(5)	(6)	(7)
Income	(1)	---	.04	-.17**	.01	-.02	-.02	-.18**
Age	(2)		---	.14**	-.03	-.06	-.03	-.22**
Race [a]	(3)			---	-.05	.02	.08*	-.19**
IE Scale	(4)				---	-.12**	-.07*	.10**
Self-Concept Scale	(5)					---	.13**	.22**
Family Planning Scale	(6)						---	.16**
Clinic Attendance [b]	(7)							---
(N = 1233)								

[a]Race is defined as a dummy variable: 1 = nonwhite, 0 = white.

[b]Clinic attendance is defined as a dummy variable: 1 = attender, 0 = non-attender.

* $P < .01$ ** $P < .001$

TABLE 3

Regression Analysis of Variables

Predicting Clinic Attendance

Variable	Partial Correlation Coefficient	Regression Coefficients		
		Unstandardized	Standardized	
Income	-.23**	-.01	-.21	
Age				
X	.13**	.06	.94	-.16
X^2	-.16**	-.001	-1.10	
Race	-.20**	-.25	-.19	
IE Scale	.12**	.04	.11	
Self-Concept Scale				
X	-.08*	-.36	-.51	.20
X^2	.11**	.08	.71	
Family Planning Scale	-.16**	.03	.15	
Intercept = .19	R = .47**	R^2 = .22		

*$p < .01$ **$p < .001$

TABLE 4

Intercorrelation of Variables Predicting

Clinic Continuation

Variable		(1)	(2)	(3)	(4)
Birch Control Scale	(1)	----	-.06	.21**	.15**
IE Scale	(2)		----	-.06	.08
Family Planning Scale	(3)			----	.22**
Clinic Continuation [a]	(4)				----
(N = 777)					

[a]Clinic continuation is defined as a dummy variable: 1 = active, 0 = dropout.

*$p < .01$ **$p < .001$

TABLE 5

Regression Analysis of Variables

Predicting Clinic Continuation

Variable	Partial Correlation Coefficient	Regression Coefficients	
		Unstandardized	Standardized
Birth Control Scale	.12**	.02	.12
IE Scale	.10*	.04	.10
Family Planning Scale	.20**	.04	.20

Intercept = -.07 $R = .27^{**}$ $R^2 = .07$

*$P < .01$ **$P < .001$

TABLE 6

Percentage of Respondents Agreeing with Negative Statements about Family Planning and Clinics

Statement	Percent Agree*			
	Active	Drop-out	Never Seen	Total
1. Afraid Contraceptives will cause cancer	28.7	51.1	54.7	45.0
2. Don't like to wait too long to be seen at clinic	36.4	42.4	44.7	41.4
3. Afraid contraceptives will make them sick	21.2	46.8	48.5	38.7
4. Afraid doctor will hurt them	29.3	42.7	42.5	38.0
5. Don't think a free clinic is any good	30.7	36.0	42.6	37.2
6. Don't like medical examination	32.4	36.7	38.6	36.1
7. Uncomfortable to talk about sex with the clinic personnel	17.2	29.0	26.7	23.6
8. Afraid contraceptives reduce sexual pleasure	17.0	24.9	26.8	23.0
9. Afraid contraceptives eliminate sexual desire	16.1	22.7	22.1	20.1
10. Don't like clinic personnel to mind their business	9.7	12.2	17.8	13.9
11. Afraid that friends and neighbors will think they are doing something wrong	10.3	12.8	13.0	12.0
12. Think that to practice family planning is a sin	7.5	12.3	12.8	10.9
13. Afraid husband might not like their going to the clinic	8.2	14.7	10.8	10.6

*Sample varies slightly for each statement due to no responses. Range is as follows: Active, 500-516; Dropout, 276-281; Never Seen, 656-691; Total 1442-1487.

TABLE 7

Distribution of Reasons for Discontinuing Clinic Attendance

Variable	N	Percent
Got pregnant.	67	26.8
Health reasons.	29	11.6
Method didn't suit respondent . . .	28	11.2
Lives alone now	17	6.8
Wanted another baby	12	4.8
Lack of time.	11	4.4
Too much trouble to go (laziness) .	9	3.6
Economic reasons.	9	3.6
Husband against going to clinic . .	9	3.6
Other reasons	39	15.6
Not applicable [a].	20	8.0
Total	250[b]	100.0

[a]Refers to women too old or who have undergone a sterilization operation.

[b]Dropouts only.

"Addendum K
AID/csd-2512"

CHARACTERISTICS OF CONSENSUAL AND LEGAL MARITAL UNIONS IN COSTA RICA

INTRODUCTION

There is fairly general agreement regarding the prevalence of consensual unions or quasi-marital relationships in the Caribbean and Latin American. Much of the literature on this subject can be divided into two categories. In one category are grouped the demographic studies which have taken as their central concern the relationship between the nature and extent of non-legal unions and reproductive behavior. In the other category are the more sociological and anthropological investigations which tend to be concerned with whether or not these non-legal unions are normative alternatives to legal marriage. On at least one point studies in both categories agree. All acknowledge that a substantial proportion of the live births in the Caribbean and Latin American results from non-legal unions. Roberts (1955) confirms this point for the West Indies by reporting illegitimacy rates ranging from 50 to 70 per cent.

However, until recently most findings supported the conclusion that for population aggregates, the prevalence of consensual unions depressed societal fertility levels. Non-legal unions were seen to be unstable and thus the women in this type of relationship were less exposed to the risks of pregnancy.

More recently, however, the question has again been opened. Marino (1970) has suggested the importance of the mediating influence of another variable, that of an unbalanced sex ratio in the population. To him, both the extent of couples in consensual unions and the tendency toward fertility lower than that for couples legally married may be partially the result of a shortage of males.

The major positions with respect to the "normative legitimacy" of consensual unions have been set forth by Goode (1960) and Rodman (1966). Goode's position is basically that consensual unions are not "cultural alternatives" or "sociologically legitimate" alternatives to legal marriages for it violates Malinowski's rule of legitimacy. Rodman, viewing marriage as a process, developed the "principle of fidelity" and upon it based his contention that the various forms of consensual unions are legitimate alternatives to legal marriage.

Notwithstanding the considerable amount of research effort, little is known about the consensual union and women who enter into it. This lack of information may stem in part from the fact the the term "consensual union" has been variously defined both theoretically and for the purposes of record keeping. Such terms as "common law," "visiting," and "friending" all have been employed with some overlap to designate the same type of relationship. Furthermore, such factors as the legitimacy of the offspring, the nature and location of the sexual encounter, and the

attitudes of the participants have been offered as characteristics of this form of relationship. About all that can be said with certainty is that this form of sexual relationship is less than a legally sanctioned union but more socially acceptable than a casual or promiscuous one. Even this generalization may be subject to criticism, for research has resulted in conflicting social evaluation of this form of interaction.

Thus, aside from reproductive behavior, the characteristics of women in consensual unions have been described primarily by implication. The data available tend to indicate that for most populations the mean age of women in consensual unions is slightly younger than for women in legal unions. Further, that the age at which they first began co-habitation is slightly younger and that they tend to be of lower social class standing. There also seems to be a tendency for relationships begun as consensual unions to be legalized later on. It should be noted that these characteristics were reported in studies which have tended to concentrate on populations of African extraction, in more under-developed countries, and those that have historically had an imbalanced sex ratio.

The purpose of this paper is to examine the characteristics of Costa Rican women in consensual and legal unions, with special emphasis on reproductive behavior. The departures of this study from most of the others previously mentioned reside in the fact that Costa Rica is one of the more highly developed Central

American countries, that our sample is composed of White and Indian women. Consensual unions have been defined as co-residential, non-legal sexual and social liasons which are designated as such by the respondents.

METHODOLOGY

Sample

The data reported here were obtained in an interview survey of family planning in Costa Rica. The sample design called for the selection of women in six family planning clinic areas. These six areas were considered to be representative of clinics throughout the country. Within each of the clinic areas employed, households were randomly sampled and the eligible women in each household were interviewed. Eligibility required that the women be between the ages of fifteen and forty-nine and had experienced at least one pregnancy. A further characteristic of the sample design insured the inclusion of approximately equal numbers of women who had attended a family planning clinic and those who had not. In order to obtain this distribution the total number of interviews to be completed in each area was determined on the basis of clinic activity and the size of the population in the area. Households were randomly sampled until the proper distribution was obtained, based on a desired sample

size of approximately 1500 women. Using these techniques, 1652 interviews were conducted of which 1498 were found to be usable. For the purposes of this study, all women not currently living with a man were eliminated from the analysis. The remainder of the sample consisted of 295 women in consensual unions and 985 in legal unions.

It is important to note that the Negro population of Costa Rica (less than five percent of the total) was not included in this study. For the most part, the Negro population is concentrated in the province of Limon and is isolated from the rest of the country by mountains and jungle. At the time of this survey there was no government-sponsored family planning clinic in this area. It is therefore important to remember this fact because much of the literature on consensual unions deals specifically with Negroes, and, with the exception of a small number of urban Negroes, in our investigation the term "non-white" refers instead to Indians.

Definition of Variables

The definition of most of the variables is obvious from the tables which follow, however, the scales will be briefly defined. In order to obtain a measure of the general contraceptive knowledge of the women in the sample a single score was calculated from information provided by questioning the women on each of twelve contraceptive techniques. If she had heard of this

method but did not know how it worked, she was given a score of one. If the respondent indicated some knowledge of how a particular method worked, a score of two was assigned. If she had a good knowledge of how a method worked, she received a score of three. Scores ranged from 0 to 36. It must be kept in mind that this score is a very general one and does not give precise information on a woman's contraceptive knowledge. It is possible for two women to have the same score although they differ in knowledge.

A similar technique was used to compute the respondents' reproductive knowledge score. The process of reproduction was divided into eight components. For each component, if the respondent had erroneous knowledge a score of one was assigned. Fair knowledge resulted in a score of two and good knowledge a score of three. The total score was then transformed to range from a low of zero to a high of eight.

The Attitude-Toward Birth Control Scale consists of four items concerned with health, expense, national welfare, and ease with which birth control can be understood. The respondents were asked to express agreement or disagreement with each statement on a five point scale ranging from strongly agree to strongly disagree. In computing the scale, the most negative answer was assigned a score of zero and the most positive answer a score of four. The scale consists of the sum of scores of all four items. Thus, a respondent with a completely negative attitude toward the aspects of birth control included in the items would have a score of zero.

A respondent with a highly positive attitude would be assigned a score of sixteen.

Evaluation of self, husband, and family planning was based on the semantic differential technique (Osgood, et al., 1957). Briefly stated, in its original form the method uses pairs of adjectives to measure a subject's affective judgements about some concept or object along three dimensions; evaluation, potency, and activity. The evaluation dimension essentially represents a positive versus negative judgement of any given concept. The four sets of evaluative adjectives used to compute the scale were; 1) kind-considerate, 2) honest-dishonset, 3) just-unjust, and 4) good-bad. The responses to each set of adjectives were somewhat skewed toward the positive end of the scale which ranged from one to seven. In order to minimize the effects of extreme cases, the original categories were collapsed. The final score was the average of the scores for the four sets of adjectives, and ranged from a low of one to a high of four.

The Internal-External control scale (Rotter, 1966) was employed in modified and shortened form. Rotter has described what the I-E Scale measures as follows:

> When a reinforcement is perceived by the subject as following some action of his own, but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the event

> is interpreted in this way by an individual, we have labeled this a belief in external control. If a person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in internal control. (Rotter, 1966. p.1)

It was necessary to construct a brief version of the I-E Scale for use in Costa Rica. Thus from the 23 original items we selected ten questions which best predicted the total scale scores.

A preliminary analysis of the measure was conducted by means of a factor analysis of these ten questions. In the Costa Rican sample one factor composed of our items seemed clearly identifiable as measuring the Internal-External Control dimension. Its content compares a fatalistic belief in chance, versus the idea that events can be controlled, over a variety of topics (world events, people's lives, friendships, and feelings about the self in relation to events).

A mean I-E Score was derived by combining scores of the four items which, according to the factor analysis, measured this dimension. Each answer in the external direction was coded zero. The resulting score ranged from 0-4 with the higher score indicating greater belief in personal control over events.

RESULTS

Table 1 shows the results of a comparison of women in consensual and legal marriages with respect to twenty-seven variables. Using a probability level of .05 as the minimum criterion for statistical significance, it can be seen that significant differences are found for twenty of the twenty-seven variables. It should be noted that statistical significance is relatively easy to attain with such a large sample. However, in many cases the mean or percentage differences are quite large as well as being statistically significant.

Many of the variables examined are direct indicators of social class or are generally recognized as concomitants of class standing. These variables show a consistent pattern which indicates that, as a group, women in consensual unions are much more likely to be lower in class standing. With respect to the direct indicators of social class, a larger percentage of women in consensual unions 1) have less than a primary education, 2) have a spouse with less than a primary education, 3) have a family income less than 399 colones, 4) have a spouse who is a laborer, 5) live in a rural area, 6) and are nonwhite.

With respect to the sexual experience concomitants of social class, the mean age of women in consensual unions for ages at first intercourse, conception, and marriage is lower than for women legally married. This is the pattern that would be expected of lower-class women.

The differences between consensual and legal unions with regard to the sexual knowledge variables also are characteristic of social class differences. On the average, women in consensual unions learned of contraception at a later age and have lower contraceptive and reproductive knowledge scores.

Although the scores for four of the six psychological variables show statistically significant differences, in general the mean differences between women in consensual and legal unions are quite small. On the basis of these slight differences, it appears that women in legal unions have more positive evaluations of family planning, spouse, and self, and also have a higher mean ideal number of children than do women in consensual unions.

It was noted earlier that the majority of research and writing on consensual unions and fertility has found or suggested that fertility is lower for women in consensual unions. Our data, however, suggest that there is little or no difference between women in consensual and legal unions with respect to the number of conceptions, number of live births, and number of children living at home. The small differences observed for conceptions and live births suggest that fertility is slightly higher for women in consensual unions.

