# Studies in Family Planning

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THIS IS a special issue of the bulletin: we herewith bring together in capsule form a number of innovating procedures now being utilized in the implementation of family planning programs throughout the world. We have asked: what are some of the new ideas being tried out for which results are now available? what are some of the promising leads and measures that should be widely known?

With this general direction in mind, we have assembled the following items from a variety of sources and on a variety of problems. We present them here as worthy of consideration

by others in this field.

If this experimental effort seems useful, we shall devote other issues of this bulletin to similar presentations. We are sure that there are other such "bright ideas" in process and we shall be glad to hear about them. In this way the bulletin can serve further as a clearinghouse of information on such matters.

We are grateful to the people, noted below, who have conducted these studies and made this material available for publication.

# **TAIWAN:** Experimental Series

BEGINNING in 1964 a number of small experimental studies were conducted in order to test out various ideas for improving the efficiency of a family planning program. For the most part, the studies were carried out by Dr. L. P. Chow, Associate Director of the Taiwan Population Studies Center, and Mr. Robert Gillespie, staff member of The Population Council. Technical and administrative assistance was provided by Mr. H. C. Chen, Research Associate at the Population Studies Center; and additional advice and assistance was received from Dr. T. C. Hsu, Provincial Commissioner of Health; Dr. S. C. Hsu, Chief of Rural Health of the Joint Commission on Rural Reconstruction; Dr. Ronald Freedman of the University of Michigan: and Dr. Bernard Berelson of The Population Council.

The following guidelines were used in developing the studies reported below: (1) The minimum population in the area under study had to be 45,000—that is, large enough to provide generalizable results. (2) The cost of the study had to be absorbed within the allocated budget for

the national program. (3) If successful, the study had to be directly applicable to the national program. (4) The action phase of the studies had to be completed by the field staff within three months and at least 90% of the married women of the reproductive ages within the areas had to be approached by that time. (5) Normal channels of service and supply were to be used for the distribution of family planning materials.

The following studies are among those carried out within these guidelines. In 1965 the findings were applied in Taiwan townships covering about three million people, or one-fourth the total population. The following reports are only brief summaries of what was done; fuller information is available from Dr. Chow at the Taiwan Population Studies Center in Taichung.

#### Free Offer for a Limited Time

In Taiwan, about 25% of married women aged 20 to 44 accept a coupon for IUD insertion but only about 10% actually visit the doctor for that service, for

which they personally pay NT\$30 (U.S. 75c). Accordingly, a study was done to see whether a free offer for a limited time only would produce economic results.

The study was conducted in two rural townships with a combined population of about 50,000. The Lippes loop was provided at the two local health stations on two afternoons a week for a period of three months. In addition, the loop could also be obtained from eight private doctors located in a city about 25 kilometers away, and traditional contraceptives could be obtained from local midwives, hairdressers, barber shops, village chiefs, farmers' associations, drugstores, herbalists, private doctors, and the health stations in each of the two townships. Six field workers distributed flyers to 93% of the 8,080 households in the two townships within six weeks. The flyers contained information about contraceptives, how to use them, and where they could be obtained, and attached to the flyer was a coupon that stated: "You can receive one of these contraceptives absolutely free if you go now before this special offer expires."

Stamped on the coupon was the date of expiration, namely, one month from the date of the home visit.

During the first three months there were 1,140 acceptors of family planning services, or about 20% of the target population—a proportion of acceptors to women in the childbearing age that was the highest of all the 359 townships on the island at the close of the project. This response, it is believed, was due not only to the savings provided by the free offer, but also to the limited time in which they had to respond.

Just over 60% of the acceptors selected the loop and almost all of them chose to go to the health station in the township rather than travel to the nearby city. The follow-up study, conducted ten months later, showed that the continuation rate was about 90% even though the small 25 millimeter loop was used. It may be that this high retention rate is due to the fact

that the doctor inserting most of the loops was not around to remove them, and further studies are being conducted to see if the retention rate is higher for loops inserted by mobile doctors than by stationary ones.

Nearly 40% of the acceptors selected condoms or foam tablets and only about a third of them were continuously using the method 10 months later.

In this study the referral cost of field worker time was only US\$.80 per case compared to about US\$2.50 for the island-wide program. Thus the extra payment to the doctor (that is, the U.S. 75 cents normally paid by the patient) was overbalanced by the savings on referral costs.

As a result of this experience the free offer of the loop was expanded. About one million flyers containing information about the loop and where to get it were distributed in 1965 by about 3,500 volunteers in daily contact with people in their com-

munities—by women satisfied with the loop, by birth registration clerks, by door-to-door salesmen, at factories, through the mail, and by doctors and midwives. For example, in one area where the flyers were mailed to 20,000 women aged 20–44, one out of 30 recipients responded to a free offer as compared with one out of 60 who were notified they had to pay the usual US\$.75, half the cost of insertion.

