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FURTHER DIRECTIONS FOR USAID'S  
COMMUNICATION POLICIES IN POPULATION

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## EXECUTIVE SUMMARY

This report reviews past communication policies and activities in family planning/population in order to gain insights that can lead to more effective communication strategies for the U.S. Agency for International Development.

Since 1973 there has been an important change in perception of the role of population and family planning programs--these programs are less often viewed as narrowly linked to medical programs and more often seen in the larger context of integrated development policies. A corresponding change has also occurred in the design and organization of family planning programs: they have moved from a clinic-based approach to a variety of non-clinic community-based approaches, each adapted to unique local conditions. The role of information, education, and communication (IEC) is changing also; changing from that of mainly informing people about the general importance and availability of contraceptive services to the role of motivating those individuals who have not yet adopted and to maintaining the use of family planning methods by couples over the long term. Examples of countries well into this second phase of family planning IEC programs are the Republic of Korea, Colombia, Malaysia, Costa Rica, and the People's Republic of China.

Regardless of whether the goals of the family planning/population program are oriented primarily toward the

supply of contraceptives or the motivation of family planning acceptance and continuation, IEC has been shown to make a potentially substantial contribution to program success. Indeed, all national family planning programs in developing countries include an IEC component, with an investment ranging from 10 percent to as high as 35 percent of the total program budget.

A review of past experiences in using a wide variety of IEC strategies by national and international family planning/population programs leads to the following conclusions.

1. The past experience in communication for family planning/population has been criticized in many programs for its lack of clear objectives, strategies, and comprehensive planning to insure proper use of communication materials in the field. In the future, it is likely that the use of communication will be increasingly directed toward specific audiences in the form of coordinated strategies which involve the use of multiple channels of communication targeted toward specific objectives with carefully designed and pretested messages. Communication is also likely to be used for reaching elite and policy-maker audiences, as well as for the improvement of family planning management, supervision, and continuing training.

2. Social marketing and community-based distribution strategies are becoming more important components of national family planning programs.
3. Fieldworkers, either paraprofessionals or volunteers, who are members of existing community groups are increasingly important components of family planning programs.
4. The promising results of present programs which utilize existing local organizations, such as the banjar in the Indonesian Province of Bali, encourage the greater use of local groups, traditional channels and institutions in family planning programs.
5. Communication research is changing the "KAP-study era,"<sup>1</sup> where it primarily justified the need for family planning programs, to a new role where research and evaluation will play a greater part in the design and modification of family planning/population programs so as to increase their effectiveness.

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<sup>1</sup>"KAP" refers to knowledge, attitude, and practice of family planning, the usual dependent variables in evaluation studies of family planning programs.

The USAID Office of Population, with the broadest and largest known commitment and contribution to assisting IEC efforts in LDC population/family planning programs, seeks now to meet more effectively the changed conditions in those countries and programs.

For more than a decade, the Office of Population's long-experienced IEC staff has mounted a variety of uniquely specialized support in the U.S. and abroad.

No known aspect of Information, Education and Communication relating in some way to the advancement of population/family planning programs in the LDCs has been left untouched by those USAID-funded activities. With direct in-country support for the introduction or improvement of IEC systems and through the funding of a host of specialized U.S. and international intermediary agencies, USAID has influenced, with understandably varying degrees of impact, the areas of training, research, materials production, policy and decision-making, experimentation in IEC approaches, population education (formal and nonformal), the dissemination of population information, and the enlistment of support from youth groups, home economists, midwives and nurses, labor unions, industrialists, teachers, religious leaders and perhaps others. Those programs and projects themselves constitute a sound policy path, and indeed they point to many of the actions recommended in this report. Even as the

present study was underway, USAID circulated for comment in Washington and among its field Missions a draft paper, entitled "Towards an Effective Information, Education and Communication Component of Population and Family Planning Programs: Policy Guidelines."

At the same time, the dictates of budget, overall population program priorities, and in-country official resistance may continue to limit the reach of the presently insufficient IEC staff of USAID in implementing effective policies and strategies. The task is complex, involving as it does such a variety of country conditions, institutions and differing views.

Moreover, it is the unhappy lot of IEC professionals in population and family planning to be working where the quantification of success is elusive. The Office of Population's stated goal for IEC (known as "Goal 5") is "the development of adequate systems for delivery of information/knowledge." Implicit therein as measures of success are such principal results as numbers of pamphlets printed and distributed, films produced and seen, persons trained, research completed, and conferences held--together with recorded utilization of the results of these activities.

On the other hand, there may be those who choose (with equal good reason) to seek to measure USAID's IEC success or

failure against USAID's overall population goal: the reduction of world population growth rates--or at least those of the LDCs where USAID resources are applied. There is evidence that IEC can contribute directly to the adoption of contraception. However, it is not feasible to isolate birth preventions or units of effective contraception as attributable directly or solely to USAID's IEC input, especially when USAID is not the only contributor of technical and financial assistance.

In short, our study of USAID's record in population communication assistance and our knowledge of the important role USAID has played in the establishment and working of IEC delivery systems in the LDCs led us to conclude that:

1. In those LDCs where deficiencies exist in the delivery of information and knowledge about family planning--as they are described in this report--they can be traced to those "beyond-control" restraints mentioned above, rather than to any lack of diligence, competence or direction in either the Office of Population or its IEC staff.
2. The inadequacy of LDC personnel and other resources devoted to IEC in some countries with critical population-growth rates demands even more of IEC assistance than USAID and other foreign agencies have seen fit to provide. A well-con-

ceived program of public stimulation and education with modifications to suit country-specific needs is essential if the delivery of services and contraceptives is to yield its optimal return.

3. Because the impending loss of key AID/Washington IEC staff means the loss of persons who know how to respond to country-by-country IEC needs, the matter of personnel replacement and rearrangement may be even more critical for USAID's population program than are the refinements in IEC strategy are the recommended in this report.
4. No one need fear that IEC services can outrun the provision of family planning services and create thereby an unhealthy public state of frustration or disappointment. In countries where service delivery is lagging, program administrators are not likely to mount a fast-moving IEC program. What is more, if such national programs were to begin to mount an IEC effort that eventually outran services, it would likely stir needed awareness and interest in some elite quarters rather than a battle cry in the villages for services.

Based on the present comprehensive review of past experiences in using communication in family planning/population programs and the lessons that can be learned from these past

activities and approaches, we offer the following recommendations about critical areas where communication has a high degree of potential for improving family planning adoption and continuation rates.

1. That USAID rearrange and/or augment its IEC staff to provide the capability for immediate response to requests from Missions and host governments for short-term in-country technical assistance at any stage or in any aspect of IEC programming involving direct funding by USAID.
2. That, in the interests of economy, efficiency, and effectiveness, USAID retain all IEC support functions for population together in one organizational unit closely integrated with the service program they are supporting.
3. That USAID continue to emphasize the need for evaluation of projects, programs, and salaries involving communication activities.
4. That USAID and its missions continue to invest in the inclusion of appropriate LDC expert opinion in USAID-sponsored conferences, working meetings, and project development to reinforce and publicize its decades-old philosophy of mutual collaboration in U.S. development assistance programs.

5. That within selected LDC national population programs, USAID (and its missions) provide increased encouragement and support to national IEC activities aimed at winning policy-makers' understanding of both population/development issues and the strategic aspects of IEC support itself.
6. That USAID give increased emphasis and preferential IEC support to those LDC projects that are localized at the village level and work through local public and private groups and existing social, political, and cultural institutions and organizations.
7. That USAID continue to stimulate and help national family planning programs to obtain feedforward information from intended audiences as an input to in-country planning of communication strategies.
8. That USAID seek to multiply its support of projects that provide family planning information and education to the public using clinics and other service centers where clients can receive or be referred for contraception services.

## PREFACE

The Education and Human Resources Office of the Development Support Bureau of AID/W contracted in 1977 with the Institute for Communication Research, Stanford University, to conduct a review and assessment of USAID activities in communication for development. Communication, in this context, encompasses both media and methods, including instructional technology in formal and nonformal education, interpersonal communication as used by extension agents and fieldworkers, and the use of broadcast media and two-way communication in support of development activities.

The objectives of the study are: (1) to determine current policy and practice in the use of communication in support of social and economic development projects; (2) to analyze the assumptions and strategies implicit in current practice; and (3) to suggest considerations for the development of more effective communication strategies.

Five teams of Stanford University scholars were formed, each to explore the role of communication in one of five development sectors: agriculture, education, health, nutrition, and family planning/population.

The present report is based on a series of personal interviews with USAID employees involved in family planning/population activities and with officials in several

other agencies in family planning/population as well as a review of available USAID documents and published literature in the field of family planning/population.

The three authors of this report have extensive experience in the family planning/population field, especially in information, education, and communication (IEC). Dr. Everett M. Rogers, Professor at the Institute for Communication Research, has worked extensively in research, consulting, and publication on communication for family planning. He is the author of Communication Strategies for Family Planning among other publications in this field. He investigated the national family planning program in the People's Republic of China in 1978. Dr. Douglas Solomon, Research Associate at the Institute for Communication Research, was previously at the East-West Communication Institute and later at the School of Public Health at the University of Hawaii, where he taught and conducted research on family planning communication, particularly the social marketing approach. Ronny Adhikarya, currently a doctoral candidate and Research Assistant at the Institute for Communication Research, Stanford University, was previously a staff researcher at the East-West Communication Institute in Hawaii, where he worked on an IEC Inventory and Analysis Project, with responsibility for conducting the field research in Asia, the Middle East, and North Africa. He is presently on temporary assignment as a UNESCO/FAO consultant in Indonesia, his home

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## INTRODUCTION

The purpose of the present report is to review past communication policies and activities in family planning/population, in order to gain insights leading to more effective communication strategies in the future. We focus particularly on the population activities of USAID, which is the largest single organization in this field, but we also consider the many other agencies involved in family planning/population.

### WORLD POPULATION TRENDS

From 1950 to 1970, birth rates in the developing countries of Latin America, Africa, and Asia (excluding the People's Republic of China) dropped from about 44 to 42 per thousand. This rate of fertility decline is accelerating. From 1970 to 1977, birth rates in developing countries fell from about 42 to nearly 36 per thousand. This rate is still higher than the 17 per thousand rate in developed countries.

A birth rate of 36 per thousand means that world population is increasing at a rapid rate, since the death rate in developing countries is also dropping. Birth rates have dropped much more rapidly in some nations than in others. Demographers are not certain of the main reasons for decreasing birth rates, but one reason may be national family

planning programs. In fact, it is claimed that no poor nation without an active family planning program has markedly lowered its fertility (many of these countries have also experienced other changes, such as rapid economic development, which may have contributed to lower fertility). In several nations (such as the Republic of Korea, Taiwan, Singapore, Hong Kong, Indonesia, People's Republic of China, Costa Rica, and Colombia), the national family planning program has almost certainly reduced fertility rates.

There are important region-to-region differences in the nature of family planning/population programs. The first country in the world to adopt family planning as a national policy was India in 1952 (Demarath, 1976). Pakistan followed in 1960 and by 1971 almost all Asian nations had mounted national programs. In this region, population density was easily visible, and so most national governments were convinced of the advantages of launching a national family planning program. Little vocal resistance to such policies was encountered in Asia, except occasionally on religious grounds. A large body of accumulated experience about family planning program activities, including their communication component, has built up in Asian nations (and will be reviewed in later sections of the present report).

Latin American nations were slower, on the average, to move into national family planning programs and religious

and political resistance has been much stronger. For instance, in Colombia family planning activities began on the part of private agencies (like the International Planned Parenthood Federation affiliate) in the mid-1960s, and were followed by a gradual increase in government involvement. The Roman Catholic Church in Colombia was an outspoken opponent of these family planning programs in the late 1960s and early 1970s. Throughout Latin America, family planning/population programs became a political matter because the U.S. government was perceived as pushing them (Stycos, 1971). Today, most, but not all Latin American governments support national family planning programs (Brazil does not, for instance), but relatively few of these nations (Costa Rica and Colombia, for example) have experienced a measurable decrease in age-specific fertility rates as a result.

In most sub-Saharan African nations, USAID today only assists national governments in providing family planning training to health staff; family planning programs are in an early stage of development, with the exception of Kenya, Ghana, and perhaps Nigeria. Most African nations do not have a high population density (on a national basis), and so family planning/population programs are not perceived by government leaders as of immediate importance. Birth rates have not yet begun to drop in most African nations.

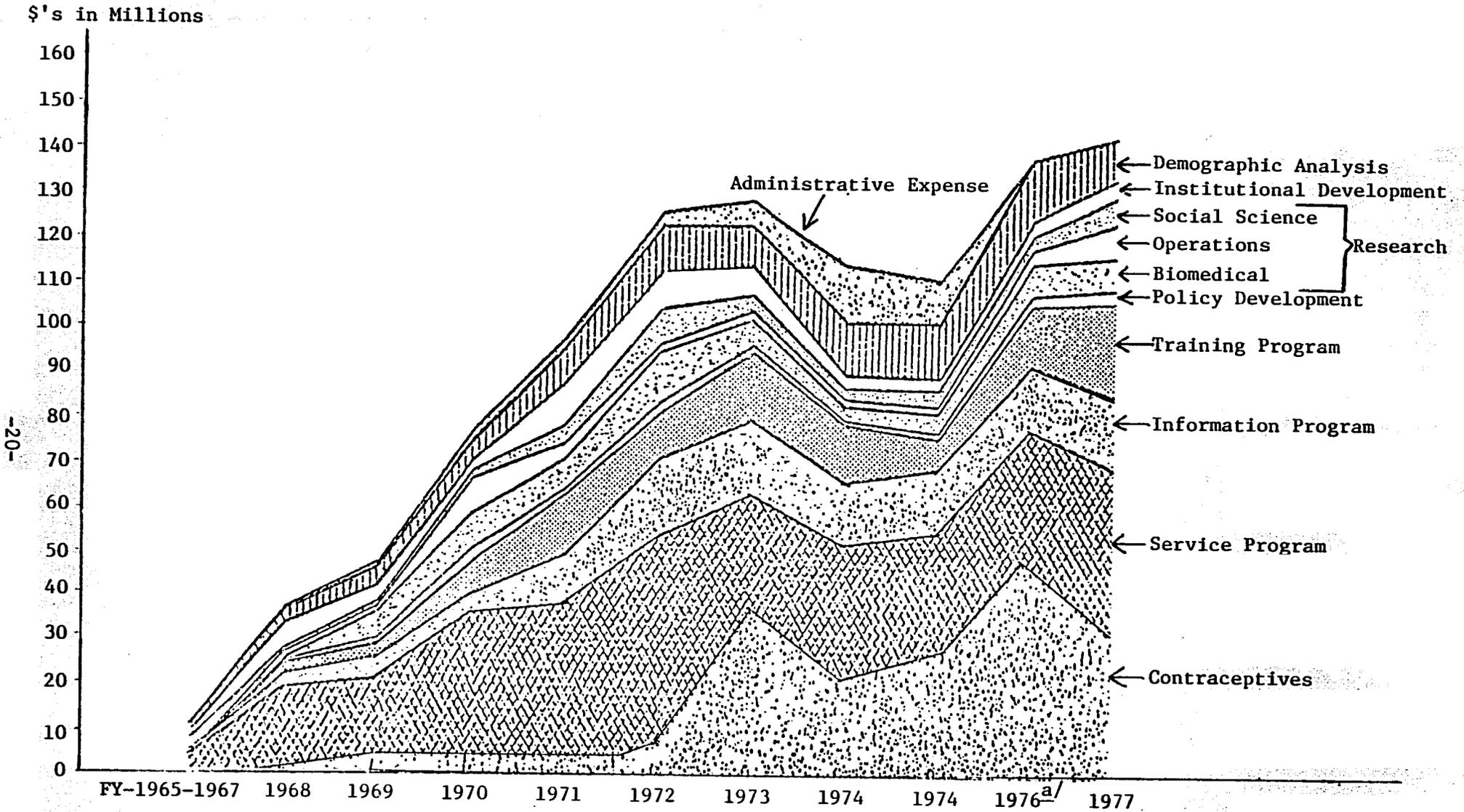
## THE ROLE OF USAID

Since the mid-1960s, the U.S. Agency for International Development (USAID) has been the largest single source of funding and expertise for national family planning programs. About 56 percent of the \$1.8 billion in funds donated to family planning/population programs by bilateral agencies in the decade to 1977 came from USAID. This approximately \$1 billion of bilateral funding was devoted to various types of assistance (Figures 1 and 2), with about 11 percent going to "information programs<sup>2</sup> in 1977. If certain components of "service programs" (such as the salaries of fieldworkers and of clinic staff who work directly in informing clients), "training programs," etc., were also included, perhaps as much as 20 to 25 percent of USAID funds go for communication, representing about \$33 million of the annual budget of about \$150 million. Those additional funds however, are not part of the direct budget of the IEC Division.

An investment of this size represents the largest USAID funding of communication activities in any development sector. In agriculture, nutrition and health, only relatively minor funding is provided by USAID for communication aspects of these development programs; and even in the education sector the investment in communication is less than in the population sector.

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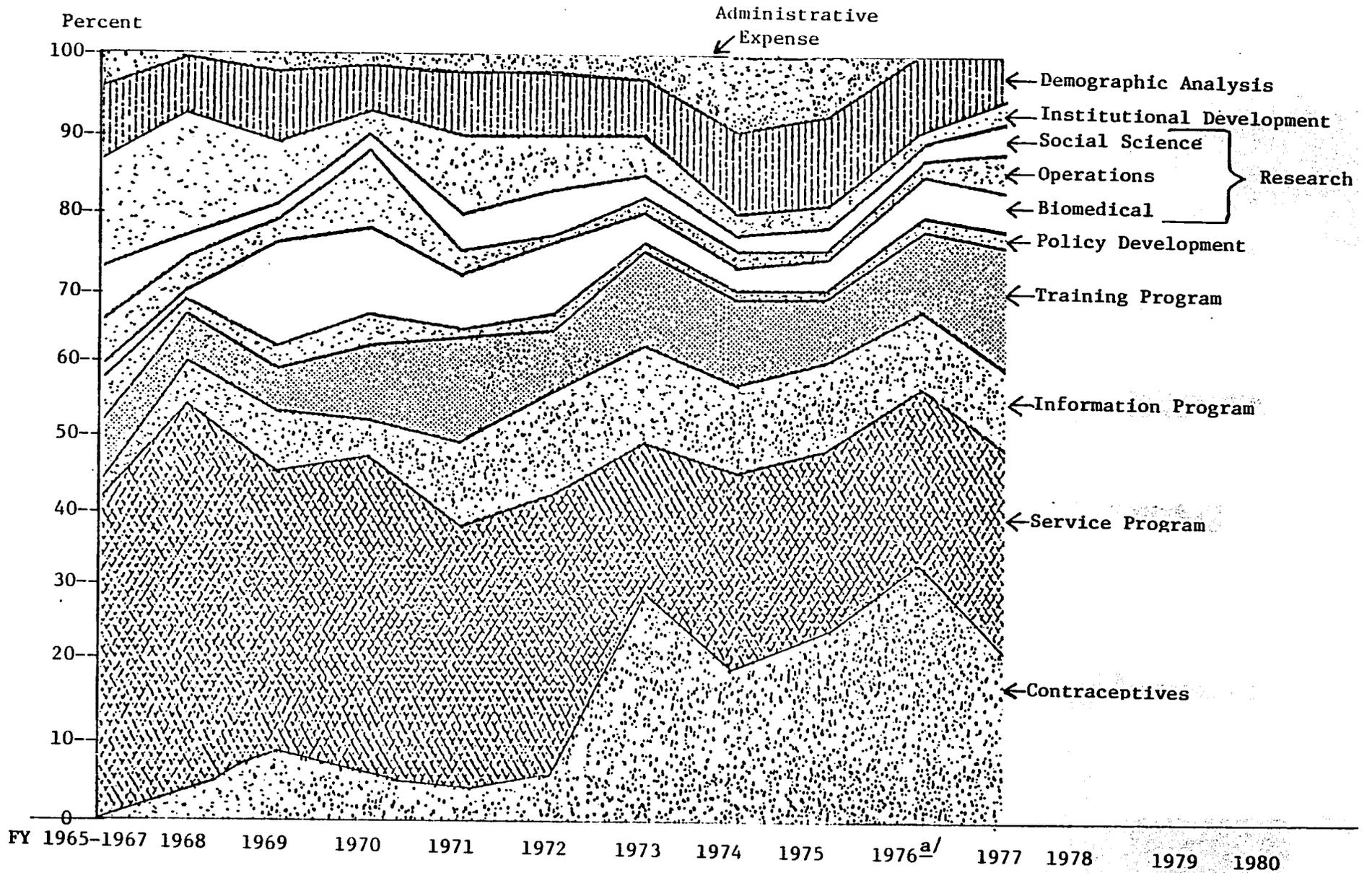
<sup>2</sup>Usually called "IEC" by USAID for "Information, Education, and Communication."



Financial Summary by Function, FY 1965-1977 Obligations - in Millions of Dollars

<sup>a/</sup> Includes \$7.3 millions contraceptive loan to Indonesia

Figure 1. AID Funding of Family Planning/Population by Year.



Financial Summary by Function, FY 1965-1977 Obligations - in Millions of Dollars

<sup>a/</sup> Includes \$7.3 millions contraceptive loan to Indonesia

Figure 2. Proportion of AID Funding of Family Planning/Population by Type of Assistance

Figure 1 shows that over the 1965-1977 period, there has been a generally increasing budget for USAID's family planning/population programs, as the U.S. Congress generally has been supportive of these activities. In 1977 a House Select Committee on Population was established, further suggesting the importance of population concerns to Congress.

USAID's funding increase in the 1960s and 1970s is paralleled by increased funding for population assistance by all development agencies, as shown in Table 1. Total official development assistance funds for population assistance world-wide increased by a factor of almost 50, from \$6 million (0.1 percent) of total assistance for population in 1961, to \$290 million (2.1 percent) in 1975.

#### POPULATION AND DEVELOPMENT

"Family planning" is usually defined as the idea, program, or act of preventing births and of avoiding their consequences (Rogers, 1973, p.5). Most USAID activities that are officially called "population" actually consist mainly of "family planning" activities, in that they concentrate on directly preventing births by providing contraceptive services.

The World Population Conference at Bucharest in 1973 represents a turning point in family planning/population programs in calling greater attention to the role of non-family

Table 1. Trends in Development and Population Assistance, 1961-1976,  
by Official Development Assistance Agencies.

Year	Total Official Development Assistance (U.S. \$ Millions)	Population Assistance (U.S. \$ Millions)	Population Assistance as a Percent of Total Assistance
1961	5,200	6	0.1%
1962	5,400	5	0.1%
1963	5,500	11	0.2%
1964	6,000	16	0.3%
1965	5,900	18	0.3%
1966	6,000	34	0.6%
1967	6,600	30	0.5%
1968	6,300	58	0.9%
1969	6,600	86	1.3%
1970	6,800	125	1.8%
1971	7,700	154	2.0%
1972	8,700	190	2.2%
1973	9,400	212	2.2%
1974	11,300	262	2.3%
1975	13,578	290	2.1%
1976	-	(314)	2.0%

Sources: OECD, Governments, and Annual Reports of AID Agencies, reported in Population, Vol. 4, 1977.

planning development programs in reducing birth rates. Since 1973, much greater attention has been given by USAID and other agencies to the interrelationships of population and development. One manifestation is the integration of family planning activities with nutrition, health, education, and agriculture in integrated rural development programs. In the future the scope of family planning/population programs will be widened to include a variety of development activities that may act to decrease fertility rates.

Mauldin and Berelson (1978) score the strength of China's family planning program effort at "25" (of 94 developing nations, only Singapore has a stronger score at "26"), based on such variables as accessibility of contraception, public commitment to family planning by political leaders, use of mass media, home visiting by fieldworkers, evaluation efforts, availability of abortion and sterilization, etc. These researchers find that family planning program effort "goes together" with seven socioeconomic development indicators (including, for example, increases in adult literacy, declines in infant mortality, increases in GNP and declines in farm work) to explain about 83 percent of the variance in the 1965-1975 decline in fertility. The implication for policy-makers is to seek increased development and also to mount a substantial family planning program, if they wish to lower their nation's fertility. In a large-sized, poor

country like India, Indonesia, or China in the early to mid-1970s, a special kind of determination was required to implement a strong family planning program in such a deprived setting.

The Foreign Assistance Act of the U.S. was amended in 1973 to include Section 104 which follows closely the recommendations of the World Population Conference

Assistance under this chapter shall be administered so as to give particular attention to the interrelationship between (A) population growth, and (B) development and overall improvement in living standards in developing countries, and to the impact of all programs, projects, and activities on population growth. All appropriate activities proposed for financing under this chapter shall be designed to build motivation for smaller families in programs such as education in and out of school, nutrition, disease control, maternal and child health services, agricultural production, rural development, and assistance to the urban poor.

The President is authorized to study the complex factors affecting population growth in developing countries and to identify factors which might motivate people to plan family size or space their children.

This changing focus for population program assistance has several implications for the design of family planning programs as well as for the importance of the role of communication in national family planning efforts. These implications are discussed in the pages which follow.

## USAID Strategies

The dominant strategy of USAID's Office of Population has been to concentrate on improving contraceptive delivery so as to maximize client accessibility to family planning methods. The two largest categories in Figures 1 and 2 are "contraceptives" and "service programs," together accounting for almost half of the 1977 budget, or about \$75 million per year.

Availability is a powerful determinant of human behavior in many fields of activity....In the field of family planning, just what means of fertility control is made available, and where and how, greatly determines fertility control behavior. As it became increasingly evident that the principal key to rapid fertility reduction in developing countries was the extent of availability of the most effective means of fertility control, the Office of Population of the U.S. Agency for International Development (USAID) undertook a set of initiatives aimed at exploiting this principle to improve the effectiveness and efficiency of family planning programs. (Ravenholt and Gillespie, 1976, p.5)

This focus on improving client accessibility to contraceptive services was undoubtedly a prerequisite to most other types of assistance in the 1960s and 1970s when national family planning programs in developing countries were being initiated and where they were growing rapidly. It continues to be of great importance in countries where the provision of services and information have not yet hit their stride at village level. It should be said, in fact, that the very presence of non-clinical contraceptives in the marketplace constitutes, in a real sense, a form of IEC. How-

ever, in certain developing nations today, more than 30 to 35 percent of eligible couples are contracepting, and this figure probably cannot be increased to the 55 or 60 percent level<sup>3</sup> (desired by some national planners) unless increased attention is given to other activities.<sup>4</sup>

Figure 3 shows the trend in rate of contraceptive use for four selected Asian nations from 1969 to 1976. These data were provided by the Population Council. India is illustrative of the large-sized nation that has not been able sharply to increase the rate of contraceptive use during this period, despite a national priority on family planning. The Republic of Korea increased contraception use by eligible couples in the 1960s but this use-rate leveled out somewhat in the 1970s. Singapore and Thailand are nations with a sharp increase in contraception use in the 1970s. Clearly, Korea and, perhaps, Thailand are reaching a point in their national family planning programs where they need to consider new and different program strategies, including IEC strategies, if they are to attain yet-higher levels of contraceptive use.

