

Factors That Affect the Distribution, Acceptance, and Use of Family Planning in LDCs

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Factors That Affect the Distribution, Acceptance, and Use of Family Planning in LDCs

Abstract

The factors that influence people to plan their families act at all levels of society. The process of choice by families and individuals is interactive, complex, and only partially understood. Because individual perceptions determine whether to use a method of fertility planning and which method to use, individual needs must be taken into account in population program design. Most contraceptives are used by women, but male attitudes toward contraception are extremely important. A woman's status, age, and present number of children interact with many other factors to influence her decision to adopt and continue to use family planning methods. One index of latent demand for family planning services in less developed countries (LDCs) is seen in World Fertility Survey (WFS) data that show that from 12 to 47 percent of married fecund women in countries surveyed want no more children, yet only a fraction of these women are now using family planning methods. Many constraints to contraceptive use are attributes of contraceptives themselves. The four most important attributes to women are effectiveness, absence of side effects and convenience, route of administration, and frequency of use. Because many contraceptives change menstrual patterns, women's perceptions of menstruation can hinder—or sometimes enhance—the acceptability of a particular method. In clinic settings, location and hours of operation, degree of privacy, kind of information and how given, and availability of preferred methods are important considerations. Specific contraceptive intentions, social support, perceived accessibility of services, between-spouse communication, and desire for additional children are the most important predictors of contraceptive behavior in some LDCs.

Marital and childrearing expectations and experiences of men and women tend to differ greatly; the extent to which women share in decisionmaking has a significant impact on family planning decisions. Preference for sons is consistent across all countries; girls have higher mortality rates in many countries and wives are often not respected until they bear sons. This preference is unlikely to change until women's status improves. Women's clubs and other female voluntary organizations in LDCs are now giving women heretofore unavailable economic and family planning opportunities, and the traditional roles of midwives are being expanded to include family planning services delivery.

The factors present in a particular country when fertility begins to decline usually include: 1) governmental policies that encourage equal status and opportunities for women, higher age at marriage, more equitable distribution of wealth and educational opportunities, all of which lead to a higher standard of living; 2) programs designed to bring about a decline in infant mortality; 3) a government policy with explicit goals for reduction of birth or population growth rates; 4) a strong commitment to population planning by the country's leaders; 5) a family planning organizational structure with executive power to mobilize more than one government sector and to coordinate with the private sector; 6) population program funding (usually both external and internal sources); 7) provision of a broad range of contraceptive methods; 8) sufficiently trained and motivated family planning program personnel; 9) population and family planning information

and communication efforts that effectively reach all sectors of the populace; and 10) direct or indirect incentives that encourage couples to limit the size of their families. Governmental perceptions of population growth rates differ greatly; most allow access to contraception as a health measure and human right; many actively encourage family planning; others take no direct role. Thirteen of the fifteen most populous LDCs consider their fertility rates too high. There are clear differences in outcome between policies with demographic objectives and those aimed primarily at improving health care; about two-thirds of those with policies to reduce population growth have either strong or moderate programs and show greater declines in birth rates after allowing for the effect of level of socioeconomic development. Only a relatively more developed socioeconomic setting can overcome a weaker policy position in its effect on fertility decline.

A committed political elite and active private sector are important to developing population awareness and in providing services; programs that include both public and private efforts are most effective. Up-to-date demographic and program evaluation data are crucial to program and policy action, as are information, education, and communication (IEC) programs. Integration of family planning with other development activities has often been carried out by placing family planning programs within health ministries in maternal and child health programs, but requires specific allocations of personnel and facilities to avoid becoming a second order priority where health needs are acute. The impact of newly introduced incentive schemes to increase family planning use—free education, payments for sterilization, etc.—has not yet been fully evaluated. These schemes have engendered controversy less because of inherent discrimination than because of the ways in which they have been implemented; careful planning is necessary to avoid compromising individual choice. A frequently overlooked aspect of coercion is the social coercion to bear more children than are wanted.

Commercial retail sales and community-based distribution systems have been effective in raising awareness of family planning, making contraceptives available in rural and urban areas, and putting family planning programs on the road to becoming self-financing. A limited number of methods are available, but referral services are usually provided. Governmental decisions about methods provided are crucial because each method carries with it unique logistical requirements, cultural considerations, import-export regulations, safety characteristics, and restrictions on providers and use. Because many governments are building local production capacity through foreign exchange controls, and most new technologies are likely to be developed in more developed countries (MDCs), access to new technologies by LDCs could be limited. This could prove detrimental because family planning programs tend to be more successful if their range of methods can meet current needs of users and allow users to adopt other methods as their needs change. Although there are some exceptions, family planning programs make a difference in reducing fertility. Countries whose levels of economic development are relatively high show greater declines than poorer countries, but, on balance, family planning programs have a significant independent effect. Weak programs have little or no effect. On average, 60 to 65 percent of the fertility declines from 1965-75 are attributable to the level of socioeconomic development; about 15 to 20 percent to family planning program efforts; about 5 to 10 percent each to the population's age structure, and actions to raise age at marriage; and about 15 to 25 percent to unknown or unmeasured factors. Programmatic requirements for the 495 million couples (excluding China) who will need contraception in the year 2000 will be prodigious. Seven aspects of technical assistance/programmatic support are particularly important: allocating resources, establishing cost effective, self-supporting programs, expanding availability of services to reach rural populations, integrating family planning with other components of development, strengthening program management, increasing opportunities for women and raising their status, and effectively using present and new technologies.

Points of intervention and choice

The adoption of family planning can have a direct and important impact on the reduction of population growth. LDC government leaders, aware of the potential benefits of family planning programs and faced with the prospect of the doubling of many of their populations over the next 25 years, are giving greater attention to the status of family planning in their countries. The findings are often contradictory:

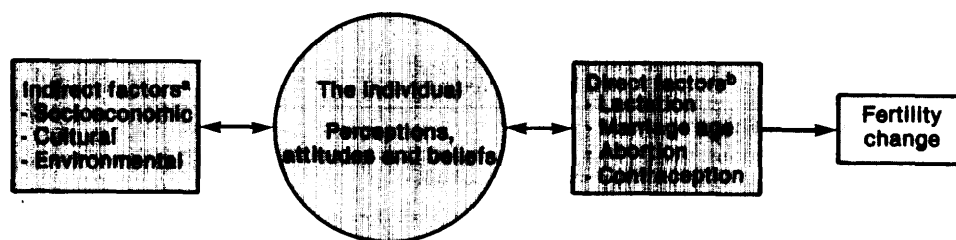
- An average of 50 percent of married women in LDCs report that they want no more children, yet from 25 to 90 percent of these women do not now practice contraception. (Asian and Latin American estimates; data from Africa are not yet available.)
- Variations in contraceptive use are enormous. Contraceptive prevalence rates range as high as 70 percent and as low as 2 percent of currently married women in LDCs.
- Many women in LDCs report having from one to as many as three more children than they wanted. The policy implications of this acknowledged unwanted fertility—of children already born—are important in that resulting fertility rates are one-third to one-fourth higher than these women desire.

Most women are fecund (capable of bearing children) from age 15 to about age 45 and most men are able to sire children throughout adult life. The decision to have a child, or to use a contraceptive, is influenced by both past and present conditions. Recent research centers on the four factors that have the greatest direct impact on fertility (see ch. 4):

- age at marriage and proportion married;
- lactation (breastfeeding);
- induced abortion; and
- contraceptive use.

Efforts to change fertility rates by changing the relative influence of these factors, which are in turn influenced by such indirect determinants as community attitudes about contraception, levels of education, income, and family relationships (fig. 22) can have unanticipated results. The socioeconomic determinants affect fertility in ways that are only partially understood. Nevertheless, their influence is extremely important. For example, fertility has declined at a more rapid rate in Colombia, Thailand, and South Korea, which have relatively high socioeconomic settings, than it has in the lower income countries of Bangladesh, Pakistan, and Kenya, but the relatively low-income country of

Figure 22.—The Pattern of Influence of Direct and Indirect Factors on Fertility



NOTE: Interactive relationships are symbolized by double headed arrows; direct relationships by single headed arrow.

^aIncludes: husband-wife communication, accessibility of services, influence of friends and family, level of education, place of residence, knowledge of family planning and methods of contraception, religious taboos, family income, economic level of the country, etc.

^bAlso termed "proximate" or "intermediate."

SOURCE: Office of Technology Assessment.

