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# A Study of the Effectiveness of Family Planning Clinics in the Philippines

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THE DIVERSE PROBLEMS associated with evaluating family planning problems have been ably summarized by Reynolds, who points out that considerable difficulty often stems from the fact that the program goals are all too frequently ill defined (1). He also notes that although a number of efforts have been made to determine whether or not birth rates have declined in given countries as a result of family planning programs, few attempts have been made to determine why some programs have been more effective than others. Similarly, relatively few studies have been undertaken to explain the variations in clinic effectiveness that exist between one clinic and another within the same program.

A number of studies of family planning programs suggest that the characteristics of clinic personnel are associated with effectiveness. Bernard has shown that in the Pathfinder Fund's International IUD Program, removals of intrauterine devices (IUDs) because of pain or bleeding are more frequent in clinics staffed by two or more physicians than in clinics staffed by a single physician (2). He suggested that this difference might be due to greater rapport between physicians and patients in those clinics staffed by only one physician.

Bernard also reported an IUD removal rate for pain or bleeding of 9.0 percent during a physician's apprenticeship period as opposed to only 2.5 percent as the practitioner gained experience in the insertion technique (3). The physician in question stressed that her attitude toward expected side effects changed completely over time and that she began devoting more effort to preparing her patients psychologically for such possible adverse reactions.

Lippes has shown that continuation rates for IUDs inserted during morning hours are superior to those for IUDs inserted during evening hours in the same clinic (4). He attributed this finding to physicians being more fatigued in the evenings after a full day of work.

The effectiveness of family planning programs in government health centers in Guatemala has been found to correlate significantly with the effectiveness of the individual physician in other public health programs (5). But effectiveness was not associated with such characteristics of the community as degree of urbanization, literacy, or ethnic composition.

A study of a private family planning program in a Latin American country suggested that the characteristics of clinic staffs had a marked effect on clinic effectiveness in terms of the number of acceptors of family planning recruited over time (6). An instance was reported of considerable success in family planning, despite rather formidable obstacles, in a city where the clinic staff had made unusual efforts. In another community where circumstances favored the adoption of family planning, an indifferent staff achieved less impressive results.

An analysis, based on a mathematical model, of six Colombian family planning clinics showed that recruitment of new acceptors is enhanced to a greater degree by interaction between acceptors and nonacceptors than by mass media efforts to promote the adoption of family planning (7). Although this study did not identify those factors that promote interaction between acceptors and nonacceptors, it seems likely that such interaction is related at least in part to acceptors' perceptions of the personal qualities of clinic personnel.

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Reynolds found that autonomous (freestanding) clinics in New York City provided family planning services to three times as many women per month as health centers and hospital clinics in the same city (8). He noted a greater commitment to family planning, greater concern for patient welfare, and greater talent for communications in clinics where the staffs were full-time specialists in family planning.

Kurup and associates reported that 92 percent of the cases of IUD insertions at a hospital in Trivandrum, South India, were still active 1 year following insertion (9). This is a rather remarkable achievement when one considers that the 12-month continuation rate for IUDs in the Population Council's International Postpartum Program was 78 percent (10). The authors felt that this very high continuation rate might have been due to the "extreme interest" taken by the hospital staff in both recruitment and followup.

On the other hand, McCalister and Thiessen, in a study of family planning programs in New Orleans, La., and Mecklenburg County, N.C., found that negative perceptions of public clinics on the part of acceptors were not related to continuation of use of a contraceptive method (11). They added, however, that this result may reflect the overriding influence of the importance of the receipt of family planning services to the respondents in their sample.

The data upon which the current study is based were gathered primarily to determine whether or not physicians influence the decisions of family planning acceptors to use an IUD, and these findings have been reported elsewhere (12). Since a wealth of data was available on clinic and physician characteristics, I

believed it would be of interest to examine the possibility of relationships between the characteristics of selected clinics and physicians and the effectiveness of family planning clinics.