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<sup>3</sup>It should be remembered that at any one time, 25 to 33 percent of a nation's female population (ages 15-44) is pregnant, interested in becoming pregnant, or unable to bear children. So an adoption rate of 60 percent would mean that up to 90 percent of all eligible couples are either contracepting and the others are clearly not willing to consider doing so.

<sup>4</sup>In the People's Republic of China, a very high degree of accessibility is accompanied by much attention to convincing eligible couples to use contraceptive services.

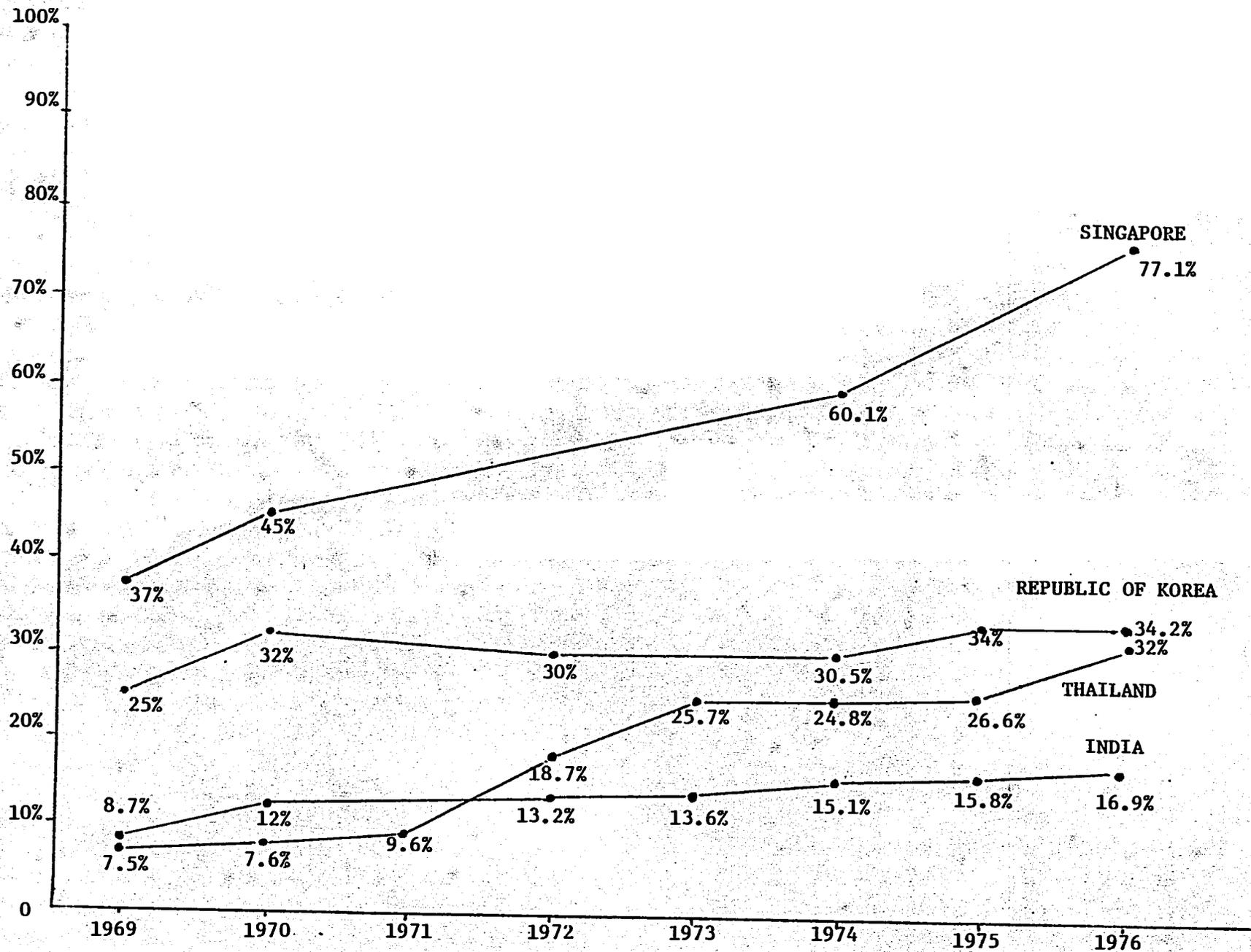


Figure 3. RATES OF CONTRACEPTIVE USE AMONG COUPLES OF REPRODUCTIVE AGE FOR SELECTED COUNTRIES

Source: The Population Council

In the present report, our general theme is that USAID population strategies that were appropriate earlier may not be so today. An example of a country that now requires more than availability of contraceptives alone is the Republic of Korea. The national family planning program got underway in the early 1960s; at first with a main focus on the IUD and then, after 1968, on the contraceptive pill as well. With the assistance of USAID, the government of Korea initially built up a network of county health clinics that provided family planning services to married couples of reproductive age. Then, in the mid-1960s a corps of township-level fieldworkers was employed to actively carry the family planning message to their village clients. In 1968, with the addition of the pill as a contraceptive method, mothers' clubs were established in many Korean villages to provide group support to family planning adoption-decisions, and to distribute the pills on a regular basis to village women.

By almost any measure, the national family planning program in Korea has been a success in reaching its objectives. About 46 percent of the married women of reproductive age were currently using contraception in 1974 (Table 2), and a major decrease in national fertility rates had occurred (with about one-third of this decrease attributed to the effects of the family planning program, and the remainder traced to later marriage and to increased rates of abortion).

Table 2. Prevalence Rates for the Current Use of Family Planning Methods in Selected Developing Countries.

Country	Prevalence Rates for the Current Use of Family Planning Methods*
1. Costa Rica	61.2%
2. Colombia	51.7%
3. South Korea	46.0%
4. Malaysia	38.0%
5. Dominican Republic	37.9%
6. Thailand	37.1%
7. Bangladesh	9.6%
8. Pakistan	6.0%
9. Nepal	3.0%

\*Prevalence rates are the proportion of "exposed" women (married women not pregnant and who believe they and their husbands are physically capable of having a child) who are currently using a method of family planning. This definition is used by the World Fertility Survey, from which the above data were obtained.

Source: Brackett (1978).

Accessibility to contraceptives is no longer the major limiting factor to further increasing the rate of adoption of family planning in Korea, nor is knowledge of the methods of family planning. More than 90 percent know of at least one method (Brackett, 1978). The relatively easier-to-reach "cream" of family planning adopters have been "skimmed off the top" of the audience.

It will not be an easy task for most LDC programs to win over those who, for varying reasons, continue to reproduce without effective restraint. This hard core includes persons who may be "highly eligible" for contraception, are aware of practicing couples around them, know about the methods, and still fail or refuse to practice. The massive change in human behavior that is required will call for communication approaches different from those of the past, when major IEC objectives were to inform target audiences of the availability of contraceptive services and the desirability of limiting family size.

Within each country where family planning curves have plateaued at unacceptable levels, IEC strategists first will have to identify major reasons for resistance. Some information is already available in some places,<sup>5</sup> and Bogue's (1977) 25 Obstacles to Family Planning Success deserves

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<sup>5</sup>See Park and others (1968) for an excellent illustration of the use of such information in one nation.

study as a global statement to explain decelerated adoption curves. In any case, the correct mix of audience-media-message-source will differ from place to place over the whole range of resistance. The problem may be simple ignorance of the location and nature of contraceptive services in some cases; stubborn age-old tradition in others.

Therefore, an important turning point should occur in a nation's family planning program as it shifts its strategy to meet the new situation. If one takes the rather arbitrary point of about 30 to 35 percent adoption as the phase change, nations like Costa Rica, Colombia, and the Republic of Korea are such countries (Table 2). Malaysia, the Dominican Republic, and Thailand have recently joined those ranks. Other nations, some of which have national programs with 18 or more years of experience, still have low rates of adoption; examples are Bangladesh and Pakistan, where USAID's population assistance has been ineffective [Comptroller General of the United States, 1977]. Nepal is an example of a country that launched its family planning program on a limited basis in the 1970s.

Certainly in nations like Bangladesh, Pakistan and Nepal, the adequate delivery of contraceptive services is a first priority. Here the main role of communication is to inform the target audience about the concept of family planning, about what contraceptive methods are available, and where to

obtain them. Communication also, of course, can provide feedback to program officials from the operational level. For example, in 1971 USAID funded the "PAN" system in Indonesia, by which monthly adoption rates from every clinic in Java and Bali were monitored. But the informing role of communication would be redundant in a nation like the Republic of Korea, where over 90 percent of the target audience already know about at least one family planning method. "More of the same" would be a mistake in Korea. Instead, family planning communication activities should seek to create motivation to use family planning on the part of those in the target audience who have not yet adopted.

Nonetheless, accessibility must still be maintained and, if possible, strengthened further. Evidence of the continuing importance of contraceptive accessibility is provided by the experience of "household distribution" programs launched in the mid-1970s in several nations. In one remote area in Korea, the prevalence rate in contraceptive use increased from about 20 percent to 40 percent in response to the delivery of condoms and pills to every household (Park and others, 1977). Nevertheless, national family planning officials in Korea, and most other advanced programs, do not see further improvement of accessibility as the top priority for their current efforts.

## EVIDENCE FOR THE CONTRIBUTION OF COMMUNICATION

There is almost no absolute evidence that IEC activities as a single intervention contribute directly and immediately to increased rates of adoption of family planning methods by target audiences (the variable often used as one criterion of program success).

However, no national family planning program in a developing country has decided not to include IEC activities as one part of their program. The investment in the IEC component is fairly considerable, often about 10 to 20 percent of the total program budget, and ranging up to 30 or 35 percent in some nations.

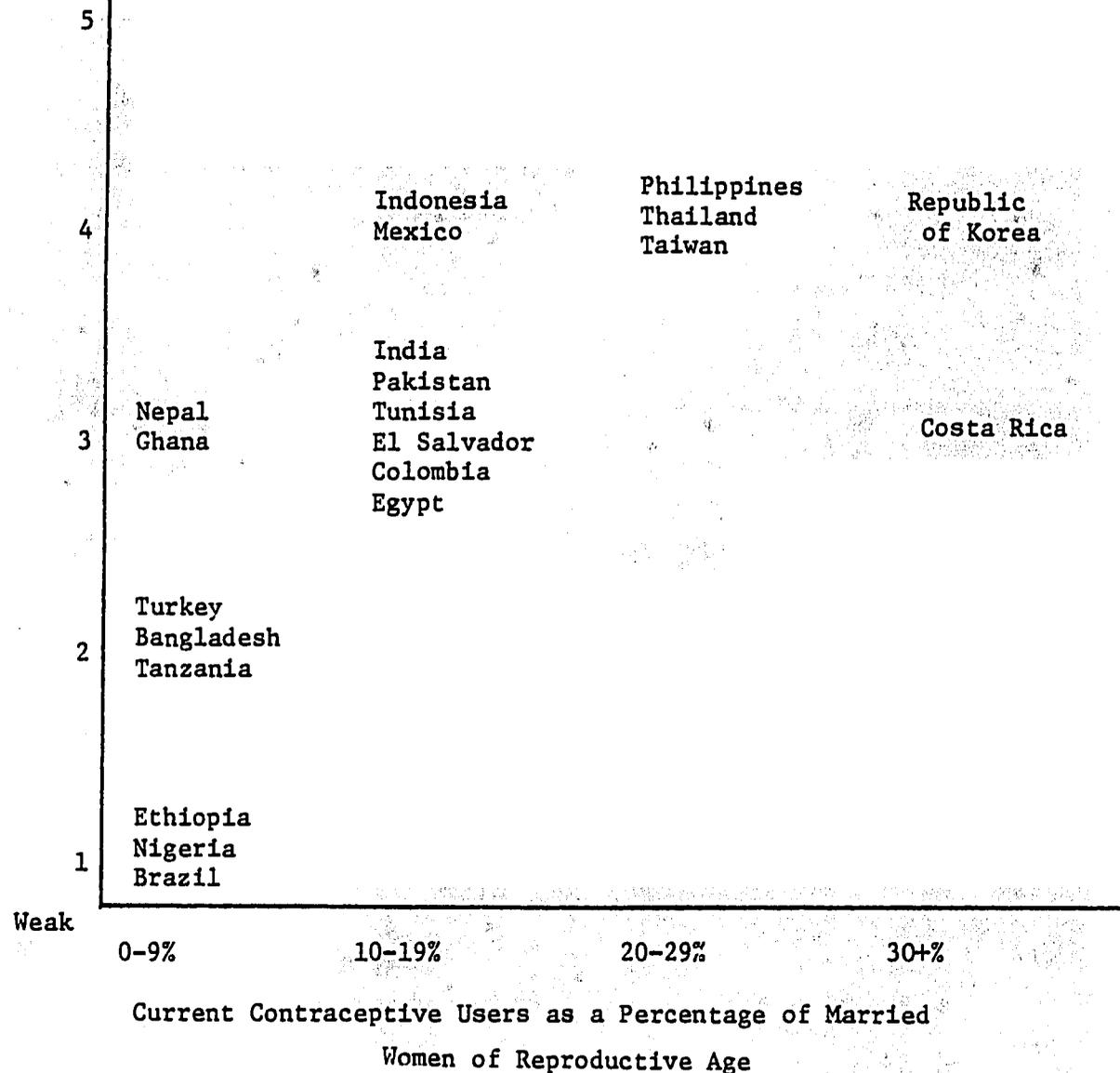
What types of evidence have convinced program administrators that their investment in IEC is justified in terms of its contributions to program success?

1. Stronger family planning programs tend to place a greater emphasis on their IEC efforts. Table 3 shows the strong positive relationship between the percentage of eligible women who have adopted family planning and the strength of the IEC effort. While one cannot infer from this relationship that the stronger IEC efforts caused the higher adoption rates, it is important to note that the stronger programs tend to emphasize IEC as an essential component of their efforts.

Table 3. Prevalence of Contraceptive Use Compared with IEC Policy/Budget Commitment in 1976.

Policy  
and Budget  
Commitment

Strong



Source: "An Assessment of Family Planning Service Programs in 21 Selected Countries." Family Health Care, Inc., Unpublished report to USAID, April, 1976, p. 60.

2. A number of field experiments on the impact of family planning communication campaigns have been conducted in developing countries, dating from the Taichung Experiment in Taiwan in 1962-1963 (Freedman and Takeshita, 1969). Similar studies have been conducted in the Republic of Korea, Thailand, India, Iran, Colombia, El Salvador, and other nations. Generally, the research results show (1) that the mass media can increase the level of knowledge about family planning (especially awareness) among the target audience, and (2) that interpersonal communication from family planning fieldworkers, peers, and others is more effective at changing attitudes toward family planning and in motivating adoption and continued use (Rogers, 1973). So the general conclusion from these field experiments is that communication does make a difference, although it may not have an immediate, direct effect on adoption rates. These field experiments were usually conducted on a pilot basis in a city, country, or other small area; their results may not be so great when they are broadened to a nationwide scope.

Two examples of quasi-experiments which examined the contribution of communication to family planning programs were the Profamilia radio cam-

paign in Colombia (Bailey, 1973) and the Isfahan communication campaign (Gillespie and Loghmani, 1970). Both of these studies utilized interrupted time-series designs to evaluate the influence of the campaign on adoption rates over time. Figure 4 shows how the introduction of a radio campaign on family planning in Colombia in 1969 seemed to reverse a downward trend in adoption rates. After the campaign was over, adoption seemed to decrease to its previous level again.

Figure 5 from the Isfahan campaign covers a much shorter period of time and compares adoption rates in Isfahan Province (where the campaign took place) with the rest of Iran as a control group. The data support the conclusion that the communication campaign increased the adoption rate over that which would have been expected from the efforts of the regular national family planning program.

Both of these quasi-experiments are subject to methodological drawbacks. For example, in the case of the Isfahan campaign, other changes in the family planning program which were probably taking place at the same time as the communication campaign may have contributed to increases in adop-

tion rates. However, despite these drawbacks, the two studies support the notion that communication has a potential role in family planning programs and may contribute directly to increased family planning adoption.

3. Adding IEC components to an existing national family planning program can provide evidence of effectiveness. An evaluation of the effects (1) of employing fieldworkers and (2) of paying incentives in Indonesia in 1971 (Rogers, 1973) illustrates this.<sup>6</sup> Addition of these IEC components resulted in an increased rate of adoption of family planning methods, although the gain was relatively modest in the short range. A similar analysis was completed of the effect of training traditional midwives as family planning motivators in Indonesia, Malaysia, and several other Asian nations; the result was a gain in the numbers of family planning adopters (Rogers and Solomon, 1975a; 1975b).

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<sup>6</sup>We include incentives here as an IEC component for two reasons: (1) incentives, particularly diffuser incentives which are paid to someone who recruits a family planning adopter, are paid essentially for communication and motivation activities and (2) payment of incentives has been considered as IEC activities by several family planning programs in the past.

4. Other evidence comes from stopping the IEC component in a family planning program in order to determine its effect in decreasing rates of adoption. For example, in Tamil Nadu state in India in the 1960s, a diffuser incentive had been paid to "canvassers" for recruiting vasectomy adopters (Rogers, 1973). When the payment of this incentive was halted for six months, due to a lack of government funds, there was a sharp decline in the rate of adoption of sterilization.

Evidence such as that illustrated above generally indicates that communication can make a modest contribution directly and immediately to knowledge levels and to adoption rates, and perhaps that it results indirectly (in the longer range) in reduced birth rates. The latter impact is, of course, more difficult to determine. Here we have considered only adoption as the main effect of family planning communication (and knowledge as leading to adoption).

Other success variables of national planning programs might also be considered: public support and policy-makers' support for a national family planning program and/or a national population policy, the level of in-depth knowledge of the target audience about how contraceptives "work" (so that side-effects rumors might be minimized in their negative impact), and rates of continued use of family planning

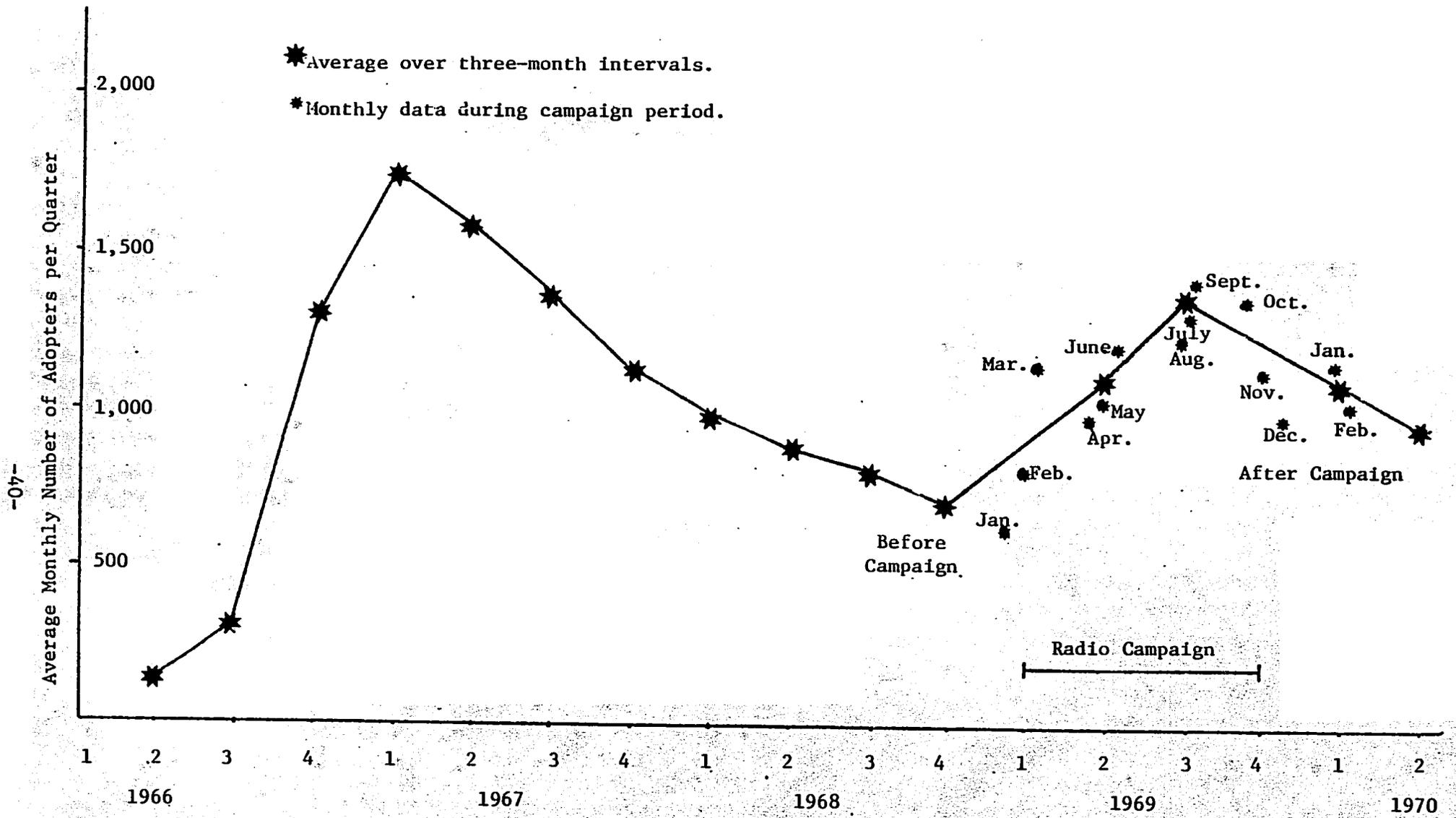


Figure 4. Illustration of an Interrupted Time-Series Experiment: The Colombia Radio Campaign for Family Planning.

Source: Rogers and Agarwala-Rogers, 1976.

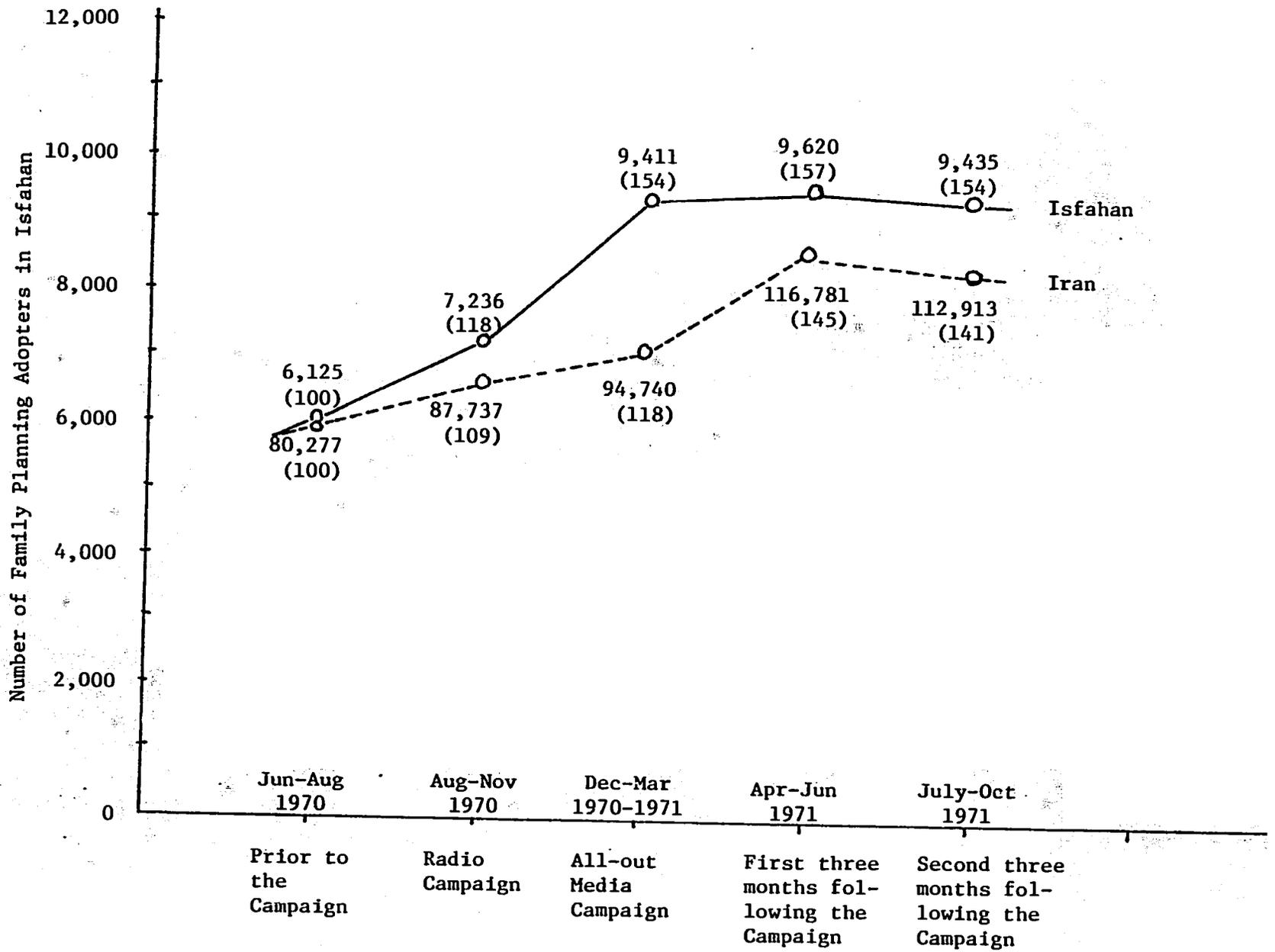


Figure 5. Comparison of the Number of Family Planning Adopters at Clinics in Isfahan Province and in Iran, by Three-Month Periods, before, during and after the Isfahan Communication Campaign

Note: To facilitate comparison of the Isfahan and Iran rates of adoption, the number of adopters are converted to an index number (shown in parentheses), with base 100 for the June-August, 1970 period prior to the campaign.