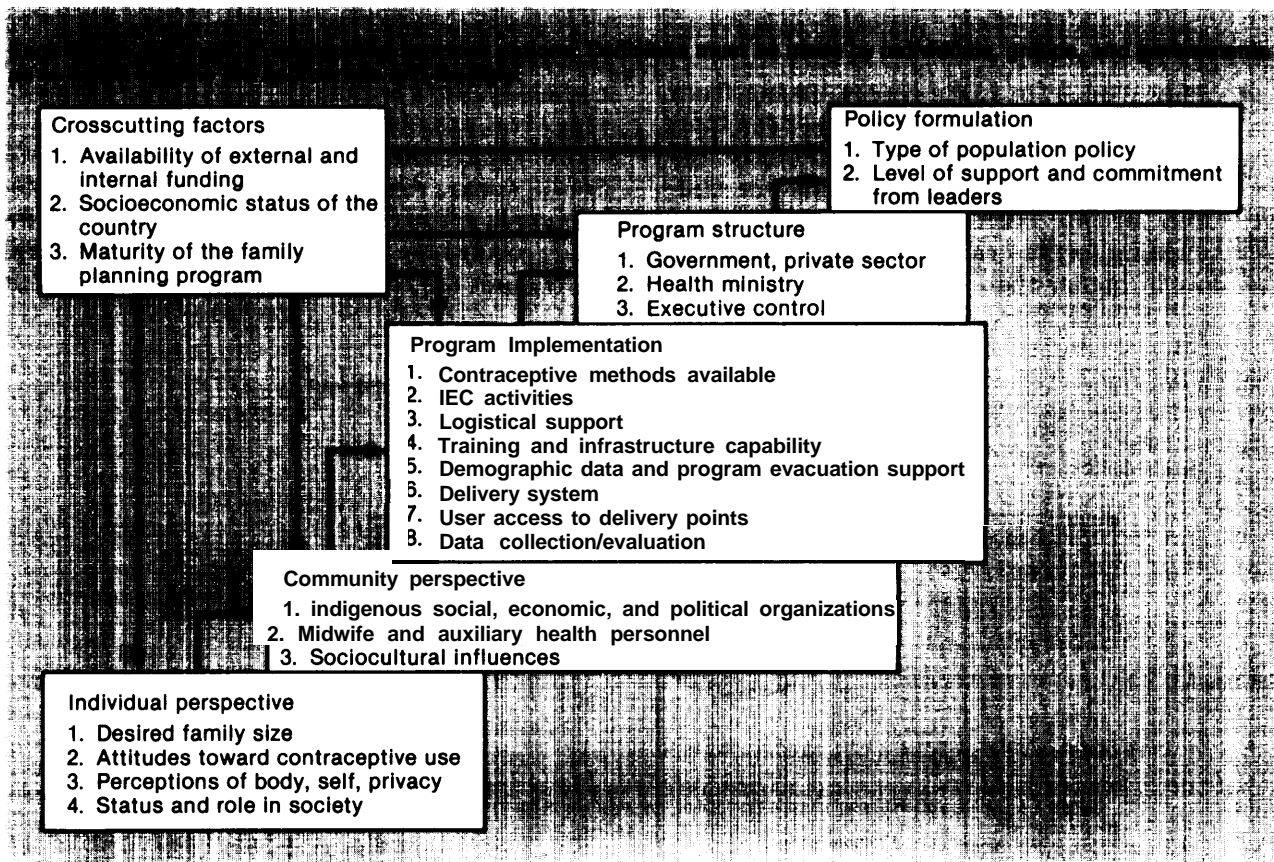
Indonesia (Java and Bali) has also experienced rapid fertility decline.

Because contraceptive use has become increasingly important in reducing fertility, family planning programs focus on this intervention. Yet policies and programs that are multifaceted—that simultaneously take account of both the other primary factors and the indirect influences listed in figure 22—are the most likely to be successful. This chapter examines the results of directed or undirected changes in the four direct factors listed above.

At least five separate levels of interaction can be distinguished. Each is a point of both intervention and choice. At each point choices are available and decisions must be made (fig. 23). At the government level, a point of intervention/choice is the formation of population pol-

icy. The type of policy and the rationale and support for that policy influence the country's population growth rate. A second crucial point of intervention/choice is the determination of the structure, form, and function of a family planning program. Some governments choose to keep programs and their implementation entirely under official control; others choose to keep programs exclusively in the private sector; still others choose a combined approach. A third point of intervention/choice is the selection of delivery system or systems used to implement the program. These systems include IEC efforts. Intervention and choice also operate at the community level. Social structure, culture, personal networks, and voluntary groups all come into play, but the most important decision is that of the individual, who chooses whether to adopt family planning. All governmental or orga-

Figure 23.—Selected Points of Intervention and Choice



SOURCE: Office of Technology Assessment

nizational interventions can be effective only to the degree that they affect individual behavior.

Crosscutting all of these levels of intervention are the country's overall level of development, which in large measure determines the ability to implement and administer a program, and its ability to fund the program.

Fertility change is an interactive, dynamic process in which individuals, groups, and governments seek to modify the attitudes, customs, and behavior that surround the most personal,

intimate part of human life. Awareness of the individual and social factors impinging on this process can help to avoid the mistaken view of modern contraceptive methods as "technological fixes" that can, by themselves, lower fertility rates. One of the most important and encouraging findings of recent years is that family planning attitudes and behavior can change rapidly. Population programs thus need to be designed to take account of individual rights and cultural values while educating individuals and helping them to change. This chapter highlights the complexity of this process.

Individual concerns: the user perspective

When I think of all the things I ate or swallowed, hoping that they would prevent me from having another child! But they didn't work. Now it is better because I have an IUD. (A village woman, Mexico) (10)

The perceptions of the individual—based on the degree of benefit expected from contraceptive use, and the expected duration of that benefit—determine whether he or she will use a fertility planning method. Because individual fertility behavior is both the impetus for and the target of family planning systems, individual needs must be respected and incorporated into these systems.

Although a significant proportion of males use condoms and some elect to be sterilized, most contraceptives are used by women and this situation is unlikely to change greatly in the near future. This section is thus devoted to the individual woman's perspective. (See *Community Concerns* for a discussion of what is known about male attitudes toward family planning and use of contraception.)

The myriad influences on a woman's decision to adopt family planning include not only the attitudes of her husband, family, and social networks but also the availability and cost of methods. Moreover, the impact of various factors is different depending on her status, age, and the number of children she already has. Once she decides to use a method, her percep-

tions and attitudes influence her choice. (See table 29 for categories of influences.) For example, a woman might perceive the side effects (irregular menstrual patterns) of a contraceptive injection as intolerable over a long period. Yet she might find them tolerable when she and her husband have agreed that she will be sterilized but she must wait 6 months until a sterilization team visits the village.

Table 29.—Types of Influences That Pertain to the Acceptance and Continued Use of Contraceptive Methods

Individual user criteria for acceptability	Attributes of methods	Lifecycle stage considerations
Personal, motivational	Gender of user	Premarital
Cultural	Mode of action	Delay first birth
Religious	Organs/systems involved	Spacing of births
Sexual, libido	Route of administration	Completion of fertility
Supply requirements	Frequency of use	
Economic	Circumstances of use	
Political	Effectiveness	
Philosophical	Duration of effect	
Convenience	Side effects	
Available medical support for treating side effects	Safety	
	Cost	
	Delivery requirements	

NOTE: Influences overlap; many are acceptability criteria as well as attributes of methods.

SOURCE: S. Polgar and J. Marshall, "The Search for Culturally Acceptable Fertility Regulating Methods," in Marshall and Polgar, (ed) *Culture, Natality and Family Planning*, Population Center, University of North Carolina Monograph 21, 1976, Chapel Hill, N.C.; R. Freedman and B. Berelson, "The Record of Family Planning Programs," *Studies in Family Planning* 7, No 1, Jan 1976, The Population Council New York; R. Greep, M. Koblinsky, and F. Jaffe, *Reproduction and Human Welfare: A Challenge to Research*, Ford Foundation, MIT Press, Cambridge, Mass., 1976.

Latent demand for family planning

WFS data provide good evidence of the latent demand for contraception in their measurement of the percentage of women who want no more children yet use no contraception. Although this measure may be inflated because some women who want no more children would not use contraception even if readily available because of pressures from peer group, family, or spouse, it does provide a useful estimate of unmet demand for family planning services.

The proportion of “exposed” women (those currently married, nonpregnant, and fecund—capable of childbearing) who want no more children varies from a low of 17 percent in Kenya to a high of 74 percent in Korea (table 30). The estimates of unmet demand are contained in column 2 in table 30; they range from

Table 30.—Percentage of Exposed^a Women Who Want No More Children, Percentage Not Currently Using Contraception, and Estimates of Unmet Need for Effective Contraceptive in 15 LDCs

	Of exposed women, percent who want no more children	Of all currently married women, percent who are exposed and want no more and are not using	
		Any method	Modern method
Asia and Pacific			
Bangladesh ^b	64	45	47
Indonesia	40	13	
South Korea	74	25	11
Malaysia	46	17	22
Nepal	30	21	21
Pakistan	42	26	27
Sri Lanka	62	22	31
Thailand	61	20	22
Latin America			
Colombia	61	22	30
Costa Rica	52	7	12
Dominican Republic . .	52	17	23
Mexico	56	21	26
Panama	63	14	19
Peru	61	25	38
Africa			
Kenya	17	NA	NA

^aAll currently married, nonpregnant, and fecund women, including those sterilized for contraceptive purposes.

^bBangladesh only—Some women were asked: “Do you want another child soon?”

SOURCE: M. Kendall, “The World Fertility Survey: Current Status and Findings,” *Population Reports*, series M, no. 3, July 1979, Population Information Program, Johns Hopkins University, Baltimore, MD.

a high of 47 percent in Bangladesh and more than 30 percent in Korea, Sri Lanka, and Peru to a low of 12 percent in Costa Rica.

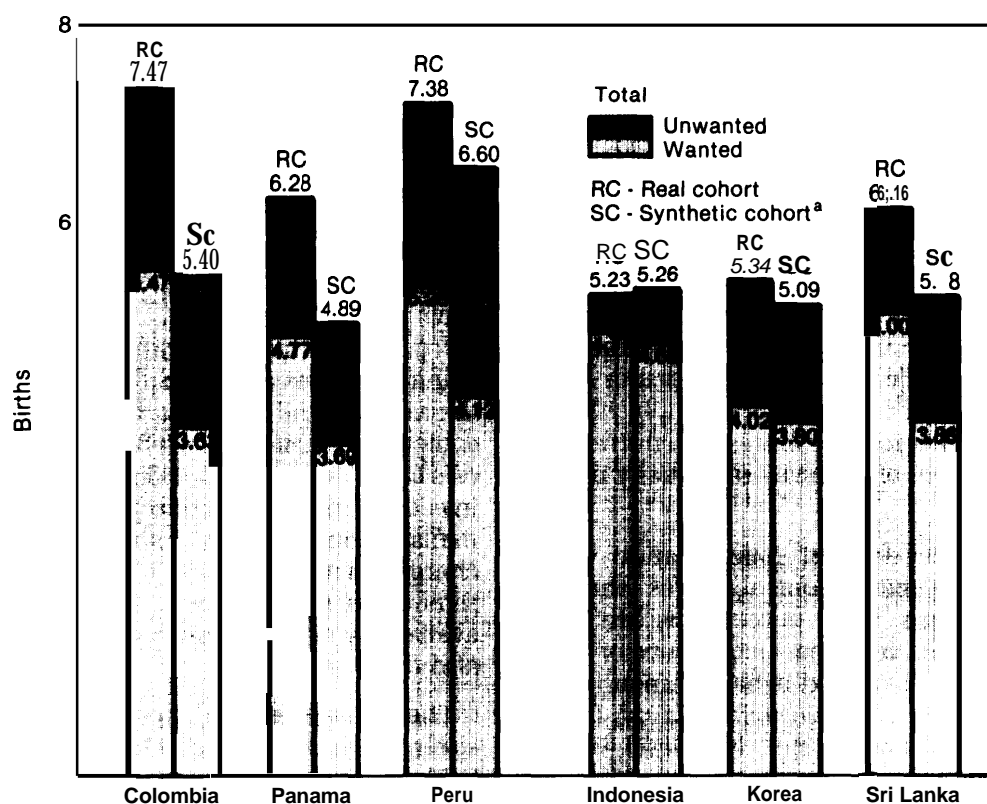
Rates of contraceptive knowledge—knowledge of at least one modern family planning method—are high in these countries, with the exception of Nepal, where only 21 percent of women know of a modern method. Rates in Bangladesh and Indonesia (81 percent), Kenya (88 percent), and Pakistan (71 percent) fall into the middle range, but in all other countries for which data are available, 90 to 100 percent of women know of modern contraceptive methods (15).