Another application of the method was carried out in Taichung as part of the "second round" effort there. During 1964 acceptances had leveled off in Taichung at about 150 cases a month. The free offer there was intended to be for the poor but almost all the coupons issued by field workers stated that the bearer could receive an insertion free of charge. The free offer began the last week in March 1965, for only three months, but the response was so favorable that it was continued, as shown in Table 1.

### **TAIWAN: Trends in Acceptance**

Large-scale family planning programs have been in actual operation for only a short time and the question arises as to what will happen to the trend of acceptance. Will the program "work its way out of clients" once it has "used up" the existing motivation among the older, the higher-parity, and the better-educated women? Or will the program be able to "reach down" into the counterpart categories as time goes on?

These are important questions and it is still

too early to say with certainty just how this matter will work itself out. There are informed observers who believe that the "second round" effort will be harder than the first and others who believe that once the practice of family planning is undertaken by a substantial minority of married women, the subsequent effort will become easier.

The following data are by no means conclusive on this question but they are indicative as far as they go. They show the propor-

ow this tion of acceptances accounted for, month by month for 1964 and 1965, by women under at the 30 years of age, by women with three or fewer living children, and by women with no ce the formal education. In each case, then, the program administrator would want to increase the indicated proportion over time. What happened in this regard in the Taiwan program is shown in the charts.

Two points seem to emerge: (1) Once the program got under way, the variation in these percentages are not large, even on a month-to-month basis where chance would introduce some natural fluctuation. (2) As the program went on, slightly larger proportions of acceptances came from the presumably less ready categories—that is, the younger women, those with fewer children, and those with no education. In summary form, here are the figures on a half-yearly basis:

uith 42 and 40 and 40 with 8% 35	
35 % with 3- children 32 % 52 %	
06 35 00 00 00 00 00 00 00 00 00 00 00 00 00	

Per- centage under 30	with 3-	with no
27	30	35
32	32	38
32	33	40
36	34	43
	centage under 30 27 32 32	centage with 3- 30 children ce 27 30 32 32 32 33

Thus in conclusion, the trend seems to be rather steady but with a slight movement in a favorable direction—of the order of, say, three percentage points a year.

TABLE 1

	Total Cases	Percentage Free
January	140	0
February	141	0
March	195	10
April	377	62
May	529	86
June	481	77
July	282	84
August	197	68
September	180	72
October	239	86
November	243	77
December	305	84

In an even larger expansion of the free offer program, 30 townships were chosen where the field service had not previously come up to standards, as indicated in Table 2 below.

Finally another 33 townships were selected for a free offer program beginning in December 1965. The response rate for the average resident field workers went from 16 in November to 54 in December and 43 in January 1966, and for the mobile village health nurses from four in November to 24 in each of the following two months. Cases were referred not only by field workers but by village leaders, registration clerks, midwives, doctors, beauticians, the farmers' association, teachers' groups, health personnel, and satisfied loop-wearers. In addition, posters were used to explain the free offer.

It is now contemplated that in the future the free offer will be extended to women with a recent birth and women who have held a coupon for longer than three months.

#### **Referral Fee**

The study was developed in July 1964 to see if it would be less expensive to pay people in a community on a per case basis than to secure acceptances through field workers drawing a fixed salary. A township with about 45,000 population was chosen with nearly 7,000 households and 4,500 women aged 20 to 39. Since there was no obstetrician available, the local general practitioner was given a two-day training in loop insertion. At about the same time the director of the health station called a meeting of people who were in daily contact with the community and offered them US\$.25 for each case referred. In Taiwan people go from door to door selling medicines, cloth, soft drinks, ice cream, and cosmetics, and a few of such saleswomen were contacted and offered this commission for cases referred. The doctor himself could refer patients from his own caseload and satisfied loop wearers also participated in the program.

After sixteen months, 808 women had accepted an IUD, or about 18% of the target population. The cases were referred by traveling saleswomen (33%), the general practitioner (25%), previous loop cases (17%), trachoma project workers (9%), a village chief and clerk (6%), health station nurses (4%), a private midwife (1%), and others (5%). After six months, about 30 people were referring cases in the township. Although the results were about the same as could be expected from a good field worker, the cost of US\$.25 per case was much less than the US\$2.50 it normally costs for a referral by a full-time family planning field worker. (Subsequently, an additional 154 general practitioners were trained in loop insertion for service in areas where no obstetricians were resident. They were given three days of training at the local health bureaus. In order that each doctor could insert ten loops as part of his training, women were notified that they could have a free loop if they went to the hospital during the training session.)