Source: Rogers and Agarwala-Rogers (1976, p. 102).

methods. Even if one assumes that the main effort of family planning programs should be to make contraceptives accessible to the target audience, communication still has a potential role in facilitating the organizational links for optimizing the management and distribution system for contraceptive products. While these other (than adoption) success factors are certainly of great importance, little is known about how IEC activities contribute to them.

#### IEC Activities by USAID

Information, education and communication (IEC) activities in family planning/population programs are designed to increase awareness, information, education, and motivation regarding family planning so that potential acceptors will use and continue to use contraceptives. IEC activities are not limited to the mass media; they also involve a wide variety of activities such as fieldworker outreach programs, small group communication, incentive programs, in-school and out-of-school population education, in-clinic education, and elite and policy-maker communication. The main concerns of IEC personnel are not only messages, media, and equipment but, more importantly, strategies of communication and behavior change (related to a family planning program's objective of recruiting acceptors by informational, instructional, and motivational activities for family planning, combined with the delivery of contraceptive services).

IEC is a support element in a national family planning program, and so the real function of IEC is not clearly reflected in the program's budget nor in its organizational chart. Often it is a disguised element in such program areas as training, fieldworker activities, research and evaluation, incentive programs, workshops and conferences, and community development.

An IEC Division was originally created within the Office of Population in AID/W in the mid-1960s, to provide communication assistance to national family planning programs. The IEC Division consisted of about ten professionals a few years ago; at present its staff is four professionals (out of 65 professionals in family planning/population in AID/W).

The main approach of the IEC Division in AID/W has been to contract with a wide variety of intermediary agencies<sup>7</sup> in the U.S. operating in various nations (Table 4). The main advantages of this approach have been:

1. To achieve a quick take-off in IEC activities;
2. To capture relevant expertise for IEC;

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<sup>7</sup>Many of these intermediary organizations were funded by USAID for other functions than just IEC; for example, the Population Council has conducted demographic and biomedical research activities, as well as IEC. Most agencies listed in Table 4, however, mainly were funded by USAID to provide assistance to the improvement of IEC in the LDCs.

3. To use the credibility and reputation and contacts of these experienced agencies;
4. To simplify USAID's administration of family planning/population IEC;
5. To give flexibility to USAID's Population Office, since the three-year contracts with intermediary organizations could be ended relatively easily;
6. To provide an alternative to USAID's hiring a large staff for IEC;
7. To create a diversity of views on IEC;
8. To integrate population with non-family planning activities, which might not otherwise occur;
9. To allow activities which USAID could not do, i.e., give a \$35 grant, or to provide funds to agencies which USAID could not otherwise assist.

The main disadvantages have been:

1. The difficulty in providing close coordination of IEC efforts, when so many different organizations are involved;
2. The lack of long-range continuity in some programs due to discontinuing funding.

About one-half of the agencies in Table 4 are still in operation today, but most of these are not primarily engaged in IEC work. In the late 1970s there has been a sharp decrease in the number of intermediary agencies funded by USAID to conduct IEC activities. There is currently a lull in IEC for population because:

1. The IEC Director of the IEC Division of AID/W and some staff are leaving through retirement and other personnel changes.
2. The number of personnel in IEC has been cut recently.
3. Most USAID-funded intermediary projects in IEC are finished or coming to an end.
4. Many population officials feel that a new look is needed for IEC activities.
5. Many IEC units in country programs have been stimulated by training and sensitization over the years to demand more IEC projects, but they may be suffering from a lack of active, effective support from AID/W, where budget and technical assistance personnel in IEC are insufficient.
6. Population officers in USAID country missions have usually not had specialized competence in IEC to

Table 4. AID Funding of IEC Activities through Various Agencies.

Information, Education and Communication (IEC) Activities  USAID-funded Agencies	Geographical Emphasis				Manpower Development				Technical Assistance	
	United States	Asia	Latin America	Africa	Non-degree Training Work-shop	Degree Trng.	International Conference	Travel/Study Fellowships	Consultancy Services	Information Services/ Clearinghouse
U. of Chicago Community & Family Study Center	X	X	X	X	X	X	X	X	X	
East-West Communication Institute	X	X			X	X	X	X	X	X
World Education, Inc.	X	X	X	X	X			X	X	
Family Planning International Assist. (FPIA)	X	X	X	X					X	
Asia Foundation		X						X	X	
Internat'l Planned Parenthood Fed.	X	X	X	X	X		X	X	X	X
Church World Service	X	X	X	X	X				X	X
World Assembly of Youth	X	X	X	X	X		X	X		
Airlie Foundation	X		X		X		X			
American Home Econ. Association (AHEA)	X	X	X	X	X		X		X	
UN Fund for Population Activ. (UNFPA)		X	X	X				X	X	
The Population Council	X	X	X	X				X	X	X
Pathfinder Fund	X	X	X	X						
Harvard University School of Education	X	X	X	X	X				X	
U. of North Carolina Population Center	X	X	X	X		X	X	X		X
Population Ref. Bur., Inc.	X	X	X	X					X	X
Population Serv. Int'l	X	X	X	X					X	
George Washington U.	X	X	X	X					X	X



respond to country requests, let alone to generate new approaches, so communication is often a token inclusion in USAID country plans.

7. The current reorganization of USAID population projects into regional bureaus buttresses the idea of making Washington-administered IEC technical assistance personnel available full-time for short-term assignments in individual countries where help is requested by the Mission or the host government through the Mission (a recommendation to which we return at the end of the present report).

By and large, however, the "intermediary" device which the IEC Division brought into play in the mid-1960s enabled USAID to leap over a number of programmatic and bureaucratic obstacles and quickly reach specific problems in LDC programs and to help public and private institutions in the LDCs to influence audiences that otherwise might not have been touched for many years.

Tables 4 and 5 show only the outlines of the vast spread of IEC-related activities, programs, projects, countries, institutions, and individuals reached through this mechanism. Elsewhere in this report, we discuss work of the East-West Communication Institute (which terminated its USAID-related functions in IEC in 1977) and the Community

and Family Study Center at the University of Chicago. To detail the nature and impact of contributions made by those and other agencies that were contracted as intermediaries would fill a file cabinet. Some of the intermediaries were designated to provide special services in the interests of LDC program improvement, such as research, training and the production of media prototypes; others served to identify worthy IEC action projects (including research and training) and provided expertise and sub-grants to LDC institutions and individuals, both public and private.<sup>8</sup>

Illustrative of the "service" type of intermediary are The Airlie Foundation (film production and discussion meetings aimed at LDC leader training) and Johns Hopkins University (the processing and dissemination of technical population information, activities transferred from George Washington University in 1978).

Among those other intermediaries funded by the Office of Population to encourage and assist in the development, financing and (possible) implementation of IEC projects by public and private LDC institutions were World Education (nonformal education) and The Asia Foundation (private LDC organizations' involvement in IEC projects to support national population/family planning efforts).

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<sup>8</sup>USAID also made substantial contributions to the overall budgets of public and private international population agencies, including UNFPA and IPPF, and some of those funds were used for IEC program assistance.

Table 5. IEC Strategies Used by Various Agencies

	USAID Interest in Strategy	A.F.	A.H.F.A.	Airlie Found	CFSC/UC	C.I.D.A.	CPC/UNC	C.W.S.	E.H.I.C.	F.A.O.	F.F.	F.P.I.A.	G.W.U.	I.A.V.R.S.	I.D.R.C.	I.P.P.F.	P.C.	P.F.	P.R.B.	P.S.I.	S.I.D.A.	UN/DSCS	UN/ESCAP	UNESCO	UNFPA	UNICEF	USAID Bilateral	W.A.Y.	W.E.	W.H.O.	W.N.	World Bank		
		<b>I. Single Medium</b>																																
Radio	low				x				x																									
Film	high		x	x									x	x	x	x								x		x	x					x		
Newspapers/ Magazines	low				x											x				x					x									
Printed Pub- licity Mtls.	medium		x	x	x	x	x	x					x		x	x	x		x								x	x				x		
Television	low				x																	x	x											
<b>II. Multi Media</b>																																		
Communication Campaigns	medium										x								x					x									x	
Social Mktng.	medium							x		x	x					x				x							x							
Fieldworker Visits	medium	x							x						x	x									x						x	x		
Small Group Communication	medium														x				x										x	x		x		
Integrated Rural Devlpmt.	medium	x						x	x						x	x			x				x	x		x			x	x		x		
Non-formal & Population Ed.	medium	x			x			x	x						x				x					x	x			x	x		x	x		
Low-cost Com- munications	low	x				x			x					x	x	x						x	x									x		
Traditional Commu- nication Channels	medium														x	x									x		x	x						
In-clinic Communi- cation	low																																	
Incentive Programs	low																																	
Policy Communi- cation	low		x						x		x				x																			

KEY TO TABLE 5

A.F.:	Asia Foundation
A.H.E.A.:	American Home Economics Association
Airlie Found.:	Airlie Foundation
CFSC/UC:	Community and Family Study Center/University of Chicago
C.I.D.A.:	Canadian International Development Agency
CPC/UNC:	Carolina Population Center/University of North Carolina
C.W.S.:	Church World Service
E.W.I.C.:	East-West Communication Institute
F.A.O.:	Food and Agriculture Organization
F.F.:	Ford Foundation
F.P.I.A.:	Family Planning International Assistance
G.W.U.:	George Washington University
I.A.V.R.S.:	International Audio-Visual Resource Service
I.D.R.C.:	International Development Research Center
I.P.P.F.:	International Planned Parenthood Federation
P.C.:	Population Council
P.F.:	Pathfinder Fund
P.R.B.:	Population Reference Bureau
P.S.I.:	Population Services International
S.I.D.A.:	Swedish International Development Agency
UN/DSCS:	United Nations/Development Support Communication Agency
UN/ESCAP:	United Nations/Economic and Social Commission for Asia and the Pacific

UNESCO: United Nations Scientific and Cultural  
Organization

UNFPA: United Nations Fund for Population  
Assistance

UNICEF: United Nations Children's Fund

USAID  
Bilateral: United States Agency for International  
Development (Bilateral Programs)

W.A.Y.: World Assembly of Youth

W.E.: World Education

W.H.O.: World Health Organization

W.N.: World Neighbors

Thus, USAID has made it possible to enlist public and private experience and experts to stimulate a wide variety of activities, with pre-selected time frames and budget limits, in areas that might not have been profitably covered through the direct-hire or direct-funding methods.

We have already shown that USAID has heavily funded IEC work in the family planning/population field. It is our opinion that this level of funding may be nearly appropriate in terms of its absolute amount and as a share of USAID's total budget for population assistance. But we argue that the impact of this IEC funding could be increased considerably if such investments were made in LDC programs which are guided more closely by communication strategies based on a behavioral approach to changing human fertility.

Now we move to a review of the main communication strategies which have been used in family planning/population programs around the world. Based on that review we outline the lessons that can be learned from the past decade or so of accumulated experience. From these lessons, we derive several important implications for the design and implementation of future IEC efforts.

## COMMUNICATION STRATEGIES FOR FAMILY PLANNING/POPULATION

This section reviews past experience in using communication strategies for family planning/population programs. A strategy is an analytical plan directed toward some definable goal which utilizes communication frameworks and techniques. Some communication strategies are directed toward the identification of appropriate media which can best reach the target population with certain information. Other strategies are directed toward optimizing the use of these communication media through the design of messages and communication delivery or feedback structures which apply appropriate information and behavior change techniques derived from communication research and experience. We explore the wide variety of communication approaches that have been used in the past by national and international agencies so as to provide policy-makers with a concise synthesis of this accumulated experience in terms of uses of each strategy, results of that use, the general lessons learned, and implications for future use of each main strategy.

A more detailed and comprehensive review of communication strategies for family planning/population is presented in the Appendix, which is designed for those readers involved in considering the benefits, requirements, and trade-offs of alternative communication strategies.

The initial parts of the present section are organized on the basis of single channels of communication. The latter portion of this section deals with uses of multiple channels of communication organized around several types of strategies for their use.

In the early days of national family planning programs, the Clinic Era, communication was seen mainly as a means of bringing the eligible public to the clinics. The purpose of the communication activities was to provide information and create awareness of the concept of family planning and its methods, and sometimes where and how contraceptive assistance could be obtained. Most of these early communication efforts centered around the use of single communication media like radio or posters, with little consideration of the potential for combining media or conducting unified communication campaigns. The experience in using each of five single communication media is outlined below. Although multiple media may have been used, the focus was primarily on a single medium, rather than on a coordinated effort based on an analysis in which media are chosen on the basis of feasible objectives, and with feedback from the field directing shifts in strategy to improve effectiveness.

## RADIO

India and Taiwan were among the pioneers in the use of radio for family planning programs. The impact of radio on knowledge about family planning is considerable in several countries. In the Dominican Republic and Colombia (Bailey, 1973), radio is considered to have had an impact on family planning adoption rates. Radio is uniquely able to reach the urban and rural poor, USAID's highest priority audience today. However, there often are limitations in the use of broadcast time due to the priority given to other messages on government-controlled radio stations and to the cost of using commercial radio stations. Radio provides a relatively low-cost means to localize programs in most countries, but this potential has not often been fulfilled. In the rural areas of countries like India, Pakistan, Bangladesh, Sri Lanka, Nepal, Afghanistan, Kenya, Jamaica and Bolivia, radio can transmit information more quickly and widely than any other medium in the absence of television. In such countries, however, if the failure to adopt family planning was due to reasons other than inadequate information, radio could not impact directly on adoption rates.

Despite these limitations, several innovative approaches in the use of radio show great promise. An example is Costa Rica's Dialogo program (Spain, 1978), where family planning information is disseminated in the context of human sexual-

ity, and the audience can conduct a two-way dialogue with the radio producers through their letters are answered with personalized information and referrals to clinic services, if needed.

## FILM

A considerable number of films have been produced for use by national family planning programs and for international training, over 100 of them under USAID sponsorship. However, despite this large number, the usefulness of film has been limited for two main reasons (Juarez and Associates, 1976). First, the content of the films has often been above the heads or beyond the experience of mass LDC audiences or of more appeal to more sophisticated audiences. More recent film production has begun to be more relevant. Second, the distribution of films and the availability of projectors, projectionists, transportation, and equipment maintenance has often been so inadequate that the rural majority in developing nations cannot be reached with any kind of film. Despite these limitations, several countries, such as Thailand and the Philippines where commercial films reach a high proportion of rural areas, have produced films that have entertainment value and also contain family planning information; these films are distributed either through commercial channels or well-organized government channels for free public showings.

## NEWSPAPERS AND MAGAZINES

In the early stages of family planning programs in countries such as Indonesia, Egypt, the Philippines, and the Republic of Korea, newspapers were used to reach policy-makers with information designed to create favorable attitudes toward formation of a national population policy. Newspapers and magazines have also been used with some apparent success to reach the rest of the target audience of literates. However, content analyses of newspaper articles show them to be oriented toward reporting the speeches and meetings of family planning officials rather than relating such issues to the lives of the target audience. For the primarily literate urban audience (which usually is already favorable to family planning), newspapers and magazines can continue to provide an important source of motivation and information about family planning.

## PRINTED PUBLICITY MATERIALS

Publicity materials such as pamphlets, comics, posters, newspaper inserts, matchbox covers, and bumper stickers have been widely used in several national family planning programs. They have some potential for creating awareness of the family planning program and the services available. However, in the vast rural areas of the least-developed of LDCs, most of the potential impact of these materials is

probably lost, since few national programs in such countries have a practical system for distributing them to the target audience in adequate quantities. When a single booklet finally reaches a clinic, the staff may lock it in a medicine cabinet so that it will not be lost. Except for a few exceptions, such as in the Philippines, few publicity materials conceived and produced by untrained or experienced personnel are designed with an understanding of the needs and motivations of the target audience, and only rarely are the materials adequately pretested. When message design and distribution are done carefully, publicity materials can probably help maintain a continuing awareness of family planning ideas and provide useful information about the availability of services. It is an irony that many prototype materials produced in recent years by U.S. institutions or in USAID-sponsored workshops may be more useful than some of those produced in some LDCs.

### TELEVISION

In many developing countries, television as a communication medium mainly reaches an elite, urban audience. However, in some countries, such as Mexico and Taiwan, television is beginning to reach many of the poorer segments of the public as well. With the advent of satellite broadcasting, as in the India SITE project in 1975-1976, television may reach a much wider audience of villagers and therefore

can become more important as a source of family planning and population information.

During the 1960s and 1970s, national family planning programs gained considerable experience in the use of mass communication. There was a change from emphasis on use of a single principal medium of communication (primarily to provide information about the existence of clinic services) to use of coordinated communication campaigns using a variety of media. Here the purpose was not only to bring people to clinics but also to (1) educate them about the advantages of smaller families and (2) to sell them family planning products through commercial (non-government) channels.

From the early experiences in the use of single channels of communication (which were chosen more on the basis of their availability than on their ability to communicate to the appropriate target audience), family planning/population programs moved toward the use of coordinated multi-media communication campaigns and other combined strategies.

#### COMMUNICATION CAMPAIGNS

A communication campaign uses multiple channels of communication in concert under the assumption that changes in audience knowledge, attitudes, and behavior will be greater due to the synergistic effects of a combination of channels. Campaigns are usually conducted for a limited period of

time, are usually centered around a single theme, and are designed for a specific set of goals.

Several of the more notable family planning communication campaigns have been the Taichung campaign in Taiwan, the Esfahan campaign in Iran, the Hooghly campaign in India, and the Pater campaign in El Salvador. These recent campaigns place a strong emphasis on the provision of information and education, as well as the provision of contraceptive services to insure that any cognitive changes can lead to family planning adoption.

#### SOCIAL MARKETING PROGRAMS

A specific type of family planning approach called "social marketing" developed in the 1960s and 1970s. Social marketing is based on the idea of using the techniques of marketing and advertising for social rather than financial profit. In general, the social marketing of family planning programs uses mass media campaigns combined with an effective contraceptive distribution network through existing commercial channels (such as tea, soap, or cigarette companies). The contraceptives are usually non-clinical, such as foam and condoms; however, recently pills have been promoted as well. The central idea of social marketing systems is to use existing commercial expertise and channels to reach people with both information and contraceptives.

The earliest such program is the Nirodh program in India, which distributes condoms to some 400,000 retail outlets in the nation. Other innovative social marketing efforts have been conducted in Indonesia ("K.B." condoms in the Jamu program), Sri Lanka (Preethi condoms and Mithuai pills), Kenya (Kinga condoms), Thailand (Community-Based Distribution Program),<sup>9</sup> Bangladesh, and several other countries. These programs have used extensive research, pretesting, and evaluation. They have been highly effective in reaching their target audiences with information and supplies in a minimum amount of time at relatively low cost. Preliminary analyses show that the cost for providing a couple-year of protection using social marketing systems is well below that of clinic-based programs.

Social marketing and community-based distribution are clearly high-priority areas for future family planning efforts.

#### FIELDWORKERS

As the clinic era of national family planning programs began to shift to a field era in the late 1960s in a number of nations, a number of programs adapted the agriculture

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<sup>9</sup>Community-based distribution programs are developed around the use of respected villagers, often teachers or shopowners, who distribute family planning products and provide information to their clients.

diffusion approach with fieldworkers extending family planning services to villagers. Since the mid-1960s, several important changes have been made in the way fieldworker activities are conducted. Initially, it was thought that fieldworkers should be non-local, specially-trained government career workers. Not only was it impossible to find adequate numbers of such professional fieldworkers in family planning, but they were not trusted by rural people. More recent efforts use less highly trained paraprofessionals and nonprofessional volunteers.<sup>10</sup>

Fieldworkers have been effective in securing family planning adopters in Indonesia, Hong Kong, the Republic of Korea, Iran, Taiwan, and other developing nations. Drawbacks in the use of fieldworkers include the relatively high cost of visiting every family in a village (instead of contacting only the highest priority audience) and problems in adequate training and supervision of paraprofessionals. The trend, exemplified in the Lampang Health Delivery Project in Thailand, is toward the use of paraprofessional and volunteer fieldworkers to provide integrated health and family planning services with one village-level worker for every ten to fifteen families. To reach the rural majority, this approach

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<sup>10</sup>Paraprofessionals also cost less per client-contact than do professionals. It is estimated that the cost of a professional staff member in family planning (a medical doctor) may be 30 times that of a paraprofessional fieldworker with about eight years of formal education.

is relatively cost-effective, but it presents many problems in training, supervision, and management.

#### SMALL GROUP COMMUNICATION

Organized local groups have been used in development programs in many countries. Probably the best-known and most intensive use of local groups is in the People's Republic of China, where small local groups are organized for political education, agricultural development, public health, and "birth planning." Groups have been used in family planning in Colombia, Indonesia, Bangladesh, and the Philippines. Another noted approach is the Korean mothers' clubs. Groups have been effective in spreading information, changing attitudes, and changing and reinforcing behavior change. However, organizing groups only for family planning is probably prohibitively expensive and may even be less effective than when this topic is embedded with other development-oriented topics.

#### IN-CLINIC COMMUNICATION

Even though the trend in family planning programs is to supplement clinic-based approaches with field contact with target couples, clinics continue to provide an important potential contact with many adopters. There is a great deal of potential for improving continuation rates and reducing

rumors about family planning through in-clinic education. This opportunity has not been well realized in the past, except in some of the more advanced national programs, nor is much known about how to best accomplish it. More work in this area is needed

### NONFORMAL EDUCATION AND POPULATION EDUCATION

Nonformal education is defined as any educational efforts which take place outside of the formal education system. It is based on the assumption that adults, as well as children, have learning needs; this includes illiterate adults as well as literates. Formal education channels have not been able to reach all the masses effectively; realization of this problem led to greater use of nonformal education since 1970. The Philippines, Ghana, India, Thailand, Bangladesh, and Ethiopia have used nonformal education, which often combines literacy training with family planning information. World Education is a leading organization in the spread of nonformal education with family planning content.

Population education is defined as an approach which integrates family planning and population information into the formal school curriculum. It usually involves rewriting curricula, such as mathematics, with population examples and content. This approach has been used in Sri Lanka, the Philippines, and Egypt. The long-term effectiveness of this

strategy is not fully known. However, it is relatively low-cost in terms of the large number of individuals reached, and it is reasonable to expect that in the years to come it will have made a significant and possibly important impact on birth rates.

### INCENTIVES

Incentives are direct or indirect payments of cash or in kind given to individuals or groups in order to encourage overt behavior change (Rogers, 1973). Incentive programs have been considered an important aspect of IEC in several family planning programs. Incentives for either adopting family planning or helping to secure a family planning adopter have been used in India, Pakistan, the Republic of Korea, Taiwan, and Indonesia in the 1960s and 1970s. Gradually, USAID has discontinued its assistance to incentive programs due to their potentially coercive nature. Singapore is noted for its program of incentives for family planning and its disincentives for large families.

### MATERIALS DEVELOPMENT

Most family planning programs need communication materials for three purposes: (1) direct consumption by the target audience, (2) for use by fieldworkers and clinic staff, and (3) for use in the training of family planning person-

nel. In the past, the quality of these materials has often been poor. They can be improved through the development and distribution of prototypes, through clearinghouse activities, and through the consultation of communication experts in materials development for family planning. All communication materials should be designed and pretested with formative and summative evaluation techniques. But few are.

### LOW-COST COMMUNICATION MEDIA

Low-cost "little" media such as flipcharts, filmstrips, cassettes, radio, etc., can often do the same job as the more expensive alternatives like film and television broadcasts. In addition, the little media can often be localized, and used at times convenient to an audience. Low-cost media can sometimes reach a larger audience than high-cost alternatives, since duplication costs can be much lower. The technological vulnerability of the little media is often less of a problem in developing nations. Obviously the choice of a medium depends on a number of complex factors which go beyond simply the cost of a media product such as a film or filmstrip. The point is that the usefulness of the little media should at least be considered when such decisions are made.

In most developing countries, traditional channels of communication and social organization exist side-by-side

with their modern counterparts. Traditional channels are well established media which are generally highly credible to village audiences. Traditional media such as puppet shows, folk opera, travelling storytellers and singers reach a large rural audience and have been encouraged to include family planning content (and other development-related messages) in India, Malaysia, Pakistan, Indonesia, the Republic of Korea, and Iran.

Traditional midwives and other traditional healers exist in virtually all countries in Asia, Africa, and Latin America. They usually serve the hardest-to-reach audience for family planning, and are trained and supervised as important additions to health and family planning programs in several countries such as Mexico, India, Pakistan, Malaysia, Indonesia, Thailand, and the Philippines.

In many countries, traditional social institutions exist which can provide an infrastructure for health and family planning programs. In the Province of Bali in Indonesia, the banjar (a sub-village administrative organization) has successfully promoted family planning to its members. In several countries, traditional credit societies have aided development programs, including family planning programs.<sup>11</sup>

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<sup>11</sup>For example, many of the mothers' clubs in Korean villages existed previously as Kaes (informal credit associations of women) before the government family planning program began organizing mothers' clubs in 1968.

Past experience in using traditional communication channels and organizations suggests that they should be recognized and considered as potentially valuable avenues for extending health and family planning services to rural areas.

#### INFORMATION SERVICES AND CLEARINGHOUSE ACTIVITIES

Clearinghouses and information services are designed to package and disseminate information that can be useful to family planning/population program administrators and policy-makers. Several international and regional clearinghouses exist to serve this purpose. The only clearinghouse specifically designed for materials concerning IEC was transferred in 1977 from the East-West Communication Institute to the Community and Family Study Center at the University of Chicago. Perhaps clearinghouse services in the future should be country- or region-specific for maximum effectiveness and relevance.

#### POLICY COMMUNICATION

Since the Bucharest World Population Council in 1973, the need is especially clear for an improvement in communication about family planning/population matters not only to the health/family planning establishment, but also to the wider audience of policy-makers and elites in developing nations. Since the population growth of a country affects progress in

all other sectors of its national development, it is clear that those involved in other sectors such as agriculture and education also have a responsibility for population growth rates. USAID is assisting various communication efforts aimed at national policy-makers in developing nations.