Women in countries where WFS surveys were conducted were also asked if their most recent pregnancy was desired. Although their answers provide a conservative estimate of unwanted fertility because many women are likely to rationalize a child as wanted after it is born, the levels of admitted unwanted fertility are striking (fig. 24). For example, when women in Peru and Colombia complete their childbearing, they have an average of 2.75 and 2.19, respectively, more children than they wished to have (table 31). In national terms, the percentage of unwanted births constitutes about a third of all births in Peru and Colombia and a quarter of those in Panama and Sri Lanka. The lowest rates of unwanted fertility are observed in Indonesia and Korea. In Korea, high rates of induced abortion make unwanted fertility rates correspondingly low (50).

Cultural values and the adoption of family planning

Why do large numbers of women admit to wanting no more children or to having more children than they wanted, yet use no contraception despite high levels of knowledge of contraception? Among the many possible constraints to contraceptive use—lack of supplies, fear of side effects, antipathy of the husband—personal attitudes and customs appear to play a major role. Individual cultural traditions, sexual taboos, and attitudes toward menstruation, sexuality, childbearing, and “proper” sex role behavior can strongly influence the ac-

Figure 24.—Levels of Unwanted Fertility in Selected LDCs



^aWhen lifetime data for an age group are unavailable, age groups representing a cross section of the population at a given point in time are substituted. (see *cohort* in Glossary.)

SOURCE: C. W. Westoff, "Unwanted Fertility in Six Developing Countries," paper presented at World Fertility Conference, London, 1980.



Photo credit: Agency for International Development

Village family in a remote sector of Madhya Pradesh, India

Table 31.—Probability of Ever Having an Unwanted Birth and the Cumulative Unwanted Fertility Rate per Woman by Interval (Years) Since the Last Wanted Birth

Years since last wanted birth	Colombia	Panama	Peru	Indonesia	South Korea	Sri Lanka
Cumulative unwanted fertility rate						
1	0.03	0.04	0.05	0.01	0.01	0.02
2	0.31	0.20	0.30	0.07	0.09	0.17
3	0.55	0.39	0.80	0.21	0.31	0.37
4	0.73	0.52	0.82	0.32	0.43	0.52
5	0.89	0.64	1.04	0.39	0.53	0.62
10	1.48	1.06	1.82	0.59	0.91	0.98
15	1.93	1.33	2.41	0.72	1.06	1.16
20	2.19	1.55	2.75	0.76	1.12	1.26

SOURCE: C. W. Westoff, "Unwanted Fertility in Six Developing Countries," paper presented at World Fertility Conference, London, 1980.

ceptance and continued use of contraceptive methods.

Women in the Philippines, Korea, Indonesia, and Mexico rated the four most important attributes of a contraceptive as: 1) effectiveness; 2) absence of side effects and convenience; 3) route of administration (oral, injectable, or vaginal); and 4) frequency of use. There were cultural differences in preference for route of administration, with the vaginal route generally least preferred (11). As the most frequent reason cited for discontinuing use of a method is the presence of side effects (20), priorities may depend on whether women are simply rating their preferences for attributes of contraceptives in the course of a survey or actually using a method.

Women's perceptions of menstruation vary widely. Because many contraceptives change menstrual patterns, these perceptions can hinder—or sometimes enhance—acceptance of particular methods. Rural and urban women from 14 cultural groups in 10 countries—Egypt, India (Hindu ^{high} and Low Caste), Indonesia (Javanese, Sudanese), Jamaica, Korea, Mexico, Pakistan (Punjab, Sind), Philippines, United Kingdom, and Yugoslavia (Moslem, non-Moslem)—expressed reluctance to use a method that produces amenorrhea. They feel that menstrual bleeding offers regular reassurance that they are able to bear children and denotes youth and femininity, provides evidence that they are not pregnant, and indicates that the body is eliminating impure blood. Many women feel that if “bad blood” is not removed, disease, failing eyesight, and mental illness are likely to ensue. Women tend to confuse the duration of their menstrual periods with the amount of flow. Light bleeding was equated with 1 to 3 days duration and heavy bleeding with 6 or more days duration (52). If family planning providers are to be sensitive to individual concerns, they must be certain that side effects that produce amenorrhea are fully understood by the user and that she is aware that she will not suffer disease or hold “(impure” blood in her body if she adopts a particular method. If a method decreases the duration of flow, the user needs

to be reassured that the flow will not necessarily be less, or that the shorter duration is not harmful.

Although some women in this 10-country study believe that menstruation is like an illness, they do not necessarily behave as though unwell. Conversely, those not holding this belief were found to exhibit the greatest behavioral changes during menstruation. Even though the women studied said they wanted no changes in their bleeding patterns, many of them—and many women in other countries—are currently using injections and orals that do in fact change the volume and duration of blood loss and do sometimes cause amenorrhea. Among the trade-offs in the process of deciding whether to use an injection method, efficacy and ease of administration may be more important than changes in menstrual cycle. Such considerations as need for surreptitious use of a method or unavailability of other contraceptive methods may also come into play.

The knowledge that beliefs are often inconsistent with behavior can be put to creative use in the delivery of services. The IUD was unacceptable in the Indian village of Bunkipur because the indigenous interpretation of its mechanism of action conflicted with cultural definitions of health. The people of Bunkipur divide their world (food, religion, medical system, etc.) into “cold” and “hot” attributes, which must be properly balanced in order to maintain equilibrium. Villagers believe that the IUD functions by “increasing the heat in a woman's genital region above the threshold at which conception can occur.” Under normal circumstances this heat production is perceived as acceptable, but should the individual contract a disease perceived as hot—such as smallpox, diarrhea, or venereal disease—the combination would induce too much body heat and the individual would die (38). By contrast, perceptions of hot and cold can evoke a positive reaction to a device such as the IUD. In one Mexican village, where the IUD is interpreted as cold and the uterus as hot, villagers believe that after about 3 months the IUD takes on heat and becomes compatible with its uterine environment (39).

An intriguing example of integrating a contraceptive into local cultural religious practices and beliefs comes from the Indonesia family planning program. A family planning official of West Sumatra, a physician, became interested in giving birth control pills to women in such a way as to prevent menstruation during the sacred observance of Ramadan, when Muslims fast from sunrise to sunset. A menstruating woman is regarded as ritually unclean and thus may neither participate in the fast nor pray in the mosque. He reasoned that many women would wish to inhibit menstruation during Ramadan, and having overcome their initial reluctance to use the pill would be motivated to continue its use. According to custom, women may “pay back” missed days after Ramadan is over but receive less *pahala* (grace from God) for these days. A three-cycle pill had been used elsewhere; this pill was approved for use and as the “Ramadan pill” has become a part of the program (9).

Decreased sexual desire, especially among males, is perceived as one of the most salient disadvantages of any method, yet a method that increases sexual desire is not necessarily more acceptable. Some Indian males, for example, believe that vasectomy increases sexual desire, but this factor is unacceptable because Hindus believe that semen is an important source of strength that should not be depleted by high frequency of sexual intercourse (38). Nevertheless, vasectomy becomes acceptable when Indian men are informed that vasectomy allows the semen to remain in the body, thereby preserving virility, youth, etc. (23).

In some instances, attitudes likely to prejudice people against a method can be mitigated by more pervasive beliefs. In one Mexican village where, except for postpartum amenorrhea, amenorrhea is greatly feared and is widely believed to cause ill health, hemorrhage, and tumors, women often resort to herbal teas and injectable medications to induce menstruation. Contraceptive agents that induce amenorrhea would thus be expected to be totally unacceptable in this setting. Yet the villagers there accept a 3-month injectable that causes amenorrhea because other beliefs supersede these basic

fears: they believe that conception occurs through the union of male and female blood or liquid. As oral contraceptives are thought to prevent conception either by weakening the blood of one of the partners, which causes “ill health,” or by destroying the joined male and female blood in the uterus, many women hesitate to use them. And since the pill must be taken daily, it is believed that its constant action allows no time for recuperation. The injectable, however, is administered every 3 months, and is thought to give sufficient time for the blood to regain its strength. These beliefs, which reinforce a desire to curb family size, and effective instruction regarding the harmless effects of possible amenorrhea, account for much of the success of the injectable in this setting (37).

Misinformation about reproductive anatomy and function can also cause resistance to the use of fertility planning methods. Some women in Mexico and the Dominican Republic voiced fears that an IUD would either be lost, appear in various openings in their bodies, or cause them to interlock with their mates during intercourse (38).