The only fertility variable to show a significant difference is the number of stillbirths and abortions. In this case the women in consensual unions have a higher mean than women in

legal unions. Since this variable is essentially a measure of health and adequacy of medical care, the observed difference lends added support to the previously mentioned social class differential. Women in consensual unions, ranking lower in social class, would be expected to be of poorer health and have less access to adequate medical care.

It is possible of course, that the actual relationship between type of mariatl union and fertility is being suppressed by a third variable. In particular, this may be true for social class. It has been well documented that a moderately strong inverse relationship exists between social class and fertility in the developing countries. Thus it is possible that social class and type of marital union tend to cancel one another out in terms of reproductive behavior. If the literature previously mentioned is correct, being in a consensual union would tend to depress fertility. However, the tendency for women in consensual unions to rank lower in social class would tend to increase fertility.

In order to test for this possibility, the relationship between type of marital union and fertility has been examined controlling for various indicators of social class. In addition, age and marital stability have been introduced as control variables. The product-moment correlation coefficient has been used to measure the relationship between type of marriage and the indicators of fertility.

The results of this analysis are shown in Table 2. These data indicate that the indicators of social class, age, or marital stability do not act to suppress the relationship between type of marriage and fertility. The correlations are extremely small within all categories of the control variables and few attain statistical significance. Thus, it can be concluded that we have failed to find any meaningful relationship between type of marital union and fertility.

DISCUSSION

The data presented here clearly indicate that women in consensual unions differ from women in legal unions primarily in terms of indicators of social class and class-related factors such as sexual knowledge, sexual experience, and medical care. However, the data also indicate that the reproductive behavior of women in consensual and legal unions is quite similar, regardless of age, marital stability, or social class. Thus, in Costa Rica, being in a consensual union does not appear to depress fertility. Since this finding is not in accord with the literature presented earlier, it merits further attention.

One possibility for the lack of relationship between type of marriage and fertility may lie in the nature of the sample. It will be remembered that one criterion for inclusion in the sample was that the woman have had at least one pregnancy.

Thus, childless women have been completely omitted. If the earlier work with respect to consensual and legal unions is correct, one would expect a larger proportion of childless women in consensual unions.

In order to test for the possible biasing effect of omitting childless women, data on the proportion of married women (consensual or legal) age 15-44 in one province of Costa Rica were obtained (Poole, 1970). In this study, 7.3 per cent of the women were found to have never been pregnant. Assuming this percentage is a reasonable estimate of childless women in Costa Rica, it can be used to estimate the degree of bias in our sample.

The mean number of conceptions for women in consensual and legal unions was found to be 5.6 and 5.3 respectively. If we assume an extreme situation exists in which all the childless women are in consensual unions, the addition of 7.3 percent women with no conceptions would reduce the mean conceptions from 5.6 to 5.2. With respect to live births, women in consensual unions had a mean of 4.9 and women in legal unions had a mean of 4.7. Incrementing the sample of women in consensual unions with an additional 7.3 percent childless women would reduce the mean from 4.9 to 4.6. Thus, the original small differences in fertility between women in consensual and legal unions are further reduced by correcting for the lack of childless women.

Assuming the opposite, that all childless women are in legal marriages, would result in significant differences, but in the direction opposite of that expected. It can be concluded, therefore, that the omission of women who have never been pregnant from our sample did not significantly distort the main conclusion. That is, fertility in Costa Rica does not appear to be depressed by consensual unions.

If this conclusion is correct, the results of this study give implicit support to Marino's contention that the fertility differences between consensual and legal unions observed in earlier studies were at least partly a function of an unbalanced sex ratio. Costa Rica does not have the shortage of males characteristic of the Caribbean area, and the expected difference in fertility did not obtain.

This study, however, was not designed to test Marino's conclusions, and other explanations may fit the results equally well. The important point to be emphasized is that our data suggest that the form and consequences of consensual unions can differ from one country to another, and that considerable cross-cultural comparisons are necessary before meaningful generalizations concerning consensual unions can be developed.

TABLE 1

CHARACTERISTICS OF WOMEN IN

CONSENSUAL AND LEGAL UNIONS

Variable	Mean or Percentage	
	Consensual	Legal
Sample Size*	295	985
Demographic-Social		
Mean Age	30.9	31.0
% Less Than Primary Education	72.2	50.8##
% Spouse Less Than Primary Education	64.4	52.8##
% Family Income Under 399¢	62.8	41.3##
% Spouse Occupation is Laborer	76.1	68.7#
% Living in Rural Area	50.8	35.6##
% Nonwhite (Indian)	26.4	17.5##
% Living in Extended Family	40.0	30.4##
% Women Employed Outside Home	12.9	11.4
% Attend Church Once a Month +	50.3	60.6##
% Married Only Once	60.0	93.0##
Sexual Experience/Knowledge		
Age 1st Intercourse	17.2	18.8##
Age 1st Conception	19.6	20.4##
Age 1st Marriage	18.5	19.4##
Age 1st Learned of Contraception	25.0	23.8#
Contraceptive Knowledge Score	7.4	8.7##
Reproductive Knowledge Score	1.6	2.3##
Psychological		
Ideal Number of Children	3.2	3.5##
Evaluation of Family Planning	3.0	3.1##
Evaluation of Spouse	2.8	3.0##
Evaluation of Self	2.9	3.0##
Attitude Toward Birth Control	10.6	10.8
Internal-External Control Score	2.2	2.2

TABLE 1
(continued)

	Mean or Percentage	
	Consensual	Legal
Fertility		
Number of Conceptions	5.6	5.3
Number of Live Births	4.9	4.7
Number of Stillbirths and Abortions	.71	.55#
Number of Children Living at Home	3.9	3.9

*Sample sizes differ somewhat on certain variables due to missing information.

†$p < .05$, *$p < .01$, #$p < .001$

TABLE 2

CORRELATION BETWEEN TYPE OF MARRIAGE AND FERTILITY, BY SELECTED CONTROL VARIABLES*

Variable	N	Correlation Between Type of Marriage and Number of Conceptions	Number of Live Births	Children in House	Stillbirths and Abortions
TOTAL	1280	-.05	-.02	.02	-.08‡
Marital Stability					
Married Once	1093	.04	.04	.04	.02
Married More Than Once	187	-.04	-.00	.07	-.08
Age					
15-24	318	-.04	-.06	-.04	.01
25-29	272	-.05	-.01	.04	-.12†
30-39	443	-.13‡	-.07	.01	-.13‡
40-49	247	-.02	-.00	.06	-.04
Education					
None to Primary Incomplete	713	.04	.07†	.12†	-.05
Completed Primary	351	-.02	.02	.05	-.11†
Some High School or More	216	-.10	-.09	-.04	-.05
Income					
0-399	500	-.05	-.02	.03	-.09†
400-699	324	-.04	.02	.04	-.15‡
700-999	138	.03	.04	.06	-.05
1000 +	130	-.09	-.10	.05	-.03
Unknown	188	.08	.08	.08	.05
Area					
Urban	779	-.08†	-.05	-.01	-.09†
Rural	501	.03	.06	.11†	-.08
Race					
White	1030	-.06	-.03	.02	-.09‡
Nonwhite	250	.02	.03	.06	-.04

*Type of marriage is defined as follows; consensual=0, legal=1

†$p < .05$, ‡$p < .01$

"Addendum L
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SOCIOLOGICAL AND PSYCHOLOGICAL ASPECTS OF FAMILY PLANNING*

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SOCIOLOGICAL AND PSYCHOLOGICAL ASPECTS OF FAMILY PLANNING*

In this chapter, the major social and psychological influences on fertility are discussed. Within this context, a critique of the diffusion-of-innovations as a basis for action efforts in family planning is presented.

I. SOCIOLOGICAL FACTORS AND FERTILITY BEHAVIOR

A number of sociological factors account for the conscious motives expressed in a society both for and against fertility control. One of the chief factors is mortality. Because of the mortality experience in underdeveloped nations, it is important to distinguish between the motives for a large number of births and the motives for a large number of living children (Freedman, 1968).

In underdeveloped countries, the average number of children surviving at the end of a mother's childbearing years is far lower than the number born. Therefore, the desire to have three or four children survive is consistent, in high mortality countries, with a much higher number of births (Freedman, 1968).

In developing countries, the fruits of industrialization, such as lower infant mortality and fewer child-killing diseases, have emerged prior to the roots of industrialization -- capital investment, positive attitudes toward saving, and upward mobility. Thus, in these countries, the influence of the factor of mortality on fertility represents a cultural lag.

The problem remains, however, to explain why the norms of a society provide the motivation for a given number of children. Three sociological factors will be discussed: family structure, industrialization, and secularization.

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A. Family Structure

The nature of the family structure as an influencing factor has been studied by considering the fertility implications of the extended family, a family which includes members of different generations or other relatives (Davis, 1955). The culture associated with this form of family structure is characterized by a situation in which children are seen as an asset. Thus, numerous behavior patterns develop to promote high fertility. In this family form, common in cultures where agriculture or home industry is prevalent, such as Asian nations, children are viewed as producers and as a source of security in one's old age.

The corporate kinship system is seen as a force influencing every aspect of life and as a force placing a high priority on children (Lorimer, 1954). Joint households permit persons not yet capable of self-maintenance to marry (Peterson, 1961). Early marriages, which promote high fertility, frequently are encouraged to perpetuate the family line.

With the shift from the extended family toward the nuclear family -- father, mother, and children -- many of the supports for high fertility are removed. In the nuclear family structure, the couple is expected to be independent. Land and resources are held individually rather than by the collective, lineage is of less importance, and the status of women is higher (Wrong, 1963).

Family structure influences the valuation of children as well as many other conditions impinging on the reproductive process. Thus to the extent that children are crucial to the performance of important functions by the family, the motives for high fertility will be supported. Family-size norms of a society are assumed to correspond to a number which maximizes the net utility to be derived from having children (Freedman, 1968).

B. Industrialization-Urbanization

Often concomitant with the nature and pervasiveness of a given family form is the level of industrialization-urbanization. Historically, and presently, these two factors are often considered to be the major social phenomena accounting for fertility declines in the Western world (Jaffe, 1942). There is an obvious relation between urbanization and the decline of the corporate kinship group: as urbanization gives rise to specialized institutions, the functions of the family groups are altered (Jaffe, 1942).

When some of the functions of the family group are taken over by the other specialized institutions, the value of a large number of children is decreased and the cost is increased. With the development of greater industrialization and urbanization, there is an accompanying increase in mass communication and in transportation facilities linking local markets and populations into larger political, social, and economic units. A more complex division of labor thus evolves, resulting in the development of a much larger number of institutions. The family ceases to be the primary economic unit; and therefore, recruitment of workers is less closely related to reproduction (Freedman, 1968).

In addition to the more obvious results of urbanization-industrialization -- greater population density, a mobile labor force, and shifts in family structure -- a large middle class emerges in which upward mobility is more of a possibility. These and other factors combine to produce a style and level of living in which high fertility motives become more of a liability than an asset.

C. Secularization

The degree of secularization of society and the view of the world held by those in the society is another factor influencing fertility behavior. The shift to a more secular vi is obvious in the development of the theme of

"responsible parenthood" stressed in Protestant and Jewish sentiment, in which barrenness is no longer viewed as a curse or large families a blessing. Parents are encouraged to have only the number of children for whom they can adequately provide (Rehwinkel, 1959; Fagley, 1960).

On the other hand, there are still religious ideologies which foster fertility motives. Catholicism is the most obvious of these. In the U.S., which is probably at the forefront of the secularization of religious tradition, among Catholics, religious reasons are still reported as a factor in the desire for larger families (Rainwater, 1965; Whelpton, et al., 1966). This factor persists in spite of the fact that 80 percent of Catholic women in a representative sample of women in the U.S. report that they have used or will use contraceptives (Whelpton, et al., 1966).

In some of the more fundamental religions, the virtues of motherhood are still extolled (Rainwater, 1965). A few religious groups have encouraged members to avoid "worldly things;" the success motive has been de-emphasized and parents are thus seen to be more inclined to devote themselves to having children (Pohlman, 1969).

The point here is that, to the extent that secularization of life progresses, the adherence to these precepts will be reduced, and conflicting values and ideologies will emerge. Thus, the supports for high fertility motives will be undermined.

Another aspect relative to man's world-view is the growth of intellectual freedom. With the growth of intellectual freedom, those people with a less desirable position tend to revolt against the disadvantaged position and attempt to achieve a better status and the benefits associated with it. This desire, defined as ambition, is one of the most important factors in voluntary control of family size (Thompson & Lewis, 1965). The level of

ambition is also seen as important in explaining differential fertility within and between countries.

When considering the influence of the variable of a country's development on fertility behavior, literacy is one of the most important aspects. It has been argued convincingly that with increased levels of literacy, mortality will be reduced, followed by reduction in fertility (Freedman, 1968). Knowledge of contraception will be made more readily available; but more important, the population will become exposed to ideas and ideologies of modern culture When the individual becomes part of a larger, non-familial system, he finds rewards in social relationships in which large numbers of children may be irrelevant (Freedman, 1968).

These rather broad generalizations are not presented here as an exhaustive inventory of all the major social changes which impinge upon individual motives for childbearing. Nor are these factors considered to be independent of one another, for obviously each influences the others. These factors, as they vary within a culture, can and do influence the specific motivations which direct man's fertility behavior.

In summary, social structure, social mobility, and the functions of social institutions, which are all related to fertility behavior, undergo marked changes through industrialization-urbanization; it therefore follows that fertility behavior will also undergo marked changes (Peterson, 1961).

D. An Intermediate Variable: Contraception

The social variables which mediate between the social institutions and the actual fertility of a society have been called intermediate variables and are divided into three broad categories by Davis and Blake (1956). They delineate those factors which affect exposure to intercourse, i.e., age at entry into sexual unions, incidence of divorce, etc.; those which influence exposure to conception, i.e., the use of contraceptives; and those factors which affect gestation and parturition, i.e., causes of fetal wastage.

Differential fertility behavior exists within any group because these intermediate variables operate differentially. Thus, some groups in a population, just as some nations, have higher fertility than others. Of all the factors which influence fertility within a society, the greatest influence is by the variable of differential use of contraceptives (Bogue, 1969a).