### Method

In mid-1972 a survey was conducted of 200 physicians randomly selected from the 1,031 physicians in the Philippines who had been working in government clinics offering family planning services or in private family planning clinics for at least 6 months as of December 30, 1971. The sampling design has been reported in detail elsewhere (12), but it should be noted that 68 of the 200 physicians originally selected had to be replaced. One physician had not been working in his family planning clinic for the required 6 months, and two physicians refused to be interviewed. The reasons stated by the interviewers for failure to complete interviews with the other 65 physicians were "doctor not in clinic" or "doctor not available." Obviously, such omissions may have compromised the representativeness of the sample, and caution must be exercised in generalizing the findings to the universe of 1,031 family planning physicians.

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Ten clinics selected in the original sample were excluded from this study. Six were not comparable to the others in the sample because they offered the rhythm method exclusively, and four others were atypical in that they were associated with post-partum programs in maternity hospitals.

The interview schedule contained a number of items related to the personal, professional, and social characteristics of the physicians. It also included a number of five-point Likert scale statements about population growth, contraception, and the satisfaction the physicians derived from working in family planning. Numerical values were assigned to the responses in order to create indices for each physician for degree of concern regarding the rate of population growth, degree of knowledge of contraception, and degree of task satisfaction. The frequency of attending mass, going to confession, taking communion, and engaging in prayer before performing medical or surgical procedures, as well as membership in lay religious organizations, were used to create indices for degree of religiosity.

In the case of the Republic of the Philippines, an inquiry into the factors associated with clinic effectiveness is facilitated by the fact that the goal of the family planning program has been clearly defined as that of recruiting 50,000 acceptors per month during 1972-75 (13). By inference, a decline in fertility is desired, and therefore clinic effectiveness must be defined in terms of the use-effectiveness of the methods selected by the acceptors, as well as by the number of acceptors recruited.

In the period January-March 1972, the National Acceptor Survey was conducted by the University of the Philippines Population Institute in a nationwide probability sample of women who were registered as new acceptors of family planning during 1970. During the year or two (18 months on the average) following acceptance, more than one-fourth of the acceptors became pregnant (14). The proportions who became pregnant varied widely according to the method used:

Method	Proportion pregnant
Pill	0.31
IUD	.16
Rhythm	.47
Condom and foam	.38

A measure of "effectiveness" of a given clinic has been derived in terms of the clinic's impact on family planning acceptors. In consideration of the efficacy of different methods and the distribution of acceptors among the various methods, "mean method effectiveness" of  $M$  is defined by the relation:

$$M = \frac{\sum N_i P_i}{N_i}$$

where  $N_i$  is the number of acceptors of the  $i$ th method, and  $P_i$  is the probability of nonpregnancy for the  $i$ th method over an 18-month period.

The values of  $P_i$  for the methods considered will be:

$i$	Method	$P_i$
1	Pill	0.69
2	IUD	.84
3	Other	.55

About 80 percent of the women using other methods selected rhythm, and 20 percent, condoms or foam; the value of 0.55 is a weighted average derived from the efficacy of these methods in preventing pregnancy in this program.

Logically,  $M$  has meaning only for the specific period over which the  $N_i$ 's were counted. Conceivably, one could measure  $M$ 's over equal time intervals and average the  $M$ 's, that is:

$$M = \frac{\sum M_k}{N}$$

where  $n$  is the number of time intervals. Alternatively, the  $N_i$ 's could be merged for the whole series of times, giving an  $M$  for a longer period. Because data were not available on individual months but were reported for a single long period, one is compelled to use the second method to compute  $M$ . It is important to realize that  $M$  for a given, perhaps the latest, month of the reporting period could be significantly different from  $M$  as computed.

"Clinic effectiveness," or  $E$ , is defined as the product of the mean method effectiveness and the number of acceptors per unit of time:

$$E = M \frac{N}{\Delta t}$$

By dividing the number of acceptors,  $N$ , by the time period over which they were counted,  $\Delta t$ , one compensates for the fact that data for different clinics were reported over different lengths of time.