Clinic locations and hours of operation are important, though sometimes in unexpected ways. Women in a Barbados village, ignoring the clinic specifically set up for them, journeyed instead to a clinic an hour’s bus ride away in order to keep their attendance a secret. Clinics should also be open at hours other than those during which women must do their chores.

Lack of privacy is a major problem in family planning clinics in many countries. A study in Ecuador found that clinic personnel failed to take account of their women patients’ sense of modesty. Women in Guayaquil are shy about their sexuality. They are expected to be chaste at marriage, and to display no enjoyment of sexual activity. Menstruation is not discussed, and undressing in front of their husbands causes embarrassment. A clinic visit is at best a difficult undertaking for these women, but the clinics in question made it virtually impossible by interviewing them within hearing distance of other patients, by requiring them to undress in front of male physicians (and remain nude, without

gowns or drapes, while being examined, and by asking irrelevant personal questions. Preference for female physicians is documented in India, Puerto Rico, Honduras, Brazil, and Muslim countries (37, 38).

The kind of information clients are given—how much or how little they are told, and the attitudes of those giving the information—can also hinder adoption of contraceptive methods. Women seated in a room where clinic staff members lecture to them, who are given no chance to ask questions, may feel too uncomfortable about the subject matter to acquire the motivation needed to successfully use a method. In one clinic in the Dominican Republic, prospective pill users were told:

You cannot take them in a disorganized manner, or ever stop taking them, or lend them, or borrow them because these pills are hormones and every one has a distinct function in the body and if you take them incorrectly, a tremendous lack of control will occur and it will be a long time before it is corrected. Ladies, do not stop taking the pills at any time. If you do stop, it will cause hemorrhaging. (37).

The necessity for clinic administrators and staff members to fully understand both the level of their patients' knowledge of reproductive

functions and local attitudes toward sexuality cannot be overstated. Program planners must also be aware of the importance of waiting time for clinic patients. In many LDCs lengthy waiting times are apt to lead to client dissatisfaction, but in some cases this interval may provide pleasurable social contact for village women, becoming an inducement to visit the clinic and to accept and continue to use family planning.

As providers of family planning services often favor different methods than do their clients, the distribution of types of methods used in particular countries may be less a function of what is preferred than of what is available. In a recent study of user preferences in India, Korea, the Philippines, and Turkey, the pattern of contraceptive selection differed from the previous pattern in each clinic after providers were trained to give balanced presentations of the three methods available—pills, IUDs, or injectable. For example, in Korea for a year prior to the study, 36 percent of the patients had used IUDs and 64 percent pills. When freedom of choice was encouraged, 50 percent chose the IUD. There were also rural-urban differences; rural women in India and Turkey preferred injectable, while these differences were not significant in Korea.

Community concerns: The sociocultural perspective

I am tired. Look at me. I am nothing but a beast working in the fields and bearing all these children. I don't want any more children, but my husband says I must have as many as come (A village woman, Kenya).

As for religion, its importance in this connection varies. Just 1 week ago, a woman came and said that she wanted to have her IUD removed because she wanted to take communion in church. The priest had told her that if she had an IUD he would not give her the sacrament (A Mexican doctor) (10).

Most people in LDCs live in rural communities, which provide excellent settings for many development efforts, including family planning programs. As the pace of rural to ur-

ban migration accelerates, governments are increasingly attempting to provide people with alternatives that will allow them to remain in rural areas. Because the community is usually the local economic, political, cultural, and social base, existing organizations and structures can be utilized to promote family planning acceptance, and community level interactions will continue to have a significant impact on the adoption of small family norms and the utilization of fertility planning methods.

It is extremely difficult to predict the most important factors in people's decisions to use contraception. In comparing Venezuelan and Kenyan women's motivations to adopt family plan-

ning, a recent study found that specific contraceptive intentions (as opposed to general attitudes), social support (from friends and family), perceived accessibility of services, between spouse communication, and desire for additional children were the most important predictors of contraceptive behavior (13). Each factor has additive effects; raising the level of any one will increase the level of contraceptive use in the community. Program efforts that concentrate on a single factor are thus likely to be less effective than those that use a balanced approach with some attention to all factors.

The relative impacts of each factor differ in the two countries. Strategies to improve supplies and attitudes in Kenya, where availability, use, and knowledge are low, have different impacts than in Venezuela, where these factors are at higher levels in the population. Thus, during the initial phases of modernization and program development, family planning education, communication, and accessibility of supplies have a strong influence on contraceptive use, but at later stages attitudinal and interpersonal influences and personal situational factors become more important determinants of use. In general, a program that concentrates on diffuse positive attitudes toward family planning adoption might be less successful than one that concentrates on specific attitudes. For example, a program might encourage spacing of births by 3 or more years instead of simply promoting smaller families.

The separate worlds of men and women: husband-wife communication and male attitudes

The men here believe: Let a woman be free of childrearing and she will go everywhere. They want a woman to have a child every year until she becomes old, while they are free to go gadding about. So if a woman doesn't keep on having children, her husband will get angry and take another wife (A village woman, Kenya) (10).

The marital and childrearing expectations and experiences of men and women can differ greatly. Their status as males and females differs, as do the roles they play with regard to

each other, their friends, family, and their children. In most countries men play a dominant role in the major decisions of everyday life. This decisionmaking power—and the extent to which women share in it—has a significant impact on whether a couple will choose to limit the size of their family and adopt family planning.

Family planning programs have historically regarded women as the focus of their efforts. Until recently little attention was paid to the influences of male dominance, male decisionmaking, and spousal communication in the motivation to adopt and use family planning methods. In surveys on the value of children undertaken in seven Asian countries, wives mentioned much more frequently than husbands that children restricted their activities. In questions on attitudes toward children, women more frequently responded that “children tie me down” or “prevent me from doing things” (table 32).

In most LDCs, wives bear most of the burdens and receive few of the benefits of raising large families. A cogent example of these differences is given in the summary of a recently completed survey on male and female attitudes toward family planning in Mexico:

There exists ‘(widespread’ conflict between men and women. The majority of men reject the idea that women should be permitted to work outside the home, while the majority of women endorse this proposition. The majority of men think women are better wives when they have many children, while the majority of women disagree and view women with few children as intelligent, fortunate, concerned about their children, and blessed with considerate, understanding husbands. Many men express fears that their wives will become adulterous if they use contraceptives, and many women believe their husbands wish to keep them tied down with pregnancies so that their power and control over the wife will remain unthreatened (33).

Because of traditional male attitudes, where husbands dominate fertility decisions, perceive the costs of childrearing differently than wives, and believe that women are better off and more trustworthy if they are not using contracep-

Table 32.—Frequency of Responses to Attitudes Toward Children
(respondents could give multiple answers)

Country	Children tie me down		Prevent me from doing things		Fulfillment	
	Females	Males	Females	Males	Females	Males
Philippines	14%	17%	74%	65%	1%	3%
Turkey	72	34	73	51	4	5
Indonesia	57	15	69	45	0	0
Thailand	13	7	74	60	0	1
South Korea . .	38	25	66	43	7	8
Taiwan	24	19	79	38	4	5
Average	60	22	59	21	4	3

SOURCE: R. A. Bulatao, "On the Nature of the Transition In the Value of Children," papers of the East-Weet Population Institute, No. 60A, Current Studies on the Value of Children, March 1979, Honolulu, Hawaii.

tives, there will be substantial pressures for high fertility.

In a comparison of attitudes toward family size in Malaysia and Thailand, Malaysian husbands and wives were found to differ frequently about ideal family size and especially about the desired sex distribution of children. In Thailand, interestingly, spousal attitudes tended to be very close. When asked whether they wanted additional children, 71 percent of the couples agreed (in 51 percent of the couples neither wanted more and in 20 percent both wanted more) (43). In Thailand, men and women have relatively equal status, especially in comparison with other LDCs.

During a 1977 conference in West Africa, the participants, predominantly African women, emphatically stated that "African women did not need to be reminded of the benefits of smaller families; African husbands did." At another meeting a West African man stated, "Men here are never sterile, only women are." That is, a woman who is barren for a certain amount of time will take a clandestine lover to assure her husband of offspring. Both will derive status from offspring but the responsibility is hers. If she fails to produce she will be divorced or her husband will take an additional wife.

Husbands and wives sometimes disagree as to whose decision is final. Results from surveys in Santiago and São Paulo note that although the men feel that husbands and wives are about equally concerned with the number of children and most men report sharing in decisions on family size with their wives, women are more

likely to state that the men make the final decision. This same pattern prevails in Mexico, where more women felt that men had the ultimate say (20 percent) than did men (12 percent). Although there is disagreement as to who initiates the discussion of whether to use contraceptives and who makes the final decision, there is ample and consistent evidence that the role of the husband is extremely important in the adoption and continuing use of a method.

In the WHO study of user preferences (53), when women were asked why they were using or would use particular methods, one of the most frequently cited reasons was that the husband liked or would like the method. More than half of the women in India and Turkey reported that the choice of method was made with or by the husband. In the Philippines and Korea, fewer than half of the women reported a joint decision. Joint decisions were more often associated with IUD use, which may be because the husband can sometimes feel the IUD string during intercourse.

In Iran, where women at selected clinics who were given oral contraceptives showed very low continuation rates (only 12 percent after 6 months), husbands were asked to participate in family planning and encouraged to supervise pill use; during the next 6 months the continuation rate rose to 93 percent (35). In Jamaica, the primary reason given by women for discontinuing contraceptive use was the objection of their male partner. In Santiago, Chile, among couples in which the husband was in agreement with contraceptive use, nearly 75 percent had used

contraception, but among couples in which the husband was opposed to the use of contraception the figure was only 40 percent. In Kenya, Venezuela, and the Philippines, spousal communication was critically important in decisions to use contraceptive methods. The frequency of discussions on such topics as household budget, education of children, and contraceptive use is less important than the wife's role in the decisionmaking process and her degree of autonomy in various family decisions. Women with more independence are more likely to use contraception (12,13,14).