One way to account for the non-use of contraception is, of course, ignorance, not necessarily of the need, but of the techniques. Most of the research in this regard has been conducted in the United States and thus more is known about the magnitude of this problem here. In a representative sample of Negro women, 29 percent knew of no effective birth control technique and an additional 42 percent knew of only one or two methods (Beasley, et al., 1966); it was concluded that about one-half of the women in the sample lacked sufficient knowledge of means to control their fertility. The findings of KAP studies from other nations (Berelson, 1966) show that while knowledge of physiology of reproduction is low in the underdeveloped nations, substantially more people know that fertility control is a possibility, and that one or more techniques for control are available.

Data from other research reports (Whelpton, et al., 1966) show that, regardless of level of knowledge, more than 80 percent of a representative of the population of the U.S. have used or will use contraceptives. Methods of avoiding pregnancy are far more pervasive than some research reports indicate. Perhaps the problem is one of definition, for Freedman (1958) indicates that many primitive or pre-industrial societies have some method to lower the probability of conception. These techniques might not be defined as effective by Western standards, but they seem to work with more than random success. Coitus interruptus is one such example; although not classified as effective, it is still considered to be one of the contraceptive methods most responsible

for the decline and stabilization of fertility in Great Britain (Pierce & Rountree, 1961; Freedman, et al., 1959). Freedman takes the position that a variety of control measures have been available, including contraception, in underdeveloped areas; that past failure to use them result from normative pressures for high fertility; and that couples had many children because they wanted them, not because they were ignorant of contraception.

In focusing on contraception, it is necessary to emphasize that there are actually two concepts involved: family planning and contraceptive use. Family planning is concerned with the number and timing of births, while contraception refers to the various techniques of preventing conception. Ideally, contraception could be considered the means by which family planning is implemented among married couples.

Unfortunately, however, the concept of family planning has tended to become subordinated to that of contraception. In a critique of the effectiveness of family planning programs as a means of limiting population growth, Davis (1967) states that the family planning approach concentrates on providing new and efficient contraceptives on a national basis through mass programs under public health auspices. This is not entirely accurate since many family planning programs do attempt to provide some information on the advantages of smaller families. However, the vast amount of money and energy are spent on disseminating information about contraceptive techniques and providing facilities for distribution of contraceptive materials.

This emphasis on contraception appears to be largely a result of the way in which the spread of contraceptive use has been generally viewed. According to Hawthorn (1970) the extensive and intensive adoption of deliberate contraception in the West is regarded as a classic case of the diffusion of innovations. In addition, the structure of current family-planning programs suggests that this is also true with respect to the non-Western countries.

II. FAMILY PLANNING AND CONTRACEPTION AS DIFFUSION

In this section, the elements in the process of the diffusion of an innovation are specified, and this approach is examined as it has been applied to the spread of contraception in the West. Its adequacy as a basis for family-planning programs in the developing countries of Latin America, Asia, and Africa is also examined. The specifics of the diffusion process will not be presented in detail but will be outlined, with appropriate references.

Although a number of specific propositions have been supported or suggested by empirical studies (Rogers, 1962), there does not yet exist a comprehensive theory of the diffusion of innovations. Rather, there is a broadly defined conceptual framework which facilitates analysis of the adoption process, the innovation itself, and the potential adopter.

A. The Adoption Process

There is generally widespread agreement that at least five stages exist in the process of adoption: (1) awareness, (2) information seeking, (3) evaluation, (4) trial, and (5) adoption. These stages are overlapping steps leading to final adoption or rejection of an innovation (Beal & Bohlen, 1967).

B. The Innovation

Katz (1967) devised an approach to the problem of characterizing the innovation based on the inherent attributes of the new item or idea. This approach recognizes four attributes: (1) communicability, (2) pervasiveness, (3) risk, and (4) profitability. Communicability refers to the ease with which the utility of the innovation can be explained and demonstrated. Pervasiveness is concerned with the extent to which ramifications of an innovation are limited and readily apparent to the potential adopters. The risk of the innovation is defined in terms of whether the adoption process can be reversed and whether the adoption can be made in small amounts. Profitability essentially refers to the return that can be expected or is

realized from the adoption of an innovation. Items high in profitability are more likely to be accepted.

Of particular importance in assessing the attributes of any particular innovation within the framework of these four dimensions is the concept of compatibility. Katz (1967) suggests that even if it were possible to classify items objectively with respect to their inherent qualities, it is likely that the same set of qualities will not appeal equally to, or be appropriate for, different individuals and groups. Although an adequate discussion is not possible here, Katz says that not only is the notion of compatibility important with respect to an innovation and the system of values in a society, but it is also important for the relationship between innovation and the unit of adoption, e.g., male or female; the communication channels, the mass media versus lectures by opinion leaders; and the social structure. The compatibility between an innovation and the social structure refers to the distribution of resources, the forms of organization which control and distribute resources, and the structure of social relations in a society.

In applying this classification scheme to contraception, any given contraceptive technique can be evaluated in terms of its communicability, pervasiveness, and risk. Profitability is not as directly applicable, although the problem here seems to be largely one of measurement. What is the perceived profit, both psychological and economic, of preventing a birth for a given time?

C. The Potential Adopter

The targets of the innovation process, the potential adopters, have been categorized as ideal types in the following way by Rogers (1962): innovators; early adopters; early majority; late majority; and laggards. This typology at present seems to be the most generally accepted among diffusion theorists although some researchers add a sixth category, the majority, which falls between the early majority and late majority (Beal & Bohlen, 1967). Research

has shown that these categories of adopters differ with respect to personality traits, position in the community, adherence to tradition, sources of information used, and a number of other traits (Rogers, 1962; Beal & Bohlen, 1967).

D. A Critique of the Diffusion of Innovation Approach

1. Diffusion of Contraception in the West

Although the preceding discussion represents only a limited account of the framework for an analysis of the diffusion of innovations, it should provide some background for an assessment of the diffusion of contraception in both industrialized countries and developing countries.

The diffusion hypothesis is widely accepted as a means of explaining the adoption of contraception in the West. This hypothesis, however, has been criticized either directly or indirectly by a number of authors (Davis, 1963; Carlsson, 1967; Hawthorn, 1970).

According to Carlsson (1967), the decline in marital fertility, which began in Western Europe around 1880, was due to changes in values and attitudes which resulted in deliberate action by married couples. Fertility declined because of more widespread, intensive use of birth control, which included contraception, abortion, and voluntary abstinence. This is an example of a highly significant social change through individual, or at least decentralized, decision.

Carlsson points out than an explanation of this change must take into account a number of factors. Industrialization and the decline of agriculture, higher educational levels, changing status of women, and a general modernization and secularization of society. Within this general framework, however, at least two theoretical explanations are possible: the innovation approach; and the adjustment approach. Essentially, it is Carlsson's thesis that the adjustment approach provides a more acceptable explanation for the fertility decline in the West than does the innovation approach.

The innovation theory, according to Carlsson, is based on a number of assumptions or beliefs: Birth control, particularly contraception, is something new that was not widely used before the nineteenth century. Therefore, the spread of information about birth control techniques was an important factor in the decline of fertility. It is assumed that there was a lag in the spread of skills and attitudes. Information spread from metropolitan centers, to smaller urban areas, to rural areas. Also, information first reached the middle class and then the lower classes.

The adjustment theory, however, differs in that birth control, particularly contraception, is not regarded as a new invention. Rather, it may have been practiced consistently by a fixed proportion of the population, or it may have been more widely practiced with higher fertility goals. Thus, the decline in fertility was not primarily a result of a diffusion of information about contraception, but an adjustment to a new set of forces that motivated individuals to reduce their fertility. The notion of a lag or trickle-down pattern for the spread of information is not necessary to this explanation.

Carlsson's critique of the innovation approach is based on the questions of whether birth control began within marriage on a considerable scale before the fertility decline began; and whether the pattern of spread of fertility decline fit the assumption of a lag in contraceptive use. Carlsson found evidence of widespread contraceptive use in Sweden prior to the fertility decline; and Hawthorn (1970) presents partial evidence from other studies which suggests substantial use of birth control techniques prior to the decline.

The pattern of spread of fertility decline does, however, provide some evidence to support the assumption of a lag in contraceptive use. Family limitation in Western countries started in the upper classes and was only later adopted by lower ones; and urban centers have had lower fertility than rural

areas. However, as Hawthorn suggests, the differentials may not be due to differences in the amount of knowledge of contraception. That is, the assumption that knowledge and thus the practice of contraception diffused downward may be false. Although part of the decline in births may have been the result of more efficient contraceptive methods becoming available, the introduction and availability of improved methods was the result of pressures generated by the desire for better techniques of contraception, rather than their introduction being the initial cause of fertility decline.

The evidence therefore suggests that contraceptive knowledge did not spread and cause changes in fertility behavior in the same sense that a farm innovation is diffused in a community. Rather, a fundamental change in the attitudes and motivations of married couples occured which led to lower fertility goals.

The change in fertility goals was the result of the process of modernization and accompanying changes such as lower infant mortality, labor force participation of women, and rising educational levels. Since certain groups in a society are usually differentially exposed to these changes, it follows that changes in fertility goals would occur at a differential rate.

The importance of the distinction between family planning and contraception is thus emphasized, for it suggests that the attitude toward family planning is the key factor in fertility decline and not the speed with which contraceptive knowledge and materials can be spread throughout a society. The implications are therefore significant for family planning programs in developing countries, and may help to explain why early success stories are not always accompanied by reports of substantial fertility control over a period of years.

2. Diffusion of Contraception in the Developing Countries

The fertility decline in the West was a decentralized process resulting

from pressures and attitudes generated by the general trend of modernization. The recent attempts to control fertility in countries of Asia, Africa, and Latin America, on the other hand, have been the result of centralized decisions made by governments or small groups of individuals. These attempts have been a response to the extremely rapid population growth and/or high population density which have handicapped economic, political, and social development. The attempts are almost exclusively restricted to family planning programs.

One of the fundamental questions facing planners and officials in the developing countries is how best to utilize the family planning programs to achieve some success in reducing fertility. Two solutions to the problem are usually proposed: (a) develop safe, simple, and highly effective contraceptive methods or (b) use modern communication techniques to persuade and motivate couples to use existing methods and limit their families. Current family planning programs tend to focus on providing contraceptive information and materials to as many people as possible. The critique of the innovation in the West, however, suggested that motivation is the most important factor.

A combination of both solutions -- high motivation and a simple, foolproof contraceptive method -- would, of course, be the most effective way to reduce fertility rapidly. In the West, a combination of high motivation and partially effective and often difficult to use contraceptive methods effected substantial fertility decline, but quite slowly. Berelson (1967) believes that an improved contraceptive would be effective in many developing countries when combined with the assumed weak, but existing, motivation to limit families to some degree. In fact, Berelson suggests that it is possible for family planning to move ahead of the general modernization of a society. The key to this is an easy and effective contraceptive along with a good system of information and services.

Several writers, however, disagree with this assertion. Hauser (1962) maintains that a change in behavior leading to contraceptive practice and fertility control cannot be achieved without social change. Similarily, Davis (1967) concludes that family planning programs alone cannot effectively control population growth, regardless of their success. He points out that even if these programs are 100 percent successful, the best they can do is prevent unwanted births. In this case, the number of couples wanting three or more children would still keep the growth rate at high levels. This problem is inherent in the design of family planning programs. For as Davis indicates, those aspects of the programs which make them acceptable for family planning are also the ones which make them ineffective for population control. Stressing the right of parents to have the number of children they want evades the basic question of population policy: how to give societies the number of children they need (Davis, 1967). Thus, even if the ideal contraceptive were to be developed, the more important problem appears to be one of changing attitudes.

The Western experience has demonstrated that as a country becomes more modernized, the motivation for smaller families is generated as a response to the process of social change. The developing countries which have shown the greatest successes from family planning programs, Taiwan and South Korea, are those which were already in the process of modernization and moving toward the small family pattern (Davis, 1967; Kirk, 1969). The goals of these family planning programs, however, will fall short of population control. For example, the goal of the Korean program is to cut population growth to 1.2 percent by 1980; but this rate of increase would result in a population twice as large in 60 years (Davis, 1967). In this regard, it is significant to note that growth rates still remain at over one percent annually in many Western countries.

The alternative to waiting for the small family to evolve naturally is to persuade couples to change their fertility. Attempts at persuasion, however, have rarely been effective (Berelson, 1969). Since every country has a small proportion of highly motivated couples which can be reached by family planning efforts, it has proven easier and more rewarding for family planning programs to focus initially on these couples and ignore the sticky problems of education and persuasion.

The widespread acceptance of the innovation approach to contraceptive use may have misguided many family planning programs. If the goal is to actually control fertility, the problem of diffusing contraceptive techniques and materials cannot be treated in the same way as the diffusion of innovations for farmers or physicians. The implicit assumption for these groups is that all farmers are more or less highly motivated to make a success of their farm, and all physicians more or less are highly motivated to help their patients. The best way to achieve their goal thus becomes the problem. The implicit assumption in the case of the diffusion of contraception is that all couples are motivated to plan their families. Although a large majority of couples express an interest in family planning, the extent to which this will be translated into action is questionable. Furthermore, even for those couples who are motivated to plan their families, the number of children many want is much higher than acceptable for effective population control. In general, an adequate solution to the problems of rapid population growth will require increasing attention to the social-psychological factors determining fertility behavior.

III. SOCIAL-PSYCHOLOGICAL RESEARCH

Little is known about the psychology of fertility goals and of contraceptive acceptance. The lack of psychological research on family planning is due to two factors. One is American Psychology's strong adherence to the tradition of

the highly controlled laboratory experiment. This influence has kept many psychologists out of the arena of social concerns where rigorous control and methodology are not possible.

A more important factor may have been the dampening effect of the lack of positive findings in some early studies which attempted to relate psychological variables to fertility measures (Whelpton & Kiser, 1946 to 1958; Westoff, et al., 1961; Westoff, et al., 1963).