### TRAINING PROGRAMS

In the past, communication training in family planning has been oriented heavily toward message production and not enough toward such strategic aspects of communication as message design and research, organizational communication, and IEC evaluation methods. The trend in training is toward regionalization, and to more specific skills development to meet country needs. For example, the University of Chicago's Community and Family Study Center is now offering training in regions, rather than only in the U.S.

### INTEGRATED RURAL DEVELOPMENT

Programs in Mexico, Guatemala, Colombia, Bangladesh, the Republic of Korea, Pakistan, and other nations are devoted to the integration of several development sectors. The implication of integrated rural development programs for family planning is that contraception may be more easily understood and adopted by rural people when it is included within the broader context of other development activities. In ad-

dition, the cost of a delivery system is potentially lower if it is integrated, rather than designed solely for family planning. Integrated rural development is often organizationally difficult because each of the government development agencies involved is resistant to collaborative activities. Its potential for family planning is yet to be fully realized. To date, family planning has been most frequently integrated with health.

Several other uses of communication in family planning/population programs have been attempted, and will be outlined briefly in the sections which follow.

#### COMMUNICATION RESEARCH AND EVALUATION

The Clinic Era of national family planning programs was marked by extensive use of KAP (knowledge, attitude, and practice) surveys, an approach sometimes criticized for its methodology, but one which was often useful to national family planning programs in their early stages. A more recent, but still unrealized trend is toward communication research tailored specifically to meet the information needs of a national family planning program.

A recent comprehensive review of 96 family planning experiments (Cuca and Pierce, 1977) recommended three categories of needed research. Communication research has a great deal of relevance for the generation of the knowledge needs identified in each of these three research areas:

1. Research on approaches that are already known to work but that need clarification on how and why they work. An example is the need for research on the linkages between mass media and traditional interpersonal networks of communication.
2. Research on approaches that have some promise but need additional testing. For instance, communication may play a significant role in a program which attempts to alter the economic, social, and informational factors relating to the demand for children and the desire for a large family.
3. Research on approaches that explore the relationships between socioeconomic development and fertility. Here research is needed on the integration of family planning with other development programs. Communication research on organizations is especially relevant.

More research on simple, field-manageable communication and evaluation techniques is also needed.

A review of family planning research funding (Kar, 1977) shows that only about 23 percent of federal funds and 34 percent of private funds spent in 1974 for social and behavioral science research relating to population went for communication research (which is not an especially high priority among funding agencies).

Research utilization is another key area of family planning/population communication. By its very nature, research utilization is a process of communication and change in which the messages are research results that are communicated to practitioners (Rogers, 1973). To make population-related research results more available and relevant to decision-makers, research is needed on how to link more effectively the researcher and the user. Past experience in family planning communication suggests that more than in any other sector of development, family planning/population programs have extensively used and innovated communication techniques and strategies. Many lessons can be learned from such experience, not only for the benefit of those who work in family planning/population programs, but also for policymakers and administrators in other areas of development.

Table 5 presents a summary of the past uses of communication strategies in population programs, the main agencies that used each strategy, and an indication of USAID's current interest in each one. Based on past experience in using communication for population/family planning programs, it is possible to derive implications for the future use of these strategies.

1. Communication activities in national family planning/population programs were criticized for their lack of clear objectives, strategies, and compre-

hensive planning to insure proper use of communication materials in the field. The use of single media, (such as film, which was heavily supported by USAID) is an example of the past state of the art. Experience shows that a technically good message (such as a beautiful film or poster) is not necessarily successful in achieving its communication objectives; good technical level is a necessary but not sufficient condition for successful communication. A beautiful poster or film may be misunderstood by a village audience. Pre-testing can prevent such communication failure.

In the future, it is highly probable that the use of communication will be increasingly in the form of coordinated strategies directed toward specific audiences which involve the use of multiple channels of communication, each targeted toward reaching specific groups with carefully designed and pretested messages. Communication is also increasingly likely to be used for reaching elite and policy-maker audiences, as well as for the improvement of family planning program management, supervision, and continuing training.

2. Social marketing and community-based distribution strategies will become more important contributors

to national family planning programs in the future.

3. More fieldworkers will be paraprofessionals or volunteers who are members of existing community groups.
4. The promising results of present programs which utilize existing local organizations, such as the banjar in Indonesia's Province of Bali, encourage the greater use of local groups and institutions in family planning programs.
5. Communication research is changing its role from that of the "KAP-study era," where it primarily justified the need for family planning programs, to a new role where research and evaluation will play a greater part in the design and modification of family planning/population programs so as to increase their effectiveness.

Overall lessons learned from past experience in family planning/communication are discussed in the following section.

## PROBLEMS AND POTENTIALS: LESSONS LEARNED FROM IEC EXPERIENCES

Based on the information gathered from interviews with various individuals closely involved in family planning IEC as well as from document analysis of IEC program activities, we (1) identify certain important IEC problem areas and (2) suggest some of the potential IEC approaches that might be able to help overcome the problems. This section will discuss the problems and the potentials of IEC in the following areas:

1. IEC policies
2. IEC planning and strategies
3. IEC program implementation
  - a. manpower development
  - b. materials development and distribution
  - c. monitoring and supervision
  - d. research and evaluation

The section is structured to systematize our discussion, but does not imply the sequencing of components in an ideal IEC program activity.

### IEC POLICIES

#### Lack of Specific IEC Policies in the LDCs

In the past few years there has been a trend toward the integration of population messages with other development

messages, especially nutrition and other health-related subjects, improved housing, agriculture, functional literacy, etc. In some countries (in Africa, for instance), the reason is political. Family planning may only be acceptable together with other social and economic development programs. In other countries in Asia and Latin America, the issue is a pragmatic one, that of the efficiency and effectiveness of motivational and persuasive approaches. The issue of integration goes beyond the integration of the functional content of the messages; it includes the integration of manpower, resources (time and money), and available communication media that previously have been utilized by different agencies, which all require coordination at different levels and for different purposes (ESCAP, 1977). A comprehensive population IEC policy incorporating different levels of activity (donor agencies, national programs, integrated projects) can be very useful in setting certain priorities and guidelines for IEC functions and approaches to deal with urgent and important operational issues, such as integration.

The function and scope of national IEC programs should be clearly defined. For instance, should IEC programs include in-school population education and sex education? If so, how is the Ministry of Education to be dealt with, since in many countries this Ministry claims in-school education as its responsibility? Should IEC programs also educate and

inform the medical staff of the population program regarding the importance of IEC? How should the lack of coordination and cooperation between the medical service section and the IEC section of family planning/population programs in many countries be improved? Should IEC get involved with "beyond family planning" messages or approaches and try to reach other development planners and workers who are presently not directly involved in population/family planning work? Should communication also support population program managers, implementers, and scholars/researchers in making better program and strategy decisions by providing them with information services through clearinghouse activities? In answer to these questions and many others, specific and functional definitions of IEC should be incorporated into the IEC policies to avoid the misconception of many development workers, including population IEC workers themselves, regarding the scope and function of communication support for family planning programs. For example, many perceive communication only as information, publicity, or public relations; not as an integral and planned support component of the on-going family planning/population program.

#### Uncertain Role and Function of IEC

It would be useful to have policy guidelines which attempt to determine the role and responsibility of the national IEC program in relation to other population program

activities, such as training, research and evaluation, policy planning, coordination with other family planning and/or non-family planning agencies. With such IEC policy guidelines, the priority for IEC components to be included in these areas of effort can be determined more explicitly.

Policies which define the flexibility, the constraints of the modus operandi, and the priorities among available alternatives of the IEC program can be of value to IEC program decision makers. Such policies are especially valuable in dealing with issues such as whether to utilize commercial resources to conduct a part or all of an IEC program or to commercialize certain IEC services to achieve self-sufficiency of the IEC activity. Another important IEC policy issue concerns the implications of the rather promising approach of bringing contraceptive services (usually pills and condoms) beyond the clinic-based delivery infrastructure, and thus making them available at the lowest community level through existing social institutions or through household distribution approaches (as in Indonesia and Thailand). The issue then becomes: should and can IEC workers "demedicalize" family planning in a non-clinic-based approach?

#### Uncertain Position of the IEC Component

Other concerns exist about the placement of the IEC entity within a family planning/population program and about the type of planning to be utilized for IEC programs. His-

torically, IEC units, if they existed at all, were placed organizationally in the public relations or information section of a family planning program. This position severely limited the kinds of activities they were mandated to perform and, through personnel recruitment procedures, also limited what they were competent to do. Even the IEC branches of some international agencies such as UNDP and UNICEF are located in information, rather than in program sections, thus limiting their ability to integrate completely into the support of ongoing programs. Obviously, no single model will apply to all countries or organizations; however, serious consideration should be made of the degree of integration that is desired in family planning/population programs (usually a great deal is desired) and of how organizational placement will affect the fulfillment of such roles.

The type of planning paradigm to be employed in IEC programs is also of concern. In the past there have been many examples of purely "top-down" approaches which suffered from urban biases, cultural differences, and other factors which severely limited the success of the communication efforts.

The concept of "development support communication" (DSC), as formulated by the UNDP, is one approach to the question of organizational placement and integration of IEC. As of 1975, at least six countries created communication support programs based on the DSC approach in the popula-

tion/health/family planning area (Boyd, 1975). The DSC approach is based on the policy of decentralization of IEC activities. Planning is done with a "bottom-up" philosophy and is conducted by a central committee which includes communication specialists with a great deal of development experience participating from the onset of a project or program. Communication is not perceived as simply information dissemination or public relations. Instead, communication is considered an integrated component of a development project or program. Although the DSC approach has not always been completely successful it should be considered in the search for appropriate policy and planning models for IEC. The key point is that consideration must be taken of the position, function, scope, and planning methods to be utilized by an IEC unit as part of a national family planning/population program.

#### IEC PLANNING AND STRATEGY DEVELOPMENT

Experiences from Iran, the Republic of Korea, Taiwan, Jamaica, and Singapore, show that a well-planned IEC strategy can contribute effectively to a national family planning/population program. Some factors that lead to the success of an IEC program are:

1. Well-defined communication objectives integral to the overall family planning/population program;

2. The utilization of formative, as well as summative research for IEC program design, pretesting, evaluation, and modification;
3. The identification of well-defined, specific target audiences;
4. The use of multiple communication media that function to reinforce and supplement each other;
5. Consistent message themes and treatments.

#### SPECIFIC PROBLEM AREAS IN IEC PLANNING AND STRATEGY IMPLEMENTATION

##### Lack of Measureable Communication Objectives

Due to the lack of specific IEC policies and priorities, many IEC programs in the LDCs do not specifically state their desired outcomes in tangible or measurable terms. Evaluation of IEC programs is often based only on the number of acceptors gained through the family planning program. It is often inappropriate to expect a direct cause-and-effect relationship between IEC messages and such complex decisions as choosing whether or not to contracept (Worrall, 1977). Unless IEC program objectives are specified in more tangible behavioral terms that can show intermediate and long-term impacts of IEC strategies, it is difficult to convince decision-makers (especially medical and service staff) of the

importance of IEC to the total program. Such intermediate objectives could include media reception and use, knowledge and attitude change, changes in interpersonal communication patterns between husbands and wives, and others depending on the goals of the overall strategy.

The formulation of IEC policies based on an adequate and accurate needs assessment of the overall population problem in the context of what is known about the potential contribution of communication to a family planning program (as discussed in the beginning of this report) can be very useful in determining policy priorities, and in setting up specific IEC objectives.

#### Multi-Media Strategies Versus Single-Medium Strategies

Many IEC programs in the LDCs concentrate on use of a single principal medium strategy (such as posters or radio) because it is assumed that there is a single most effective medium or channel for all purposes. This ignores the fact that effective communication often requires a planned approach where various channels, each reaching a certain audience, act in concert to achieve specific objectives.

Moreover, the success of IEC programs can be enhanced if they are planned as on-going communication activities rather than merely a series of short-term or temporary campaigns. Interpersonal and traditional channels of communication,

such as those utilized in the banjar program in Bali, should not be neglected in IEC efforts. In some cases, these may be the best means of reaching the high-priority audience in villages.

#### Neglect of Management Planning

Comprehensive IEC strategy development and planning within LDC programs also include the important aspect of management planning for use of IEC resources: People, time, and money. Unless management objectives are specified that detail the activities to be carried out, the IEC program will suffer from inefficiencies and ineffectiveness. A bitter lesson can be learned from what happened to the 115 mobile audio-visual vans which were delivered to Indonesia two years late (in 1975), as part of World Bank assistance. According to one senior official of a major donor agency, the foreign consultant who planned the IEC mobile van strategy completed his two-year consultancy assignment in Indonesia without seeing the arrival of the vehicles. While waiting for the vehicles, the drivers/audio-visual technicians (who were recruited and trained in 1973) received salaries for two years for doing practically nothing. Due to a lack of planning, most of the software materials, especially films, were not produced until 1976. Meanwhile, the IEC emphasis and the strategies of the Indonesian program had changed from the use of IEC mobile vans to household and community-

based distribution programs, which emphasize interpersonal communication through the utilization of local leaders and fieldworkers. So by the time the vans were finally operational, they were irrelevant. Better planning could have avoided this problem.

### Neglect of Other Key Audiences

Audience analysis is a part of the IEC planning strategy to determine the priority target audiences. IEC activities in many countries have focused on the individual woman or the married couple. The important role played by broader social units such as the extended family, village elders, and the local community is often neglected. In many programs, much attention is being paid to the easier-to-reach urban and literate audiences. However, other key target-audiences are often unreached, such as elites and policy-makers, development planners who are not directly involved at present in population/family planning work, medical personnel, and males in general.

### Ineffective and Inefficient IEC Coordination

Another important task for IEC planning is that of coordination. Better coordination of the different family planning IEC activities carried out by various organizations can improve the effectiveness and efficiency of family planning programs. In many countries, one finds unnecessary overlap-

ping of activities and, at the same time, many gaps. Where coordinating mechanisms exist (e.g., ministerial committees), the representatives of different agencies are often relatively senior and, hence, remote from day-to-day IEC activities. In many cases, the activities of different government bodies are well-coordinated, but the relationship between their activities and the efforts of private agencies are not well-defined (such is the case in Malaysia, Thailand, Indonesia, and the Phillipines). It is also frequently observed (for instance in Colombia, India, Malaysia, Pakistan, and Nepal) that improved coordination is needed between the IEC sector, which generates demand, and the service sector, which satisfies this demand. This improved coordination could help avoid frustrations created when clients are unable to satisfy their expectations of family planning services created by a persuasive and credible IEC program.

#### Unintegrated and Vertical Communication Problems

In many IEC programs, it is usually assumed that the decision to accept or reject a family planning method rests in the hands of the individual woman or (or perhaps her husband). Adoption is thought to be an individual decision. Only recently have we recognized that many significant behaviors require community or group decisions, and that a vast majority of such changes demand decision and action by

functionaries, elders, in-laws, doctors, and others in society. An example from agriculture is illustrative. A farmer's decision to put more fertilizer on his rice land obviously cannot be implemented unless fertilizer supplies are available at a reasonable price and within a reasonable distance of his farm. Nor can the farmer buy his supplies without cash or credit. Moreover, he must be persuaded that fertilizer will increase his yield by more than enough to recover his costs. The official who persuades him must, therefore, have a realistic knowledge of such risks. The farmer must have some reason to be confident that his crop will not be destroyed by insects or disease or that, if these calamities strike, he can get help in fighting them. He must have reason to believe that he can sell his increased yield at an adequate price. Finally, there must be available products that he wants to buy in order for him to want to increase his rice production.

Such a package of goods and services must be available if our hypothetical farmer is to adopt the innovation of increased application of fertilizer. Before the farmer makes his decision, there had to be a series of decisions by many other people: crop research workers, bankers, officials of the national credit agency, fertilizer dealers and manufacturers, government officials who determine the price of rice and fertilizer, and a host of others who are part of the adoption equation.

The farmer's decision, in other words, is much less a measure of the effectiveness of communication to him than it is of the effectiveness of communication with the various individuals, groups, and agencies that determine his inputs. Our instinctive view that the farmer's failure to adopt the fertilizer practice means we have not been sufficiently persuasive could be wrong.

The planning of communication strategies should not only be aimed at communicating to the potential adoptors (often described as "vertical" communication); it should also open the avenue for horizontal communication among the various individuals, groups, and agencies that work together in a family planning program.

IEC planning for an integrated development program in which family planning is one of the sectors, is yet more complicated. One must take into consideration not only how to integrate and divide the work of the different development agencies but, more importantly, make sure that the different development approaches do not conflict with each other. For instance a nutritionist says "Eat more protein, so raise fish in ponds." A sanitation expert says "Don't have stagnant water, it will breed mosquitoes, so get rid of the fish pond." An agriculture extensionist says "We need more labor force to work in the rice fields to increase production." The family planning official says "Do not have too many children in your family."

Adequate communication support for any development program including family planning is essential to its success, as shown by the Comilla project in Bangladesh, the IRRI project in the Philippines, the FELDA project in Malaysia, and mother's clubs in the Republic of Korea. Communication planning should be an integral part of the overall program planning process from the outset. When development planners concern themselves primarily with the technical aspects of development such as seeds, sanitary toilets, clinics, fertilizer, and IUDs and think of communication as only the final step from the fieldworker to the villages, the project is in deep trouble. But such a narrow view of communication is common in the family planning field.

## IEC PROGRAM IMPLEMENTATION

### Manpower Development

#### Lack of In-Country and Learner-Centered Training Programs

There is an increasing need and demand to focus IEC training at the regional and, if feasible, at the country level. International training programs are usually too general in content and, when training programs attempt to make their content more specific, the problem of cross-cultural applicability is a major barrier. In addition, international family planning training often suffers from the selection process: some of the people sent for training overseas do not usually need the training, but attend simply

because it is their turn to go abroad. Some administrators perceive this selection practice as a means to boost staff morale and to give rewards for accomplishments.

In-country training usually has less prestige and therefore is not taken as seriously by the training participants. In-country training experience in some countries, however, such as the Philippines, Thailand, and Indonesia indicates that if the training content is directly relevant and practically oriented, the training program can be very effective.

In-country training is more effective when the training methodology is adapted to the situation; e.g., it takes into consideration that most of the participants are mature professionals who do not usually like to be lectured to. In many IEC training situations the trainees' problems are not assessed and their opinions in problem-solving exercises are seldom consulted. Instead they are given a set of answers to their perceived problems.

These concerns have not gone unnoticed. An IEC training program, such as that at the University of Chicago's Community and Family Study Center (CFSC), is now designed to be more responsive to the interests and needs of trainees from developing nations. The University of Chicago also offers regional and in-country training programs, especially in Africa and Latin America.

The six years of family planning IEC training at the East-West Communication Institute (EWCI) also has demonstrated effective training methodologies that move away from traditional didactic approaches. EWCI has now phased out family planning communication training on a large scale, however.

Training programs in the local country for mid-level IEC workers have not been conducted frequently and, even at the regional level, population/family planning IEC training is very rare. In-country training and regional training have centered mainly on family planning training, primarily for medical and para-medical personnel. The use of a modular training approach as developed at the EWCI (see the Appendix) which can be adapted and translated for family planning IEC work has the potential to fill this in-country training gap.

#### Inadequate IEC Trainers and Training Needs Assessment

Trained communication specialists who can undertake a planned communication support program for population programs are still inadequate in number, as well as in quality (Amritmahal, 1977). Even though there are quite a number of persons who have been trained abroad or in their own countries in the field of family planning or population IEC, there is also a high rate of turnover of IEC personnel. Many of the persons trained are now no longer working in the

population field due to the inability of population programs to compete with other job opportunities in terms of salary. Thus, the need to conduct IEC training continues, especially for middle-level IEC workers.

Most of the persons who have been trained outside of their countries are high-level IEC workers, and they have not been successfully utilized as trainers within their countries because of work overload or because they are no longer involved in IEC programs due to a promotion to another section within the program. Hence, the hoped-for "multiplier effect" of training has not worked out very well in practice.

Specialized IEC training is needed for most of the higher IEC officials who have already had basic IEC training. For instance, issue-oriented training, such as in communication planning and strategy development, the use of audio-visual aids, adult education, message treatment, and pretesting, etc., should be encouraged. In addition, training in communication research and evaluation has been seriously neglected.

There is a pressing need to have a systematic, up-to-date, precise estimate of the various categories and numbers of persons engaged solely, partially, or even marginally in communication for family planning, and those who need to be trained over a given span of time. Such data would provide

the basis on which to prepare a long-term comprehensive plan for training, to assess the proportion of the training load that has already been completed, and to identify those who need initial, additional, or reinforcement training. Changes in the training programs may be needed when major shifts occur in program strategy or operation, when there are revised perceptions of communication, or when promising new channels are discovered (Amritmahal, 1977). Hence, it is necessary to keep the estimate of manpower and training needs under periodic review.

In many countries, family planning fieldworkers and the media practitioners have not been given adequate training in family planning IEC. The family planning fieldworkers have usually been trained in human reproduction, the various contraceptive methods, and in reporting and recording procedures. However, very little training on interpersonal communication approaches, motivation and persuasion, establishing effective dialogues, group communication, counter-arguing rumors, etc., are given to fieldworkers. Media practitioners who are not working for family planning agencies have not been given adequate training in communication support for family planning. Usually the press or broadcasters report the family planning organizations' image, activities and accomplishment, but do not help in persuading and motivating the mass audience to practice family planning. So their role is that of public relations agent

rather than persuasive communicator. The media production staff often has only a vague idea of how to incorporate family planning messages into their production scheme.

There is now a trend toward integration of family planning with other development programs. Population/family planning IEC training will have to be broadened to include the integrated development approach. Such training should stress planning and developing communication strategies as an integral part of the overall development plan. In addition, development communication training should stress the point of view that communication is one of the key elements for coordination in the process of integration. A development communication strategy would integrate communicators across sectors.<sup>12</sup>

Several questions regarding family planning IEC training remain unanswered: Who should take the responsibility for the IEC training in the Asian region and what should be the level of IEC training? Asia, at present, is the only region where there is no IEC training at the regional level. Promising new developments include the village distribution system in Indonesia, the total integrated development approach (TIDA) in the Philippines, the community-based distribution

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<sup>12</sup>An attempt to follow this approach at a national level has been planned in Pakistan and in Egypt. USAID is involved in both cases.

system in Thailand, and the mother's club approach in the Republic of Korea which all hold implications for a regional training program.

Another unanswered problem is whether training programs in IEC should be degree-oriented, so as to give the trainee a theoretical grounding in communication rather than just giving him "cookbook" knowledge about how to communicate. Since many programs cannot spare staff for a long period for overseas training, what is the possibility of establishing development communication programs in developing-country universities? Developing national capabilities in communication training is being explored by the University of Chicago's CFSC. Obviously a core staff must be trained first, yet there are only a few universities in Asia that offer an advanced degree in development communication. Thus, the first priority is to focus on training a core staff who will then offer development-communication training programs in developing country universities.

#### Materials Development and Distribution

Family planning communication materials exist in every medium from flipcharts to films and from posters to print ads. They are used in a broad variety of settings from clinics to home visits to cinemas to mass mailings. The objectives of such materials vary from education and information to entertainment, with subtle or specific population

orientations. The emphasis in the past, by USAID and other agencies like UNICEF and UNDP, has been to provide hardware, while insufficient funds have gone into the production of software materials within the LDCs by LDC personnel. The Indonesian mobile van experience funded by the World Bank, shows an emphasis on the hardware with neglect of the message materials to be used after the hardware was in place. This hardware orientation combined with an emphasis on "big media" (such as film and television) neglects the lower-cost, non-hardware materials which also have potential. Even in hardware-oriented projects, some changes may be in order.<sup>13</sup>

USAID has been involved in materials development in several ways: through clearinghouses, through training programs, and through direct distribution of materials to host countries. Clearinghouses, such as the one formerly at the East-West Communication Institute (now at the University of Chicago) and the International Audio-Visual Resource Service (IAVRS) in London (supported by UNESCO with UNFA funds), have not improved the quality of communication materials much, since they are (or were) mostly storehouses of inform-

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<sup>13</sup>For example, a recent consultant on hardware to USAID remarked that USAID procurement policy does not allow for a contingency fund (recommended at 10 percent of total hardware costs) to allow for repair and modification of hardware which is misordered or broken by the time it reaches the field.

ation. Training programs, such as those at the East-West Communication Institute in Hawaii and at the University of Chicago, have taught both materials production at an elementary level and design and test techniques, which are necessary to improve the usefulness of materials to meet a set of specific objectives.

Direct distribution of materials to national programs consists mostly of training materials that are heavily oriented toward high-cost media such as film. The current Population Information Program (PIP) II project is distributing some materials in limited quantities, but does not have funding available for in-country adaptation of the materials for specific local needs. The key to understanding past problems in the use of film (or any other medium) is that there is more to the successful use of the medium than the media product itself (such as a film or videotape). Even if a film is of superb technical quality and content, it may completely fail to fulfill its objectives if it is not utilized in such a way so as to make it available to the correct target audience at the proper time, in connection with the necessary resources (such as family planning services) to elicit whatever behavior is desired. The degree of planning required has rarely been seen in the population field. Films, which involve a fairly high initial expense, only become cost-effective when distributed to a large audience. For a medium to be effective, it must be imbedded in an

overall communication strategy and be designed according to a set of specific behavioral objectives. It should be pre-tested on the basis of these objectives while still in the preproduction stage so feedback from content specialists and audience members can influence improvements in the product at minimal cost. The film or other media product must be distributed properly, which often implies an aggressive distribution scheme and not just a passive library system available to those who happen to hear about the message. Another key element is a feedback system, needed to monitor the reactions of audiences to the film and to provide information relevant to decisions about the continued use of that particular film (as well as to indicate what sorts of media products are needed for the future). The requirements outlined here emphasize the need to start a communication program with specific objectives, rather than with a particular medium chosen at the whim of the producer or program administrator. These objectives serve to structure media choices, as well as the utilization and feedback plans necessary for the success of the total communication effort.

Sam Keeny, after a half-century of working in Asia, concludes that the major problem with communication materials is that they seldom reach the field. If a clinic has some pamphlets or posters, they are usually locked in a back room so that they do not get dirty or lost. Clearly, materials production is useless unless an emphasis is made on getting

the materials to the points of use. The magnitude of the distribution problem in most population programs and the limitation in the amount of funding available suggests an emphasis on low-cost, non-hardware-dependent materials (at least from the receivers' point of view). Since local conditions vary greatly, the use of clearinghouses may not be financially justified. Rather, the emphasis should be on expanding the capacity within each national population program to develop, at an appropriate level of technology, materials which are adequately pretested to insure their usefulness and to distribute them according to a plan which will insure their availability and use in the field. Any proposals for high-cost, high-technology, expensive-to-distribute communication materials should be seriously questioned.