Women can manage to "beat the system":

Juana was in her late thirties or early forties. Of her 15 pregnancies 8 children were currently living. Although all her children had been delivered by a midwife, discomfort after her fifteenth delivery sent her to a regional health clinic, where she was told that another pregnancy would endanger her life. She had an IUD inserted and then proceeded to figure out how to involve her husband. She felt both guilt at having taken such a step without consulting him and fear that he would find out and be angry. She approached an American woman, who was a clinic outreach worker, and asked her to help. She had her "drop by" on a specific day, just when Juana's husband would get home. She coached her in great detail on bringing the subject up, beginning with a discussion of the new baby, the doctor's health warning, and then working around to family planning. She warned her friend that she would not speak up in support of the idea; all the approval had to come from her husband. The actual conversation took place just as Juana had predicted. When the discussion on contraceptive methods began, Juana's husband listed many concerns, not the least of which was that Juana's personality would change. Juana did not speak except to say, "whatever he wants" and to bring up potential problems the health worker had not covered. The conclusion was that Juana should have an IUD inserted, but only if the health worker accompanied her. The woman had to fake a trip to the doctor for the insertion (36).

Women who appear to play a secondary role may actually be very good at manipulating their husbands. In one African clinic, women are asked whether their husbands know that they

are using a contraceptive method. If not, when a worker comes to give the woman supplies, or during the course of an acceptor survey, the interviewer can use a pretense for her visit if the husband is at home. Although the use of subterfuge between spouses raises difficult questions, some women in LDCs are willing to take extreme measures to avoid or delay pregnancy, and welcome innovative means of introducing family planning into their lives. Women who are innovators in the use of contraception often become enthusiastic supporters of family planning in their communities.

When men agree that their wives should use family planning they often have reservations because of misinformation about the safety, effectiveness, and potential side effects of particular methods. In one village in Mexico, 46 percent of the women thought that their husbands would approve of their using contraception, usually for economic or health reasons. But some were concerned that their husbands might change their minds while intoxicated, as there had been episodes in the village when drunken husbands had attempted to remove their wives' IUDs. Twenty-one percent of the women had never discussed the issue with their husbands and did not know what their reactions might be. One-third of the women reported such negative attitudes as the desire to have many children to gain prestige and to ensure the couple's future economic security, fear that if the wife used contraceptives it would undermine the husband's authority and encourage her sexual autonomy, and fear that illness and even death might result from using contraception. Men's fears, based on rumor and misinformation, are also recorded in a study in Guayaquil, Ecuador, where some men felt that the pill would "eat the red blood cells" or change a woman's temperament, or that withdrawal would make a man's head swell up (36).

Studies of male contraceptive use indicate that use of current methods (condoms and vasectomy) can be expanded and new methods would find considerable acceptance. In Ghana's Danfa project, men's continuation rates were higher than women's, although this was attributed to

their extramarital or premarital affairs, during which there is strong motivation to prevent pregnancy. There is some reserve among men in many groups toward the use of condoms because of their association with prostitutes. Groups of 150 rural and 200 urban men in Fiji, India, Iran, Korea, and Mexico were asked to evaluate the attributes of existing male methods (condoms and vasectomy) and potential male methods (a daily pill and a monthly injectable). Willingness to use a daily male pill if available ranged from 48 percent in Fiji to 77 percent in India. Somewhat lower proportions of men stated that they would use an injectable. Approximately one-third of the men reported that they were currently using no method (11).

As better methods are made available to men, their responsibility for and involvement in family planning is likely to increase. For the short term, it is important that family planning administrators be aware of the influence men have on their wives' fertility decisions and of the need to include men in family planning educational efforts.

Son preference

"A daughter lets you down twice, once when she is born and again when she marries." Korean proverb (26)

The evidence that couples prefer sons is consistent across all countries, including the United States. In many countries this preference is even more marked in women than in men.

The importance of son preference to fertility rates changes as fertility begins to decline. Several factors are involved. Unless preferences are strong there will be no fertility effect. The amount by which the desired ratio within the family diverges from the natural ratio is important; if the ratio is three or more boys to each girl the effect will be greater than if it is just two boys to one girl. Preferences for family size are related; if family size is large—four or more children—son preference will not have an appreciable effect on fertility because most families will have at least one son. And if contraceptives are unavailable, families will not be

able to stop having children when their ideal family size/sex ratio composition is attained (51).

In Japan, Singapore, and Hong Kong fertility is low and son preference has diminished, largely as a result of social and economic development, urbanization, and increased opportunities for women. The birth rate has fallen sharply in China, where, in a radical reversal of traditional attitudes, campaigns are now under way to encourage the one-child family. In these campaigns, a major emphasis is on reducing the preference for sons by raising the status of women.

The implications of son preference are direct and powerful. In societies where son preference is strong, women are directly affected from birth to death. For example, in India in 1972, mortality among girls from birth through 9 years of age was 8 to 23 percent higher than among boys, depending on the region of the country and the 5-year age group (7). Although girls die from the same causes as boys, boys tend to be given better quality medical care and probably more food. As boys are also preferentially educated, they have a better chance to become economically self-sufficient. Women often suffer from anemia and poor health because they must undergo many pregnancies in rapid succession in order to assure sons for their husbands. This cycle of female deprivation is unlikely to be broken until women are given opportunities to increase their self-sufficiency. This can be accomplished when governments undertake active campaigns to educate women (and men concerning new roles for women), assure them equal economic opportunities and legal protection, and convince society that daughters can be as reliable as sons in assuring the old age security of their parents.

Social networks and organizations

Many existing networks and organizations can have marked impact on adoption and use of contraceptives when they incorporate family planning efforts into their activities, especially women's organizations and traditional midwives who can be trained to deliver family plan-

ning information and supplies. In Indonesia, where the local infrastructure is well developed, the family planning program has specifically targeted community leaders and local women's groups as elements of the family planning effort.

Mothers' clubs in Korea are an outstanding example of the role of voluntary organizations and of women—in family planning adoption and rural development. Groups called Kae had traditionally been formed by Korean women as revolving credit associations and lotteries to provide opportunities for women to accumulate funds for special purposes. The Korean National Family Planning Program decided to distribute contraceptive information and supplies through these mothers' clubs. Their goals were to encourage family planning practice and continuation by example and through social and emotional support to users, to aid overburdened fieldworkers in recruiting new users and supplying contraceptives (pills and condoms), to aid in the introduction of a new method (the pill), and to encourage participation of women in community development activities. These efforts were highly successful both in increasing family planning acceptance

and use and in improving the status of women in the community. The clubs have branched out and now encompass cooperative agricultural efforts, community construction projects, and income-producing activities (28).

Similar women's organizations are becoming a part of family planning program efforts in Nepal, Thailand, and Egypt. Their leadership includes women professionals who join together to help poorer women, and community political activists who are selected and trained to help deliver family planning information and contraceptives, usually pills (3). Women's credit organizations in Nigeria and other African countries are expanding their functions to include family planning. These grassroots women's groups can be encouraged to aid both family planning efforts and rural development programs (27).

Sixty to 80 percent of births in LDCs occur at home. Hospitals are likely to be too far away or too expensive, and many women prefer to have their babies delivered by local women whom they know. Midwives thus already play a vital role in the community, and with training can improve and expand their services to include prenatal and postnatal care and family planning. In Thailand, 2-week training courses for midwives on aseptic delivery, care of newborns and mothers, nutrition, and family planning have been held since the 1950's. By 1968, some 16,000 women had been trained and provided with UNICEF midwifery kits. In 1965, midwives who used a coupon system to refer women to clinics for IUD insertion were responsible for 5 percent of acceptors in the program's first year. A national program has been under way since 1978 to train all active and interested traditional midwives under age 60; or about 80 percent of the country's total. Although the family planning aspects of this effort may have limited results, improvements in overall maternal and child health care are expected to be significant (8).



Photo credit: Agency for International Development

**Family planning worker explains IUD-use
to Korean mothers**

National concerns: The role of governments

Significant fertility declines are usually associated with some or all of the following conditions that involve government policy and action with regard to population programs (ordering does not imply relative importance): 1) governmental policies that encourage and promote equal status and opportunities for women, higher age at marriage, and more equitable distribution of wealth and educational opportunities, all of which lead to a higher standard of living; 2) programs designed to bring about a decline in infant mortality; 3) a government policy with explicit goals for reduction of birth or population growth rates; 4) a strong commitment to population planning by the country's leaders; 5) a family planning organizational structure with executive power to mobilize more than one government sector and to coordinate with the private sector; 6) population program funding (usually both external and internal sources); 7) provision of a broad range of contraceptive methods; 8) sufficient numbers of well-trained and motivated family planning program personnel; 9) population and family planning information and communication efforts that effectively reach all sectors of the populace; and 10) direct or indirect incentives that encourage couples to limit the size of their families. The relative importance of these components is not known because country settings differ, and the nature of the country's developmental process and the level of certain key indicators (life expectancy, Gross National Product, nonagricultural labor force participation, literacy rates, etc.) affect the extent to which program implementation efforts can succeed in lowering fertility. But the degree of political will and commitment and the extent of administrative capacity play major roles in determining the magnitude of fertility decline.

Policy development and formulation

Although most LDC governments have some policy with respect to population, their perceptions of whether population growth rates are satisfactory differ greatly. Nearly all governments allow access to modern methods of con-

traception as a health measure, and as a human right, but as some actively encourage family planning while others take no direct role, the actual availability of family planning information and supplies varies widely. Most of the world's 50 most populous countries are in Africa and Asia. But only 35 percent of African countries with high growth rates consider their rates too high, while 75 percent of their Asian counterparts hold this view. By contrast, 13 of the 15 most populous countries consider their fertility rates too high (table 33).

The process of policy formulation varies among countries because of differing political and historical factors. In many countries, both the private sector and the demographic community have been instrumental in influencing governments to formulate population policies and implement family planning programs.