A number of methodological suggestions have been made as to why the psychological portions of these works, the Indianapolis and Princeton studies, did not succeed (Peterson, 1961; Kiser, 1962; Pohlman, 1969). The more important suggestions are (a) lack of theory to dictate variables, methods, and analyses; (b) use of psychological measures which were brief and thus limited in reliability; (c) use of samples offering relatively limited variation in the independent or dependent variables; and (d) ignoring of some small, but significant relationships, which may have been meaningful, though limited in potential size by the design limitations of the studies.

A large portion of the time and energy invested in later research bearing on fertility behavior has been devoted to KAP surveys. The instruments used typically center on demographic characteristics of the subjects and assess their knowledge, attitudes, and reported practices in regard to reproduction.

A summary of the results (Fawcett, 1970) of 400 such studies of KAP data shows that women in the samples desire a smaller family size than they are likely to have by the end of their reproductive period. In addition, many of these women do not clearly understand methods of preventing pregnancy, but are anxious to learn. They also consider it appropriate that their governments should provide family planning services.

Some to the KAP studies have furnished useful baseline data for evaluation of program influences on attitudes toward family size and family planning, and have been useful for demonstrating to governments the political acceptability of family planning programs. The results of KAP surveys have also been used to provide explanations of fertility differences, mainly in terms of social stratification variables. Psychological variables have largely been ignored.

Although the overview of psychological research is somewhat discouraging, a few relatively sophisticated studies and a few encouraging results have appeared which can be used as the bases of future research.

A. Family Organization and Dominance Patterns

Refining the concept of family structure to the level of family interaction patterns may be productive. In a study of Puerto Rican families, family patterns were typed along a dimension of how much male dominance and restriction of the wife's role was present (Hill, et al., 1959). Rank order correlations between eight family types and each group's average scores on fertility variables were generally above .70; correlational indices based on individual families were much lower, however. The more restrictive families used birth control methods less, were more irregular if contraceptives were used, and showed higher failure rates in fertility control.

The restrictive families also gave histories of less communication about birth control. In further analyses, Hill (1967) refined the communication measures into indices of Consensus, Communication, and Empathy. These variables predicted behavior related to contraceptive use, experimentation with different techniques, and choice of sterilization.

In a North American study, the conceptual typology of joint versus segregated conjugal role relationships was found to relate to choice of contraceptives and to effectiveness of contraceptive practice (Rainwater, 1965).

Family size preferences were also predicted. Interestingly, the findings on contraceptive practices were clear only in the lower social class, while those involving family size preferences were obtained in the middle class.

B. Attitudes and Motives

There have been some efforts to relate the psychological attitudes which accompany the modernization of a nation to fertility variables.

Kahl (1968) used factor analysis to develop a modernism scale consisting of several sub-scales. This work was done in Mexico and Brazil. On the sub-scales modern man is described as an activist, attempting to shape his world rather than fatalistically responding to it. He believes that an independent career is not only desirable, but possible, and he prefers urban life to rural life. The total scale was related to ideal family size measures. Results were not striking, but were consistently in the predicted direction within various type occupational groups in both countries.

Seeman (1959, 1971) has analyzed some of the more negative attitudes which may be found in a modern society. Groat and Neal (1967) used instruments based on Seeman's concepts with a sample of white, Midwestern women. With social class and age at least partially controlled, subjects who saw national and international events as confused and chaotic (Meaninglessness) and who felt a lack of genuine normative standards (Normlessness) had more children. This result was true for both Protestants and Catholics.

The descriptions of industrialized, modern man emphasize that he is an activist rather than a fatalist. This particular characteristic has been related to fertility variables in a number of research efforts. Both Rainwater (1965) and the researchers in Puerto Rico (Hill, et al., 1959) concluded that in the lower social classes, fatalistic attitudes, involving being victims of life forces and God's will, stifle interest in attempting to limit family size.

The most extensive study of this variable to date is that of Williamson (1970) who terms his measure of the activist attitude, Subjective Efficacy. Factory workers in five developing nations were used in the sample. Ideal family size, Subjective Efficacy, and 11 sociological variables were correlated with indices of favorability towards birth control. The results varied between the different countries and the size of the correlations was generally moderate. Ideal family size and Subjective Efficacy showed correlations that were equal to, and in some cases greater than, those for any social predictor, however.

Further confirmation that this attitude relates to family planning decisions comes from studies using another instrument. Rotter's (1966) Internal-External Control Scale was designed to measure the extent to which an individual sees himself as being able to alter and control events to suit his needs versus the extent to which he sees himself as a victim of fate and chance. The present authors administered a brief version of Rotter's Scale to 1,500 Costa Rican women. After refinement of the Scale through factor-analytic techniques, it was found that women who had attended family-planning clinics were less fatalistic than those who had not (Manuscript in Preparation).

MacDonald (1970) studied a sample of college girls who reported having coital relationships. Subjects who more frequently used contraceptives were found to be less fatalistic on the I-E Scale.

In the research of Groat and Neal (1967) a somewhat simila sure, called Powerlessness, did not yield clear results. This measure was restricted to the individual's view of his own and other people's influence on major political and economic events, however, and did not include being able to alter more personal and directly relevant events.

C. Taxonomy and Theory Building

Bogue (1967b) has catalogued some motives which may be operative in determining family size (Table I).

[Table I about here]

Attempts to identify motives and attitudes empirically, rather than by speculation, or to develop theories anchored in data have been rare, however.

Blake, et al., (1969) factor analyzed questionnaire data from Blacks and Whites in public housing projects. The objective was to understand beliefs and attitudes regarding contraception and to provide guidelines for educational programs. The complexity of attitudes in this area is demonstrated by the fact that 12 different attitudinal dimensions were isolated, and all but three discriminated between contraceptive users and non-users. These dimensions, or factors, are listed in Table II. It can be seen that there is overlap between Bogue's suggestions and these findings. The most important factors were concerned with the husband's reaction to family planning. The other factors ranged from materialistic, defined as the relation of birth control to attainment of a high standard of living, to dynamic, defined as interference of birth control with proof of masculinity and femininity.

[Table II about here]

Insco, et al., (1970) also analyzed the same set of attitudes and beliefs about birth control and found that contraceptive users were more consistent in their attitudes about this topic. Their rather sophisticated statistical procedure for defining consistency may offer an empirical approach to the definition of ambivalence. This concept, which involves a simultaneous considering of a host of competing motives and attitudes, is a more realistic approach to behavior involving sex and reproduction than simple strong-versus-weak drive views (Bogue, 1967a).

Kothandapani (1971) tested the validity of dividing attitudinal items into three components: feelings are the emotions toward an object; beliefs are the evaluative concepts toward it; and intentions represent commitments to action in regard to it. Statistical analyses demonstrated the validity of this

division. All three types of measures discriminated between contraceptive users and non-users, with intention to act clearly being superior in this regard.

The utility of emphasizing adequate and accessible contraceptive supplies, of publicizing this accessibility, and of furnishing contraceptive information is not discounted. It is concluded, however, that these activities may need to be supplemented by direct work with specified motives, attitudes, and other psychological factors.

Research findings reveal the bare beginnings of a base of theory and fact regarding the psychological variables which intervene between social forces and fertility decisions. Given the same amount of research investment which has been put into demographic and KAP studies, it is hoped that this area could be adequately mapped, and information furnished from which to design methods of influencing fertility motives and contraceptive decisions.

IV. CONCLUDING REMARKS

The long-term answer to population problems lies in aiding nations and cultural groups toward the thresholds of socio-economic development (Kirk, 1971) at which fertility rates make major shifts. The major social institutions which influence population trends are those which change as a nation moves toward industrialization. There are sound reasons to believe that where decreases in birth rates have occurred, they have been linked to such changes.

Research and action programs in family planning should not be abandoned. They should be continued and increased on the basis that whatever gains they achieve will contribute to the modernization which may be the final answer. Family limitation, as one of the major ways by which a group may enable itself to make economic advances, has been compellingly documented (Campbell, 1968). Such action should be accompanied by extensive evaluative research which will furnish guidelines for setting up maximally effective programs.

There is also need for increased emphasis on research concerning the motives and attitudes which are the causal links between changes in social institutions and changes in fertility goals. The specification of the psychological factors which change with modernization might reveal motives which could be altered directly, rather than by forces of social change. If family-size desires have to be altered even further than will be affected by modernization for an adequate population balance to be achieved, a full understanding of the social-psychological forces which determine such desires is mandatory.

Table I - Fertility Motives (From Bogue, 1967b)*

High Fertility Motives

HEALTH

Children often die. It is necessary to have large families in order to make sure you get living children who grow to adulthood.

ECONOMIC

Children are an economic advantage. They are needed or are useful in helping the family earn a living. They pay for themselves by working as they grow. Social security in old age. If you have many children, one will be able to take care of you in old age.

FAMILY WELFARE

Can help with work around the house. Older children help the younger.

Big families are happy families. Family life is more enjoyable; they have a good time together.

Children from big families have better personalities. They are better adjusted, better able to get along with other people, not so spoiled or egotistical.

Continue the family name. It is necessary to have many children to be sure to have a son to carry on the family name.

Strength of the clan. The family is stronger; sons can help you fight your battles; family can be upheld.

MARRIAGE ADJUSTMENT

Large families promote good marriage adjustment. Couples get along with each other better, marriage is better.

PERSONALITY NEEDS

Ego support. A demonstration of virility, manliness.

COMMUNITY AND NATIONAL WELFARE

Large families are good for the community or nation. They promote population growth, make strong.

MORAL AND CULTURAL

Large families are God's will. It is against religious belief to limit fertility.

Large families promote morality. Help prevent divorce or infidelity.

Tradition. The community, village, family, and clan expects large families.

You have high status in the community. If you have a big family, you are more important, are looked up to.

DISLIKE FOR CONTRACEPTION

Dislikes use of contraception for aesthetic or health reasons or because it interferes with sex.

Low Fertility Motives

HEALTH

Preserve health of mother.

Assure healthy children.

Lessen work and overwork on part of the father and mother due to less work than having to support a large family.

ECONOMIC CONDITION

Everyday, general expenses are less.

Avoid worsening present (poor) economic condition.

Gain a higher standard of living, more comfort, afford better house.

Permit saving for future, for retirement.

Desire to avoid subdividing property or savings among many children.

Family able to have money for recreation, vacation.

FAMILY WELFARE

Improve children's lot in life, give them good education, help get started in a career.

Happier family life, more companionship, less tension.

Opportunity to do a better job of rearing children; able to devote more time to each, better able to socialize with child.

Avoid overcrowding of house; more opportunity for individual expression.

Easier to find a more desirable house or apartment.

Table I - continued

MARRIAGE ADJUSTMENT

Provides husbands and wives more leisure opportunity to enjoy each other's companionship.

Improves the sexual adjustment by eliminating or reducing fear of unwanted pregnancy.

PERSONALITY NEEDS

Facilitates realization of ambititions. Permits either husband or wife or both to pursue occupational or vocational objectives.

Facilitates self development. Permits an intelligent or talented wife to express herself outside the home, yet have a normal family and married life.

Facilitates realization of social needs. Permits the person (especially wife) to have contacts and friendships outside the home and participate in neighborhood activities.

Reduces worry of the future. Avoids danger of childbearing when one is really too old - danger of dying and leaving behind orphan children.

COMMUNITY AND NATIONAL WELFARE

Helps avoid overpopulation. Overcrowding.

Helps community meet demands for education, other community services.

Helps nations with economic development, avoids eating technical progress with more mouths to feed.

Helps keep down delinquency, social problems of youth.

Helps reduce welfare burden of the community.

*Courtesy of D.J. Bogue, and the University of Chicago Community and Family Study Center.

Table II: Factors in Beliefs and Attitudes About Contraception (adapted from Blake, *et al.*, 1969)*

No.	Label of Factor	White Non-Users	White Users	Non-White Non-Users	Non-White Users
1	Probability husband's reaction could discourage family planning[a]	-.659	.681	-.244	.519
2	Husband's evaluation of family planning[b]	-.028	.464	-.261	.236
3	Probability that birth control is effective[a]	-.108	-.052	-.207	.353
4	Evaluation of large families[b]	.299	.274	.120	-.394
5	Probability of birth control interfering with a large, secure, happy, mother-centered family[a]	.267	.211	.135	-.386
6	Probability of birth control interfering with maternalism[a]	-.199	-.092	.242	-.236
7	Probability of birth control facilitating the attainment of middle-class values and a high standard of living[a]	.280	.248	-.288	.191
8	Probability of birth control interfering with proof of masculinity or femininity[a]	.152	.045	.100	-.233
9	Evaluation of a healthy family and worry and overwork[b]	.055	-.444	.130	-.092
10	Evaluation of non-procreative sex[b]	.595	.805	-.259	-.172
11	Evaluation of employment for the wife and social activity outside the home[b]	-.607	-.714	.307	.118
12	Evaluation of a well-adjusted family and a happy marriage[b]	.404	.607	-.113	-.257

[a] The higher the mean value, the higher the stated probability that the belief is true.

[b] The higher the mean value, the more favorable is the evaluation of the attitude objects.

* Courtesy of the Carolina Population Center, Chapel Hill, North Carolina

"Addendum L
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SOCIOLOGICAL AND PSYCHOLOGICAL ASPECTS OF FAMILY PLANNING*

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SOCIOLOGICAL AND PSYCHOLOGICAL ASPECTS OF FAMILY PLANNING*

In this chapter, the major social and psychological influences on fertility are discussed. Within this context, a critique of the diffusion-of-innovations as a basis for action efforts in family planning is presented.

I. SOCIOLOGICAL FACTORS AND FERTILITY BEHAVIOR

A number of sociological factors account for the conscious motives expressed in a society both for and against fertility control. One of the chief factors is mortality. Because of the mortality experience in underdeveloped nations, it is important to distinguish between the motives for a large number of births and the motives for a large number of living children (Freedman, 1968).

In underdeveloped countries, the average number of children surviving at the end of a mother's childbearing years is far lower than the number born. Therefore, the desire to have three or four children survive is consistent, in high mortality countries, with a much higher number of births (Freedman, 1968).