$E$ , as defined, is an instantaneous index. It could be computed for an arbitrarily short period in which  $N_i$ 's, were counted to produce an  $N$  and  $M$  for the interval. Similarly, one could make the assumption that  $M = \bar{M}$  ( $\bar{M}$  having been determined over any period) and if the acceptor rate (that is,  $N/t$ ) could be determined for different points in time, an  $E_t$  for each such point in time could be determined. Unfortunately, the data only permit one to compute a "mean clinic effectiveness,"  $E$ , for a single long period:

$$\bar{E} = \frac{\sum N_i P_i}{\Delta t}$$

and since in this case  $N = N_i$ , this equation simplifies to:

$$E = \frac{\sum N_i P_i}{N_i} \frac{N}{\Delta t}$$

The derivation of this index is discussed to point out that its efficacy is lessened by the fact that data are lumped into single large time periods. Conceivably, at the end of the reported period, clinic effectiveness, as defined, could be greater or less than the computed  $\bar{E}$ . Trends toward greater or less effectiveness are masked.

Reynolds has pointed out that in studies of the effectiveness of programs, problems of definition are encountered, such as, What constitutes an acceptor? This study is no exception. The National Acceptor Survey revealed that 23 percent of the women who were reported as acceptors by family planning clinics had been regular users of contraception before attending the clinic, and an additional 15 percent had been occasional users (14). Almost 8 percent of the women in the sample had received family planning services from more than one clinic, and it seems likely that they were reported as acceptors at each clinic they visited despite the efforts of administrators to prevent such duplicate reporting. Moreover, the survey also suggested that some women who were reported as family planning acceptors probably had not, in fact, initiated contraception (14).

During the analysis in the current study, it was assumed that such discrepancies were randomly distributed, and therefore the total number of acceptors as reported by the individual clinics in the sample was used for estimating clinic effectiveness.

Organizations have been defined as social systems with specific purposes (15). In this study, individual clinics and the agencies sponsoring them are regarded as organizations, which seems reasonable since both the clinics and the agencies do indeed have specific purposes. Private family planning clinics are operated almost solely for the purpose of providing family planning services, and the government clinics in question exist to provide health services, including family planning. The various agencies supporting these clinics have the specific purpose of providing them with logistic and other support.

Organizational effectiveness has been defined as the degree of goal achievement (16a), and this definition is used in this study. Clinic effectiveness, as previously defined, is a measure of the degree to which an individual clinic has contributed to the goal of the national family planning program: a decline in fertility. The value for clinic effectiveness may be regarded as an index of goal achievement, or more graphically, as the mean number of "effective acceptors" (those least likely to become pregnant during a period of 18 months)

recruited per month during the time the clinic's present physician has been working in the clinic.

### Physician Characteristics and Results

*HYPOTHESIS: Clinic effectiveness will be greater in family planning clinics staffed by female physicians than in those staffed by male physicians.*

One would expect that a female physician would be more sympathetic to another woman facing the prospect of an unwanted pregnancy than would a man. If true, offering family planning services would be more congruent with the ideologies of female physicians than with those of male physicians, and female physicians could be expected to give greater priority to family planning than their male counterparts. There is some evidence to suggest that organizations whose ideologies have high degrees of congruence and priority (as well as conformity) are characterized by a higher degree of effectiveness than those with low degrees (17a).

The results were in the predicted direction. The mean value for clinic effectiveness in clinics staffed by female physicians was 34, and that for clinics staffed by male physicians was 23. The difference is not, however, significant ( $t = 1.6, P = 0.1$ ).

*HYPOTHESIS: Clinic effectiveness will be greater in clinics staffed by younger physicians than in those staffed by older physicians.*

It has been shown that adaptiveness, the degree to which a system is flexible, is generally and positively associated with organizational effectiveness (17b). One would expect that younger physicians would be more flexible in providing a new and somewhat controversial health service such as family planning than older physicians. However, no significant differences were noted in the values for clinic effectiveness in those clinics staffed by younger as opposed to older physicians.