Even when rapid population growth is seen by government leaders as a problem, cultural and/or historical constraints may mitigate against the adoption of a specific policy of fertility reduction and the implementation of a government-sanctioned family planning program. The contrast between Latin America and Asia



Photo credit: Agency for International Development

Family planning slogan that has become famous throughout India reminds cyclists that "two are enough"

Table 33.—National Population Policies

Government policy			
Country	Perception ^a of birth rate	Policy and interventions/ population growth or birth rate goals	Access to family planning services ^c
1 China	H	— (BR)	4
2 India	H	— (BR)	4
3 Indonesia	H	— (PG)	4
4 Brazil	S	0	4
5 Bangladesh	H	— (BR)	4
6 Pakistan	H	— (BR)	4
7 Nigeria	S	0	3
8 Mexico	H	— (PG)	4
9 Vietnam	H	— (PG)	4
10 Philippines	H	— (PG)	4
11 Thailand	H	— (PG)	4
12 Turkey	H	— (BR)	4
13 Egypt	H	— (BR)	4
14 Iran	H	— (PG)	4
15 South Korea	H	— (PG)	4
16 Burma	S	0	2
17 Ethiopia	S	0	3
18 South Africa	H	—	4
19 Zaire	S	0	3
20 Argentina	L	+	1
21 Colombia	S	0	4
22 Afghanistan	H	0	4
23 Morocco	H	— (BR)	4
24 Algeria	S	0	4
25 Sudan	S	0	4
26 Tanzania	S	0	4
27 North Korea	S	=	4
28 Peru	S	0	4
29 Kenya	H	— (PG)	4
30 Venezuela	S	0	4
31 Sri Lanka	H	— (BR)	4
32 Nepal	H	— (BR)	4
33 Malaysia	S	0	4
34 Uganda	H	—	4
35 Iraq	L	+	2
36 Ghana	H	— (PG)	4
37 Chile	H	0	4
38 Mozambique	S	=	4
39 Cuba	S	0	4
40 Kampuchea	L	+	1
41 Madagascar	H	0	3
42 Syria	S	0	4
43 Cameroon	L	0	3
44 Saudi Arabia	S	=	1
45 Ecuador	S	0	4
46 Ivory Coast	S	=	2
47 Zimbabwe	NA	NA	NA
48 Guatemala	H	0	4
49 Angola	S	0	3
50 Upper Volta	S	0	2

NA = Not available.

^aPerception: S-Satisfactory fertility level; H-Fertility too high; L-Fertility too low.

^bPolicy and interventions: Stated policy and interventions to increase population +
 Stated policy and interventions to decrease population —
 Stated population growth reduction goal (PG)
 Stated birth rate reduction goal (BR)
 Policy to maintain present population =
 No interventions 0

^cAccess to family planning services: 1-Restricted by government; 2-No support by government; 3-Indirect governmental support; 4-Direct governmental support.

SOURCE: United Nations, *World Population Trends and Policies: 1978 Monitoring Report, 1980*.

demonstrates the importance of historical, political, and cultural traditions. In general, Asia has had a relatively long tradition of government family planning programs while Latin America has traditionally relied on the private sector. Government policies have not always been explicit in Latin America but government support has been unobtrusively provided to private family planning efforts. Ness and Ando (22) argue that Latin America has implemented few government programs because there must be a perceived "legitimacy" for the government to implement such efforts. This legitimacy stems from underlying value sets of the nation's cultural groups. In Latin America there is deep-seated antipathy toward government-implemented family planning among diverse groups: conservatives oppose contraceptive use because of commitment to Roman Catholic values; social reformers have supported limiting population growth but have been suspicious of the U.S. emphasis on family planning; and revolutionaries oppose population growth limitation either from strict Marxist opposition to Malthusian theory or from objection to any social reform that reduces pressures for radical change. Because Latin America has a high proportion of countries that support fertility reduction without specific public policies for fertility planning, successful family planning programs require a substantial degree of commitment on the part of strategic groups of leaders. Latin America's general public appears to be in a greater state of readiness for serious collective population growth limitation than do some of its leaders (22).

By contrast, Asia has taken the lead in government-sponsored fertility reduction programs. The greater penetration of modern colonialism in Asia produced strong nationalist movements which led to strong political and organizational commitment to economic development and centralized economic development planning. These antecedents led, finally, to political decisions for population growth limitation by planning authorities, justified largely on economic arguments. These decisions led in turn to government organizations to promote fertility planning (22).

There are clear differences in outcome between policies with demographic objectives and those aimed primarily at improving general health care. About two-thirds of the countries with policies to reduce population growth have either strong or moderate programs. When the effects of social setting and population program are compared, more specific policies are shown to be associated with greater declines in the crude birth rate after controlling for social setting (table 34); only a high social setting can overcome a weak policy position. (Social setting is an index of socioeconomic development level used by Mauldin and Berelson.)

Three very important considerations lie behind policy as a level of intervention—the country's degree of political commitment, its administrative capability, and the ability of government planning and statistical agencies to analyze projects and programs with respect to their population dynamics. Experience to date indicates that a nation's political elite must be committed to population planning efforts to the extent that it supplies the program—whether public, private sector, or both—with ample resources. Highly qualified personnel must be chosen to administer the programs, bureaucratic impediments to program effectiveness must be removed, and program goals given high visibility in the government's development plan. Administrative capability is generally correlated with the country's level of development; if levels of skills are low and basic infrastructure is weak, institution-building must be a part of the program. This is a slow, expensive undertaking. If infrastructure and skills are in place and only

Table 34.—Decline in Crude Birth Rate (percent) by Social Setting and Nature of Family Planning Policy 1965=75

Social setting	To reduce population growth rate	For other than demographic reasons	No program and unknown
High	28(11)	21(7)	3(6)
Upper middle.	15(14)	4(6)	2(4)
Lower middle.	7(4)	4(8)	2(11)
Low	1(2)	1(4)	2(17)

Number of countries in parentheses.

SOURCE: P. W. Mauldin, B. Berelson, Z. Sykes, "Conditions of Fertility Decline in Developing Countries, 1905-75," *Studies in Family Planning* 6(5): 89-147, The Population Council, New York.

specific training programs are required, such training programs can be very cost effective. When the social setting is less than congenial to the idea of family planning, political commitment and administrative capability are crucial (40).

Decline in infant mortality

In the ongoing debate over the relationship between infant mortality and fertility, it has generally been believed that infant mortality rates must begin to decline before fertility rates will do so. The underlying assumption is that couples will continue to try to replace children who die in infancy until they have a sufficient number to insure the survival of at least several. Now, however, new evidence from the European demographic transition and from many LDCs shows that fertility can begin to decline in countries with high rates of infant mortality. When various neglect behaviors are implemented toward unwanted children, their risks of dying rise, and high infant mortality may be associated with high fertility (see also Tech. Note A, ch. 4). Although the relationship is complex, both MCH and family planning programs respond to an important humanitarian need to reduce death rates among infants, their siblings, and their mothers.

Demographic information, education, and communication efforts

Up-to-date demographic information and statistics for program evaluation are crucial to policy development, and to the implementation and functioning of family planning programs. Reliable demographic information from censuses and surveys must be available to inform government leaders of the dimensions of population growth in their countries. Data collection to document the initiation, growth, and change of programs is essential, as is the capacity to analyze demographic data and recognize the consequences of population growth in terms of a country's economic and social goals.

Parallel to this demographic support are IEC efforts to increase awareness of the effects of rapid population growth on socioeconomic

goals, and to explain what family planning is and where services are available. IEC efforts range from mass media campaigns to the information that individual family planning workers give personally to their clients. Knowledge of the ability to control one's fertility favorably influences use of fertility planning methods; this use, in turn, increases knowledge and receptivity to education efforts which, in turn, increase use of family planning methods (49). This constant feedback process can occur quickly—as evidenced by the rapid spread of family planning in Mexico, Indonesia, Colombia, Brazil, and Thailand—and can establish family planning as a subject of open and free discussion.

Strategies for the structure and functioning of family planning programs

Contraceptives have usually been available on a limited basis prior to the establishment of government programs. Often the private sector, including the medical profession and social scientists, has been active in alerting government officials and the population in general to the need for family planning services. These services have in many cases been provided by local affiliates of IPPF.

In Colombia, the medical community and voluntary organizations played a major role in encouraging the government to adopt a population policy and to sponsor and implement a family planning program. The Colombian Association of Medical Schools (ASCOFAME) through its division of Population Studies (DEP) demonstrated the existence of the country's population problems by gathering data on fertility and rates of illegal abortion and by generating awareness of Colombia's demographic situation among both medical and academic professionals and the Colombian people. Through the combined efforts of ASCOFAME, Profamilia (IPPF's Colombian affiliate), other government and private organizations, and external support, public health personnel were trained in the delivery of family planning services, these services were made available, and the government was encouraged to undertake a national program. Much of the institu-

tionalization of family planning was thus taking place while the government was formulating its policy.

Governments must consider not only the structure of their official programs but the relative contributions and continuing roles of those organizations whose family planning efforts precede the implementation of a national program. ASCOFAME, Profamilia, and the health ministry continue to deliver services in Colombia; each organization fulfills varying roles according to its individual strengths. A parallel experience is seen in Malaysia, where the private family planning organization and government-run program work hand-in-hand.

Most government family planning programs are located in health ministries or in the maternal and child health sections of health ministries. This is more likely to be the case when policies are primarily aimed at health care, although many policies with specific demographic objectives are implemented through programs in the health ministry. Countries also have the option to rely heavily on the private sector. In these cases the private sector can include the medical community as well as affiliates of such nongovernmental organizations as IPPF. Brazil is a country where cultural and religious factors mitigate against a strong population policy at the national level while family planning activities proceed in various sectors through state governments and through extensive use of the medical community and nongovernmental organizations. The national government simply does not bar these activities.

Family planning programs located in health ministries can encounter problems when family planning priorities are submerged by the demand for basic health services. In Kenya, where there are fewer than 15 doctors for each 100,000 people and it is impossible for doctors to reach all patients even for the most basic of health services, family planning becomes a low priority health measure. In Korea, by contrast, there are enough doctors to provide basic health care and they have been trained in family planning, incorporated into the system, and paid for delivery of family planning services.