In developing countries, the fruits of industrialization, such as lower infant mortality and fewer child-killing diseases, have emerged prior to the roots of industrialization -- capital investment, positive attitudes toward saving, and upward mobility. Thus, in these countries, the influence of the factor of mortality on fertility represents a cultural lag.

The problem remains, however, to explain why the norms of a society provide the motivation for a given number of children. Three sociological factors will be discussed: family structure, industrialization, and secularization.

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A. Family Structure

The nature of the family structure as an influencing factor has been studied by considering the fertility implications of the extended family, a family which includes members of different generations or other relatives (Davis, 1955). The culture associated with this form of family structure is characterized by a situation in which children are seen as an asset. Thus, numerous behavior patterns develop to promote high fertility. In this family form, common in cultures where agriculture or home industry is prevalent, such as Asian nations, children are viewed as producers and as a source of security in one's old age.

The corporate kinship system is seen as a force influencing every aspect of life and as a force placing a high priority on children (Lorimer, 1954). Joint households permit persons not yet capable of self-maintenance to marry (Peterson, 1961). Early marriages, which promote high fertility, frequently are encouraged to perpetuate the family line.

With the shift from the extended family toward the nuclear family -- father, mother, and children -- many of the supports for high fertility are removed. In the nuclear family structure, the couple is expected to be independent. Land and resources are held individually rather than by the collective, lineage is of less importance, and the status of women is higher (Wrong, 1963).

Family structure influences the valuation of children as well as many other conditions impinging on the reproductive process. Thus to the extent that children are crucial to the performance of important functions by the family, the motives for high fertility will be supported. Family-size norms of a society are assumed to correspond to a number which maximizes the net utility to be derived from having children (Freedman, 1968).

B. Industrialization-Urbanization

Often concomitant with the nature and pervasiveness of a given family form is the level of industrialization-urbanization. Historically, and presently, these two factors are often considered to be the major social phenomena accounting for fertility declines in the Western world (Jaffe, 1942). There is an obvious relation between urbanization and the decline of the corporate kinship group: as urbanization gives rise to specialized institutions, the functions of the family groups are altered (Jaffe, 1942).

When some of the functions of the family group are taken over by the other specialized institutions, the value of a large number of children is decreased and the cost is increased. With the development of greater industrialization and urbanization, there is an accompanying increase in mass communication and in transportation facilities linking local markets and populations into larger political, social, and economic units. A more complex division of labor thus evolves, resulting in the development of a much larger number of institutions. The family ceases to be the primary economic unit; and therefore, recruitment of workers is less closely related to reproduction (Freedman, 1968).

In addition to the more obvious results of urbanization-industrialization -- greater population density, a mobile labor force, and shifts in family structure -- a large middle class emerges in which upward mobility is more of a possibility. These and other factors combine to produce a style and level of living in which high fertility motives become more of a liability than an asset.

C. Secularization

The degree of secularization of society and the view of the world held by those in the society is another factor influencing fertility behavior. The shift to a more secular view is obvious in the development of the theme of

"responsible parenthood" stressed in Protestant and Jewish sentiment, in which barrenness is no longer viewed as a curse or large families a blessing. Parents are encouraged to have only the number of children for whom they can adequately provide (Rehwinkel, 1959; Fagley, 1960).

On the other hand, there are still religious ideologies which foster fertility motives. Catholicism is the most obvious of these. In the U.S., which is probably at the forefront of the secularization of religious tradition, among Catholics, religious reasons are still reported as a factor in the desire for larger families (Rainwater, 1965; Whelpton, et al., 1966). This factor persists in spite of the fact that 80 percent of Catholic women in a representative sample of women in the U.S. report that they have used or will use contraceptives (Whelpton, et al., 1966).

In some of the more fundamental religions, the virtues of motherhood are still extolled (Rainwater, 1965). A few religious groups have encouraged members to avoid "worldly things;" the success motive has been de-emphasized and parents are thus seen to be more inclined to devote themselves to having children (Pohlman, 1969).

The point here is that, to the extent that secularization of life progresses, the adherence to these precepts will be reduced, and conflicting values and ideologies will emerge. Thus, the supports for high fertility motives will be undermined.

Another aspect relative to man's world-view is the growth of intellectual freedom. With the growth of intellectual freedom, those people with a less desirable position tend to revolt against the disadvantaged position and attempt to achieve a better status and the benefits associated with it. This desire, defined as ambition, is one of the most important factors in voluntary control of family size (Thompson & Lewis, 1965). The level of

ambition is also seen as important in explaining differential fertility within and between countries.

When considering the influence of the variable of a country's development on fertility behavior, literacy is one of the most important aspects. It has been argued convincingly that with increased levels of literacy, mortality will be reduced, followed by reduction in fertility (Freedman, 1968). Knowledge of contraception will be made more readily available; but more important, the population will become exposed to ideas and ideologies of modern culture. When the individual becomes part of a larger, non-familial system, he finds rewards in social relationships in which large numbers of children may be irrelevant (Freedman, 1968).

These rather broad generalizations are not presented here as an exhaustive inventory of all the major social changes which impinge upon individual motives for childbearing. Nor are these factors considered to be independent of one another, for obviously each influences the others. These factors, as they vary within a culture, can and do influence the specific motivations which direct man's fertility behavior.

In summary, social structure, social mobility, and the functions of social institutions, which are all related to fertility behavior, undergo marked changes through industrialization-urbanization; it therefore follows that fertility behavior will also undergo marked changes (Peterson, 1961).

D. An Intermediate Variable: Contraception

The social variables which mediate between the social institutions and the actual fertility of a society have been called intermediate variables and are divided into three broad categories by Davis and Blake (1956). They delineate those factors which affect exposure to intercourse, i.e., age at entry into sexual unions, incidence of divorce, etc.; those which influence exposure to conception, i.e., the use of contraceptives; and those factors which affect gestation and parturition, i.e., causes of fetal wastage.

Differential fertility behavior exists within any group because these intermediate variables operate differentially. Thus, some groups in a population, just as some nations, have higher fertility than others. Of all the factors which influence fertility within a society, the greatest influence is by the variable of differential use of contraceptives (Bogue, 1969).

One way to account for the non-use of contraception is, of course, ignorance, not necessarily of the need, but of the techniques. Most of the research in this regard has been conducted in the United States and thus more is known about the magnitude of this problem here. In a representative sample of Negro women, 29 percent knew of no effective birth control technique and an additional 42 percent knew of only one or two methods (Beasley, et al., 1966); it was concluded that about one-half of the women in the sample lacked sufficient knowledge of means to control their fertility. The findings of KAP studies from other nations (Berelson, 1966) show that while knowledge of physiology of reproduction is low in the underdeveloped nations, substantially more people know that fertility control is a possibility, and that one or more techniques for control are available.

Data from other research reports (Whelpton, et al., 1966) show that, regardless of level of knowledge, more than 80 percent of a representative of the population of the U.S. have used or will use contraceptives. Methods of avoiding pregnancy are far more pervasive than some research reports indicate. Perhaps the problem is one of definition, for Freedman (1968) indicates that many primitive or pre-industrial societies have some method to lower the probability of conception. These techniques might not be defined as effective by Western standards, but they seem to work with more than random success. Coitus interruptus is one such example; although not classified as effective, it is still considered to be one of the contraceptive methods most responsible

for the decline and stabilization of fertility in Great Britain (Pierce & Rountree, 1961; Freedman, et al., 1959). Freedman takes the position that a variety of control measures have been available, including contraception, in underdeveloped areas; that past failure to use them result from normative pressures for high fertility; and that couples had many children because they wanted them, not because they were ignorant of contraception.

In focusing on contraception, it is necessary to emphasize that there are actually two concepts involved: family planning and contraceptive use. Family planning is concerned with the number and timing of births, while contraception refers to the various techniques of preventing conception. Ideally, contraception could be considered the means by which family planning is implemented among married couples.

Unfortunately, however, the concept of family planning has tended to become subordinated to that of contraception. In a critique of the effectiveness of family planning programs as a means of limiting population growth, Davis (1967) states that the family planning approach concentrates on providing new and efficient contraceptives on a national basis through mass programs under public health auspices. This is not entirely accurate since many family planning programs do attempt to provide some information on the advantages of smaller families. However, the vast amount of money and energy are spent on disseminating information about contraceptive techniques and providing facilities for distribution of contraceptive materials.

This emphasis on contraception appears to be largely a result of the way in which the spread of contraceptive use has been generally viewed. According to Hawthorn (1970) the extensive and intensive adoption of deliberate contraception in the West is regarded as a classic case of the diffusion of innovations. In addition, the structure of current family-planning programs suggests that this is also true with respect to the non-Western countries.

II. FAMILY PLANNING AND CONTRACEPTION AS DIFFUSION

In this section, the elements in the process of the diffusion of an innovation are specified, and this approach is examined as it has been applied to the spread of contraception in the West. Its adequacy as a basis for family-planning programs in the developing countries of Latin America, Asia, and Africa is also examined. The specifics of the diffusion process will not be presented in detail but will be outlined, with appropriate references.

Although a number of specific propositions have been supported or suggested by empirical studies (Rogers, 1962), there does not yet exist a comprehensive theory of the diffusion of innovations. Rather, there is a broadly defined conceptual framework which facilitates analysis of the adoption process, the innovation itself, and the potential adopter.

A. The Adoption Process

There is generally widespread agreement that at least five stages exist in the process of adoption: (1) awareness, (2) information seeking, (3) evaluation, (4) trial, and (5) adoption. These stages are overlapping steps leading to final adoption or rejection of an innovation (Beal & Bohlen, 1967).

B. The Innovation

Katz (1967) devised an approach to the problem of characterizing the innovation based on the inherent attributes of the new item or idea. This approach recognizes four attributes: (1) communicability, (2) pervasiveness, (3) risk, and (4) profitability. Communicability refers to the ease with which the utility of the innovation can be explained and demonstrated. Pervasiveness is concerned with the extent to which ramifications of an innovation are limited and readily apparent to the potential adopters. The risk of the innovation is defined in terms of whether the adoption process can be reversed and whether the adoption can be made in small amounts. Profitability essentially refers to the return that can be expected or is

realized from the adoption of an innovation. Items high in profitability are more likely to be accepted.

Of particular importance in assessing the attributes of any particular innovation within the framework of these four dimensions is the concept of compatibility. Katz (1967) suggests that even if it were possible to classify items objectively with respect to their inherent qualities, it is likely that the same set of qualities will not appeal equally to, or be appropriate for, different individuals and groups. Although an adequate discussion is not possible here, Katz says that not only is the notion of compatibility important with respect to an innovation and the system of values in a society, but it is also important for the relationship between innovation and the unit of adoption, e.g., male or female; the communication channels, the mass media versus lectures by opinion leaders; and the social structure. The compatibility between an innovation and the social structure refers to the distribution of resources, the forms of organization which control and distribute resources, and the structure of social relations in a society.

In applying this classification scheme to contraception, any given contraceptive technique can be evaluated in terms of its communicability, pervasiveness, and risk. Profitability is not as directly applicable, although the problem here seems to be largely one of measurement. What is the perceived profit, both psychological and economic, of preventing a birth for a given time?

C. The Potential Adopter

The targets of the innovation process, the potential adopters, have been categorized as ideal types in the following way by Rogers (1962): innovators; early adopters; early majority; late majority; and laggards. This typology at present seems to be the most generally accepted among diffusion theorists although some researchers add a sixth category, the majority, which falls between the early majority and late majority (Beal & Bohlen, 1967). Research

has shown that these categories of adopters differ with respect to personality traits, position in the community, adherence to tradition, sources of information used, and a number of other traits (Rogers, 1962; Beal & Bohlen, 1967).

D. A Critique of the Diffusion of Innovation Approach

1. Diffusion of Contraception in the West

Although the preceding discussion represents only a limited account of the framework for an analysis of the diffusion of innovations, it should provide some background for an assessment of the diffusion of contraception in both industrialized countries and developing countries.

The diffusion hypothesis is widely accepted as a means of explaining the adoption of contraception in the West. This hypothesis, however, has been criticized either directly or indirectly by a number of authors (Davis, 1963; Carlsson, 1967; Hawthorn, 1970).

According to Carlsson (1967), the decline in marital fertility, which began in Western Europe around 1880, was due to changes in values and attitudes which resulted in deliberate action by married couples. Fertility declined because of more widespread, intensive use of birth control, which included contraception, abortion, and voluntary abstinence. This is an example of a highly significant social change through individual, or at least decentralized, decision.

Carlsson points out than an explanation of this change must take into account a number of factors. Industrialization and the decline of agriculture, higher educational levels, changing status of women, and a general modernization and secularization of society. Within this general framework, however, at least two theoretical explanations are possible: the innovation approach; and the adjustment approach. Essentially, it is Carlsson's thesis that the adjustment approach provides a more acceptable explanation for the fertility decline in the West than does the innovation approach.

The innovation theory, according to Carlsson, is based on a number of assumptions or beliefs: Birth control, particularly contraception, is something new that was not widely used before the nineteenth century. Therefore, the spread of information about birth control techniques was an important factor in the decline of fertility. It is assumed that there was a lag in the spread of skills and attitudes. Information spread from metropolitan centers, to smaller urban areas, to rural areas. Also, information first reached the middle class and then the lower classes.

The adjustment theory, however, differs in that birth control, particularly contraception, is not regarded as a new invention. Rather, it may have been practiced consistently by a fixed proportion of the population, or it may have been more widely practiced with higher fertility goals. Thus, the decline in fertility was not primarily a result of a diffusion of information about contraception, but an adjustment to a new set of forces that motivated individuals to reduce their fertility. The notion of a lag or trickle-down pattern for the spread of information is not necessary to this explanation.

Carlsson's critique of the innovation approach is based on the questions of whether birth control began within marriage on a considerable scale before the fertility decline began; and whether the pattern of spread of fertility decline fit the assumption of a lag in contraceptive use. Carlsson found evidence of widespread contraceptive use in Sweden prior to the fertility decline, and Hawthorn (1970) presents partial evidence from other studies which suggests substantial use of birth control techniques prior to the decline.