One promising approach to materials development is found in the social marketing-oriented family planning programs in the Philippines, Thailand, Indonesia, Kenya, Sri Lanka, Bangladesh and India. In these programs, a commercial resource, usually an advertising agency or a market research company, has been contracted to design, produce, and test communication materials.

### Monitoring and Supervision

The importance of monitoring ongoing IEC programs and of supervising IEC workers, predominantly fieldworkers and volunteers, is widely recognized. However, expertise in how to best accomplish this function is generally not available. The failure of IEC materials to reach rural areas, as explained by Sam Keeny, is evidence of the need for monitoring activities in the field. Experiences in the use of traditional midwives in family planning programs (Rogers and Solomon, 1975a; 1975b) point to an apparent relationship between the success of the program and the amount of supervision. The expanded primary health care delivery system in Thailand is experimenting with two models of supervision of the village health workers and health communicators. One is based on supervision as part of the paraprofessional health worker's job; the other utilizes paid professional supervisors.

Since USAID's primary policy in population is directed toward reaching the rural majority and realizing there are many problems in reaching people in remote rural areas with information and services, establishing communication links to monitor activities in the field is an essential component of a family planning program.

## Research and Evaluation

Two factors emerge clearly from past experience in family planning communication research: (1) KAP studies are insufficient and inappropriate as the sole inputs to most communication programs, and (2) research must be designed and conducted with a mechanism for utilizing the results in action programs. While most donor agencies provide funds for IEC research and evaluation, very few institutions in developing countries, with the exception of the Institute of Mass Communication at the University of the Philippines, have the expertise to conduct applied research relevant to communication and family planning/population programs. Therefore, little research is conducted.

Examples of carefully designed and utilized communication research are few. The Taiwan family planning program was quite successful in this regard since they had very close cooperation between researchers and planners. Many problems were researched and the results subsequently implemented. Another example of research use is the Isfahan family planning experiment in Iran. Other examples of research utilization come from social marketing approaches to family planning, where formative evaluation research is conducted at the planning and implementing stages of a project. Formative research is used to help design communication campaigns and materials by testing them prior to implementation; it also is used to modify communication activities by monitor-

ing ongoing results. While the social marketing programs use research to design and pretest all communication materials, most other programs in the world have not pretested their communication materials.

Research, when it is conducted at all, is often added on to an existing family planning program; it is not integral to the program design and implementation. Thus, the research is often not very useful for improving the functioning of the program or for designing similar future programs.

Our discussions with senior USAID population officials indicate a current unstated policy strongly set against academic social science research. However, formative research for communication design and pretesting does fit comfortably into current USAID thinking.

Formative evaluation is oriented toward the collection of baseline data on the potential audiences in much greater specificity than in usual KAP studies. The purposes of this research are audience segmentation and the designation of primary target audiences; to obtain information on rumors, taboos, and misunderstandings about family planning; to seek knowledge about the social networks and key influentials within villages; to multiply mass media exposure and to obtain information on the vocabulary and psychological sets that affect public thinking about family size decisions. Such research has immediate potential for improving the ef-

fectiveness of communication approaches and materials, and can be conducted at a fairly low cost in a short time.

While there still is a role for communication research and summative project evaluation (if it has an emphasis on drawing lessons for future projects), the top research priority in family planning communication should be on formative research.<sup>1</sup> Training and technical assistance should reflect this priority.

Two types of research-oriented personnel are needed by most family planning programs; USAID can play an important role in their training. Researchers are needed who have the ability and desire to conduct policy-relevant research which is designed around a family planning/population program's information needs. "Linkers" are also needed to sensitize researchers to the program's research needs and subsequently to assist in making the research results available by translating the research findings into terms that program planners can understand.

Finally, it should be kept in mind that all research and evaluation conducted in family planning/population programs should be appropriate to the program's information needs.

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<sup>1</sup>USAID has sponsored a number of summative evaluations of its intermediaries' IEC activities, such as the Airlie Foundation's dialogue program (Juarez and Associates, 1977) and its film program (Juarez and Associates, 1976).

## RECOMMENDATIONS

Based on our comprehensive review of past experience in using communication in family planning/population programs, and the lessons that can be learned from these activities and approaches, we present the following recommendations. These recommendations focus on those critical areas of family planning/population programs previously identified in this report where communication has a relatively high degree of potential for improving family planning adoption and continuation rates.

As we noted in our executive summary, there is much in recent work and statements of the IEC Division of the AID Office of Population that indicates understanding and recognition of much of the same experience on which these recommendations are based. There is no doubt the IEC Division has been seeking assiduously to garner internal policy support and sufficient personnel to crystallize its program into a concentrated effort in the directions it has tested and found useful--directions which, in great part, are stated in these recommendations:

1. That USAID rearrange and/or augment its IEC staff to provide the capability for immediate response to requests from Missions and host governments for short-term in-country technical assistance at any stage or in any aspect of IEC programming involving direct funding by USAID.

USAID's bilateral assistance to most developing countries' population IEC programs has been based on general population policy guidelines from AID/W with substantial input from the country missions' population office. However, over the last several years, it has been felt by many people working in the population field that the IEC problems and needs in the developing countries have changed. Whereas in the past the problems and needs were quite similar for many countries, the current IEC problems and needs are thought to be more country-specific due to each country's own program priorities, strategies, and stage of development of its family planning/population program. It is therefore felt that USAID's IEC program assistance policy should also be more country-specific. However, at this point most population offices in country missions have no IEC staff and thus have little expertise for providing specific assistance, or even enough time to review specific IEC program needs when a host country submits an IEC project proposal.

Due to the small IEC staff in AID/W, it would also be unrealistic to expect them to provide regular IEC assistance with specific IEC programs. Ideally, there should be, for each geographical region, a direct-hire field-experienced USAID population communication expert available to service, case by case, the IEC program planning and implementation needs of both the Missions and host governments in activities and projects involving planned or actual USAID contribution.

In the interest of rapid response, such a person could serve best if he or she were stationed at a central place within each region. While it may (or may not) be more economical to station such persons in Washington, the difference in cost need not necessarily be great. More important, posting in Washington may encourage the deterioration of the position into that of a technical "desk officer" regarded by field Population Officers as a remote "second-guesser" who asks many questions in lengthy airgrams.

Whether based in Washington or abroad, such a specialist would be "regional" solely in the geographic sense; in no case should he or she be considered to be functioning under regional concepts or programs--if indeed these have any validity today. The only exception would be in possible participation in regional meetings of USAID Population Officers. The specialist would serve individual USAID country Population Officers, as requested, in developing plans and program documentation for USAID assistance and in monitoring and evaluating IEC projects and their USAID inputs, including those being carried out through USAID intermediaries. In addition, representing the Mission and AID/W, he or she could be called upon for help by the Mission in selected cases where host governments request IEC technical assistance in connection with planning and implementing USAID-supported activities. As a beginning it might be desirable to have such an IEC specialist for one region where USAID's

Population Officers have been receiving the greatest number of IEC assistance requests.

2. That, in the interests of economy, efficiency and effectiveness, USAID retains all IEC support functions for population together in one organizational unit closely integrated with the service programs they are supporting.

Several IEC staff members in the Office of Population will be retiring, including the Chief, or will be transferred in the near future. It is especially important not only that these persons be replaced as soon as possible, but that the mechanism of a central policy/program unit be retained, with staff selected to meet the changed conditions as described earlier and able to carry forward the process of forging, from existing recent guidelines, discussions and documents (including this report), a firm, clearly stated and concise IEC policy--a process already begun by the existing staff.

3. That USAID continue to emphasize the need for evaluation projects, programs and policies involving communication activities.

There are currently several large-scale IEC programs within USAID'S Population Office that do not have a formal

evaluation component. If IEC expertise within USAID and host countries is to be improved over time, evaluation of IEC efforts cannot be solely in terms of the number of family planning acceptors gained. Other evaluation indicators must be developed in order to study the role of IEC in family planning. Formative evaluation, conducted before a program is implemented in order to sharpen its objectives and to specify its target audiences and intended effects, should be a routine part of all IEC programs (as is common in the commercial communication sector). This formative evaluation includes such activities as audience segmentation research and pretesting of communication materials. Formative evaluation can also be conducted while a program is in progress in order to "fine tune" and modify it for optimal effectiveness. The evaluation perspective, which includes clear statements of a program's objectives, goals, and intended effects, should be integrated into USAID's IEC routine. It should not, however, be implemented in such a way as to make it a mechanical drudgery, as sometimes occurs in other U.S. government programs that require evaluation. Evaluation expertise should be available to USAID in order to design evaluations that are appropriate to the needs of the ongoing and future programs.

4. That USAID and its Missions continue to invest in the inclusion of appropriate LDC expert opinion in USAID-

sponsored conferences, working meetings and project development, to reinforce and publicize its decades-old philosophy of collaboration in U.S. development-assistance programs.

The lessons of Bucharest point to the need for increased host-country input for USAID program decisions about IEC. Recent experience in the participation of foreign nations as advisors in the planning and evaluation of USAID-assisted IEC activity provide evidence that such advisors (selected for ability, training and experience) can add a unique perspective to USAID policy and program decisions, linking USAID officials more closely to the realities of field situations.

While the information and knowledge to be gleaned from past international conferences on IEC can be useful in formulating policy generalizations, AID/W should consider convening a meeting with selected LDC leaders in IEC in which the strategies and performance of USAID alone can be discussed.

5. That within appropriate LDC national population programs USAID (and its Missions) provide increased encouragement and support to national IEC activities aimed at improving policy makers' understanding of both population/development issues and the strategic aspects of IEC support itself.

An LDC communication plan based on an ongoing continuous strategy of behavior change, rather than an ad hoc, sporadic and uncoordinated approach, is more likely to produce greater results. A comprehensive master plan for IEC should include: (1) the establishment of clear guidelines for systematic operation of IEC activities to reach priority target audiences, (2) coordination of the different channels of communication, and (3) guidelines for the production and evaluation of IEC material.

Top LDC family planning officials should have communication strategy training and an understanding of the behavioral science approach to behavior change. In addition, it is desirable that communication planning and strategy development be included in the annual USAID population officers' meetings and/or at the foreign service training center.

Advocates of population policies and programs, including USAID, have been relatively successful in creating a group of policy-makers and administrators who work in, and are committed to population/family planning. The Bucharest Conference showed, however, that there are large numbers of influential national leaders who are not currently concerned with or involved in population activities and who are not committed to population policies and programs. In terms of long-range strategy, USAID should encourage the broadened involvement of these policy-makers in family planning and

population programs, which is especially important in effective integrated rural development programs. Communication with policy-makers should not be limited to a narrow definition of population as equal to family planning. A wider perspective may make the dialogue more possible, as well as create an environment for mutual learning and creativity.

6. That USAID give increased emphasis and preferential IEC support to those LDC projects that are localized at the village level and work through public and private groups and existing social, political, and cultural institutions and organizations.

Experiences of successful IEC programs show that one of the most effective approaches for recruiting family planning adopters is the utilization of permanent, local, and respected channels. These are often established local groups or social/political/cultural institutions such as the banjar program in Bali, Indonesia; the mothers' clubs in the Republic of Korea; and the group planning of births in the People's Republic of China. Communication, particularly mass communication, also has a potential role in supporting these local group activities, as well as helping them to organize and manage their initiatives. Decentralization of IEC activities, localization of materials production, and the utilization of established socio-cultural institutions or networks of social communication, have contributed to these successful IEC efforts in family planning.

7. That USAID continue to stimulate and help national population/family planning programs to obtain feedforward information from intended audiences as an input to in-country planning of communication strategies.

Previously, we recommended that USAID concentrate on assisting programs to incorporate a communication strategy dimension, as well as message production. In order to design and carry out such strategic plans, feedforward information about the needs, attitudes, behaviors, and motivations of the intended audiences must be secured. One promising source of such feedforward data is the World Fertility Study. We recommend that USAID help facilitate the complete analysis of these data and dissemination of the results. Other sources of feedforward information are pilot projects, field experiments, and the analysis of ongoing projects. Naturally occurring changes in audiences should also be analyzed for implications for IEC program design. Feedforward or formative research would then be based on the model of market research.

8. That USAID seek to multiply its support of practical projects that provide family planning information and education to adult visitors to clinics and other service centers where clients can receive or be referred to contraception services.

Although a clinic-based approach to family planning programs is not likely to be the most important strategy in the future, it will still play an important role. As Stycos' (1975) work on communication and education in Colombian family planning clinics shows, there is a great deal of opportunity for increasing the family planning acceptor's knowledge, motivation, and continued use of contraception. Among the more successful LDC family planning programs, there are some in which dedicated clinic heads and hard-working personnel give special attention to educating clients. In too many of the lagging programs, however, despite glowing annual reports and papers delivered at international conferences and workshops, the need is largely unmet. Minimum education necessary for the correct understanding and use of family planning methods is often lacking. The cost of in-clinic education, using either interpersonal channels with minimal visual aids or simple audiovisual devices, is relatively low. USAID should help strengthen and develop the state of the art in in-clinic education and training.

Admittedly, the past experience of in-clinic education has shown programs to be difficult to implement effectively due to personnel and clinic conditions. Nevertheless, in-clinic education could be an important component of family planning programs for increasing adoption and continuation rates.

**APPENDIX**

**COMMUNICATION STRATEGIES FOR FAMILY PLANNING/POPULATION**

The following is a review of the main communication strategies for family planning/population that have been followed in the past by national and international agencies in order to derive lessons for more effective programs in the future.

### THE USE OF A SINGLE COMMUNICATION MEDIUM

Almost all family planning programs have some type of informational activities aimed at reaching their target audiences. Originally, a major emphasis was placed upon using a single, main channel for family planning communication. There is now a trend toward increased use of multiple mass media communication by many family planning programs.

The main objective of many communication activities is to inform and educate the general public regarding population problems and family planning methods. In addition, public information activities are used as a means of legitimating the issue of family planning for public discussion, by making the topic less taboo.

Public information activities in many countries in the past have been conducted mainly through the use of a single communication media but even then the single medium was often supplemented by limited use of other channels. Although some of the single channel efforts have shown impressive re-

sults, the effectiveness of a single communication medium is usually less than the use of multi-media communication. This section will discuss how single communication media, such as radio, television, or printed material, have been used by population/family planning programs.

### Radio

Almost all family planning programs in developing nations have utilized radio to reach their audiences. In many developing countries, radio is the most important mass medium, due to its capacity to reach large, illiterate audiences scattered over wide geographical distances at low cost. Central-station electricity is not required, as low-priced battery-operated radios are in widespread use in most developing countries.

In many developing countries, radio broadcast facilities are owned and/or controlled by the government; thus if the government has taken a pro-family-planning stand, radio time is readily made available to population/family planning programs.

India was one of the pioneers in using radio for family planning. By 1968 All-India Radio (AIR) had family planning units at 22 of its stations. Each unit had a coordinator, a reporter, and an extension officer. It was reported that from June, 1968 to March, 1969, 5,818 programs and spot an-

nouncements about family planning were broadcast (Glattbach, 1977). In Taiwan, where the use of radio has been well-researched and documented, radio was found to be the most effective channel for reaching fertile-aged women. One of the most wide-reaching radio program formats for carrying family planning messages is the popular Chinese opera/drama. Soap operas have also been used with effectiveness in many other countries such as the Philippines, Mexico, and the Republic of Korea.

Family planning information has also been woven into the broader topic of human sexuality in radio programs in Costa Rica, the Dominican Republic, and Colombia. The Dialogo program in Costa Rica has been broadcast six days a week since 1968. It is carried on the country's most popular commercial radio stations with national coverage. The program reaches 25 to 30 percent of Costa Rica's population. Thousands of letters are answered each year on such topics as family planning, reproduction, venereal disease, marriage, divorce, nutrition, and responsible parenthood. Thus Dialogo actually is a dialogue between the radio broadcasters and audience members. The broadcasts consist mainly of frank answers to the listeners' questions. Although a comprehensive evaluation is planned to begin in late 1978, currently available evidence indicates that the Dialogo program is meeting a real need on the part of the people of Costa Rica (Spain, 1978).

Studies and reports on the use of radio (Sweeney, 1978)

conclude that:

1. Radio is a main source of information about family planning in nations like Honduras, Iran, the Republic of Kenya, and Taiwan.
2. In Kenya and Honduras, radio is identified as an effective source of information and in Colombia, Costa Rica, and the Dominican Republic, radio has increased contraceptive adoption rates.
3. The recall rate for family planning information communicated through radio is 50 to 80 percent in the U.S., 69 percent in Pakistan, and 36 percent in Nigeria.
4. Radio had little impact on poor women in urban areas in Morocco, but effectively reached a high percentage of young women listeners in the Republic of Korea, and is an important medium for male audiences in Nigeria.

There are technical and other difficulties in transmitting and receiving radio messages; many rural areas simply cannot be reached by radio. Another important concern is the rather poor quality of the family planning materials produced for radio, noted at a 1972 UNESCO meeting (UNESCO, 1972) as: (1) a shortage of funds which limits the employ-

ment of professional producers and use of the best material; (2) media personnel produce material more suitable for educated, well-to-do audiences than for the mass audience of poor people; (3) certain types of information are not suitable for radio transmission (e.g., local details on national programs, morally/ethically unsuitable information); and (4) a lack of research about the communication process (e.g., message development, treatment, presentation).

Adhikarya and Radel (1975) pointed out three other problems in using radio.

1. Lack of program control over free broadcast time. Most population programs are given free access to radio which is often government-operated. Most radio stations, though government-owned or controlled, also accept paid advertising. Hence, public service announcements are usually aired during the hours when the audience is smallest. In any case, population officials rarely are permitted to specify when their messages should be used.
2. Lack of follow-up with radio. Family planning radio programs usually are not followed by any interpersonal communication effort or other reinforcement efforts, such as printed or visual materials. In general, radio can best provide the

"what" and "where" about family planning. However, as demonstrated in India, radio forums (listeners' groups) can help motivate audience members to become acceptors. In addition, some households in developing countries do not have radios, but listening groups can provide exposure to radio messages. Most radio forum programs provided their audience with feedback and/or feedforward opportunities (examples are written correspondence in the Dialogo program, distribution of pamphlets related to the radio program content in the Philippines, and phone-in radio shows).

3. Difficulty in localizing content of radio programs. One of the advantages of using radio in developing countries is that localizing radio messages is possible on the basis of cost. But in practice it is very difficult to localize radio programs to suit the needs of different socio-cultural groups due to cultural and language differences in various parts of a country, and to the small number of radio stations in many developing nations.

Despite these problems, radio still shows great potential as an effective means of diffusing family planning messages. Glatthach (1977), for instance, notes two promising radio

program formats: (1) the popular format (e.g., soap operas) that attracts the audience but still allows for the inclusion of informative/educational messages and (2) the functional format that allows for a wide range of relevant formats (e.g., the Dialogo program). Radio programs using these two formats, however, tend to be exceptional in the developing countries. In many countries, radio programming unfortunately is encased in a rather traditional straitjacket which does not allow the day-to-day concerns of large sections of the population to be reflected.

Several promising approaches are yet to be explored. One useful approach is to utilize the existing resources that the radio stations have, such as popular music or disc jockeys. As Glattbach (1977) pointed out: "The huge audiences for popular music are often prime targets for population messages as even the briefest examination of the lyrics would demonstrate. Yet, there is, too often, an attitude that 'development' or 'population' are topics too lofty for inclusion in popular entertainment programs."

### Film

Despite the fact that the number of population/family planning films is considerable, a UNESCO meeting in 1972 reported that film is not fully exploited by family planning. Film-making is an expensive process and an enormous amount of money has been spent on producing films related to popu-

lation and family planning. Yet there is a surprising paucity of research evidence about their quality, distribution, and effectiveness. There is evidence, however, that the use of films for family planning is low (UNESCO, 1972; Glattbach, 1977) due to problems of (1) content and (2) distribution. In addition, there are other problems related to the use of film projectors, such as electrical power, operating expense, and maintenance.

Family planning/population film content is often found to be overloaded with information on population projections, the economics of population control, the philosophy of family planning, national values, and methods of family planning. Film content is also affected by the professional caliber of the film makers. In many countries, commercial distribution channels may not be well developed for films not produced for the commercial market; they must rely upon individual showings by public or private agencies, and thus will have limited audience exposure.

The specific potential of film as a communication medium, however, must be recognized. Film has the impact of audio and visual presentation. The content can be easily controlled and, in addition, film is mobile and repeatable and can be easily "plugged in" to television if it reaches the target audience (TV rarely does). Some efforts to remedy the problems of film-making and distribution have been at-

tempted. For instance, the International Audio-Visual Resource Service in London was set up as a clearinghouse and resource center for population/family planning film materials. This international approach has not yet been very successful and, in fact, the IAVRS has discontinued the activities. A more direct attempt is needed to remedy the distribution, content, and quality problems at the national level, such as in India, Malaysia, Mexico, Pakistan, and Indonesia. In these countries, films (and other audio-visual materials such as slide/tape presentations) are shown through mobile audio-visual units. These mobile units make regular visits to rural areas, and usually combine entertainment with informational messages. In many isolated rural areas, the mobile unit visit has become an important part of the country's communication activities. In India and Turkey, a team of doctors or a clinical mobile unit provides contraceptive services in conjunction with mobile audio-visual unit visits.

Mobile audio-visual units are probably not practical for use in most countries; the resources needed to properly use films with mobile units must be considered. For example, Berg (1973) estimated that even if each district in India had its own mobile van, it would take eight years to visit each village only once.

Sweeney (1978) summarized the use of film in family planning:

1. In India, moviegoers are largely urban and middle-class.
2. Film is useful in reaching young couples and the unmarried in Taiwan. In Iran and Hong Kong, large numbers of people attend movies.
3. Full-length, professionally made color films with a population/family planning awareness message can compete in the commercial market, attracting a substantial paying audience (as in the Philippines).
4. Where rural audiences are not accustomed to seeing film, as in Nigeria, the equipment may attract more attention than the film message.
5. If the objective is to reach the urban, middle-class target audience, then commercial theater is the easiest for population program people to use. In most countries, a commercial film system provide entertainment and information. Time for the showing of slides, a filmstrip, or a short moving picture film can be purchased.

The content of films about family planning/population is (1) motivational, (2) awareness-creating, (3) informational (to convey simple factual information) and (4) instructional (dealing with the "how to" aspects of family planning). Film can be an important medium, provided the personnel involved are well-trained, funds for production are sufficient, and distribution channels are available.

### Newspapers/Magazines

In the early stages of family planning program development in many countries, newspapers were utilized as a communication channel to reach elites and policy-makers, whose support for the family planning program was needed. In countries such as Indonesia, Egypt, the Philippines, and the Republic of Korea, newspapers have been quite effective in contributing to a favorable attitude toward family planning among policy-makers. Many believe that the press has made important contributions to the strong government support for the family planning programs in these countries.

Newspapers have also been used to reach a different target audience, the literate public, in a variety of ways, such as advertisements, articles, and news stories, but the result has not been generally encouraging. Content analysis of the family planning/population articles published in newspapers indicate that most of the content is organization-oriented (such as government officials' speeches, news

about adoption rates, reports of field visits, etc.), and of no direct relevance to the potential acceptors. In many countries, articles on family planning that have appeared in newspapers are informative, rather than motivational or persuasive; the majority are neutral, rather than favorable, to the practice of contraception. In addition, there seems to be a tendency for newspapers to report side effects or unfavorable stories about contraception.

Population/family planning news stories have also been integrated into broader social and economic development issues, such as unemployment, housing, education, hunger, nutrition, mother and child health, role of women, etc. In Asia, the Depthnews service--a feature news service, funded partially by UNFPA and the Ford Foundation--supplies population-related feature news to newspapers that are unable to buy expensive feature news from more established news agencies. Depthnews has provided service to more than 350 newspapers in Asia with an estimated total circulation of 3.5 million copies. Each year, at least 1,215 news items about how the population issue affects economic and human progress in Asian societies (UNFPA, 1977). A similar service for Latin America, called El Demographica, was established in 1974 through UNFPA assistance.

With the increasing number of "popular" newspapers in many developing countries, newspapers have a great potential

for reaching and motivating a majority of the public, including the literate rural audience, if the population/family planning news and articles are written in an attractive and readable style.

Magazines, especially women's magazines and teenage pop magazines, are important channels of information for women and adolescents in many countries. These magazines have been used by family planning programs in the Republic of Korea, Taiwan, and the Philippines.

#### Printed Publicity Materials

Printed publicity materials such as pamphlets, leaflets, comics, newspaper inserts, etc., are used for family planning communication in several nations. Except for posters and comics, almost all publicity materials have been shown to be more effective if they supplement or reinforce another communication approach such as radio broadcasts, film showings, or fieldworker visits.

As a single medium, comics have been used successfully in many countries, especially in the Philippines, Indonesia, Costa Rica, Colombia, Thailand, and Mexico in reaching the literate population, involving more than just children and teenagers. For the majority of the newly literate, the availability of comics is one way to maintain literacy; the illustrations and simple text provide a useful exercise in

reading. Functional issues such as agriculture, health, and family planning are among the popular comic themes for the newly literate rural population. For the urban poor and youth, such topics as romance, happy family stories, affluence, and fantasy are very popular.

There are problems, however, in the distribution of these printed materials. In many instances, IEC workers do not have a sufficient quantity to distribute to their audiences. Either the materials have not been produced in adequate quantity or there has been a distribution breakdown. The materials may pile up in warehouses, while IEC workers in the field have exhausted their supplies. Few programs devote much attention to the development of a system to keep field staff informed about, and supplied with printed materials.

Another problem is that most IEC materials are produced without any specific objective and are not thoroughly pre-tested in order to achieve a specific effect. Therefore, many IEC publicity materials are really wasted, due to the irrelevance of the messages from the standpoint of the primary target audience (e.g., the content is mainly officials' speeches, annual reports, program-oriented news, and other public relations information). Iran and the Philippines are two examples of countries in which certain printed materials have been well-pretested.