Age of physician	Number of physicians <sup>1</sup>	Mean value for clinic effectiveness
Under 34 years	60	33
35 to 49 years	104	27
50 years and older	25	29

<sup>1</sup>One physician refused to state age.

Conceivably, significant differences might exist and be masked by a heavier concentration of younger or older physicians in urban or rural areas. When, however, clinic location (urban-rural) was held constant, no significant differences were found in clinic effectiveness in clinics staffed by younger physicians and those staffed by older physicians.

*HYPOTHESIS: Clinic effectiveness will be greater in clinics staffed by physicians who want a smaller number of children than in those staffed by physicians who want a larger number.*

It would be logical to assume that offering family planning services would be more congruent with the

ideologies of physicians who want fewer children (and who by implication use or plan to use contraception) than for those physicians who want a large number of children (and who by implication are less likely to be using or planning to use contraception). Physicians preferring fewer children could also be expected to give high priority to family planning. The association between congruency and priority with organizational effectiveness has been pointed out earlier. The findings in this regard are as follows:

Number of children desired	Number of physicians	Mean value for clinic effectiveness <sup>1</sup>
3 or fewer	87	36
4 to 6	90	24
7 or more	13	21

<sup>1</sup>The differences are significant at the 0.01 level ( $F = 4.8$ ,  $df = 2/189$ ).

**HYPOTHESIS:** Clinic effectiveness will be greater in those clinics staffed by physicians who rely heavily on the IUD than in those clinics staffed by physicians who rely on the IUD to a lesser extent.

As noted earlier, in the Philippine family program, pregnancy occurs with much greater frequency during the first 18 months of use of the pill and other methods than with the use of the IUD (14). Conceivably, clinics staffed by physicians who rely more extensively on the pill and other methods could compensate for the lower efficacy of those methods in preventing pregnancy by recruiting more acceptors. The fact that the average number of acceptors per clinic per month declined from 48 in 1970 to 37 in 1972 suggests that this recruitment has not occurred (18).

The association between the degree of reliance upon the IUD and clinic effectiveness is striking.

Proportion of acceptors who receive IUDs	Number of physicians	Mean value for clinic effectiveness <sup>1</sup>
0.02 or fewer	63	20
0.021 to 0.094	63	29
0.095 or more	64	39

<sup>1</sup>The differences are significant at the 0.001 level ( $F = 7.1$ ,  $df = 2/189$ ).

**HYPOTHESIS:** Clinic effectiveness will be greater in clinics staffed by physicians with a high rather than a low degree of task satisfaction.

Although the literature on the subject is far from unanimous, a number of studies support the assumption that morale is generally and positively associated with organizational effectiveness (17c). Indices for task satisfaction in this study were calculated from physicians' responses to Likert scale statements as to whether or not they felt adequately compensated for working in family planning and whether or not they felt they were receiving adequate support from co-workers such as nurses and extension workers. Hence, task satisfaction is a measure of morale, the degree to which

individual motives are gratified (17d). Indices for task satisfaction varied from a low of 2 to a high of 10.

The following table shows the relationship between degree of task satisfaction and clinic effectiveness.

Index of task satisfaction	Number of physicians	Mean value for clinic effectiveness <sup>1</sup>
2 to 4	25	18
5 to 7	116	27
8 to 10	49	40

<sup>1</sup>The differences are significant ( $F = 6.1$ ,  $df = 1/189$ ,  $P < 0.01$ ).

**HYPOTHESIS:** Clinic effectiveness will be greater in those clinics staffed by physicians with a low rather than a high degree of religiosity.

The prohibition of the Roman Catholic Church regarding the use of contraceptive methods other than rhythm and abstinence is well known (19). It would be more congruent with the ideologies of Catholic physicians with a low degree of religiosity to offer artificial methods of contraception than for Catholic physicians with a high degree. Such physicians could be expected to give higher priority to family planning as well.