The pattern of spread of fertility decline does, however, provide some evidence to support the assumption of a lag in contraceptive use. Family limitation in Western countries started in the upper classes and was only later adopted by lower ones; and urban centers have had lower fertility than rural

areas. However, as Hawthorn suggests, the differentials may not be due to differences in the amount of knowledge of contraception. That is, the assumption that knowledge and thus the practice of contraception diffused downward may be false. Although part of the decline in births may have been the result of more efficient contraceptive methods becoming available, the introduction and availability of improved methods was the result of pressures generated by the desire for better techniques of contraception, rather than their introduction being the initial cause of fertility decline.

The evidence therefore suggests that contraceptive knowledge did not spread and cause changes in fertility behavior in the same sense that a farm innovation is diffused in a community. Rather, a fundamental change in the attitudes and motivations of married couples occured which led to lower fertility goals.

The change in fertility goals was the result of the process of modernization and accompanying changes such as lower infant mortality, labor force participation of women, and rising educational levels. Since certain groups in a society are usually differentially exposed to these changes, it follows that changes in fertility goals would occur at a differential rate.

The importance of the distinction between family planning and contraception is thus emphasized, for it suggests that the attitude toward family planning is the key factor in fertility decline and not the speed with which contraceptive knowledge and materials can be spread throughout a society. The implications are therefore significant for family planning programs in developing countries, and may help to explain why early success stories are not always accompanied by reports of substantial fertility control over a period of years.

2. Diffusion of Contraception in the Developing Countries

The fertility decline in the West was a decentralized process resulting

from pressures and attitudes generated by the general trend of modernization. The recent attempts to control fertility in countries of Asia, Africa, and Latin America, on the other hand, have been the result of centralized decisions made by governments or small groups of individuals. These attempts have been a response to the extremely rapid population growth and/or high population density which have handicapped economic, political, and social development. The attempts are almost exclusively restricted to family planning programs.

One of the fundamental questions facing planners and officials in the developing countries is how best to utilize the family planning programs to achieve some success in reducing fertility. Two solutions to the problem are usually proposed: (a) develop safe, simple, and highly effective contraceptive methods or (b) use modern communication techniques to persuade and motivate couples to use existing methods and limit their families. Current family planning programs tend to focus on providing contraceptive information and materials to as many people as possible. The critique of the innovation in the West, however, suggested that motivation is the most important factor.

A combination of both solutions -- high motivation and a simple, foolproof contraceptive method -- would, of course, be the most effective way to reduce fertility rapidly. In the West, a combination of high motivation and partially effective and often difficult to use contraceptive methods effected substantial fertility decline, but quite slowly. Berelson (1967) believes that an improved contraceptive would be effective in many developing countries when combined with the assumed weak, but existing, motivation to limit families to some degree. In fact, Berelson suggests that it is possible for family planning to move ahead of the general modernization of a society. The key to this is an easy and effective contraceptive along with a good system of information and services.

Several writers, however, disagree with this assertion. Hauser (1962) maintains that a change in behavior leading to contraceptive practice and fertility control cannot be achieved without social change. Similarily, Davis (1967) concludes that family planning programs alone cannot effectively control population growth, regardless of their success. He points out that even if these programs are 100 percent successful, the best they can do is prevent unwanted births. In this case, the number of couples wanting three or more children would still keep the growth rate at high levels. This problem is inherent in the design of family planning programs. For as Davis indicates, those aspects of the programs which make them acceptable for family planning are also the ones which make them ineffective for population control. Stressing the right of parents to have the number of children they want evades the basic question of population policy: how to give societies the number of children they need (Davis, 1967). Thus, even if the ideal contraceptive were to be developed, the more important problem appears to be one of changing attitudes.

The Western experience has demonstrated that as a country becomes more modernized, the motivation for smaller families is generated as a response to the process of social change. The developing countries which have shown the greatest successes from family planning programs, Taiwan and South Korea, are those which were already in the process of modernization and moving toward the small family pattern (Davis, 1967; Kirk, 1969). The goals of these family planning programs, however, will fall short of population control. For example, the goal of the Korean program is to cut population growth to 1.2 percent by 1980; but this rate of increase would result in a population twice as large in 60 years (Davis, 1967). In this regard, it is significant to note that growth rates still remain at over one percent annually in many Western countries.

The alternative to waiting for the small family to evolve naturally is to persuade couples to change their fertility. Attempts at persuasion, however, have rarely been effective (Berelson, 1969). Since every country has a small proportion of highly motivated couples which can be reached by family planning efforts, it has proven easier and more rewarding for family planning programs to focus initially on these couples and ignore the sticky problems of education and persuasion.

The widespread acceptance of the innovation approach to contraceptive use may have misguided many family planning programs. If the goal is to actually control fertility, the problem of diffusing contraceptive techniques and materials cannot be treated in the same way as the diffusion of innovations for farmers or physicians. The implicit assumption for these groups is that all farmers are more or less highly motivated to make a success of their farm, and all physicians more or less are highly motivated to help their patients. The best way to achieve their goal thus becomes the problem. The implicit assumption in the case of the diffusion of contraception is that all couples are motivated to plan their families. Although a large majority of couples express an interest in family planning, the extent to which this will be translated into action is questionable. Furthermore, even for those couples who are motivated to plan their families, the number of children many want is much higher than acceptable for effective population control. In general, an adequate solution to the problems of rapid population growth will require increasing attention to the social-psychological factors determining fertility behavior.

III. SOCIAL-PSYCHOLOGICAL RESEARCH

Little is known about the psychology of fertility goals and of contraceptive acceptance. The lack of psychological research on family planning is due to two factors. One is American Psychology's strong adherence to the tradition of

the highly controlled laboratory experiment. This influence has kept many psychologists out of the arena of social concerns where rigorous control and methodology are not possible.

A more important factor may have been the dampening effect of the lack of positive findings in some early studies which attempted to relate psychological variables to fertility measures (Whelpton & Kiser, 1946 to 1958; Westoff, et al., 1961; Westoff, et al., 1963).

A number of methodological suggestions have been made as to why the psychological portions of these works, the Indianapolis and Princeton studies, did not succeed (Peterson, 1961; Kiser, 1962; Pohlman, 1969). The more important suggestions are (a) lack of theory to dictate variables, methods, and analyses; (b) use of psychological measures which were brief and thus limited in reliability; (c) use of samples offering relatively limited variation in the independent or dependent variables; and (d) ignoring of some small, but significant relationships, which may have been meaningful, though limited in potential size by the design limitations of the studies.

A large portion of the time and energy invested in later research bearing on fertility behavior has been devoted to KAP surveys. The instruments used typically center on demographic characteristics of the subjects and assess their knowledge, attitudes, and reported practices in regard to reproduction.

A summary of the results (Fawcett, 1970) of 400 such studies of KAP data shows that women in the samples desire a smaller family size than they are likely to have by the end of their reproductive period. In addition, many of these women do not clearly understand methods of preventing pregnancy, but are anxious to learn. They also consider it appropriate that their governments should provide family planning services.

Some to the KAP studies have furnished useful baseline data for evaluation of program influences on attitudes toward family size and family planning, and have been useful for demonstrating to governments the political acceptability of family planning programs. The results of KAP surveys have also been used to provide explanations of fertility differences, mainly in terms of social stratification variables. Psychological variables have largely been ignored.

Although the overview of psychological research is somewhat discouraging, a few relatively sophisticated studies and a few encouraging results have appeared which can be used as the bases of future research.

A. Family Organization and Dominance Patterns

Refining the concept of family structure to the level of family interaction patterns may be productive. In a study of Puerto Rican families, family patterns were typed along a dimension of how much male dominance and restriction of the wife's role was present (Hill, et al., 1959). Rank order correlations between eight family types and each group's average scores on fertility variables were generally above .70; correlational indices based on individual families were much lower, however. The more restrictive families used birth control methods less, were more irregular if contraceptives were used, and showed higher failure rates in fertility control.

The restrictive families also gave histories of less communication about birth control. In further analyses, Hill (1967) refined the communication measures into indices of Consensus, Communication, and Empathy. These variables predicted behavior related to contraceptive use, experimentation with different techniques, and choice of sterilization.

In a North American study, the conceptual typology of joint versus segregated conjugal role relationships was found to relate to choice of contraceptives and to effectiveness of contraceptive practice (Rainwater, 1965).

Family size preferences were also predicted. Interestingly, the findings on contraceptive practices were clear only in the lower social class, while those involving family size preferences were obtained in the middle class.

B. Attitudes and Motives

There have been some efforts to relate the psychological attitudes which accompany the modernization of a nation to fertility variables.

Kahl (1968) used factor analysis to develop a modernism scale consisting of several sub-scales. This work was done in Mexico and Brazil. On the sub-scales modern man is described as an activist, attempting to shape his world rather than fatalistically responding to it. He believes that an independent career is not only desirable, but possible, and he prefers urban life to rural life. The total scale was related to ideal family size measures. Results were not striking, but were consistently in the predicted direction within various type occupational groups in both countries.

Seeman (1959, 1971) has analyzed some of the more negative attitudes which may be found in a modern society. Groat and Neal (1967) used instruments based on Seeman's concepts with a sample of white, Midwestern women. With social class and age at least partially controlled, subjects who saw national and international events as confused and chaotic (Meaninglessness) and who felt a lack of genuine normative standards (Normlessness) had more children. This result was true for both Protestants and Catholics.

The descriptions of industrialized, modern man emphasize that he is an activist rather than a fatalist. This particular characteristic has been related to fertility variables in a number of research efforts. Both Rainwater (1965) and the researchers in Puerto Rico (Hill, et al., 1959) concluded that in the lower social classes, fatalistic attitudes, involving being victims of life forces and God's will, stifle interest in attempting to limit family size.

The most extensive study of this variable to date is that of Williamson (1970) who terms his measure of the activist attitude, Subjective Efficacy. Factory workers in five developing nations were used in the sample. Ideal family size, Subjective Efficacy, and 11 sociological variables were correlated with indices of favorability towards birth control. The results varied between the different countries and the size of the correlations was generally moderate. Ideal family size and Subjective Efficacy showed correlations that were equal to, and in some cases greater than, those for any social predictor, however.

Further confirmation that this attitude relates to family planning decisions comes from studies using another instrument. Rotter's (1966) Internal-External Control Scale was designed to measure the extent to which an individual sees himself as being able to alter and control events to suit his needs versus the extent to which he sees himself as a victim of fate and chance. The present authors administered a brief version of Rotter's Scale to 1,500 Costa Rican women. After refinement of the Scale through factor-analytic techniques, it was found that women who had attended family-planning clinics were less fatalistic than those who had not (Manuscript in Preparation).

MacDonald (1970) studied a sample of college girls who reported having coital relationships. Subjects who more frequently used contraceptives were found to be less fatalistic on the I-E Scale.

In the research of Groat and Neal (1967) a somewhat similar measure, called Powerlessness, did not yield clear results. This measure was restricted to the individual's view of his own and other people's influence on major political and economic events, however, and did not include being able to alter more personal and directly relevant events.

C. Taxonomy and Theory Building

Bogue (1967b) has catalogued some motives which may be operative in determining family size (Table I).

[Table I about here]

Attempts to identify motives and attitudes empirically, rather than by speculation, or to develop theories anchored in data have been rare, however.

Blake, et al., (1969) factor analyzed questionnaire data from Blacks and Whites in public housing projects. The objective was to understand beliefs and attitudes regarding contraception and to provide guidelines for educational programs. The complexity of attitudes in this area is demonstrated by the fact that 12 different attitudinal dimensions were isolated, and all but three discriminated between contraceptive users and non-users. These dimensions, or factors, are listed in Table II. It can be seen that there is overlap between Bogue's suggestions and these findings. The most important factors were concerned with the husband's reaction to family planning. The other factors ranged from materialistic, defined as the relation of birth control to attainment of a high standard of living, to dynamic, defined as interference of birth control with proof of masculinity and femininity.

[Table II about here]

Insco, et al., (1970) also analyzed the same set of attitudes and beliefs about birth control and found that contraceptive users were more consistent in their attitudes about this topic. Their rather sophisticated statistical procedure for defining consistency may offer an empirical approach to the definition of ambivalence. This concept, which involves a simultaneous considering of a host of competing motives and attitudes, is a more realistic approach to behavior involving sex and reproduction than simple strong-versus-weak drive views (Bogue, 1967a).

Kothandapani (1971) tested the validity of dividing attitudinal items into three components: feelings are the emotions toward an object; beliefs are the evaluative concepts toward it; and intentions represent commitments to action in regard to it. Statistical analyses demonstrated the validity of this

division. All three types of measures discriminated between contraceptive users and non-users, with intention to act clearly being superior in this regard.

The utility of emphasizing adequate and accessible contraceptive supplies, of publicizing this accessibility, and of furnishing contraceptive information is not discounted. It is concluded, however, that these activities may need to be supplemented by direct work with specified motives, attitudes, and other psychological factors.

Research findings reveal the bare beginnings of a base of theory and fact regarding the psychological variables which intervene between social forces and fertility decisions. Given the same amount of research investment which has been put into demographic and KAP studies, it is hoped that this area could be adequately mapped, and information furnished from which to design methods of influencing fertility motives and contraceptive decisions.

IV. CONCLUDING REMARKS

The long-term answer to population problems lies in aiding nations and cultural groups toward the thresholds of socio-economic development (Kirk, 1971) at which fertility rates make major shifts. The major social institutions which influence population trends are those which change as a nation moves toward industrialization. There are sound reasons to believe that where decreases in birth rates have occurred, they have been linked to such changes.

Research and action programs in family planning should not be abandoned. They should be continued and increased on the basis that whatever gains they achieve will contribute to the modernization which may be the final answer. Family limitation, as one of the major ways by which a group may enable itself to make economic advances, has been compellingly documented (Campbell, 1968). Such action should be accompanied by extensive evaluative research which will furnish guidelines for setting up maximally effective programs.

There is also need for increased emphasis on research concerning the motives and attitudes which are the causal links between changes in social institutions and changes in fertility goals. The specification of the psychological factors which change with modernization might reveal motives which could be altered directly, rather than by forces of social change. If family-size desires have to be altered even further than will be affected by modernization for an adequate population balance to be achieved, a full understanding of the social-psychological forces which determine such desires is mandatory.