Low-cost printed materials have been created: Family planning messages are printed on matchboxes, fans, bumper stickers, pencils, calendars, etc. In Taiwan, Finnigan (1972) reported that 500 matchbox ads could be bought for the same price as the cost of producing one multi-colored poster.

### Television

In many developing countries, television is mainly a communication medium for the elite, urban population. However, as Glattbach (1977) pointed out, television is undergoing a rapid growth in many nations. In Taiwan, for instance, in the past four years, television grew from a minor channel to the second most important medium (after radio). Television increasingly is being used for family planning communication with some effectiveness, despite the high costs of production. Even in the squatter areas and slums of urban Manila, Bangkok, Mexico City, and Jakarta, many houses have television sets. Soon, with the availability of communication satellites over Indonesia, India, Iran, Malaysia and other nations, television will reach rural villages (initially from the government, through public TV sets). The 1975-1976 SITE project in India is a good example of rural audience-oriented broadcasting. Family planning programs will increasingly use TV as a communication channel to the urban population and, in the future, to villagers as well.

## COMMUNICATION STRATEGIES USING MULTIPLE MEDIA

Here we discuss communication strategies utilized by family planning programs which use multi-media communication. The importance of the role of communication in each strategy varies from a central focus, as in the use of fieldworkers or local group communication, to a secondary supportive role, as in the use of incentives or integrated rural development. Thirteen strategies are described below; in each we attempt to review past efforts and to describe the implications of the insights gained for future programs. The strategies include: communication campaigns, social marketing approaches, fieldworker visits, group communication, integrated rural development, traditional communication channels, incentives, low-cost communication approaches, in-clinic communication, nonformal education and policy communication.

### Communication Campaigns

Communication campaigns have been used in a number of countries: the Esfahan campaign in Iran, the PATER campaign in El Salvador, the Hooghly campaign in India, the Kaoshung campaign in Taiwan, the "Stop at Two" campaign in Singapore, among others.

A communication campaign is a preplanned set of communication activities designed to reach and motivate a specific

category of people using a particular type of message. Campaigns are conducted for a short-term period (usually from one week to three months at the most) with specific attitudinal and behavioral objectives.

Communication campaigns almost always utilize a multi-media approach employing different mass media and interpersonal channels which simultaneously carry complementary messages to the same audience. The effects of multiple channels are usually synergistic in that change in audience behavior produced by the channels in concert is greater than the sum of the effects of each channel alone (Rogers, 1973).

Communication campaign strategies have been used more widely in the field of family planning communication than in any other development work. In addition, the evaluation of family planning communication campaigns has been conducted more frequently; perhaps because these campaigns are usually conducted on a pilot project basis, with possible extension later.

One problem with family planning communication campaigns is that they are often merely a series of short-term or temporary campaigns, and not a coherent, ongoing, coordinated multi-media program. Although many valuable communication channels are available, most of them have not been utilized effectively or to their maximum capacity. The channels are not lacking; what is lacking is the strategy for nation-

wide, ongoing communication activities, in which the message is consistent and the media effectively used to reinforce each other. Formulation of communication objectives such as the specification of target audiences and a comprehensive series of themes for messages is often needed in the campaigns.

A successful short-term motivational campaign incorporating the intense use of multi-media channels, such as radio spots, pamphlets, posters, leaflets, mass mailings, film spots, loudspeaker trucks and newspaper and magazine inserts, was carried out in Esfahan, Iran during 1970-1971 (Gillespie and Loghmani, 1970). Evaluation results showed that the success of this campaign (a 54 percent increase in pill acceptors and a 64 percent increase in total contraceptive use over a six-month period) was due to:

1. Well-defined communication objectives and strategies, including specific target audiences to be reached by a combination of multi-media channels;
2. Utilization of research and evaluation, such as base-line data, and a benchmark survey, pretesting messages and other communication materials, and summative evaluation using a before-after design;
3. Consistency of message themes and treatments;

4. Use of communication media that functioned to reinforce and supplement each other.

Although the Esfahan communication project (funded by USAID and executed by the Esfahan Health Department with the assistance of the Population Council) was a pilot project, the campaign was repeated two years later for a four-month period in six additional provinces to reach a total population of 12 million. In 1974 a 25 to 30 percent increase in the number of acceptors occurred at an estimated cost of \$.85 to \$1.65 each (Gillespie, 1976).

The acceptor rate in the Esfahan pilot project was higher than that of the six additional provinces for the following possible reasons:

1. The Esfahan campaign was longer in duration (six months).
2. The Esfahan campaign was better planned because of its limited geographical area.
3. Contraceptive supply services were weaker than the communication services in the other six provinces.

The Esfahan communication campaign experience shows that family planning communicators can improve the effectiveness of IEC activities (1) if they thoroughly plan their communication strategies and establish clear guidelines for sys-

tematic operation, (2) if they coordinate the utilization of different channels of communication, and (3) if they pretest the prototypes in order to guide the production of IEC materials. The Esfahan experience also illustrates that close coordination is needed between the IEC sector, which generates family planning demand, and the service sector, which supplies this demand.

Pakistan's Continuous Motivation System (CMS) attempted to offer an integrated IEC and contraceptive service program. The CMS plan, developed in 1973, included an intensified communication component, consisting of indigenous traditional media, audio-visual vans, mass media, and printed materials produced at both national and local levels. Fieldworkers of the private planned parenthood association were expected to supplement the government CMS program by building support among local organizations. The core of CMS is 4,200 fieldworker teams, each consisting of a male and female, responsible for 1,500 fertile couples. Fieldworker teams are expected to call on eligible couples three or four times a year to motivate this adoption and to deliver contraceptive supplies. This CMS program was introduced in Sialkot District in 1970 with an expansion plan for nationwide coverage. However, due to the 1971 war and other political problems, the CMS remained mainly a pilot project. In the 18 months following its initial use in Sialkot District, that area's adoption acceptor rate increased from the

national level of 4 percent to nearly 20 percent (EWCI, 1974).

Other multi-media communication campaigns to support family planning programs, such as those in Jamaica, the Republic of Korea, Ghana, Singapore, Taiwan, and the Philippines, note the importance of coordinating communication channel utilization with the coordination of message development and distribution. Two necessary factors for the adoption of family planning (IEC and contraceptive supply) are used by family planning programs in Sri Lanka, Kenya, India, and Thailand; countries which have utilized the social marketing approach.

#### Social Marketing in Family Planning Programs

The concept of social marketing was developed in 1952 when Wiebe raised the question: "Why can't you sell brotherhood like you sell soap?" Social marketing as a concept is much larger in scope than using advertising for social purposes. Kotler and Zaltman (1971, p.56) define social marketing as:

The design, implementation, and control of programs calculated to influence the acceptability of social ideas and involving considerations of product planning, pricing, communication, distribution, and marketing research.

The idea of using a social marketing approach for family planning was devised in 1961 by a Ford Foundation advisor in India with substantial input from a group of business ex-

perts at the Indian Institute for Management in Calcutta. They developed the Nirodh marketing program in India which provides a model for other nations.

Developed largely out of frustration with the limited accomplishments of the clinic-based family planning system, social marketing-based approaches offer something of value to a consumer to satisfy his or her perceived needs (Kotler and Levy, 1969). Social marketing programs also focus on several other marketing variables which are seldom of concern to a government family planning program administrator:

1. The price of a product or service to the consumer--considering financial costs as well as psychological and opportunity costs;
2. The naming of the product or service--which affects how it is perceived;
3. The method of introduction of the product or service to insure acceptance, and a distribution system that will insure regular and adequate supplies;
4. A concern with all of the influential sub-"markets" such as the consumer, the medical establishment, religious leaders, and others,

5. A research orientation, especially action-oriented research;
6. A fast-moving, responsive, feedback system;
7. The use of all available resources for program management and implementation--especially commercial resources;
8. concern with profit--social rather than a financial profit.

In general, most social marketing projects in family planning were developed as a supplement, not as an alternative, to the national clinic-based system. Most family planning programs lack an adequate number of clinics and medical personnel to reach a majority of the population of the country. Social marketing approaches are a means of rapidly expanding the present system at a minimal cost. Social marketing approaches have taught us more than just how to expand a family planning delivery system. Several social marketing programs are described below.

The Nirodh marketing program (Gupta, 1970), which was planned for four years before its approval, represents an innovation in family planning program structures. The only government employee involved is the Director, who is an official in the Indian Ministry of Health and Family Planning. He was formerly the sales manager of a commercial pharmaceu-

tical company. His title is unusual as well: "Marketing Executive." The Nirodh project contracts with an advertising agency and a market research firm for their services, thus avoiding the necessity of setting up these capacities in-house.

The word "nirodh" is in itself important. Previous to the Nirodh campaign, a condom was perceived as something only suitable for use by a man with a prostitute. Market research was used to select the name "Nirodh" (which means "protection" in Sanskrit). This helped to change the public image of an otherwise taboo product.

Using the concept of market segmentation, the Nirodh campaign operates through three programs: wide-spread distribution in retail outlets, free distribution in family planning clinics, and a rural volunteer sales program.

Six large commercial companies: Brooke Bond Tea, Tata Oil Mills, Lipton Tea, Hindustan Lever, India Tobacco, and Union Carbide agreed to distribute Nirodh in 400,000 retail outlets throughout the country. This quickly established a widespread distribution system. A commercial advertising firm developed a huge advertising campaign aimed at various target-audience segments. For the optimum financial and psychological impact, market research developed and tested advertising themes (for example, child-spacing, rather than pregnancy prevention), price (about two cents U.S. for

three condoms), and packaging. At the time, the expenditure for this campaign was three times that for any other product ever launched in India (\$1.2 million U.S./year).

Nirodh were distributed free in 40,000 family planning clinics and were sold in rural areas through a volunteer sales program which gave the volunteers an incentive payment of one cent for every three condoms sold.

In 1971, the government estimated that almost two million couple-years of protection were provided. King (1972) estimated an annual increase of about 40 percent in sales of Nirodh.

The Nirodh program is highly innovative in its use of an existing, widespread distribution network; its businesslike management, feedback, and control system; and its reliance on marketing research for formative design and evaluation. Black (1976), estimated that the cost of a couple-year of protection in 1973 for the Nirodh program was \$1.78.

#### The Preethi Program in Sri Lanka

A similar social marketing approach was developed in Sri Lanka in cooperation with the government family planning program and the International Planned Parenthood Federation. It was initiated as an experiment in 1974, but it has continued as a viable family planning program input. The project focusses on male wage-earners and was initially limited

to the promotion of condoms named "Preethi." The name "Preethi," determined on the basis of market research conducted by a commercial company, means "joy" in the two major languages spoken in Sri Lanka. As in India, the renaming of the product helped overcome the taboo nature of condoms.

The Preethi campaign is notable in its comprehensive use of market research for planning and evaluation purposes. As in commercial marketing campaigns, all relevant markets were studied in detail. Research was done on retailers' stocking practices, knowledge of, and attitudes toward family planning (and condoms in particular). Studies were conducted on male and female media exposure and shopping habits, as well as knowledge, attitude, and practice related to family planning. Other studies determined preferences for product price, packaging, and name. A test district was selected to pretest various promotional approaches including the use of a field representative/health educator, coupons, lotteries, and special premiums.

An advertising agency was contracted to provide mass media advertising, as well as point-of-sale materials such as store signs and dispensers for prominent display of the condoms. The distribution network was developed through an arrangement with Reckitt and Colman, a leading marketer of household products and drugs in Sri Lanka. A promotional booklet was developed which Reckitt and Colman salesmen gave

to each of their 4,000 best retailers with a free sample of Preethi. The booklet appealed to the retailer as someone "who is modern in outlook, a leader of opinion and concerned with the country's problems." In addition, the booklet pointed out the profit of 33 percent for selling Preethi. Eighty percent of the retailers agreed to sell Preethi. By the end of the first year some 300,000 condoms per month were being sold. Mail order also reached a substantial and previously untapped market for Preethi. A mailing of Preethi is made periodically to some 5,000 opinion leaders throughout the country to maintain their support.

After two years of operation the Preethi program was providing a couple-year of protection for \$8.46 (Black, 1976).

#### The Community-Based Distribution Program in Thailand

The use of non-clinical methods of distribution of contraceptives through local workers and volunteers is termed "community-based distribution" (CBD). Most CBD programs do not utilize commercial resources as in social marketing approaches. They use community resources, especially volunteers, to promote contraceptive sales and use. The International Planned Parenthood Federation promoted CBD which has been used in 34 countries (People, 1975; Huber et al., 1975). An example of a variety of innovative CBD approaches is found in the Thai program headed by Mechai Viravaidya. Previous to the establishment of a CBD project in the pilot

area of Banglamooong, villagers who wanted to use contraceptives had to spend an average of 10 baht (\$0.50 U.S.) or half a day for travel to buy contraceptives in a pharmacy in the district town. No screening or follow-up for pill users was available. After the introduction of the CBD system, a village distributor in each of the district's 66 villages brings pills and condoms (along with family planning motivation information, and follow-up) to the homes of all village residents. The village distributor is integrated into the health care team of the district. All acceptors of family planning are credited to the government program.

Distributors sell pills and condoms for a low price and keep a small portion (about 20 percent) of the selling price. They are given ongoing education by the health workers as well as the CBD representatives, and they refer clients to the health center when necessary. The CBD system also utilizes the services of teachers as family planning distributors and even sells family planning T-shirts and underwear in the cities to help subsidize the rural program.

The system is innovative in that it credits acceptors to the government health system, is managed using techniques that are generally unknown by civil servants, and is flexible in trying a variety of approaches to increase the availability of family planning information and supplies in rural areas with minimal resources.

## The Jamu Program in Indonesia

Social marketing techniques have been applied in a unique way to meet specific country needs with available resources in Indonesia. The Indonesian program is based on three assumptions (Hendrata, 1977):

1. Every community has a need for regulating pregnancy or preventing birth. Some of this need is met by the national family planning program, and some by private and traditional practitioners. The proportion of the population which is not being reached can be served by the provision of a convenient, low-cost family planning service.
2. The public is not really satisfied with existing family planning services. Therefore, an alternative service is needed to provide family planning.
3. The community has a marketing system comprising an extensive network which is capable of distributing and promoting contraceptives. It reaches rural people and sells products which are mainly sex-related.

Jamu is a traditional type of medicine that was until recently the sole province of traditional herbal doctors. In 1918, some of these recipes were packaged by a commercial company. People still use and trust these herbal medicines.

There are about 100 types of Jamu, about half of which are sex-related. In early 1974, officials in the Indonesian family planning program established a non-government, non-profit foundation called Yayasan Indonesia Sejahtera or YIS (The Foundation for a Prosperous Indonesia) to develop social marketing approaches. YIS, along with the national family planning program and USAID, funded the Jamu marketing scheme.

A system has been established whereby the cooperating Jamu company (which has 40,000 outlets in Java and Bali, along with some 50 mobile units) buys condoms from YIS and packages them in Jamu-style envelopes, distributes them, and promotes them as they would any other Jamu. The price is about the same as an average Jamu (about \$0.05 U.S.) and the wholesaler and retailer make a reasonable profit. An advertising campaign was designed and implemented by a commercial advertising agency using mass media as well as mobile communication teams.

The distribution network is unique in that the interpersonal communication between buyer and seller (a kind of health counseling) effectively increases the sales of condoms called "Karet KB" (literally "rubber for family planning").

Results for the first 16 months showed sales of 10,000 gross of condoms with a promotional outlay of only about

\$10,000 U.S. (Hendrata, 1977). Subsequent to the initiation of the campaign, monthly sales figures almost doubled, compared to the previous month. Although it is too early to measure the full impact of the Jamu marketing scheme, use of a unique marketing situation in Indonesia is possible and has the potential to reach a large proportion of the Indonesian population with an alternative and/or supplementary method of family planning services.

#### In Summary

Social marketing programs cover the broad spectrum from the use of a commercial resource, such as an advertising agency, to a complete family planning delivery system such as the Nirodh project. Social marketing programs in Ghana distribute foam and condoms, in Kenya they test-market condoms, and in Jamaica they recruit clinic acceptors and provide information about contraception. Despite some initial concern, the social marketing approach seems to have been accepted, at least as a supplement to national family planning programs.

It is difficult to compare the cost/effectiveness of social marketing approaches to clinic-based approaches. However, as Black (1976) points out, preliminary analyses suggest that social marketing programs have the potential to provide couple-years of protection at lower costs than clin-

ic-based programs. Social marketing approaches show it is possible to identify and provide contraceptives to previously untapped "markets" at a reasonable cost.

### Fieldworkers in Family Planning Programs

The "most successful" programs, like those in Taiwan, the Republic of Korea, Singapore, and Hong Kong are fieldworker-oriented. (Worrall, 1977, p. 57)

A growing dissatisfaction with the performance of family planning programs in what Rogers (1973) called the "clinic era" started in the mid-1960s in many countries. The efforts to expand family planning adoption developed into what has been called a "field era model." The field era model was based on the classical diffusion model, with the fieldworkers patterned after agricultural extension agents. It was assumed by family planning administrators that an effective fieldworker should be highly technically competent, preferably a university graduate or someone with a great deal of medical/health experience. The fieldworker was initially perceived essentially as a mobile family planning clinic. This perception severely limited the possibility for expanding family planning programs which had reached a plateau in adoption rates because well-trained personnel, especially doctors and nurses, were in short supply. In addition, the assumptions of this type of fieldworker program

were not unlike those of the early clinic era. The approach was not client-oriented, it was source-oriented; no one realized that well-trained fieldworkers, even in plentiful supply, might not be able to communicate effectively with their target audience.

Gradually it was realized that organizing a program around a group of professional change agents as in agriculture was not possible. Change agent "aides" were recruited, fieldworkers with a main responsibility for contacting clients. These aides consisted of three main types: paraprofessionals, quasi-professionals, and non-professionals. Examples of paraprofessionals, who usually have a high school education and receive about three weeks of training (Keeny, 1975), are the fieldworkers in the Republic of Korea, Taiwan, and Indonesia. Quasi-professional change agents usually have no formal education but are experienced in some aspect of health. These include traditional midwives who have been used for family planning in the Philippines, India, Indonesia, Thailand, Pakistan, and Mexico. Non-professional change agents usually have no formal education and no technical competence; examples are the vasectomy canvassers of India and Pakistan who were paid on an incentive basis for each acceptor. Some non-professional change agents, however, such as the "barefoot doctors" in the People's Republic of China and the "health communicators" in Thailand are given training to increase their competence

(meanwhile retaining their non-professionalism, which is important in terms of safety credibility).<sup>15</sup>

The cost of paraprofessional training is substantially less than that of professional training. For example, in the Lampang project in Thailand, the cost of training one physician is from \$36,000 to \$45,000 (U.S.), while the projected cost of training one paraprofessional is about \$1,000 (Vachrotai et al., 1977). Thus, a project can provide between 36 to 45 paraprofessionals or one physician. It is substantially more difficult to make a rapid increase in the number of physicians than the number of paraprofessionals.

According to Keeny (1975), the key factor for the success of a fieldworker, based on many years of experience in Taiwan, is not the amount of formal schooling. The most successful fieldworkers are:

1. Married women between 30 and 40 years of age;
  2. Able to talk easily but are good listeners;
  3. If married, are satisfied users of the contraceptives they recommend;
  4. Strong enough to walk from five to ten miles a day, and willing to make at least 10 visits or
- 

<sup>15</sup>Safety credibility is trustworthiness based not on the perceived competence of the worker (this is competence credibility) but rather on the fieldworkers' similarity in terms of culture, class, education, etc., to the individual client.

- re-visits each day;
5. Previously experienced in dealing with new people, preferably in selling a product;
  6. Trained in family planning.

The degree of similarity (homophily) between the fieldworker and the client is paramount in insuring success, a key reason for the use of quasi- and non-professional fieldworkers in many family planning programs. Communication is the primary task of a family planning fieldworker, and the provision of supplies is a necessary but not sufficient factor in their success.

Fieldworkers are effective in securing adopters of family planning in Indonesia (Rogers, 1972), in Hong Kong (Mitchell, 1968), in the Republic of Korea (Park, 1968), in Taiwan (Berelson and Freedman, 1964) and in Iran (Loghmani and Gillespie, 1970). However, evidence from the Taichung study in Taiwan shows that the costs of contacting potential family planning acceptors by fieldworkers can be quite high unless some emphasis is made to identify high-priority clients for fieldworker visits. Studies of fieldworkers, especially traditional midwives (Rogers and Solomon, 1975a; 1975b) found that adequate supervision and training is essential to success.

### Small Group Communication

Since the experiments of Kurt Lewin in the 1940s, the use of small group communication has been seen as important in changing attitudes and behavior. Small group communication combines the ability to individualize messages and instantly respond to individuals. The group setting adds the influences of group pressure and reinforcement, which are important in creating and maintaining behavior change.

Organized groups have been used in development programs in many countries. Probably the best known and most intensive use of organized groups in development is in the People's Republic of China, where most adults are organized in study groups for a variety of development purposes ranging from family planning to political education. Groups have been used in family planning programs in Colombia, Egypt, Bangladesh, and the Philippines. Probably the most intensively studied group-oriented family planning effort is the Korean mothers' club program (Park et al., 1976; Kincaid et al., 1975).

Historically, the traditional Korean village has always had a village council to organize the community on matters of common concern. In the past, women were excluded from these groups; they were "inside persons." However, women were increasingly organized in groups called "kaes," a rotating credit association which accumulates money for indi-

vidual and group use. Parallels to the kaes also exist in such other countries as Indonesia and Nigeria (ARISAN), and in West Africa and the Caribbean (SUSU). In Korea, starting in 1968, many of the village kaes became mothers' clubs.

A study of family planning knowledge, attitudes, and practice (KAP) in the Republic of Korea conducted in 1964 found that rural women knew more about family planning than did urban women, probably as a result of the mothers' clubs (Park et al., 1976). By 1975 there were over 28,000 mothers' clubs reaching 700,000 women in most Korean villages. Attendance at club meetings is very high; average attendance for all clubs was 76 percent and almost one-half the clubs had adoption rates of at least 90 percent among their members.

A survey of mothers' clubs in 25 villages concluded that although the mothers' clubs did not "cause" rural women to adopt family planning, they did support and enhance the social and economic changes already going on in Korean villages (Kincaid et al., 1975). Mothers' clubs gave village women an officially sanctioned public forum for discussions of mutual concerns, including contraception, without cause for shame or embarrassment. Fieldworkers also had an organized basis for their family planning work. The clubs made it easier for the women to communicate with each other and facilitated the spread of family planning knowledge and the

elimination of rumors. The mothers' clubs also served as a basis for economic and local self-development by rural women through the collection and allocation of sums of money.

The importance of organizing local groups for development programs depends to a large extent on the cultural and political climate in a particular country. Although groups may be time-consuming and difficult to organize and support, their use in development programs, particularly ones involving several development sectors, should be considered.

#### Integrated Rural Development and Family Planning Communication

There is nothing mysterious or esoteric about an integrated approach to rural development. Simply stated, it is the opposite of the piecemeal approach pursued throughout most of the developing world over the past 20 years. (Coombs, 1976)

There is an increasing movement in developing countries toward integrated rural development (IRD). Several pilot projects such as those in Mexico, Guatemala, and Bangladesh have been attempted, as well as a few massive national programs as in Pakistan.

At the heart of all these IRD approaches are some common factors:

1. The projects focus on agriculture, health, nutrition, family planning, literacy training and, usually, public works projects for off-farm employment.

2. The services are delivered to clients in an integrated way by paraprofessional fieldworkers.
3. The program is organized on a local and regional basis with a manager at the regional level who supervises a professional staff, who in turn support paraprofessional fieldworkers. A problem generally occurs in IRD programs at the national level since ministries are not accustomed to cooperating very closely with one another. In general, most IRD programs are situated in the ministry of agriculture and often become agriculture dominated. However, in some countries such as Pakistan, there is a special ministry established for IRD. In the Korean "New Village Movement," a central element in insuring the proper interministerial cooperation is the strong support of the national leadership.

The implication of IRD for family planning/population programs is that rather than only being integrated with maternal and child health (which is commonplace), family planning can be integrated with other development activities.

The advantages of IRD programs are several:

1. It puts family planning into the broader context of development, which many development theorists

and practitioners see as important for population program success. The emphasis is generally on local planning which can include population planning; something often desired but rarely accomplished at the local level.

2. It is often difficult to justify the cost of establishing a corps of specialized family planning fieldworkers; using an integrated approach divides the cost of the field staff among several kinds of development programs.
3. Family planning may not be very much desired by a local population; combining it with popular development efforts may make it more understandable and acceptable to rural people.

Not all past efforts in IRD have had direct family planning inputs. The Comilla project in Bangladesh had a great deal of family planning communication, but the Puebla project in Mexico did not directly include family planning. It should be mentioned, however, that even projects which did not include direct family planning inputs might have had some impact on the population problems of a given country; for example, by providing non-farm jobs in the rural areas, especially to women (which may affect migration, family size, child-spacing, etc). Theoretically, IRD as an approach to development is appealing to many officials working

in this field; organization and implementation, especially inter-ministerial cooperation, are the major obstacles to the extended use of IRD.

### In-Clinic Communication

Family planning programs are no longer based solely on providing family planning clinics; they now recognize the limitations of a clinic-based approach. But every national program has clinics, and there still remains a great potential for improving IEC through clinics. Most clinics claim that education and information are a part of their everyday activities, yet the existence and quality of these efforts varies widely. Little research has been done on the use of clinics as a forum for IEC. In one of the few studies on the subject, Stycos (1975) found (in six Latin American clinics) that patients spent an average of only five minutes with the physician or nurse, out of 65 minutes in the clinic. The amount of information that can be gained by a client from a busy physician is very limited. A great potential exists for utilizing a portion of the waiting time for educational purposes.

All the clinics studied regularly gave talks on family planning to women in the waiting room. These talks, or charlas, varied greatly in their content and in the methods of presentation that were used. Most of the talks were focused on human physiology and family planning methods. The

language used, however, was at the secondary school level, while most of the women had no more than primary education. The instructors, for the most part, were unaware of this educational gap. Stycos found that the charla was a poor source of information.

Stycos recommends that more attention should be paid to the form and content of the charla, and that the staff members who deliver the talks should be trained and retrained from time to time in presentation and group discussion techniques. More use of audio-visual materials could overcome the inability of the clinic nurses to communicate well with their clients. No woman should leave the clinic without some printed materials which reinforce the the information she was given and which can be given to her husband, or to a female friends.