Slightly more than 91 percent of the physicians in this sample stated that their religious affiliation was Roman Catholic, and the indices for religiosity ranged from a low of 7 to a high of 21. The findings were in the predicted direction.

Index for religiosity	Number of physicians <sup>1</sup>	Mean value for clinic effectiveness <sup>2</sup>
7 to 11	42	34
12 to 16	105	29
17 to 21	20	21

<sup>1</sup>Value for religiosity was missing for 23 physicians.

<sup>2</sup>The differences are not significant ( $F = 1.2$ ,  $df = 1/166$ ).

**HYPOTHESIS:** Clinic effectiveness will be greater in those clinics staffed by physicians with a high rather than a low degree of concern about population growth.

One would expect that offering family planning services would be more congruent with the ideologies of physicians with a high degree of concern for population growth than for those with a low degree of concern. Such physicians could also be expected to give higher priority to family planning. Values for the indices of concern for population growth ranged from a low of 10 to a high of 35. The findings in the following table were in the predicted direction, but the differences are not significant.

Index of concern	Number of physicians	Mean value for clinic effectiveness
10 to 16	14	23
17 to 24	92	27
25 to 35	84	31

**HYPOTHESIS:** Clinic effectiveness will be greater in clinics staffed by physicians with a high rather than a low degree of knowledge of contraception.

Weber considered that knowledge was related to effectiveness, since he perceived that subordinates accepted rules and orders as legitimate when they regarded them as right and emanating from knowledgeable superiors (20). In a family planning clinic, the physician is the superior, and nurses and extension workers, who are obviously engaged in recruiting acceptors, are the subordinates. Indices for knowledge of contraception varied from a low value of 17 to a high value of 36. In this instance, there was no evidence of a relationship between physician knowledge and clinic effectiveness, as the following table shows:

<i>Index of knowledge</i>	<i>Number of physicians</i>	<i>Mean value for clinic effectiveness</i>
17 to 23 .....	30	29
24 to 29 .....	116	30
30 to 36 .....	44	26

*HYPOTHESIS: Clinic effectiveness will be greater in those clinics staffed by obstetrician-gynecologists than in those staffed by general practitioners or other specialists.*

Etzioni has suggested that the employment of experts may increase organizational effectiveness (16b). One would logically expect obstetrician-gynecologists to be more expert in the provision of family planning services, especially in the insertion of IUDs, than other physicians.

Sixteen physicians in the sample stated that they were obstetrician-gynecologists; the mean value for clinic effectiveness in their clinics was 30. The mean value for clinic effectiveness in those clinics staffed by general practitioners and other specialists was 29. The difference is not significant ( $t = 0.6$ ).

### **Clinic Characteristics and Results**

*HYPOTHESIS: Clinic effectiveness will be greater for those clinics located in urban areas than for those located in rural areas.*

In mid-1972 a survey was conducted by the Bureau of Census and Statistics of the Republic of the Philippines among 9,232 randomly selected ever-married women between the ages of 15 and 49. This study revealed a consistently higher use rate of contraception in urban than in rural areas, and the differences were most striking for those methods which women would be more likely to obtain at a clinic, that is, the pill and the IUD (21).

The mean value for clinic effectiveness in the urban clinics was 35, and in the rural clinics, 23, but the difference is not significant ( $t = 0.7$ ).

*HYPOTHESIS: Clinic effectiveness will be greater in autonomous clinics than in integrated clinics.*

There is some evidence suggesting that organizations with single goals are more likely to have a higher degree of effectiveness than those with multiple goals (17e). This evidence is consistent with the findings of Reynolds, mentioned earlier (8).

It is of interest to note that Etzioni does not share this view. He suggests that many multi-purpose organizations tend to serve each of their goals separately and all of them together more efficiently than single-purpose organizations of the same category (16c).