Table I - Fertility Motives (From Bogue, 1967b)*

High Fertility Motives

HEALTH

Children often die. It is necessary to have large families in order to make sure you get living children who grow to adulthood.

ECONOMIC

Children are an economic advantage. They are needed or are useful in helping the family earn a living. They pay for themselves by working as they grow. Social security in old age. If you have many children, one will be able to take care of you in old age.

FAMILY WELFARE

Can help with work around the house. Older children help the younger.

Big families are happy families. Family life is more enjoyable; they have a good time together.

Children from big families have better personalities. They are better adjusted, better able to get along with other people, not so spoiled or egotistical.

Continue the family name. It is necessary to have many children to be sure to have a son to carry on the family name.

Strength of the clan. The family is stronger; sons can help you fight your battles; family can be upheld.

MARRIAGE ADJUSTMENT

Large families promote good marriage adjustment. Couples get along with each other better, marriage is better.

PERSONALITY NEEDS

Ego support. A demonstration of virility, manliness.

COMMUNITY AND NATIONAL WELFARE

Large families are good for the community or nation. They promote population growth, make strong.

MORAL AND CULTURAL

Large families are God's will. It is against religious belief to limit fertility.

Table I - continued

Large families promote morality. Help prevent divorce or infidelity.

Tradition. The community, village, family, and clan expects large families.

You have high status in the community. If you have a big family, you are more important, are looked up to.

DISLIKE FOR CONTRACEPTION

Dislikes use of contraception for aesthetic or health reasons or because it interferes with sex.

Low Fertility Motives

HEALTH

Preserve health of mother.

Assure healthy children.

Lessen work and overwork on part of the father and mother due to less work than having to support a large family.

ECONOMIC CONDITION

Everyday, general expenses are less.

Avoid worsening present (poor) economic condition.

Gain a higher standard of living, more comfort, afford better house.

Permit saving for future, for retirement.

Desire to avoid subdividing property or savings among many children.

Family able to have money for recreation, vacation.

FAMILY WELFARE

Improve children's lot in life, give them good education, help get started in a career.

Happier family life, more companionship, less tension.

Opportunity to do a better job of rearing children; able to devote more time to each, better able to socialize with child.

Avoid overcrowding of house; more opportunity for individual expression.

Easier to find a more desirable house or apartment.

Table I - continued

MARRIAGE ADJUSTMENT

Provides husbands and wives more leisure opportunity to enjoy each other's companionship.

Improves the sexual adjustment by eliminating or reducing fear of unwanted pregnancy.

PERSONALITY NEEDS

Facilitates realization of ambititions. Permits either husband or wife or both to pursue occupational or vocational objectives.

Facilitates self development. Permits an intelligent or talented wife to express herself outside the home, yet have a normal family and married life.

Facilitates realization of social needs. Permits the person (especially wife) to have contacts and friendships outside the home and participate in neighborhood activities.

Reduces worry of the future. Avoids danger of childbearing when one is really too old - danger of dying and leaving behind orphan children.

COMMUNITY AND NATIONAL WELFARE

Helps avoid overpopulation. Overcrowding.

Helps community meet demands for education, other community services.

Helps nations with economic development, avoids eating technical progress with more mouths to feed.

Helps keep down delinquency, social problems of youth.

Helps reduce welfare burden of the community.

*Courtesy of D.J. Bogue, and the University of Chicago Community and Family Study Center.

Table II: Factors in Beliefs and Attitudes About Contraception (adapted from Blake, *et al.*, 1969)*

No.	Label of Factor	White Non-Users	White Users	Non-White Non-Users	Non-White Users
1	Probability husband's reaction could discourage family planning[a]	-.659	.681	-.244	.519
2	Husband's evaluation of family planning[b]	-.028	.464	-.261	.236
3	Probability that birth control is effective[a]	-.108	-.052	-.207	.353
4	Evaluation of large families[b]	.299	.274	.120	-.394
5	Probability of birth control interfering with a large, secure, happy, mother-centered family[a]	.267	.211	.135	-.386
6	Probability of birth control interfering with maternalism[a]	-.199	-.092	.242	-.236
7	Probability of birth control facilitating the attainment of middle-class values and a high standard of living[a]	.280	.248	-.288	.191
8	Probability of birth control interfering with proof of masculinity or femininity[a]	.152	.045	.100	-.233
9	Evaluation of a healthy family and worry and overwork[b]	.055	-.444	.130	-.092
10	Evaluation of non-procreative sex[b]	.595	.805	-.259	-.172
11	Evaluation of employment for the wife and social activity outside the home[b]	-.607	-.714	.307	.118
12	Evaluation of a well-adjusted family and a happy marriage[b]	.404	.607	-.113	-.257

[a] The higher the mean value, the higher the stated probability that the belief is true.

[b] The higher the mean value, the more favorable is the evaluation of the attitude objects.

* Courtesy of the Carolina Population Center, Chapel Hill, North Carolina

Preliminary Draft

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MOTIVATIONAL DETERMINANTS OF FAMILY PLANNING CLINIC ATTENDANCE

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MOTIVATIONAL DETERMINANTS OF FAMILY PLANNING CLINIC ATTENDANCE

INTRODUCTION

In view of the fact that population dynamics have become an area of major concern, it is surprising that research utilizing psychological concepts and methods in the area of family planning has not been abundant. This paucity of such research may be due in part to the lack of positive findings in early studies[2, 18, 19, 20] which attempted to relate psychological variables to fertility measures. Perhaps due to increasing sophistication in design and methodology, however, some positive results have recently begun to appear. These are described below.

Objective Measures

A factor analysis was made by Blake, et al.,[1] of questionnaire data obtained from Blacks and Whites in public housing projects. The objective was to understand beliefs and attitudes related to contraceptive usage. Twelve different attitudinal dimensions were isolated; all but three of which discriminated between contraceptive users and non-users. The same set of attitudes and beliefs about birth control was analyzed by Insko, et al.,[6] in research which confirmed their hypothesis that contraceptive users are more consistent in their attitudes about birth control than non-users.

A number of studies have investigated relationships between fertility variables and the attitudes which accompany the modernization of a nation. Kahl[7] used factor analysis to develop a modernity scale consisting of several subscales which show "modern" man to be actively rather than passively or

fatalistically oriented, to see his work career as important and independent of the influences of family or friends, to prefer urban to rural life, and to follow mass media. When the modernity scale was related to measures of ideal family-size in Mexico and Brazil, the results were not striking, but were consistently in the predicted direction in both countries, more modern scores being associated with smaller ideal family-sizes.

Seeman[16] has described some of the negative attitudes which may be found in a modern society. Groat and Neal[3], using instruments based on Seeman's concepts, found in a sample of white, Midwestern women that the birth rate was higher among those who saw national and international events as being confused and chaotic (meaninglessness) and who felt a lack of genuine normative standards (normlessness).

The most extensive study of modernization to date is that of Williamson[21], who terms his measure of the activist attitude, subjective efficacy. Ideal family-size, subjective efficacy, and 11 sociological variables were correlated with indices of favorability toward birth control among samples of factory workers in five developing nations. Results varied in the different countries; however, in general, subjective efficacy showed correlations equal to or greater than, the sociological predictors. Subjects with higher subjective efficacy scores were more favorable toward birth control. Rotter[15] also designed a scale for measuring the activist attitude. His locus of control scale measures whether an individual feels he is able to alter or control forces and events in the environment, or whether he sees himself as a victim of fate and chance.

The present authors conducted research among a sample of 1500 Costa Rican women, and found an abbreviated version of Rotter's scale to be one of the

best among a large number of possible predictors of attendance at family-planning clinics. The women who attended the clinics were found to have less fatalistic attitudes (manuscript in preparation). MacDonald[9] recently studied a sample of North American college girls who reported having coital relationships. Subjects who more frequently used contraceptives were found to be less fatalistic on the locus of control scale.

Projective Measures

The studies cited above used objective measures of activism-fatalism or of other attitudes related to the modernization of nations. McClelland[10] has reported interesting correlations between birth rates and a projective measure of the need for affiliation. Stories in children's reading books from a number of countries were scored in terms of expressed needs for achievement and for affiliation. Books from 1925 and 1950 were selected. In all countries, the need for affiliation was correlated with birthrates in a negative direction during the early period and in a positive direction in the later period. The explanation offered was that, in the earlier period, people who cared more for their children took better care of them; thus, lost fewer through death, and did not need to have more children to replace the losses. In the later period, developments in health care made infant mortality a less significant factor. At this point, people with higher affiliation needs simply chose to have more children. Apparently no effort was made to relate birthrates to McClelland's[10] much-researched concept of the need for achievement.

Functional Structure of the Family

There is also some evidence that the functional structure of the family unit may influence family-planning behavior. Hill, et al.,[5] typed Puerto Rican

family patterns according to the degree of male dominance and restriction of the wife's role. Rank-order correlations between eight family-types and each group's average scores on fertility variables were generally above .70. Indices of prediction, using individual families as the unit of measure, however, were much lower. "Restrictive" families were characterized as making less use of birth-control methods, being more irregular if contraceptives were used, and having higher failure rates in fertility control. The restrictive families also indicated that they have less husband and wife communication about birth control. The Puerto Rican data[4] was used to obtain measures of consensus, communication and empathy. These variables were found to be related to the use of contraceptives, to experimentation with different techniques, and to decisions about sterilization.

Rainwater[13] also made a study of the conjugal role relationships in a sample of North Americans. The typology of "joint" versus "segregated" relationships was related to choice of contraceptives, effectiveness of contraceptive practices, and to family-size preferences.

MOTIVATIONAL DETERMINANTS USING OBJECTIVE AND PROJECTIVE MEASURES

The study reported here made use of both projective and objective psychological measures in an attempt to ascertain motives related to utilization of a family-planning clinic by women in a sample of black, poverty-level subjects. This study was designed as an exploratory, or "pilot," effort to aid in selecting and perfecting instruments and in deriving hypotheses for further research.

The Sample

On the basis of 216 interviews completed in the subjects' homes, 166* women were selected for this study. The following criteria were applied:

* Of the original 216, 15 were excluded because of contradictions as to clinic status and 35 were dropped because of having incomes above poverty level.

being a black female between the ages of 15 and 39 inclusively, having at least one living child, and being at a poverty level, using a modification of Orshansky's[11] Index. A minimum annual income of $1,900 was assumed necessary for a single individual, $2,700 for a couple, and $3,200 for a three-person household, and approximately $600 to $700 for each additional member of the household.

On the basis of clinic records or reports of community-action workers, the women were classified into three groups: (1) Actives - those who had been active at the County Family-Planning Clinic for at least six months; (2) Drop-outs - those who had dropped out of the Clinic; (3) Never-Beens - those who had never attended the Clinic despite an awareness of its existence. Of the 166 women in the pilot study, 51 were classified as Actives, 73 as Drop-outs, and 42 as Never-Beens.

The Instruments

The Need Evaluation Test

The Need Evaluation Test (NET), constructed by the senior author, consists of nine pictures about which the subjects tell stories. The content of the pictures is divided into three situations or types of human relationships: adults with children, male and female, and a person confronting an authority figure. The costumes, situations, and details of the pictures were designed so that respondents from lower social classes could easily identify with them and thus a variety of story responses to any picture would be possible.

The content of the stories is scored for the presence of four needs or drives and four areas of perceived difficulties or obstacles.

Needs

Achievement	-	To succeed, achieve, do things well.
Affiliation	-	To have close, warm interpersonal relationships.
Control	-	To control events and other people so as to achieve needs or life goals.
Sex	-	To want sexual relationships in a pleasant, harmonious context.

Percieved Difficulties

Control	-	People, events, or forces are seen as interfering with needs or life plans.
Authority	-	People in authority are resented as potentially imposing on or mistreating the subject.
Sex	-	Sexual situations are seen as negative in terms of satisfaction and fulfilling relationships.
Conflict	-	Situations are seen as involving interpersonal friction, ambivalences, unpleasant mood states, or other indications of unhappiness.

The difficulty of obtaining reliable scores on projective tests is well known. With this in mind, the test and the scoring procedures were planned in accordance with principles which were felt to be important in achieving reliable and valid scores.

Many projective tests furnish enough content detail to offer a variety of stimuli which interact with the subject's associative processes, thereby distracting him and offering multiple elements for him to interpret. The result is a complex story in which it is difficult to separate simple interpretations of details from more meaningful statements. Such complex results also lend themselves to more intuitive judgments by the scorer, at the cost of less agreement between scorers.

To avoid such difficulties with the NET, the following steps were taken:

(a) The test pictures were drawn as simple line sketches. Details (face, hair, etc.) were not filled in, and clothing was portrayed as simply as possible (shirt and pants, or dress). This simplicity also tended to facilitate identification by lower-class subjects of either race with persons in the pictures. Other situational content was left out except for a few pieces of furniture.

(b) Scoring was done by laymen rather than by psychologists.

(c) It was emphasized to the scorers that they must judge manifest content, refraining from interpretation wherever possible.

(d) The scoring system was restricted to judgments that a theme was present (score 1) or absent (score 0) in a given story. This system is in accordance with McClelland's[10] finding that this method was as effective in scoring achievement needs as more intricate systems.

(e) All three scorers scored each subject's stories. If each scorer is considered to be a "test," then using three judges triples the length of the test and should increase the reliability of the scores.

The Semantic Differential Scale

The second instrument used was the Semantic Differential Scale, developed by Osgood, Suci, and Tannenbaum[12], who conducted extensive cross-cultural research in an effort to describe and measure attitudes (including emotional and affective reactions) toward people, events, and objects. They have reported evidence, based on factor analysis, that attitudes or affective judgments can be described basically as varying along three dimensions: evaluation (good versus bad), potency (big, strong, versus little, weak), and activity (active, vigorous versus inactive, passive).