Although clinic education should not be a major emphasis in family planning programs, every effort should be made to conduct in-clinic education. Only minimal resource inputs, perhaps some additional training and provision of simple audio-visual aids, are needed. The potential benefits in terms of providing relevant information, preventing rumors, and preventing discontinuance from side effects or misunderstandings can be great.

## Nonformal Education and Population Education

The trend to nonformal education began in the 1970s, growing out of a questioning of the capability of formal education to reach more than a fraction of the population of developing countries. Nonformal education is based on the assumption that adults have learning needs. In most nonformal education programs, some mass medium is used varying from printed materials to television or radio.

Four major approaches are evident in nonformal education (Srinivasan, 1977):

1. A problem-centered approach, which focuses on problems in the learner's daily life in order to demonstrate the usefulness and relevance of further learning. Group discussion and critical thinking are important aspects of this method. Examples are the Thailand khit-pen education program of the Ministry of Education, the Philippine Rural Reconstruction Movement, and other programs in Ethiopia, Bangladesh and Ghana.
2. Projective approaches, often used when the problem-centered approach does not stimulate critical thinking. Projective approaches use stories which invite detached, non-threatening analysis and thought. This approach has been used in Turkey and the U.S.

3. Self-actualizing approach, a learner-centered, learner-generated approach which places emphasis on facilitation of a positive self-concept and the encouragement of creativity. It has been used in the Philippines Rural Reconstruction Movement project in Nueva Ecija and the Henry Street Settlement House in New York.
  
4. An information approach, consisting of adapting the lecture, information-conveyance approach used in classrooms to the needs of rural, illiterate audiences. Emphasis is on the mastery of the subject matter and learning by rote. This method is especially likely to be irrelevant to the person's needs.

World Education, with significant USAID and private support, has been very active in the area of nonformal education incorporating family planning, human sexuality, and population education content. The effectiveness of nonformal education in terms of gaining family planning adopters is modest, since family planning adoption is not a priority objective in nonformal education.

Population education is an approach that integrates family planning and population information into the school curriculum. Typically, it is conducted by ministries of education and is aimed at middle-school children. The goal is to

raise the consciousness of the citizenry about the importance of population problems, resulting in a long-term impact on attitudes and practices about family planning. Population education usually involves rewriting the curricula of mathematics, civics, and biology to include population-relevant content. Population education projects have been conducted in Sri Lanka, the Philippines, and Egypt. The long-term effectiveness of this strategy is not known. However, it is a way of increasing awareness over the long term at a relatively low cost, and should probably be encouraged if only because of its potential.

One example of the educational approach to family planning is the Centro de Orientacion Familiar (COF) in San Jose, Costa Rica (Spain, 1978). Using radio, publications, courses and personal consultations, COF provides what it calls "integral sexual education." While other agencies provide contraceptive services in Costa Rica, COF is the only one that concentrates on human sexuality education. COF refers people to clinics for family planning services.

COF was founded on the belief that people need to discuss the why of family planning as well as the way of family planning. Although Costa Rica had a high illegitimacy rate and a very high overall birth rate when COF was started in 1968, studies showed that the sexually active population knew amazingly little about human sexuality. What COF has

done is to provide sexual education, on the premise that people who are aware of their own sexuality and their partner's sexuality will be more responsible sexually. COF's goal is to contribute to better family life, so that parents are prepared to receive their children enthusiastically and to be better spouses and citizens.

COF has tapped a real need. Its radio program, Dialogo maintains high national ratings, its courses are received with enthusiasm, its publications are used in the public school curriculum, and it receives many counseling requests. Since COF began in 1968, the birth rate in Costa Rica has dropped dramatically, from 3.9 percent per year to about 2 percent in 1973. COF's mail, over 17,500 letters since its inception, testifies to the need that people have for information and their willingness to express this need to a trusted source.

COF has asked Stanford University to collaborate on a systematic evaluation of their entire program, and this research is presently underway. Of particular interest is COF's apparent ability to provide information to the poor, using several media, and dealing with a topic of extreme personal sensitivity.

## Traditional Communication Channels and Institutions in Family Planning

In most of the developing world, traditional channels of communication exist side-by-side with emerging modern mass communication channels. In general, traditional channels are long-established, well-accepted, and very credible among rural people. They often communicate traditional messages about religion, philosophy, and modes of conduct. However, they also frequently communicate messages about modern concepts and experiences, particularly political ones. Sometimes, traditional communication media can serve to bridge the gap between the traditional and modern systems. For example, Benjamin (1969) found in Northeast Brazil that cantadores (singing poets) acted as intermediaries in the two-step flow of messages from the mass media to the rural villagers. In recent years, those concerned with national development have begun to realize the importance of traditional channels of communication and have started to tap their potential for use in development, particularly in family planning programs. The three main traditional channels that have been used in family planning programs are the traditional mass media, traditional midwives, and traditional cultural/social institutions.

### Traditional Mass Media

Traditional mass media include puppet shows, folk theatre, folk opera, travelling poets, singers and storytellers.

They are able to contact an audience that is not often or easily reached by the modern mass media. The most rural and traditional villagers who have been viewed as most highly resistant to family planning adoption are precisely those most easily reached by the traditional mass media. These media have been used in family planning programs in Indonesia, Malaysia, Pakistan, Iran, India, and in certain parts of Africa and Latin America (Rogers, 1973). In Indonesia and Malaysia alone, Adhikarya (1975) identified 11 distinct folk media with relevance to family planning communication. He noted several key factors in selecting traditional media for family planning input including their flexibility in integrating family planning information, audience size, number of groups available, and relevance to family planning programs. One important factor he identified is "ego-nonego," the degree to which a traditional medium such as a puppet or clown is able to say something that a person might not be able to say easily to an audience.

It is often possible to combine traditional media with modern mass media. For example: in India, traditional storytellers, puppeteers, and musicians have been presented on radio and television; in Taiwan, the most popular television program is Taiwanese folk opera; UNESCO held a conference on the integration of folk media and mass media for family planning programs in 1974. The conference participants developed ten guidelines for the use of folk media in family planning (EWCI, 1976).

1. The folk media should be an integral part of any communication program for rural development. Wherever possible these should be integrated with mass media; but, in all cases, integration with the ongoing extension work is vital.
2. The prerequisites to the use of the folk media are: (a) an understanding of the rural audiences, and (b) the use of these media to provide the rural people with recreation, to attract their attention, and to ensure their participation in developmental activities.
3. The utilization of folk media in communication programs should be viewed not only from the perspective of socioeconomic development but also of cultural development.
4. Folklore reflects the changes that society undergoes; it should thus retain social authenticity. The folk forms have evolved gradually, and wherever they are flexible they retain their appeal for rural people.
5. Not all folk forms can be used for development or population communication purposes; thus they should be carefully studied from the points of view of content and characterization for possible adaptation in order to carry development or population messages.
6. Folk media productions should be consistent with the needs of the social environment and related to the customs and beliefs of the local communities.
7. Since folk media have socio-cultural roots, their utilization should be related to local events, and their function in the local communication strategy should be properly assigned.
8. Efforts should be made to preserve the originality of each folk form; adaptation need not alter nor destroy the form.

9. For effective community-level communication strategies, an integrated and planned use of both folk and mass media is necessary for achieving optimum impact and for desired feedback.
10. Collaboration between the folk artists and the media producers is absolutely essential for the successful integration of folk media and mass media communication strategies for development purposes.

### Traditional Midwives

In virtually every country in Asia, Africa, and Latin America, two different medical/health systems exist: (1) the modern system of doctors, clinics, and hospitals and (2) the traditional system of herbalists, midwives, and mystics. The latter system is often overlooked by health and family planning officials. However, in many developing nations, the traditional system has a higher degree of credibility and is more often utilized than the modern system. The most active traditional medical worker has been the traditional midwife, who delivers an estimated two-thirds of the children born in the world today (Rogers and Solomon, 1975a; 1975b). Because they attend so many births in many nations, particularly in Asia, traditional midwives have a great potential to reach large numbers of women with family planning information and supplies. The Asian experience in using traditional midwives for family planning is reviewed in Rogers and Solomon (1975a; 1975b). Traditional midwives have been used in India, Pakistan, Indonesia, Malaysia, the Phil-

ippines, Thailand, Iran and Mexico. Initially, most traditional midwives had been trained in sanitary birth delivery. In many countries, they were subsequently trained in family planning and were sent to work as recruiters. Where they have been used, they are generally making a positive contribution to family planning programs. They generally contact women who are less educated, lower income, more rural, and most traditional. Essential factors for success of midwives are adequate supervision, careful recruitment and training, and appropriate reward systems.

The usefulness of traditional midwives in family planning programs is a subject of some controversy, mainly about their competence and motivation to do family planning work. They clearly have a great deal of potential in reaching the hardest-to-reach people with family planning information and services. In Indonesia, Malaysia, and India where traditional midwives have been carefully studied through pilot projects, the national governments have decided to expand their use in large-scale programs.

## Traditional Institutions

In Java and Bali, Indonesia, due to a rather poor health delivery infrastructure below the district level, Village Contraceptive Distribution Centers (VCDC) have been established by the Indonesian National Family Planning Coordinating Board (BKKEN) since 1975. VCDCs are community-level family planning posts which enlist local volunteers to recruit and support acceptors and to distribute pills and condoms. The BKKEN has also encouraged its provincial offices to design communication strategies consistent with the culture of their areas. Bali's local programs, the most successful to date in Indonesia, are operated by the council of the banjar (hamlet), in which all families are represented. West Java's local centers are placed in the homes of satisfied acceptors who are also community leaders. In Central and East Java, local officials are responsible for organizing the program. In some Javanese villages, the VCDC is also used as a focus for rotating credit societies (arisan) and various cooperative production activities, so as to foster the sense of purpose and unity which spelled success for the banjar-based Bali program.

The banjar in Bali is an extraordinarily strong social and administrative group which functions as a traditional center for mutual aid and cooperative work as well as a gathering point for recreation and ceremonies. Household

heads meet monthly to discuss community matters, including family planning. On the island of Bali, there are about 3,500 banjars (hamlets). Beginning in November 1974, fieldworkers and the banjar heads (klian) were trained in family planning education and communication at the local level, so as to be more aware of family planning issues and to identify potential acceptors. They were also trained to help other members of the banjar to deal with side-effects and, through community pressure, to encourage non-users to adopt family planning. A map of all houses in the banjar, with color coding of the contraceptive use status of every eligible couple (ELCO)--e.g., blue for IUD, red for pill, green for condom, and blank for a non-user--is displayed publicly. If an apparently fertile couple does not desire pregnancy and is also not contracepting, the husband will be questioned. The choice of color is a subtle reinforcement of Bali's preference for the IUD. Hull et al., (1977) reported that one official in Bali explained:

People in Bali sometimes associate red with the Communists, so they prefer to have their house marked as (blue) IUD users rather than (red) pill users. In this way, we encourage them to use a cheaper method which has a very high continuity rate.

Unlike Java, in Bali most birth attendants are usually male and, therefore, women are less bothered about having a male doctor insert an IUD than in Java, where it is generally unacceptable to have a male doctor examine a woman. It should also be mentioned that Bali has relatively more clin-

ics per capita than Java. Bali's favorable clinic coverage stems in part from banjar efforts to get Department of Health facilities in each village in the 1950s and 1960s.

In addition, two other factors contribute to the high demand for contraceptives in Bali: (1) a high proportion of Balinese women work outside the home at manual jobs, including construction and (2) much agricultural land is worked collectively for the benefit of all banjar members; thus there is little need for a nuclear family to increase its "labor force" through childbearing.

By June 1977, some 25,000 village distribution centers had been set up, about one for every village in Java and Bali, not including some 20,000 sub-village "acceptors' groups" (Sacerdoti, 1977). BKKBN reported that, as of April 1977, close to a quarter (24 percent) of all Java and Bali's married women (aged 15 to 44) were family planning acceptors, with percentages ranging from a low of 16 percent in urban Jakarta to a high of 48 percent in Bali (Sinquefield and Sungkono, 1977).

In the Province of East Java, about 34 percent of married women aged 15 to 44 are contracepting, at a reasonable cost per acceptor (see Table A).

The East Java program is famous for its "special drives" reflecting the local program's use of existing social net-

TABLE A

Family Planning Expenditures in Java and Bali, Indonesia,  
with International Comparisons: 1973/74 and 1973

(In U.S. \$)

Province	Total expenditures (in thousands) 1973/74	Cost per capita	Cost per acceptor
1. Jakarta	\$1,060	\$0.20	\$13.63
2. West Java	3,410	.15	13.15
3. Central Java	3,574	.15	12.31
4. Yogyakarta	549	.29	12.72
5. East Java	5,024	.19	7.81
6. Bali	721	.33	14.78
Java-Bali Total	\$14,437	\$0.18	\$11.02
International Comparisons (1973)			
1. Taiwan		\$0.09	\$ 8.23
2. Thailand		.13	13.20
3. Philippines		.24	13.84
4. West Malaysia		.10	18.50

Sources: The Indonesian National Family Planning Program:  
A Cost-Effectiveness Analysis 1971/72-1973/74.  
Technical Report Series Monograph No. 10 (Jakarta: BKKBN,  
1975).

works. Clinics there are open longer than elsewhere, field-workers make more home visits, and group meetings are held more often. In some areas of East Java the head of the hamlet daily raps a signal on a kentungan (a wooden drum) to remind village women to take their pills. The Head of the BKKBN in East Java Province stated:

Who are the spirits, the gods of the Javanese village? The governor, the army, the police, the religious leader, the civil administrator, the village chief. When they apply social pressure, the birth rate declines. (Critchfield, 1976)

Evidence that the province is reaching its demographic goals is provided by the accumulated total number of acceptors, the high proportion of current acceptors, and the apparent 15 percent drop in the total fertility rate from 4.6 children per woman in 1967-1971 to 3.9 in 1976, slightly above the 3.8 in Bali (Hull et al., 1977).

### Incentives

An incentive is something of value that is given to an individual or group in order to encourage some sort of behavioral maintenance or change. Rogers (1973) proposed a typology of incentives related to family planning programs.

- 1 Paid to the adopter or the diffuser of a family planning innovation
- 2 Paid to an individual or a group
- 3 Positive or negative in nature
- 4 Monetary or nonmonetary (cash versus-kind)

- 5 Immediate or delayed
- 6 Graduated (depending on the income of the recipient) or nongraduated
- 7 For contraception or for non-birth

In 1971-1972 an estimated \$11.6 million was spent on incentives in nine national family planning programs; India having the greatest expenditure of \$9.8 million.

The most famous of all incentive programs in family planning are (1) the India tea plantation and (2) the Taiwan educational bond experiments. In 1972, the United Planters' Association of Southern India began offering a small monthly savings deposit to workers on three tea plantations as payment for periods of non-pregnancy. In case of a third (or subsequent) pregnancy, portions of the worker's savings account were forfeited. Under this plan a couple could accumulate over \$500 for retirement if they had only two or three children (UPASI, 1972; 1973; 1974).

Beginning also in 1972, the Planned Parenthood Association of the Republic of China (Taiwan) began an experiment in one rural township. Young couples are offered free secondary education for their children if they have no more than three children. If a couple has two (or fewer) children at the end of ten years, they receive \$385 in free tuition payments. If they have three children, they get half

that amount (Finnegan and Sun, 1972). As a result of early results of the Taiwan educational savings plan experiment, an incentive for birth spacing is being tested in one city of Taiwan, offering free delivery services, post-partum medical care, and nutritional supplements for women who space their first and second children at least 36 months apart.

None of these experiments have as yet provided adequate fertility data. However, they have shown that incentive programs are economically, administratively, and politically feasible and ethically acceptable if carefully designed (Finnegan, 1977). The trend in incentive programs seems to be moving from cash incentives to social incentives, and is exemplified in the Bali family planning program.

A somewhat different view of incentives is offered by Kangas (1970) and Finnegan (1977). This approach, called the quid pro quo approach, differs in that it views incentives as more than a tactic for getting new family planning adopters. This approach is designed so that each increment of development provided to local groups by the central government is matched by an equal increment of self-development by the local recipients. This approach functions best in a situation of decentralized development. Family planning fits this overall scheme for incentives in development.

## Materials Development

Most family planning programs have a continuing need for communication materials such as flipcharts, booklets, posters, filmstrips, slides, and films. Communication materials are necessary for use in three ways:

1. For direct consumption by the target audience of a family planning program (typically posters, films, etc.);
2. For use by fieldworkers and clinic educators as aids in family planning motivation and education (flipcharts, filmstrips, etc.);
3. For use in the training and motivation of family planning workers (anatomical models, pamphlets, etc.).

Only a very small proportion of all family planning communication materials are produced on the basis of some specific objective and use formative research to fit the needs, desires, preferences, and perceptions of the target audience. Therefore, much of the IEC software is wasted, due to the irrelevancy of the messages from the standpoint of the primary target audiences (e.g., speeches, program-oriented news, annual reports, and other public relations types of information). Few messages are pretested before they are produced on a large scale in the field. Notable exceptions

are the social marketing family planning programs which relied on market research and advertising agency expertise to help in message design and pre-testing. Other countries (such as the Philippines) have developed national media production centers that incorporate communication expertise in message production. The Development Support Communication Service (DSCS) and Project Support Communication approaches of the United Nations have had an influence on the quality of communication materials in several family planning programs (as in Thailand).

Several approaches have been tried on an international level to improve the quality of family planning communication materials: the development of prototype materials, clearinghouses for materials, and training in production.

Prototype materials can be adapted for local use. Given a supply of prototype materials to draw upon, a local family planning worker can then produce better messages than he/she could otherwise. World Neighbors has probably done the most work in this area, largely through the dissemination of prototype filmstrips. UNESCO and IPPF have also distributed some prototype messages. Although the impact of these materials is difficult to measure, they did not seem to be adapted and used very much by programs outside the originating agencies. Adapting prototypes to local needs takes a certain kind of skill, which is probably highly related to

the capacity to produce good quality messages. Therefore, prototypes are not likely to impact outside the scope of the program that originates the materials.

A second approach to developing better quality communication materials is through the establishment of clearinghouses, which can answer requests about what has been designed and has been successful elsewhere. ESCAP, IPPF, UNESCO, WHO, World Neighbors, and the East-West Communication Institute all operate or have operated, clearinghouses. Audio-visual materials are very difficult to store, duplicate, and distribute. The International Audio-Visual Resource Service (IAVRS), jointly organized by UNESCO and IPPF, found that it could no longer continue operating after just a few years. In addition, as Radel and Konoshima (1977) point out, at the early stages of population programs there was much interest in what materials other programs were producing; at present most programs have some production expertise and are less interested in the outputs of others in the field. Also, there often are severe problems in "translating" materials from one culture to another, thus limiting the usefulness of sharing materials on an organized basis.

The third approach to improving communication materials has been through the use of training programs. Training programs in material production have been conducted by the

University of Chicago, the East-West Communication Institute, and by the Development Support Communication Service (in Bangkok). One problem with some of these training programs is that not enough emphasis is given to strategies for successful communication. They often do not teach the research methods necessary for learning how best to communicate an idea.

The training programs did, at least acknowledge the importance of learning how to design and pretest messages. Each of the three main training organizations has produced a manual which provides some basic knowledge to a trainee on how to go about actually designing and pretesting messages (based on a specific set of measurable objectives). Training in message design and formative research clearly has a great deal of potential in affecting the quality and effectiveness of family planning communication materials. Without a trained person to develop messages appropriate to local needs, clearinghouses and prototypes themselves cannot be effective.

The informal channels by which innovative communication approaches diffuse from one family planning program to another should be studied and improved. One need only look at the rapid diffusion of the family planning poster of the pregnant man saying, "You'd be careful if it was you who got pregnant." to appreciate the influence of these international networks among IEC professionals.

As frequently happens, when useful IEC materials are produced, IEC workers do not have enough resources to distribute the materials to their audiences. Availability of media channels or hardware generally exceeds the capacity of the program to produce software content or materials that make effective use of the hardware. Many donor agencies are more willing to provide hardware than resources (e.g., personnel, technical assistance, or software prototypes that can be easily adapted) needed to create the software IEC materials.

In many countries, localization of IEC materials is needed. In countries such as India, Indonesia, and Malaysia, where there are many different ethnic groups, attempts to localize IEC materials have not been satisfactory. Materials production centers are located mainly in urban areas, the materials are designed mainly with an urban bias, and seldom incorporate inputs from the local target audiences. Adaptation at the local community level or even at the regional/provincial level is rare due to a lack of local production facilities and production staff with the necessary skills.

#### Low-Cost Communication Media

Family planning IEC programs in countries such as India, Thailand, Malaysia, the Philippines, and Indonesia have been conducted in part through audio-visual mobile units which

show films, slide-tape presentations, filmstrips, and videotapes. Experience in these countries suggests that these activities not only provide information and instruction, but entertainment as well.

The effectiveness of a message, especially about a complicated and delicate issue such as family planning, is greatly increased when it is supported visually. However, audio-visual demonstration requires careful planning, especially when the visual perceptions of an illiterate rural audience must be considered. Experiences in Africa and some Middle Eastern countries indicate that much family planning visual material is incomprehensible to members of the intended target audiences. Many people cannot perceive symbolic representations of an object; for example, a pictured object that is greater in size than the original.

Localizing family planning messages is rather difficult and expensive to accomplish through broadcast media, such as television, radio, or even film. This problem is partially overcome by audio-cassette technology. Pilot studies of localized family planning messages through audio-cassette technology which only uses an audio-cassette and a playback machine, have been conducted in Taiwan, Nepal, Guatemala, and Malaysia.

The advantages of the audio-cassette system are:

1. The audience can control its own time of exposure to the message;
2. The audience can listen to the message in privacy, which facilitates the likelihood of listening to a rather delicate and perhaps taboo topic like family planning;
3. Unlike radio, the message can be heard more than once by the audience;
4. Production of the audio-cassette is simple and inexpensive and allows local community inputs as well as those from external experts.

Experience in the use of communication technology in the Philippines, Indonesia, and Thailand also indicated that low-cost IEC approaches such as slide-tape presentation and filmstrips, if pretested and carefully designed, can be more effective for family planning communication than more expensive IEC approaches such as films and videotapes. A slide-tape presentation can be adapted to suit the specific local needs and interests of the audience at a low cost.

Most high-cost IEC materials are produced in urban areas (if not in foreign countries) and, therefore, are usually urban-based and too sophisticated for the majority of a family planning program's target audience. Although the production quality, illustrations, and background music are usu-

ally superior, they may not be suitable for delivering instructional, educational, or motivational messages because too many "nice things" to see and hear distract the audience from the family planning issue.

#### Big Media-Little Media

When population officials consider using communication media in their programs, they generally first think of what Schramm (1977) called "big media" (radio, television, and film). Developing country officials may become involved in the status and glamour of the big media, understandably so from their point of view. While big media certainly have their role in development communication, so do the little media of booklets, posters, cassettes, filmstrips, flip-charts, etc. While less glamorous, the "little media" can often do the same job as the more expensive alternatives at a much lower cost. For example, a World Neighbors filmstrip on the "loop," produced at a cost of a few hundred dollars and duplicated for a few dollars a copy, can probably do as good a job of in-clinic education as a film which costs several thousand dollars to produce and 200 dollars for each copy. Communication research literature shows that various media are not different in terms of their teaching the same information to an audience. If the lower-cost medium does not directly limit the information or education which the designers wish to communicate it should be used (for exam-

ple, if color is necessary to illustrate a nutritional deficiency, black and white posters would not be adequate). Too often, development communication specialists and their clients decide "we need a 16 mm film on this topic" without considering alternative, lower-cost media (will a filmstrip do?), hardware requirements (do we have projectors in the clinics?), and distribution costs (we can afford one copy of the film or 100 copies of a filmstrip). Communication planners should have no bias toward any particular medium; rather, their media choices should be based on empirical evidence about effects and a desire to use the lowest cost and most efficient medium available. The little media should not be ignored in communication planning.

#### Information Services/Clearinghouse Activities

One of the most important target audiences for family planning communication is family planning program administrators and decision-makers. They need to be informed about new developments in the field of family planning, about other programs' experiences, and about research findings that might help improve the effectiveness of their programs. Many program administrators and decision-makers do not utilize available technical information due to (1) their lack of time for reading lengthy reports, (2) their lack of information as to where to find relevant informational materials, and (3) their reluctance to read reports that are too

technical with few explicit recommendations for practical implementation.

The function of an information service or clearinghouse is to provide useful and relevant information to family planning program administrators and decision makers in a format specially tailored or packaged to suit their specific needs. It also functions as a link between the researchers (knowledge producers) and the practitioners (research users) by interpreting and translating research results into practical terms.

A clearinghouse, therefore, may be thought of as providing more extensive services than a documentation center or a library. It actually searches out and collects data, as well as published materials, and may act as a link between researchers or practitioners working on the same topic. It may also publish compilations of previously unpublished information. Because its staff usually includes subject-matter specialists, it may actively seek out those who could benefit from its services, rather than waiting to be approached. Furthermore, upon request, it provides evaluative judgment of information.

There are several population/family planning clearinghouse activities, such as the ESCAP population clearinghouse in Bangkok (specializing in demographic, socioeconomic, and cultural aspects of population), UNESCO's population educa-

tion clearinghouse (specializing in human reproduction and population dynamics), the Carolina Population Center clearinghouse (specializing in general family planning), and George Washington University's Population Information Program clearinghouse (specializing in bio-medical, human reproduction, and family planning aspects). Two other clearinghouses, the East-West Communication Institute IEC clearinghouse in Honolulu (specializing in IEC materials and information) and the IPPF/UNESCO International Audio-Visual Resource Services (IAVRS) in London, have recently closed. The collection of the EWCI clearinghouse (the only one in the world specializing in IEC aspects of population and family planning) has been transferred to the University of Chicago's Community and Family Study Center. However, plans for implementation of the IEC clearinghouse activities are uncertain and it probably will function only as a documentation center due to budgetary constraints. IAVRS closed its operation because its major funding agency, the UNFPA, discontinued support. Thus, at present, there is no IEC clearinghouse service available.