Locating a program in the health ministry can cause problems if there is no vehicle (an executive governing board or some form of coordinating and executive power) to expand the program beyond the ministry. For example, health ministries are not usually equipped to launch major education and information campaigns, nor do they have the marketing skills to launch projects to distribute contraceptives through commercial channels. In addition, the health ministry usually focuses on maternal and child health, which is important but often limits male access to and involvement in family planning.

One strategy used by several countries is to establish a coordinating board that has executive power to coordinate the various activities of a family planning program. Thus, as in the case of Mexico, such a board can coordinate the activities of various ministries and the private sector in order to reach populations with different characteristics. Mexico's coordinating board consists of the directors of the major sources for health care and family planning in the country. The board, called Coordination General del Programa Nacional de Planificación Familiar, is under the direction of an executive coordinator within the Ministry of Health, and is composed of all cabinet members and heads of institutions in the health sector, the Directors-General of the Mexican Social Security Institute and Institute of Social Security for Government Workers, the Undersecretaries of Planning and of Health and Welfare, and the Director-General of the National System for the Integral Development of the Family. The board coordinates and streamlines the family planning effort of the existing public health infrastructure in order to expand services, especially to rural and marginal zones, and is responsible for setting standards, creating new programs, and monitoring the activities of all family planning service organizations, public and private, in Mexico. It is a semiautonomous state agency with close access to the President through the Executive Coordinator and the Secretary of Health and Welfare.

Indonesia also has an autonomous coordinating board. Indonesia's first 5-year develop-

ment plan, introduced in 1969, set a target of 3 million family planning users by 1973-74. The National Family Planning Coordinating Board (BKKBN) was set up as a separate board with direct responsibility for reporting to the president on family planning activities. This board does not directly provide contraceptive services to the public; instead, it coordinates the work of the various ministries and private institutions that provide contraceptives and conduct informational and motivational campaigns. BKKBN employs fieldworkers who complement staff from other ministries.

Unfortunately, few data are available on how the structure of family planning organizations relates to the effective functioning of the family planning system. Some data are available from structure charts of organizations, but how communication channels work or don't work and the implications of structure for the functioning of the system remain to be investigated (24).

Integration of family planning with other development programs

The belief that integrating family planning into other development and welfare efforts is essential to the success of family planning programs is being given wide currency at a time when the success of nonintegrated family planning programs is being well-documented around the world. Questions thus arise about the evidence supporting the efficacy of integrating family planning with other programs.

The rationale for integration and the criteria used as evidence for its need must be carefully examined. A government considering an integrated program must first consider its goals, its target population, the existing infrastructure, and how the integration is to be carried out. The process must be carefully planned because different procedural actions are required when integration occurs at the service delivery level than when one ministry is to become a part of another.

"Integration" usually means integrating family planning with health or MCH. An inherent problem is that the addition of a new program to an already fragile program is apt to weaken both.

Ministries of health are typically weak in LDCs because of the severity of health problems and the lack of trained personnel. In the MCH approach, sick women and children are given priority. If special hours and specific personnel are not delegated for family planning, services will not be delivered. If the family planning budget is integrated into that of the health ministry, funds earmarked for family planning may be diverted to more acute health needs. As MCH clinics primarily serve women, there is little motivation or opportunity to incorporate men into family planning activities. Services tend to remain clinic based as health ministries rarely command the educational or marketing expertise necessary to launch non-clinic-based programs. The rationale for integration into other sectors—that a plateau is reached in a clinic based approach—may be valid but it may also be true that a weak administrative infrastructure causes a leveling off of new users of contraception.

Even when there is a definite goal the process of integration crosscuts several organizational concerns. Are the linkages to be temporary or long term? Which development sectors are to be linked? Is the linkage to be along administrative or service lines, or both? Does the target group—rural or urban, male or female, married or single—warrant an integrated approach? UNFPA has made a number of recommendations based on their examination of the experience of several types of integration in several countries.

Integration of family planning with rural development activities can help to improve the program in specific circumstances:

- Because many rural people are extremely poor and isolated, current clinic-based programs are unlikely to reach them, and linking family planning with other development activities—especially with existing structures and with the rural community itself—can increase the availability of all services.
- Where there are politically influential groups who are averse to family planning, programs can be linked to more popular



Photo credit: Agency for International Development

Mobile family planning unit visits a remote village in the Turkish countryside

services in order to make family planning more acceptable.

- It is preferable to focus on integration that links specialized services at the point of service delivery, and to approach with caution integration that creates large umbrella activities. Experience has shown that the delivery of other services can be added after the delivery of family planning services is established, e.g., addition of oral dehydration kits to family planning outreach workers. Care must be taken not to overburden workers with too many interventions in settings where unmet health needs are acute.

Although integrated programs may achieve some long-run efficiencies and cost reductions, they require large investments in resources, especially in the beginning. Integration cannot be

effective when existing personnel are given heavier workloads without being given the necessary additional resources (23)41,47). In general, integrating family planning with other development interventions works best at the service delivery level, when the needs of the target group are carefully considered, and when interventions are simple and straightforward. When a family planning service delivery system is strong, other interventions can strengthen the total program. In Thailand, for example, the local production of methane gas is among a number of program interventions incorporated into the family planning commodities delivery system. In Mexico, the distribution system set up for the government's PROFAM brand of contraceptives was so successful that a major pen manufacturer asked to include the PROFAM network of pharmacies in its distribution system,

Considerations governing the contraceptive methods provided

Among the most crucial choices a government must make is that of the methods to be provided in the country, both within and outside the program. Legal considerations and cultural and individual preferences must be carefully assessed. Each method has its logistical requirements: supply considerations, warehousing support, transport, need for specially trained personnel, specific types of information and education campaigns, knowledge of brands available, shelf life, and cost. Import regulations apply or are determined by a government's decision regarding manufacture of contraceptives within the country, which must take into account the number and kinds of methods to be distributed. Product safety and reliability considerations are important, as is cultural acceptability, and who will prescribe and who will use the methods.

Six major factors—in addition to cultural considerations—generally determine the adoption and use of fertility planning technologies by governments and national family planning programs and will continue to do so in the future. They are: 1) cost of the technologies, 2) adequacy of information about the technologies, 3) adequacy of sources of supply of technologies, 4) nature of government policies with respect to importing goods, 5) nature of laws, policies, and commodity financing arrangements pertaining to the technologies themselves, and 6) capacity of program administrators to arrive at and implement technical decisions about these technologies.

The fundamental problem that governs technology transfer in the fertility planning field is the still unresolved question of who will bear the very substantial costs associated with the development, distribution, and use of both present and future technologies. Many future technologies that could be of use in LDCs will be much more costly than existing technologies either because they will be sold at higher prices than current methods or because it will cost more to acquire the rights and technical capacities to manufacture them locally. These problems of cost will have to be resolved at both na-

tional and international levels among donors who purchase commodities for LDC programs.

For example, since costs are high, program managers must have sophisticated knowledge of the exact contraceptive, packaging, labeling, and quality control specifications they want if contraceptives are purchased from private-sector companies. Costs can often be reduced if bulk purchases are made. Purchasing from the private sector offers the advantage of a wide choice of products and, usually, high quality, prompt delivery, and good service. In contrast, purchase of contraceptives from manufacturers that sell to donors such as AID, UNFPA, IPPF, FPIA, etc., reduces cost and offers high quality products and arrangement of procurement, shipment, and customs clearances. However, only a limited choice of products may be available. Given current high costs and the expected increases in use of contraceptives, many LDCs will still prefer this route. It is also likely to be the best option for procurement of new contraceptive methods because of the high costs associated with other options.

Another option for an LDC government is to manufacture the commodities locally. (see app. D for a detailed description of the logistic requirements and processes involved in establishing local manufacture of contraceptives in LDCs.) The major advantages of local manufacture include the benefits of increased local employment, technical skills, and output, and, sometimes, reduced expenditures of foreign exchange currency. packaging and labeling can be designed to meet local specifications and needs. The interval between manufacture and use of product is reduced, which is especially important for products with limited shelf life. Major disadvantages include the difficulty of retooling for new technologies, the narrower range of choices available, and potentially higher costs. Most importantly, unless a country is able to commit the technical and managerial resources necessary for the highly sophisticated production of contraceptives, problems with reliability of manufacture and product quality can occur.

If a government decides to build up local production capacity through strict foreign exchange controls and import substitution poli-

cies, planning and finance ministries will find it difficult to approve the purchase of new technologies manufactured abroad. And, as was discussed in chapter 6, because new methods are most likely to be developed in MDCs in the next 20 years, governments will need to import them, at least until they can establish local manufacturing capabilities. Because governments are likely to favor local production in the future, there could be severe delays in local availability of many new technologies and blocked access to others.

In addition to these economic considerations, technical and programmatic factors determine the method mix in LDCs now and will continue to do so in the future. The importance of the effective dissemination of information about the technologies, on which the transfer of technology depends, cannot be exaggerated. For example, there are three major variants among IUDs, and these are further subdivided into almost 100 specific products or techniques. Oral contraceptives are available in more than 40 different formulations. Brands with different formulations and dosages often differ in packaging, cost, shelf life, and side effects. Efforts are now under way to provide program administrators with up-to-date information on different methods; PIACT, the Program for Introduction and Adaptation of Contraceptive Technology, is disseminating comprehensive information on contraceptives to LDCs. Once an administrator decides which contraceptives to purchase, the sources of supply must be chosen. Contraceptives can be purchased from private manufacturers or from special manufacturers that sell to the public sector, obtained as gifts from international donors, or manufactured locally. Each source has attendant advantages and disadvantages.

Levels of expertise and infrastructure are important in contraceptive choice decisions. Even if all the information could be listed in a compendium and constantly updated, people would need special training in order to adequately evaluate the properties of various methods (36).