The Semantic Differential Scale, designed to measure these three dimensions of affective judgments, includes a great many adjectives that

are classified as to which dimension they measure. These adjectives can be arranged as polar opposites for a given dimension (e.g., "just" and "unjust" are at opposite ends of the evaluation dimension). The basic technique for measuring a subject's reaction to, or evaluation of, a concept is to present a set of such polar adjectives, some sampling each dimension, and ask the subject to indicate which adjectives best describe the concept. This is often done by placing the adjective pairs at each end of a line marked off with scale points. The subject can then indicate how close to either end he places the concept.

In this first study, we used a modified, three-step scale in order to make the task as simple as possible. Four adjective pairs were given for each of the three dimensions (evaluation, potency, and activity). The three-step scale was scored from 0 to 2. (e.g., on the "good-bad" pair, a rating of "good" would be scored as 2, an intermediate rating as 1, and a "bad" rating as 0.) Scores on the adjective pairs were added to give a subject's total on that dimension, the range of possible scores being from zero to eight.

The concepts rated by our subjects were: (a) having babies, (b) doctor, (c) the husband or current sexual partner,* (d) self, (e) men, (f) women, (g) policeman, and (h) alderman. It was felt that attitudes toward "having babies" and "doctor" relate directly to attitudes toward family planning; and that attitudes toward "self," "partner," "men," and "women" might relate dynamically to a woman's feelings about childbearing. "Policeman" and "alderman" were included to determine whether attitudes toward governmental and authority figures might be related to attendance at a county-sponsored clinic.

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* Women living alone were asked to rate their most recent partner.

Scoring Reliability

Indices of scoring reliability with the NET are shown in Table 1. The indices are based on the first 45 subjects scored (15 from each clinic-status group). The intraclass correlation coefficients shown can be interpreted as representing the average of a set of correlations in which each scorer's ratings are correlated with each of the other two scorers across the 45 subjects. This measure theoretically represents the reliability of a set of scores given by one judge. Also presented is the reliability of the scores when based on the combined scores of the three judges[8]. It can be seen that the reliability of the scoring dimensions, based on three judges was adequate. Agreement was lowest, but still reasonable for research purposes, on the need-to-control scores. The resentment of authority and the two sex variables had rather low frequencies of being scored as present. Underlying normality was assumed so as to compute the reliability data, but the more conservative approach of using chi-squares was used in analyses relating to the experimental questions in the study.

[Table 1 about here]

Control Variables

On the basis of the distributions of the selected demographic characteristics shown in Table 2, the three clinic-status groups were fairly well matched, except that the Never-Been group averaged fewer children than the other two groups. The possible influence of parity on the psychological findings was assessed by statistical analysis, which showed no significant correlation between parity and any of the picture-story variables. An hypothesized correlation between parity and "difficulties in control" was suggestive but not significant, (R was .12, whereas .15 was needed for significance). Some of the semantic differential ratings were not normally

distributed; but when the relations of parity to these ratings were examined by 24 chi-squares (evaluation, potency, and activity for each of the eight items rated), only one chi-square was significant. This is quite probably a chance result.

[Table 2 about here]

Results

The NET

Two-way analyses of variance, involving "clinic status" and "marital status," were performed with five of the NET variables (top part of Table 3). The "resentment of authority" variable and the two sex variables (bottom part of Table 3) were analyzed by chi-square techniques and are shown in the bottom of the table.

When the category of clinic status was examined, the following results were obtained:

(1) Actives and Never-Beens were equal on the need for achievement and the need to control events and persons. Drop-outs scored significantly lower than the Actives and Never-Beens on these two needs.

(2) Actives scored higher on "control difficulties" with people and events; Drop-outs were intermediate, and Never-Beens scored lowest on this variable.

(3) Clinic status did not relate to the other NET variables.

When the category of marital status was examined, it was found to be related to only one variable. Women with no male partner perceived more difficulties in controlling their lives than women married or living with a partner. The means, not shown in Table 3, were as follows: Married, 3.7; Partner, 3.4; No Partner, 5.0.

[Table 3 about here]

Semantic Differential

The ratings on the Semantic Differential dimension of evaluation were decidedly skewed; the subjects tended to give positive ratings to all things rated. This was probably a function of three factors: (a) The subjects did feel positive about all the things rated. (b) The subjects may have been oriented toward pleasing the interviewer. (c) Our use of only a three point scale (in an effort to make the task simple for subjects with low literacy levels) may have constricted differential evaluations. The statistical analyses were done by dividing the ratings into two categories. "More" favorable judgments included only the most favorable rating of 8; "less" favorable judgments included all other ratings. Chi-squares were then performed to determine if the proportions of "more" favorable and "less" favorable ratings differed among the clinic-status groups. The results are shown in Table 4.

The clinic-status groups differed in their evaluations of four of the eight concepts: husband, men, alderman, and having babies. The direction of differences was the same in every case; the Never-Beens gave higher proportions of favorable ratings, while the Drop-outs and Actives were roughly equal.

The groups did not differ on ratings of doctor, policeman, self, and women. Since all groups tended to rate doctor and self very highly, it might be argued that a "ceiling effect" was present, not allowing room for significant variation. Policeman and women received the lowest percentages of favorable evaluations in all clinic-status groups, however. The tendency of the Never-Beens to rate objects more favorably does not appear to be a set to give more positive evaluations of all items. The items they rated more favorably than the other two clinic-status groups seem to center on males (e.g., husband or partner, men, and alderman), with the exception,

however, that a lower percentage of them give a more favorable evaluation to policeman.

The intergroup differences in the ratings for husband or partner were greater (and the chi-squares proportionally higher) than the differences in the ratings for men and alderman. The higher evaluation of husband or partner by Never-Beens presumably is consistent with their higher rating of having babies, an activity necessitating a male. It is also possible that Never-Been women have a more optimistic view of men as a result of having a better relationship with their partner, which will be discussed later.

[Table 4 about here]

The potency and activity ratings were separated into "more" and "less" categories by dividing at the medians of the distributions. Chi-squares were used to assess differences among the clinic-status groups. (Table 5) Although the activity ratings were uniformly non-productive of differences, several interesting trends were noted in the potency ratings. When tested with an overall chi-square, none of these trends was significant. However, all differences mentioned here are significant when a chi-square is used comparing one activity group with the pooled remainder of the sample, or when order is specified in the statistical test -- that is, when the chi-square is a linear one stating that the value for group a, for example, should be greater than that for group b, which should be greater than that for group c. These results, while they are not conclusive, do merit interest.

[Table 5 about here]

Table 5 shows that there is a linear relationship in regard to judgments concerning the potency of doctors. More potent ratings were given most often by Actives; least often, by Never-Beens. Potency ratings on having

babies reverses this order (Never-Beens see having babies as potent most often; the Actives, the least). Drop-outs differed from both other groups in seeing partners and policeman as "less" potent. Never-Beens gave the highest ratings for partner while Actives give intermediate ratings.

DISCUSSION

The studies described in the introduction found orientations toward activism and away from fatalism to be related to smaller ideal family-sizes, to favorable attitudes toward birth control, and to the more frequent use of contraception. The results reported here are more complex, and some of them appear to conflict with the previous studies. For example, subjects who have not attended clinics have need-control scores which are equal to those of subjects who are attending; the Never-Beens also have control-difficulty scores which are lower than those of active subjects.

Three major differences between the present research and other studies, are: (1) the use of projective measures, (2) the fact that birth control was measured by the behavioral criterion of clinic attendance rather than verbal or questionnaire methods; and (3) the restriction of the sample to poverty-level Blacks, probably resulting in a sample of lower socio-economic status than any of the other studies.

With these differences, any attempt to explain the conflicting results would be overly speculative. One possible exception is McClelland's[10] findings of relationships between birthrates and need affiliation scores across a number of countries, as contrasted with our study's lack of significant results in relation to this need. The McClelland technique was to correlate averages for whole countries. That such "ecological" correlations may totally misrepresent the relationships found at the level of individual prediction has been recognized by sociologists since Robinson's[14]

paper on "ecological fallacy" was published. McClelland's findings thus may or may not hold true in regard to relationships between individual subjects' needs for affiliation and their birth-control behaviors. In our sample, no such relationship was found.

The following interpretive conclusions can be drawn from the present study of urban, Southern, poverty-level Black females.

Both the clinic Actives and the Never-Beens are higher than the Drop-outs in the need for achievement and in the broader, need to control one's life progress. The Actives, however, perceive themselves as having difficulty in ordering and controlling their lives. The fact that the Actives tend to see their male partners as of intermediate potency and as "less good," suggests that this relationship is one key area of such difficulties. Family planning may then offer one avenue by which these subjects can successfully act to control and order events in their lives. In some cases, the wish to avoid having more children in a partnership of questionable stability may be a more specific motive.

The Never-Beens score equally high on the need for achievement and the need for control, but seemingly are more secure and untroubled than the Actives. They feel less difficulty in controlling events, and rate their partners as both "potent" and "good." Feeling more secure and optimistic about the future, they are more willing to expand their families. An indication that childbearing may be an avenue for acting out their needs to do something worthwhile (achievement) is contained in their tendencies to rate having babies as a "good" and "potent" activity.

Although scoring lower on the need to control and the need to achieve, the Drop-outs do not rank themselves as "less good" or "less potent," which suggests that they are relatively unconscious of, and/or untroubled

by, their lack of "positive" drives. Like the Actives, the Drop-outs evaluate their husbands more unfavorably. They also give their husbands a lower rating on potency than do the other two clinic-status groups; yet their perceived difficulties in control are not as high as those of the Actives. This fact suggests that their lack of need to strive against events renders them less troubled by deficiencies in their partner. We would speculate that they attend the clinic because of some combination of factors: number of children, discontent with partner, and/or contacts with an extensive action program in the city. Once having attended, however, their motivational structure is not such as to impel them to continue to attend.

No attempt will be made here to offer practical suggestions for family-planning workers. The primary purpose of this pilot effort is to derive interpretive hypotheses which can be more specifically tested in future studies. The results suggest that there is potential value in investigating further (1) the links between the spouse or partner relationship and family planning; (2) means-ends relationships involving needs to achieve and control (the end) and family-planning decisions (the means); and (3) the needs of Drop-outs which could serve as motivation toward controlling family size.

Table 1: Scoring Reliability (R) of NET

	Intraclass R for Judges[a]	Intraclass R for Summed Judges[b]
Needs:		
Achievement	.62	.83
Affiliation	.75	.90
Control	.25	.50
Sex	.73	.89
Difficulties with:		
Control	.52	.76
Authority	.37	.63
Sex	.45	.71
Conflict	.69	.87

[a] Average correlation between judges.

[b] Reliability (R) based on suming scores for three judges.

Table 2: Distribution of the Sample on Selected Characteristics, by Clinic Status

Selected Characteristics	Clinic Status						F^a	p
	Active (N=51)		Drop-out (N=73)		Never-Been (N=42)			
	Mean	S.D.	Mean	S.D.	Mean	S.D.		
Age	27.8	4.77	28.1	4.57	27.6	4.78	1.0	ns
Years of education	9.9	2.22	10.1	1.61	9.3	2.17	2.0	ns
Number of children	4.3	2.15	4.0	2.03	3.0	2.13	4.9	<.01
Relationship with male	N	%	N	%	N	%		
Married	13	25	14	19	12	29		
Male partner	28	55	41	56	20	29		
No male	10	20	18	25	10	24		
Totals	51	100	73	100	42	101		
			Chi-Square = 1.9					ns

[a]Based on one-way analyses of variance. F has 2 and 163 df.

Table 3: Differences Between Clinic-Status Groups on the Need Evaluation Test (NET)

NET Variable	Mean Score by Clinic Status			F[a]	p
	Active (N=51)	Drop-out (N=73)	Never-Been (N=42)		
Need Achievement	3.6	2.4	3.6	3.2	< .05
Need Affiliation	8.5	7.6	7.7	1.0	ns
Need Control	13.2	10.4	13.4	4.1	< .001
Control Difficulties	5.0	3.9	3.1	4.1	< .05
Conflict	6.0	6.4	6.1	1.0	ns
	Percentages[b] of Each Group Receiving Score Greater than Zero			Chi-square[c]	
	%	%	%		
Resentment of Authority	33	36	19	3.7	ns
Need Sex	31	41	45	2.1	ns
Sex Difficulties	10	09	07	2.0	ns

[a] Taken from two-way analyses of variance. F has 2 and 157 df.

[b] A percentage of 100 is possible for each entry.

[c] Based on contingency table with 2 df.

Table 4: Percentages[a] of Clinic-Status Groups Giving "More Favorable" Evaluations to Concepts Rated

Concept Rated	Clinic Status			Chi-Square[b]	p
	Active (N=51)	Drop-out (N=73)	Never-Been (N=42)		
	%	%	%		
Having babies	43	49	76	11.4	< .01
Doctor	86	89	93	1.0	ns
Husband or Partner	59	62	88	11.0	< .01
Self	86	84	88	< 1.0	ns
Men	37	38	60	6.0	< .05
Women	69	74	71	< 1.0	ns
Policeman	61	59	55	< 1.0	ns
Alderman	72	67	88	6.2	< .05

[a]A percentage of 100 is possible for each entry.

[b]Based on contingency table with 2 df.

Table 5: Percentages[a] of Clinic-Status Groups Giving "More Potent" or "More Active" Ratings to Concepts Rated

Concept Rated	Clinic Status			Chi-square[b,c]
	Active (N=51)	Drop-out (N=73)	Never-Been (N=42)	
	%	%	%	
		POTENCY		
Having babies	37	46	60	4.6
Doctor	61	49	38	4.8
Husband or Partner	53	42	64	5.2
Self	45	41	38	1.0
Men	43	44	40	1.0
Women	53	51	48	1.0
Policeman	57	40	60	5.6
Alderman	67	62	71	1.2
		ACTIVITY		
Having babies	69	62	71	1.3
Doctor	51	49	36	2.0
Husband or Partner	47	52	48	1.0
Self	57	60	55	1.0
Men	55	45	43	1.6
Women	61	52	48	1.7
Policeman	27	27	38	1.7
Alderman	57	51	38	3.3

[a] A percentage of 100 is possible for each entry.

[b] Based on contingency table with 2 df.

[c] No differences significant at less than $p = .05$.

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