The East-West Communication Institute's IEC clearinghouse service was based on the premise that a widespread communication problem within and between countries of the East and West (and between researchers and practitioners) is inadequate sharing of information for problem solving and program planning in population/family planning IEC. During the pe-

riod of 1971-1977, the IEC clearinghouse carried out a large-scale population IEC material service which provided documents about IEC to researchers and program administrators around the world. Lists of documents available in the IEC clearinghouse were also distributed through the IEC Newsletter. An average of over 90 citations per issue were listed. In addition, cumulative lists were issued including all documents catalogued in preceding issues. It was estimated that the accession list generated requests for about 3,000 documents per year and approximately 85 percent of the requests for documents came from developing countries; with users of the service divided roughly equally among three types of institutions: family planning action programs, research and training institutes, and international organizations and donor agencies. Although most of the document copies distributed were xeroxed, the EWCI also encouraged the use of microfiche copies. To assist users in the selection of documents, preparation of document annotations was initiated in 1973 and a computerized retrieval system was implemented.

Even though the IEC "clearinghouse" did not provide specific and relevant IEC information automatically to program administrators and researchers, the service was valuable to many IEC administrators, researchers, and trainers. An evaluation of this clearinghouse pointed out that the IEC clearinghouse services seem to have been a worthwhile in-

vestment in the sense that (1) they met needs that other institutions did not meet, (2) they were used by great numbers of people, and (3) most of these users gave the information provided by the services high marks for over-all usefulness, appropriateness, on-time delivery, and timeliness of content (EWCI, 1977a).

While information services and clearinghouse activities are useful, it is an expensive undertaking that requires competent staff. The East-West Communication Institute's IEC clearinghouse was funded by USAID for over six years. The demand for IEC materials continues. The East-West Communication Institute attempted to work closely with regional and national population IEC clearinghouses; however, the EWCI was not able to establish national or regional information network systems. With the assistance of ESCAP and EWCI, countries like the Republic of Korea, Indonesia, the Philippines and India established their own national population clearinghouses (in which IEC is one subject area). Most IEC documents on Asian countries, however, are now at the University of Chicago, where they were transferred from EWCI in 1977, when the latter terminated its involvement in this activity. Obviously, the most useful clearinghouse arrangement would be one in which LDC programs themselves engage actively in gathering, synthesizing, distributing and exchanging information; and USAID sought (without success) to transfer the collection to eligible Asian institutions.

Just before the transfer of the collection to Chicago, EWCI (with USAID funding) did give microfiche copies of its IEC collection to several Asian libraries.

With a grant from UNFPA, the Press Foundation of Asia (PFA) in Manila has attempted to operate a population information clearinghouse through a number of activities including the Depthnews service, the Regional Reference Service, Data Asia, Microfiche Asia, and a market intelligence service. The Depthnews service is a weekly development news service to the Asian press which provides population-related stories about people and how they are affected by social and economic indicators, such as housing, food production, health, unemployment, and education. The Regional Reference Service (RRS) is the data and information bank from which the Depthnews service often draws its information. The main task of the RRS is to monitor, record, and consolidate economic and development intelligence in Asia; its in-house staff of 43 monitors 551 newspapers, magazines, periodicals, and materials pertinent to 27 economic and 8 social indicators (including 27 indicators closely related to population) which are then clipped or copied for storage. Every day, the RRS receives about 1,000 documents, some of which have been partly processed abroad by PFA's research correspondents and the rest processed in Manila by the in-house staff. In addition, 12 regular overseas monitors/country editors are assigned to as many different cities in Asia and Austra-

lia. Besides functioning as a support arm of PFA's Depthnews service, the RRS also generates other commercial activities such as its Market Intelligence Service and the publications Data Asia, Asian Finance, Media, and the Microfiche Asia package service.

Data Asia is a weekly 16-page digest of economic and development intelligence on 24 Asian countries, written in a crisp, objective and detailed manner. Items directly related to population in Data Asia amounted to 18 percent of the space in 1975. Data Asia, as of 1977, had over 475 subscribers at an annual subscription cost of \$140 in Asia and \$250 elsewhere.

At the moment, Microfiche Asia possesses over a million items monitored by the RRS. The time-lag between print and filming is never more than six weeks. Subscribers have the option of either buying the entire service or selecting only those subjects that interest them (e.g., population, transport, aviation, finance, foodgrains, education, mining, agriculture, etc.).

The profit-making activities of the PFA have been impressive. However, these activities are mainly concerned with finance, industry, trade, commodities and other economic issues--which is natural since their main market is the business community. Although these activities are only indirectly relevant to population and family planning, they are critical for achieving PFA's self-sufficiency objective.

Several lessons can be drawn from PFA's approach: (1) family planning/population messages can be delivered to certain audiences by using the "soft-sell" approach, integrating messages with other aspects of social and economic development; (2) local or national development news stories, including family planning and population news, can fill media space in developing countries and thus reduce the number of foreign news stories; and (3) the growing need for a news service in Asia, one that focuses on development problems and events in Asian countries as reported by Asian writers themselves, can be met.

The following characteristics of PFA's operation are relevant to noncommercial clearinghouses:

1. Self-sufficiency: some commercialization of activities may be permissible, as long as the non-profit character of the organization is maintained and as long as potential users are not discouraged by high expense or complicated administrative problems. Commercialization might even be a useful measure for evaluating utilization of the services, and may be the only realistic solution to the problem of discontinuity of clearinghouse activities due to administrative and funding problems.

2. The professionalism and credibility of the organization and its staff is a prerequisite for such commercialization.
3. Marketability of the information: a knowledge of who buys the information, in what format, at what price, and how they use it is essential to success.
4. The use of a few carefully selected correspondents who are paid to collect information and materials in different countries, with adequate funds for mailing and buying necessary materials, is another key element in success.
5. By-products of the information collected may be marketable to other publications and services, thus spreading the cost among a larger number of users (and bringing down the price for all).

#### Policy Communication About Family Planning/Population

Since early efforts in establishing family planning programs, communication with policy-makers and other elites is essential to program success. Initial efforts in formulating family planning/population policies and programs were largely informal. With the spread of family planning/population programs to most nations, communication to

policy-makers within a country and between countries became more complex.

For many years, international agencies such as USAID have used various techniques for communication with policy-makers such as newsletters, films, international field visits and conferences. Recently, several agencies have realized the need to go beyond these methods, which are relatively expensive and may not be effective in some cases. One reason is the inability of mass publications and conferences to provide policy-makers with detailed information about country-specific situations and needs. Also, most communication with leaders and policy-makers in the past has been with a small corps of officials already committed to family planning/population. There is growing recognition, especially since the Bucharest World Population Council, of a need to communicate with policy-makers in development spheres other than family planning/population: agriculture, health nutrition, and education.

USAID is just beginning to work toward these new directions in communicating with policy-makers. The financial commitment to such efforts is still small, perhaps because such efforts do not produce immediate gains in the number of family planning adopters. However, in terms of long-term commitment to population and to integrated development efforts which impact on population, it seems worthwhile to em-

phasize communication about family planning among leaders in all development sectors.

#### Training in Population/Family Planning Communication

In 1967, the ESCAP Working Group on Communication for Family Planning stressed the need for an integrated communication program utilizing both mass media and interpersonal communication approaches. Although the need for training new communication specialists was mentioned, no specific training objectives or guidelines were suggested. However, several training programs, both international and in-country, include some communication content in their training programs. For instance, since 1963, the University of Chicago's Community and Family Study Center Summer Program has offered annual workshops designed for professional persons from developing countries in four distinct tracks: (1) population education, (2) population communication, (3) family planning/population research and evaluation, and (4) administration and planning of family planning programs. In-country training programs in India (by the National Institute of Family Welfare), the Republic of Korea (by the Planned Parenthood Federation of Korea and the Korean Institute of Family Planning), Pakistan, and Taiwan included communication training for family planning workers. However, until about 1972, training for IEC workers was very general and superficial.

At the 1972 Experts' Meeting on Training of Family Planning Communicators, Amritmahal (1977) suggested three distinct categories of persons to be trained in family planning communication (with different training for each category). The first includes those individuals working directly in the program, including those who have communication as a direct and primary responsibility and those who have direct responsibility for one of the other functions in the program and utilize communication to improve their performance as administrators, clinic staff, and so forth. Included in the second category are those outside the family planning agency who carry a major responsibility for family planning communication (for instance, mass media practitioners such as programmers, scriptwriters, and reporters). The third category includes personnel in related government departments, labor leaders and key personnel in large industry and plantations, educational personnel in the armed forces, private medical practitioners, and political and religious leaders.

Even though training programs for IEC workers after 1972 have been more specific in terms of their training content and of trainees chosen, most international, regional, and in-country training programs still concentrate on the medical and health components of family planning. During the period between 1972 to 1976, a few training institutions provided intensive and specialized family planning IEC

training. At the international level, IEC training has been provided by the University of Chicago's Community and Family Study Center program and, until 1976, by the East-West Communication Institute program, both funded by USAID.

At the regional level, IEC training has been conducted by the Centro Interamericano de Adiestramiento en Comunicaciones para Poblacion (CIACOP) in Costa Rica, funded by IPPF and the Ford Foundation. CIACOP provides training in communication exclusively for family planning and is designed to meet the IEC training needs of all Latin American countries. The Center provides month-long training courses in communication for family planning and in communication for population and development. The training, carried out by Latin American personnel, stresses planning and strategy for family planning communication and also provides experience in materials production. During the first five years of its existence (1972 to 1977), CIACOP trained about 254 persons from 19 countries, and the intake of trainees will increase in the next few years.

In 1968, the Population Council helped establish the Chinese Center for International Training in Family Planning in Taichung, Taiwan. Originally, the Center was established for orientation of the large number of foreign visitors who came to observe and study the Taiwan program. In its first 15 months, 583 visitors from 30 countries came to the Center

to study and observe the Taiwan program, especially how fieldworkers were trained and how they communicated with clients (Keeny and Cernada, 1970). By 1972, the Center started offering one- or two-week courses in specific subject areas, including communication and fieldworker training in other Asian countries. Increased emphasis is placed on family planning communication for military personnel, community organization, population education, and other topics. However, because of increasing political constraints, fewer trainees have come to the Center in recent years. For instance, many donor agencies, especially UN agencies, cannot send or fund persons to visit the Center, due to the "One-China" policy.

The University of the Philippines' Institute of Mass Communication, during the period from 1972 to 1976, received multilateral assistance from UNFPA and UNESCO to undertake the UNFPA/UP-IMC/UNESCO Project on Research, Development and Training in Family Planning Communication. Research went hand-in-hand with development of prototype materials in the sense that the content was drawn from data gathered and the messages were pretested. The typical prototype materials produced were pamphlets, leaflets, bulletins, comics, manuals, posters, flipcharts, graphs, slides, filmstrips, documentary films, video tapes, and magazines. The training program was in interpersonal and mass communication skills for community leaders, opinion-makers, and family planning

workers. The program also utilized extension education methods applicable to family planning communication. The preparation of curricula and syllabi adapted to various audiences was fundamental to the family planning communication training program. Such curricula were based on research findings and, as the training went on, prototype materials for training programs were developed and evaluated. Thus, the strong point of this project was the close interrelationship between research, materials development, and training. The curriculum was improved constantly through lessons learned from direct experience. The training process determined research areas, which in turn contributed to the improvement of training as well as to materials used in the process of learning new concepts and skills in communication (UNFPA-UP/IMC-UNESCO, 1974).

This project, however, trained persons mainly from the Philippines and thus was not really a regional training center. The project was integrated into the Institute of Mass Communication of the University of the Philippines, which offers both an undergraduate and a Master's degree in development communication. There is also a diploma course in population communication for students from Asian countries.

Other regional institutions, such as the Asian Institute for Broadcasting Development (AIBD) in Kuala Lumpur, the Asian Mass Communication Information and Research Centre

(AMIC) in Singapore, the United Nations Development Support Communication Service (DSCS) in Bangkok, the Press Foundation of Asia (PFA) in Manila and Hong Kong, have conducted ad hoc, irregular family planning communication training, mainly on communication production aspects.

#### Chicago Community and Family Study Center

The University of Chicago's Community and Family Study Center (CFSC) has conducted IEC training for more than 1,100 family planning officials from more than 80 countries since 1963. At present, CFSC offers three types of IEC programs: summer workshops in Chicago, population communication graduate degrees (M.A. and Ph.D) at the University of Chicago, and overseas IEC workshops (now on a regional basis). Most IEC workers are trained in the summer workshop, an intensive nine-week experience in the use of media. The two objectives are (1) to teach principles and give practical experience in the effective use of all media and (2) to provide practice in the use of both personal contact (counseling and group work) and mass media. The course content includes group dynamics, script writing, radio and television production, photography and graphics, and film production, with communication research and evaluation as an optional additional subject. A three-member evaluation team (including two non-American members) appointed by USAID to review the accomplishments of the CFSC noted the following:

1. The duration of the workshop was considered inadequate to cover the large number of media and related subjects for study and to learn how to use the media effectively.
2. Trainees felt that the workshop has certainly provided them with some technical skills but they would appreciate a more solid grounding in communication theory.
3. It was suggested that in future workshops there should be more selective recruitment of participants to reduce heterogeneity; greater concentration on communication planning strategy and management with less time spent on acquiring media skills; and more emphasis on group work and counseling. More time should also be provided for independent study and individual work so as to facilitate work on problems of concern to the trainee in his or her home situation. (Feliciano, Shanawany and Crawford, 1976)

The Master's degree program offered by the CFSC (in the Department of Sociology) is aimed at managers or directors of family planning communication programs to enable them to plan programs and to lead a technical team in implementing the plan, developing communication campaigns based on the plan, and utilizing research findings to continuously improve the communication component of a family planning program. Between 1972 and 1976, 29 students from developing countries and six from the United States earned Master's degrees. The evaluation team expressed concern over the lack of a communication department in the University of Chicago and the consequent difficulty in attracting outstanding professors with Ph.D.s in communication for full-time appoint-

ments. Media specialists (who hold part-time appointments) do much of the teaching at present.

The evaluation team also questioned, with particular reference to Africa and Asia, an assumption that the demand for IEC managers is declining and, therefore, CFSC should be moving in the direction of emphasizing the Ph.D. program. The team suggested that the expansion of the Ph.D. degree program should not be at the expense of the Master's degree program. In addition, the team suggested that the CFSC examine the possibility of allowing students to choose a project related to problems in their home country as a thesis topic, rather than encouraging the student to work on a project in the Chicago area. If this were not feasible, each student should include a minimum of one chapter in his or her thesis indicating how the research project relates to conditions at home. The team called for the immediate appointment of a visiting communication professor from a developing country (Feliciano and others, 1976). Implicit in this suggestion is strengthening of the CFSC program by encouraging links between the program in Chicago and the home countries of individual students.

Since this evaluation was completed in 1976, the CFSC has taken steps toward overcoming these shortcomings.

The CFSC is also attempting to transplant to overseas sites the communication training activities that hitherto

have been done primarily at Chicago. Several institutions such as the University of Nairobi (Kenya), Universidad Ibero-Americana (Mexico), University of Dacca (Bangladesh), and the American University at Cairo (Egypt) indicated their willingness to undertake joint communication training for family planning. The CFSC started co-sponsoring and co-teaching courses in population communication at the Universidad Ibero-Americana in Mexico City, and a similar project is underway in Guatemala. In addition, an international training workshop on Communication for Social Development was held in early 1978, jointly sponsored by CFSC, UNICEF, UNESCO, IPPF, and the University of Nairobi.

For political and ideological reasons, separate communication campaigns for family planning are rejected as impossible by almost every African country; most, however, are willing to see family planning as an integral part of social development. The Nairobi workshop injected family planning information and philosophy into the major communication training programs in Africa (Bogue, 1978).

#### East-West Communication Institute

With support from USAID,<sup>16</sup> the East-West Communication Institute (EWCI) in Honolulu, Hawaii, conducted several

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<sup>16</sup>USAID funding of EWCI ended in 1977 when EWCI elected to terminate its population communication activities.

types of IEC training for family planning workers from all over the world. During the period from 1971-1973, the EWCI training programs consisted primarily of two separate activities: (1) one for communication specialists who need population-specific background and communication skills and (2) one for family planning communication program managers and practitioners. Lasting approximately 11 weeks each, two specialists' workshops and two participants' workshops were held. In addition, the EWCI conducted an International Experts' Meeting for Trainers in Family Planning Communication in 1972 and two workshops for Information and Communication officers of UNICEF and the UN Center for Economic and Social Information to prepare them for World Population Year. Prior to conducting these workshops and training programs in early 1971, a pilot seminar with international participants was conducted to identify and analyze family planning communication training needs and problems. As of the end of 1973, a total of 126 international participants, most of them population/family planning IEC officials, had been trained in Honolulu.

However, experience with these training courses showed that there was considerable diversity among the participants in terms of their prior education, the jobs they performed, and their understanding of population problems. Some common needs were to familiarize themselves with the latest research findings and program results elsewhere, to assess the

validity of some of their innovative ideas with officials in similar positions, and to learn how to transfer what had been learned at EWCI to their home countries. In order to relate the course offerings more closely to the needs of the participants, to allow them the freedom to decide what they want to learn, and to emphasize a problem-solving approach, EWCI altered the pattern of training. This revised program was called the Modular Program of Professional Development in Population and Family Planning IEC, and it was offered for the first time in 1974. Three such programs were conducted in 1974 and 1975 for 99 participants from 20 countries.

A module is a self-contained set of inductive learning activities to enable the learner to achieve specific learning objectives. Each module is made up of specific learner objectives, a self-administered pretest, a case study or communication material from an actual IEC program, individual and group activities to draw IEC principles from real programs, individual and group exercises to apply these principles, a mechanism for consultation and feedback, and a self-administered post-test. Each module prescribes a set of activities for the participants which are conducive to self-instruction.

Twelve modules on many aspects of family planning communication, selected on the basis of a survey of IEC tasks, roles, and problems in 26 countries, were prepared by EWCI

staff in collaboration with Asian and American professional development associates of the Institute and other experts and consultants. With a view to increasing the relevance of the modular material to a practicing communicator, the content evolved through a synthesis of ideas and skills from a variety of sources, with examples and applications from action programs. Alternative ideas and techniques are included in each module to stimulate thinking and an analytical approach, as well as to underline the fact that there is no universal answer to each problem. Since each of the modules is a relatively independent entity, no sequencing of topics is required and participants are allowed to choose those which are of benefit to them (Middleton, 1976). Some module titles are: Fundamental Human Communication; Planning Communication for Family Planning; People and Population; Helping People Learn: A Module for Trainers; Pretesting Communication for Family Planning Programs; Using the Media for Family Planning; Organizational Communication and Coordination in Family Planning Programs; Clinic Education; Using Information for Problem Solving; Strangers and Changers; and Consulting Role in Social Development.

Following the third modular program at the end of 1975, EWCI's work in family planning communication training entered a new phase. In place of full-length workshops in Honolulu, the program emphasized collaborative work with Asian, Pacific, and American institutions in the adaptation,

translation, and utilization of modular materials in their respective countries. By 1977, modular materials had been adapted and translated in seven languages, and eight countries had used them for training 1,000 trainers and field staff and some 500 college students.

A cooperative network of individuals from about 16 agencies in seven countries worked together in adapting, using, and evaluating the modules, and in developing new modular materials. Judged on the basis of the number of unsolicited requests for modules (more than 1,000) from all over the world and the utilization of modules in different countries, EWCI believed that the modular program and materials stimulated the beginning of a significant trend toward improved training for professionals in the field of communication and development (not only in family planning). A number of factors are crucial in EWCI's training strategy.

1. Willingness to modify training models based on lessons learned by participants or collaborators achieves a true feeling of multi-lateral participation in a joint project, which is a prerequisite of a successful international undertaking.
2. The instructional approaches of the modules are used in different countries at different levels. Through adaptation and further development of the materials, relying heavily on formative evaluation

as well as continued revision over time, the training approach and materials can be used effectively. The basic approach is being improved by the institutions holding primary responsibility for training efforts.

3. The opportunity and freedom to experiment and to create new applications of previously tested approaches to learning helped to make the module approach successful. Most successful cases of research utilization require a creative application and adaptation in new situations, resulting in a net increase in what is known. This creative process is more likely to occur when those who attempt to use new knowledge can see clearly from the beginning what kind of effort is required.
4. The training participants work in multinational teams, rather than just on a bilateral basis with the EWCI staff. In bringing the participants together to share their experiences and to collaborate on the improvement of basic approaches, the module program provides a multinational forum in which exchange flows among the members of the network, creating a collegial atmosphere and avoiding the dependency tendency inherent in bilateral technical assistance models (Middleton and Ulgado, 1977).

## Communication Research and Evaluation in Family Planning

How do we account for this remarkable profusion of unuseable research combined with an equally remarkable dearth of usable findings?

While there is no simple explanation, the dominance of conservative medical and social science models may have discouraged use of more plausible models such as market research and advertising evaluation. (Stykos, 1977: p.18)

### The Clinic Era and KAP Studies

Family planning research in the clinic-oriented stages of national programs was primarily in the form of Knowledge, Attitude and Practice (KAP) studies. The volume of these studies was enormous. Worrall (1977) estimates that at least 500 of these studies were conducted, mostly since 1965. Over 241 KAP studies were done in India alone. Although questions regarding communication were included in most KAP studies, particularly questions regarding media exposure, they have proved to be less than useful in most cases.

1. The variables studied were often demographic and sociological in nature, and thus not amenable to change through family planning program activities.
2. The communication variables studied, particularly media exposure, were too general to be useful in designing communication campaigns (i.e., "Do you read a newspaper?" not, "Which section of which newspaper do you read?").

### Failure of the Clinic Era

KAP studies served to legitimize the importance of family planning programs. The findings were often self-serving; the studies relieved the apprehensions of family planning programmers since they usually showed that citizens wanted to have fewer children than they already had (Kar, 1977). However, a large gap still existed between attitudes toward fertility and actual fertility behavior; these studies were not well designed to investigate this gap.

By the end of the 1960s, the plateauing of family planning program adoption rates and the so-called "KAP-gap" was strongly felt. Communication research began to focus on the development of motivational strategies. As programs moved into the field, so did research. Kar et al. (1977: p. 34) says:

This period saw innovative research and experimentation performed, which investigated the utility of a variety of professional, semi-professional, and non-professional change agents; incentives for accepting clients and/or change agents; mobile clinics that brought the services to the client; and postpartum approaches that capitalized on the mother's recent experience with pregnancy as a motivating factor for contraceptive adoption. Massive media communications programs were also employed to advertise family planning services, to teach audiences about contraceptive methods and the benefits of family planning, and to attempt to persuade them to become acceptors.

### Experimentation in Family Planning

Cuca and Pierce (1977) completed an intensive review of 96 family planning experiments in terms of the approaches tested, as well as their methodological dimensions. They classified the experiments into seven categories: (1) type of family planning personnel used, (2) payments to personnel, (3) mass media use, (4) integration with other development sectors, (5) intensive campaigns, (6) incentive programs, (7) and inundative approaches. The location and dates of the experiments are shown in Table B. Most of these experiments involved communication, whether for supervision of fieldworkers, mass communication for information and motivation, interministerial communication, communication about incentive plans, or communication about the availability of contraceptives.

This list of research priorities showed that communication research has a great deal of relevance for future field studies and the design of family planning strategies. Several other listings of research priorities suggest the importance of communication research in family planning (Rogers and Agarwala-Rogers, 1976; Kar et al., 1975; 1977).

### Family Planning Research Funding.

Kar et al. (1977) conducted an analysis of funding for family planning research from 1970 to 1975. They found the

greatest proportion of funding in non-biomedical fields came from USAID and from UNFPA. Both of these agencies stress research that is designed specifically to contribute to the success of ongoing programs. A small but significant proportion of funds comes from private agencies, such as the Ford Foundation, Rockefeller Foundation, and the Population Council. As Table C suggests, although there has been an increase in funding for social and behavioral science research over time, as of 1975 three times as much was spent on biomedical research as for social and behavioral science research. Within the category of social and behavioral research, demographic research was the most heavily funded. Kar et al. estimate that in 1974 about 23 percent of federal funds and 34 percent of private funds for social and behavior science research were spent on communication-related topics. This expenditure does not reflect on especially high research priority for communication research by funding agencies.

#### Research Utilization

Research utilization is a process of communication and change, in which the messages are research results. (Rogers, 1973: p. 390)

Research in family planning has not been used as much as it might have been in making administrative decisions. Much of the research was not useable since it did not provide specific enough information for program designers and managers. Some of the available research was not utilized simply be-

Table B

Classification of Experiments in Family Planning  
According to Approach Tested

Period of Initiation	Number of Experiments							Total
	Personnel		Mass Media	Integration	Intensive	Incentive	Inundation	
	Type*	Payment						
1. 1950-59	3	0	2	0	3	0	0	5
2. 1960-64	6	1	3	2	3	0	2	14
3. 1965-69	16	0	7	5	0	1	2	28
4. 1970-74	16	3	6	9	5	5	7	44
5. 1975-79	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>5</u>
1950-79	42	4	19	16	11	6	14	96

Note: The sum of components exceeds the total because multiple approaches were employed in many experiments.

\*Two of these experiments, one each initiated between 1965-69 and 1970-74, involved clinical personnel; all others involved motivational personnel.

Source: Roberta Cuca and Catherine S. Pierce, Experiments in Family Planning: Lessons from the Developing World (Baltimore, Md.: The Johns Hopkins University Press for the World Bank, 1977).

Table C

Inventory of Federal Population Research  
for Fiscal Years 1970-1975\*

<u>Federal Agencies' Support (in millions of US \$)</u>						
Type of Research	1970	1971	1972	1973	1974	1975
1. Reproductive processes	16	18	24	24	30	30
2. Contraceptive development	6	5	10	6	6	9
3. Contraceptive evaluation	4	4	8	10	7	7
4. Animal behavior and ecology	1	2	2	1	2	2
5. Social & behavioral sciences	6	16	15	11	13	16
6. Center grants	2	1	2	3	3	4

Source: Kar (1977)

\*Note: The source for all tables comes from the Department of Population Planning, University of Michigan, File No. 3616.

cause no one was available who could "link" the researchers to the potential users by translating the findings into implementable strategies. Exceptions to this situation occurred in countries like Taiwan, which had close cooperative ties between researchers and program designers. Here, many research findings have been implemented in large-scale programs: paraprofessional field workers, diffuser incentives, a coupon system, service fees for private doctors, and non-birth incentives (Rogers, 1973; p. 395).

The implications of this Taiwan experience in research utilization are that the linking function between researchers and users should be formalized; researchers should be more aware of the needs and practicalities of family planning programs, and funding agencies should be aware of the research needs.

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