In the Philippine program, the autonomous clinics are sponsored by private entities and the integrated clinics, by government agencies. The mean value for clinic effectiveness for autonomous clinics was 33 and for integrated clinics, 23. The difference is significant at the 0.01 level ( $t = 2.3$ ). This difference is apparently not due to physicians in autonomous clinics spending more time in family planning activities than physicians in integrated clinics, as one might surmise. The mean number of hours per week spent in family planning by physicians in integrated clinics was 36; the mean number by physicians in autonomous clinics was 39. The difference is not significant.

It is noteworthy that there was no significant difference in the degree of task satisfaction on the part of physicians working in autonomous clinics (6.5) and that of physicians working in integrated clinics (6.5). Similarly, there was no significant difference in the extent to which the two groups of physicians relied upon the IUD. Physicians working in autonomous clinics had inserted IUDs in 11 percent of the acceptors at their clinics; those working in integrated clinics had inserted them in 8 percent ( $t = 1.2$ ,  $P = 0.25$ ).

*HYPOTHESIS: Clinic effectiveness will be greater in those clinics staffed by physicians trained in family planning by the Institute for Maternal and Child Health and the Family Planning Organization of the Philippines than in those clinics staffed by physicians trained by the Department of Health, the Manila City Health Department, and the Philippine Medical Association.*

The 190 physicians in the study sample had received their training in family planning from 11 different organizations, but only the 5 organizations listed in the preceding hypothesis had trained 6 or more physicians. Therefore, the analysis of the results of training has been confined to those 5 organizations.

At the time this study was undertaken, the Institute for Maternal and Child Health (IMCH) and the Family Planning Organization of the Philippines (FPOP) had been engaged in the provision of family planning services for some years. The Department of Health (DOH), the Manila City Health Department (MCHD), and the Philippine Medical Association (PMA) were relative newcomers to the field. One would expect IMCH and FPOP to be more expert in training in family planning by virtue of their extensive experience than the DOH, MCHD, or PMA, and it has been suggested that the employment of experts promotes effectiveness (16b).

The mean values for clinic effectiveness for clinics staffed by the 159 physicians trained by these five organizations are as follows:

Organization providing training	Number of physicians	Mean value for clinic effectiveness <sup>1</sup>
IMCH .....	82	34
FPOP .....	31	31
MCHD .....	16	27
DOH .....	12	21
PMA .....	18	11

<sup>1</sup>The differences are significant at the 0.05 level ( $F = 2.4$ ,  $df = 4/158$ ). The differences between the mean value for IMCH and the mean values for MCHD, DOH, and PMA are statistically significant at the 0.05 level or less. Although the difference between the mean value for FPOP and that for MCHD is not statistically significant, differences between the mean value for FPOP and the mean values for DOH and PMA are statistically significant at the 0.05 level or less.

The question must be raised as to whether or not these differences reflect the process of selection of physicians for training, rather than the results of their training. Unfortunately, the available data do not permit a definitive answer to the question.

The physicians were asked to state if they regarded their training in family planning as excellent — 1, very adequate — 2, adequate — 3, or wholly inadequate — 4; numerical values were assigned to their responses accordingly. Indices for the physicians' degrees of satisfaction with their training in family planning were created for each of the five entities providing the training. It is worth noting that those physicians trained by IMCH and FPOP had a more favorable view of their training than those trained by DOH or PMA.

Organization providing training	Number of physicians <sup>1</sup>	Mean values for satisfaction with training <sup>2</sup>
IMCH .....	81	2.4
FPOP .....	31	2.3
MCHD .....	16	2.4
DOH .....	12	2.7
PMA .....	18	3.0

<sup>1</sup>Value for satisfaction with training was missing for 1 physician.

<sup>2</sup>The differences are significant at 0.05 level ( $F = 2.7$ ,  $df = 1/157$ ).

These differences in physicians' perceptions of the quality of training provided by the five different organizations do not, of course, show that the differences in clinic effectiveness reported earlier in this section are due to differences in the quality of training, but the findings support such an assumption.

## Discussion

The question of what the proper role of private family planning organizations should be in developing countries continues to be debated. In some countries, of which El Salvador (22) and Costa Rica (23) are examples, the primary roles of private organizations has been changed from providing family planning services to providing information and evaluation services, while the provision of family planning services has been assigned to government agencies.