The referral fee program was first extended to an additional three villages (where the acceptance rate after three months was 6% of the women aged 20 to 39) and beginning in November 1965 an additional 10 townships. Efforts are now under way to see whether an increase in payment will increase returns as well as to incorporate the local midwives into the referral system.

# Mail Order Distribution of Oral Pills

During the Taichung study only 2% of all respondents chose the oral pills. The

cost was US\$.75 a cycle, or about one-half the retail cost at that time. During 1964, pills for the 10,000 women continuously using them were sold on the local market in Taiwan, at about \$1.50 a cycle. A project was designed in March 1965 by Drs. Chow and C. H. Lee to find out if pills at a low cost could be distributed by mail

A two-column-inch advertisement was placed in a newspaper on April 22, 1965, saying that a limited supply of oral pills was available at US\$.50 a cycle. The newspapers had a circulation of 140,000, and the advertisement ran for one day. Payment could be made by money order or postage stamps. In three weeks there were 626 requests for the pills. Because of the limited stock, only 531 cases were registered and a note of apology was sent to those women whose requests could not be filled. A single order was limited to a three-month supply.

A self-administered questionnaire was used to determine demographic facts, reproductive history, and attitude, knowledge, and practice of family planning. The pill acceptors had a much higher education than the average women. Since 70% of the women wanted more children, most women used the pill for spacing purposes. About one-third of the women had experienced an induced abortion and 76% had previously used contraceptives. Nearly half the respondents had been purchasing the pills at drugstores previous to the offer. In contrast to the IUD acceptors, the women accepting pills were younger, were better educated, had fewer children, and were interested in spacing rather than stopping childbirth.

After seven months another self-administered questionnaire disclosed that 80% of the acceptors were using the supplies at the time they received the questionnaire. At least 90% of all acceptors had forgotten to take the pills one or more times

TABLE 2

		Townships with free offer		Other townships	
		Acceptors	Index	Acceptors	Index
	June	695	100	7930	100
	July	570	82	6382	81
Free offer months	August	668	96	5716	72
	September	1228	177	6207	78
	October	1754	252	6235	79
	November	1415	204	5739	72
	December	585	84	6550	83

## TAIWAN: Family Planning and Health Education of Army Recruits

A plan is just getting underway, in early 1966, to promote health education and family planning within the armed forces so that when the recruits return to civilian life they will be better prepared to use good health practices and to utilize family planning. The program, being carried out by the Surgeon General's headquarters of the Army Logistics Command and under the leadership of Dr. S. C. Hsu of the JCRR, is developing the necessary equipment and educational materials and training teaching personnel to implement the effort at the military training centers.

A prototypic package of informational and educational materials for use with the armed forces was prepared in 1964 by The Population Council. It includes slides, filmstrips, booklets, and similar materials to instruct young men in the what, how, and why of family planning. The prototype was adapted and translated for use in Taiwan at a cost of about \$600.

As Dr. Hsu describes it, the plan is to utilize the recruit training centers, each of which conducts training continuously with small groups of recruits sent in weekly. One medical officer from each center will be given training on how to conduct the family planning classes and will be provided with a complete set of equipment and educational materials. Within a year something over 100,000 recruits are expected to receive such training. About 15 sets of the materials were developed—one for each training center, one for the Surgeon General's headquarters, and one for JCRR. The total costs of the program are estimated at about \$5,700, covering the educational materials themselves, the training equipment including projector and slides, and the travel and per diem required for the training course.

Each recruit will receive about a four-hour training course on family planning conducted by a medical officer assigned for the purpose by each training center. Each of the instructors will have received a three-day course on population and family planning given by the Taiwan Population Studies Center. A medical officer assigned by the army training head-quarters will be responsible for supervision of the program.

This appears to be an excellent opportunity to instruct young men in family planning matters at a particularly appropriate time. They are available in large numbers at the recruit centers, and upon discharge from the army they will return to all segments of civilian life and soon assume positions of community leadership. They will become not only practitioners of family planning in their own marital careers but informed advocates of the practice.

during the seven months. Although 80% of the women liked receiving the pills by mail, 72% said they would go to the drugstores to purchase their supplies if they could receive them at the same cost.

A plan recommended by Mr. Parker Mauldin of The Population Council will be tried during 1966 to provide the pill on a limited scale for women who have discontinued the IUD. The pills will be offered in different areas at US\$.50, \$0.25, and free. The lowest purchase cost per cycle is about US\$.40 in large quantities. Part of this project will be implemented in Taichung city. In the future, when pills are distributed by mail, the recipients will be notified where they can go to obtain treatment for side effects.