The results of this study suggest that autonomous (private) clinics are superior to integrated (government) clinics in terms of clinic effectiveness. These results are consistent with those of a cost-effectiveness study of family planning in the Philippines, which showed that of the 388,969 acceptors of family planning

reported in 1971, 55 percent (212,849) were recruited by three private organizations—the Institute for Maternal and Child Health, the Family Planning Organization of the Philippines, and the Philippine Medical Association (24). Unless the cost per new acceptor by private organizations appreciably exceeds the cost per new acceptor by government agencies, it would appear reasonable for policymakers to continue to provide family planning services through private organizations in the Philippines.

Unless one has the opportunity to examine those being trained in family planning before and after their training, it is difficult to evaluate the results of that training, for one cannot be certain if what appears to be the result is not in reality a reflection of the process by which the trainees were selected. This study implies that the training of physicians by different institutions in the Philippines is related to differences in clinic effectiveness, although the relationship is not a very strong one statistically. Another study suggests that training in family planning by these same five institutions (IMCH, FPOP, MCHD, DOH, and PMA) resulted in different degrees of reliance on the IUD and in different degrees of concern about population growth on the part of the physicians trained (25). The implications regarding the importance of training in family planning are clear. Certainly more research about training is needed, since training may prove to be crucial for the successful implementation of family planning programs.

The lack of a significant association between the degree of religiosity of physicians and their clinic's effectiveness implies a secularization of attitudes toward artificial contraception on the part of family planning physicians. This result is consistent with the findings of other studies of this predominantly Roman Catholic sample of physicians. Since a number of studies have suggested that the IUD prevents pregnancy by inhibiting implantation of the fertilized ovum, that is, that it produces a "micro-abortion," one would expect the IUD to be less acceptable to more religious Catholic physicians than the oral pill. In this sample, however, there was no significant relationship between the extent to which physicians relied on the IUD and their degree of religiosity (12). Similarly, another study showed no significant differences in the degree of religiosity of those physicians with more favorable attitudes toward sterilization and those less favorably disposed toward it (26).

At first glance, the lack of a relationship between physicians' knowledge of contraception and clinic effectiveness appears surprising. Perhaps it should not be. Etzioni differs with Weber on the relationship between knowledge and organizational effectiveness (16d). He finds something amiss with the concept that the more knowledgeable persons in an organization frequently occupy the middle levels of the entity, not the highest. Although physicians may well understand such matters as the mechanism of action of various contraceptive methods better than nurses and extension workers,

nurses and extension workers may be more cognizant of such important factors as the acceptability of the methods to the local population and the difficulties acceptors have with the various methods.

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## SYNOPSIS

MACCORQUODALE, DONALD W. (U.S. Agency for International Development): *A study of the effectiveness of family planning clinics in the Philippines. Public Health Reports, Vol. 90, November-December 1975, pp. 490-497.*

A study of 190 Philippine family planning clinics revealed that certain clinic and physician characteristics were significantly and positively associated with clinic effectiveness, defined in terms of the mean number of monthly acceptors of family planning and the efficacy of the methods selected. Clinics

with a high degree of effectiveness were more likely to be staffed by physicians who wanted three or fewer children, who relied more extensively on the IUD (intrauterine device) than physicians in less effective clinics, and who derived more satisfaction from working in family planning than physicians in less effective clinics. Autonomous clinics were more effective than integrated clinics, and clinics staffed by physicians trained by institutions with more experience in family planning were more effective than those staffed by physicians trained by institutions

with less experience in this field.

The findings regarding the following hypotheses were in the predicted direction: Clinic effectiveness will be greater in clinics staffed by female rather than by male physicians, in urban rather than in rural clinics, in clinics staffed by physicians with a low rather than a high degree of religiosity, and in clinics staffed by physicians with a high rather than a low degree of concern about population growth. The differences in clinic effectiveness, however, in these instances, were not significant.