#### Promoting the IUD by Group Meetings

In Taiwan about 16 to 24 households form an administrative unit called a lin, and 20 to 30 lins form a li. The field staff are instructed to make home visits and to bring the high parity married women in the lin together for group meetings. A study was conducted to discover what the difference in response would be from an area where all lins were given meetings and in another area where only half the lins had group meetings.

Two townships with a combined population of 61,324 were chosen for the project. There were 10,138 households, located in 424 lins and 37 lis, with nearly 8,000 married women aged 20-39. The

two townships form a rough pyramid with the small urban township on the top and the larger rural one on the bottom. This pyramid was divided down the middle. On one side, meetings were conducted in every other lin; and on the other side, in every lin.

The mobile village health nurses were chosen to execute the project. The lin leader was asked to gather the women together for the meeting. In addition, the worker visited all women in the lin with at least three children, including one son, to encourage them to attend the meeting. The lin leader opened the meeting by introducing the worker and providing a few words of support for family planning. The worker then explained to the women that contraception is a natural part of married life and that many women like themselves are practicing contraception. The worker used flip charts and slides to explain the "why" of family planning. Toward the end of the meeting, the worker tried to draw all the women into a discussion about the advantages of a small family and the use of contraceptives. All attendants at the meeting were given a coupon for the loop, in order to avoid embarrassing those women who wanted a loop but did not want their friends to know about it. A before-and-after survey of 10% of the women in the project area was conducted to determine changes in knowledge, attitude, and practice on family planning.

In three weeks six nurses completed the

project by conducting 320 group meetings. Each worker held an average of 53 meetings or about three meetings per working day. At the end of six months, a total of 381 women responded or 5% of the women 20 to 39. Only 18% more women responded from the area where all lins were treated, although that area required twice as much input of field worker time.

The project was expanded with the mobile village health nurses. The population was changed from the li (about 2,000) to the township (about 30,000). Each township had about 240 lins and each team of three workers conducted about 50 lin meetings during two weeks of each month. The workers conducted meetings in one out of five lins in a township. During the first two months, lin meetings increased from 303 to 885 to 1,034, and the attendance grew from 4,812 to 10,301 and 14,311. The loop cases doubled in some areas and tripled in others, but the supervision of this expansion was difficult and the workers lost enthusiasm for the new plan. As a result the acceptances declined after four months.

The family workers resident in the townships have been successful in conducting group meetings for women with a common interest. Meetings are held by the farmers' association, lin and li leaders, parent-teacher associations, women's clubs, members of unions and factory workers, religious groups, mothers' clubs, etc. A time and place is arranged by the worker and the head of the organization

for a lecture on family planning. In 1964 about 89% of the farmers' associations were contacted, 23% of the parent-teacher associations, 20% of missionary groups, and 50% of the women's associations. During 1965, the activity increased so that almost all groups were given instructions on family planning by the workers.

#### Other Efforts

Additional efforts at program improvement in the last two years have increased acceptances but the results have not been fully measured. For example: (1) only about 11% of the coupons are returned after the woman has held the coupon for longer than three months. For this reason, the worker now makes a follow-up visit during the third month. (2) At the suggestion of Mr. Harry Levin of The Population Council, the field staff is instructed to make a specific appointment for each

woman accepting a coupon, with the time and date she is to go to the doctor for a loop. The woman is told the doctor will be expecting her, and this practice apparently helps to commit the woman to her intentions. (3) When women go to the doctor's office for a loop, they are given flyers so that they can inform other women about the loop and where it can be obtained. In addition, there is a plan for the respondent to list several women whom she knows may be potentially interested in having an IUD, and the field staff makes follow-up visits to them. At present the women satisfied with the loop participate in three ways: they talk to women who want the loop but need reassurance that it is safe and reliable, they give favorable testimony at group meetings, and they hand out flyers. For more active participation, providing these women with a small payment for each case they refer has been helpful and will be expanded. (4) Most loop acceptors

have had a recent pregnancy. Flyers are being mailed to over 400,000 women who have just delivered a baby. The workers will be visiting the women who have just had their third, fourth, fifth, or sixth delivery. All doctors and trained and untrained midwives are requested to distribute flyers. In addition, the island's 1,700 midwives, who deliver 34% of the births, will be given special orientation and instruction on family planning. (5) A major emphasis is being placed on treating side effects, to protect the health of the acceptors and increase continuous use of the IUD. The doctors are given reorientation training which covers treating side effects, the latest developments in IUD research, and progress of the national family planning program. This information is also sent to all doctors in a newsletter and in reprints from the medical and health journals, and more doctors will be trained at the health stations.