Each decision about the method mix in a particular country is extremely important and has its ramifications and repercussions. The ad-

ministrator must not only be aware of user preferences and logistical requirements, but have up-to-date information and be able to assess medical properties of the methods. These considerations are likely to become more complex as overall prevalence rates increase and as new methods are introduced.

Commercial retail sales and community-based distribution systems

When a country has determined the structure of its program, the development of service-oriented operational strategies is needed. Governments can choose clinic-based systems for government-provided services, heavy reliance on existing health facilities and utilization of private physicians, distribution through nongovernmental private voluntary organizations, retail sales distribution systems, or community-based distribution systems, or they can mobilize all of these sources. Among the innovative approaches in current use are community-based distribution (CBD) programs, and commercial retail sales (CRS). These systems incorporate subsidized government sales through pharmacies, local boutiques, village centers, and distribution through institutions and individuals, and involve people who are closely linked to the community and well-known to the clientele they serve. These workers may be village elders, midwives, merchants, or volunteers who assume responsibility for any number of tasks, including contraceptive storage, program administration, and transmittal of family planning education and information. Approaches differ from country to country, but several characteristics are common to successful programs. These include prices that are affordable to the target community, culturally appropriate methods, convenient dissemination techniques, integration of family planning with other health, nutrition, and socioeconomic development delivery systems, providing IEC materials (including population education) along with methods, efficient and regular systems for resupply of contraceptives, and adequate methods of program evaluation.

Innovative advertising has helped make discussion of contraception and individual pur-

chase of contraceptives open and acceptable. Buyers would rather ask for a “panther” in Jamaica, a “Preethi” (“joy”) in Sri Lanka, or a “Raja” in Bangladesh than a condom.

Raja (the Bengali word for “king”) is the name of the condom which is characterized by a picture of a playing card king, symbolizing strength and power. The pill is called Maya (affection) and is associated with a picture of an attractive woman. The familiar Raja picture adorns the sails of sea vessels delivering contraceptives to outlying areas. The picture has become a part of the country’s successful mass media campaign, which has included newspaper, cinema, and TV advertising. This has resulted in Raja and Maya being the most heavily promoted consumer items in Bangladesh, next to cigarettes. The Maya radio jingle is the most recognizable song on the radio in Dacca (I).

By April 1981, Raja and Maya were available in some 69,000 outlets in Bangladesh and monthly sales averaged 4 million Rajas and 44,000 cycles of Maya.

Because CRS projects offer commodities for a price, there is ongoing disagreement over whether the contraceptives should be free (as is often the case in clinic or community-based programs), or whether a small charge will make the commodities seem more valuable. Both approaches have been successful, and social marketing efforts have substantially reduced consumer costs in many countries (table 35).

Social marketing/CRS programs have had a number of political and administrative problems. The need for mass media advertising campaigns in support of CRS programs can create political difficulties in securing government approval of these efforts, and traditional attitudes toward and laws governing the use and sale of contraceptives make program implementation difficult. These projects have, however, expanded existing family planning programs, have been highly cost effective, and have spurred increases in contraceptive sales. Countries with CRS programs are listed in table 36.

while CRS programs are built into existing commercial marketing networks, CBD programs utilize existing social structures and institutions and were the first extensions, in

Table 35.—Prices to Consumer of Contraceptives Available Through Commercial Retail Market and Through Social Marketing Programs in Selected Countries
(in U.S. dollars)

Country	Contraceptive	Commercial retail price ^a	Price through social marketing program ^a
Bangladesh . . .	Condom	0.08–0.12	0.01
	OC	0.80–1.50	0.05
Colombia	OC	0.50–1.10	25–45
Costa Rica	OC	1.50–2.50	0.35
El Salvador . . .	Condom	0.10–0.30	0.04
	OC	1.00–3.56	0.40
Indonesia	Condom	0.07–0.20	0.016
Jamaica	Condom	0.45–0.85	0.03
	OC	2.00–2.25	0.17
South Korea . . .	Condom	0.50	0.05
	OC	0.60	0.30
Mexico	Condom	0.30	0.11
	OC	1.00	0.39
	Foam	4.25	1.91
Nepal	Condom	^b	0.013
	OC	0.50–1.10	0.13
Sri Lanka	Condom	^c	0.013
	OC	0.85–1.50	0.15

^aPrice (in U.S. dollars) per cycle of oral contraceptives, per condom, or per container of pressurized foam.

^bNone available before social marketing program.

^cNegligible sales of brands other than *Preethi* since 1974.

SOURCE: D. L. Altman and P. T. Plotrow, “Social Marketing: Does It Work?,” *Population Reports*, series J, No. 21, January 1980, Population Information Program, Johns Hopkins University, Baltimore, Md.

LDCs, of traditional clinic-based family planning services, Distribution points include family planning outreach workers, mobile delivery units, and contraceptive resupply depots. CBD programs evolved from demand for better access to services and a lack of trained health personnel and facilities in remote rural areas, and operate in a variety of ways. Some provide services at a central point in a village, as in Indonesia, while others feature door-to-door service by way of household canvassers, as in Egypt and Bangladesh.

Although some of the CBD projects now active in 38 countries are relatively small, there are large-scale operations in Bangladesh, Egypt, Indonesia, India, Mexico, Nicaragua, Thailand, Colombia, Jamaica, Philippines, Korea, and Sri Lanka (table 37).

Current evidence shows that many kinds of household and village distributions can be more effective than clinic programs. Rates of acceptance, continuation, and prevalence consistently fall within—rather than below—the “ac-

Table 36.—Countries Having Commercial Retail Sales Programs, 1980

Asia	Middle East/North Africa
Bangladesh	Egypt
Fiji	Morocco
Hong Kong	Tunisia
India	
Indonesia	
South Korea	
Malaysia	Sub-Saharan Africa
Nepal	Ghana
Pakistan	Kenya
Philippines	Mauritius
Sri Lanka	
Thailand	
Latin America and the Caribbean	
Antigua	
Barbados	
Colombia	
Costa Rica	
Guatemala	
Haiti	
Honduras	
Jamaica	
Mexico	
Panama	
St. Kitts/Nevis	
St. Lucia	
St. Vincent	
Uruguay	

SOURCE: *Family Planning in the 1980's: Review of the Current Status of Family Planning* (Annex to the Background Document), International Conference on Family Planning in the 1980's, April 1981, Jakarta, Indonesia. Cosponsored by the UNFPA, IPPF, and the Population Council.

ceptable" range of clinical programs (5). Continuation rates among oral contraceptive users in Indonesian CBD programs are higher than those among clinic-based users (table 38). Although provision must be made for clinical support for management of side effects of methods, costs of operating CBD programs are competitive with clinical approaches. Because volunteer personnel are extensively used, these costs are expected to decline.

The availability of family planning services

Few assessments of the conditions of fertility decline in LDCs take account of differences in the availability of contraception among countries because of the paucity of reliable data. Yet these differences are at least as great as the socioeconomic differences among LDCs. Therefore, to examine rural-urban and education differentials in contraceptive use without first ascertaining whether distribution of services to urban, and better educated, women varies is to

Table 37.—Countries Having Community-Based Distribution Programs, 1980

Asia	Middle East/North Africa
Bangladesh	Egypt
China	Lebanon
Hong Kong	Morocco
India	Sudan
Indonesia	Tunisia
South Korea	
Malaysia	
Nepal	Sub-Saharan Africa
Papua New Guinea	Ghana
Pakistan	Liberia
Philippines	Nigeria
Sri Lanka	
Taiwan	
Thailand	
Latin America and the Caribbean	
Brazil	
Colombia	
Dominican Republic	
Ecuador	
El Salvador	
Grenada	
Guatemala	
Haiti	
Honduras	
Jamaica	
Mexico	
Nicaragua	
Panama	
St. Lucia	
St. Vincent	
Trinidad and Tobago	

SOURCE: *Family Planning in the 1980's: Review of the Current Status of Family Planning* (Annex to the Background Document), International Conference on Family Planning in the 1980's, April 1981, Jakarta, Indonesia. Cosponsored by the UNFPA, IPPF, and the Population Council.

Table 38.—Continuation Rates for OCs in Clinic-Based and Community. Based Programs: Village Family Planning Program, Indonesia

Time period	OC users resupply depot	
	Clinic	Village
12 months.	65.9	76.3
24 months.	47.7	61.5
36 months.	33.1	47.9

SOURCE: J. R. Foreit, M. E. Gorosh, D. G. Gillespie, C. G. Merritt, "Community-Based and Commercial Contraceptive Distribution: An Inventory and Appraisal," *Population Reports*, series J, No. 19, March 1978, Population Information Program, Johns Hopkins University, Baltimore Md.

ignore a causal link in the factors influencing the use of family planning. In order for contraception to be used, information, services, and supplies must be available (2). Services and supplies are unavailable if the financial cost is too high, if clinics are open at hours convenient only to clinic staff, if supplies are insufficient or privacy is lacking in clinics, etc.

Availability research carried out in the course of recent national fertility surveys has focused on a single index of availability, the perceived availability of family planning services and their relationship to contraceptive use. Rodriguez (34) analyzed the perceived accessibility (accessibility and availability are used interchangeably) of services in terms of women's perceptions of travel distance to the nearest outlet and the relationship of this distance to use of family planning methods in Nepal, Colombia, Costa Rica, Korea, and Malaysia. In Nepal, only 6 percent of currently married women know where contraceptives are available, and only 2 percent know of a place less than 2 hours away from their homes. In Nepal, 27 percent of those who live within 2 hours of an outlet use a method in contrast to 14 percent of those who live within a day or more of a source. In every country except Costa Rica (where virtually everyone knows of an outlet nearby), the closer the source the more likely women are to be using it (table 39). Traditional associations with education and rural-urban residence are not as strongly tied to use of contraceptives when the nearness of an outlet is controlled. The reduction in association is most marked in Nepal, where sources are rarely available in rural areas.

The relationship between current use of contraceptives and knowledge of the distance to an outlet is shown for 10 countries in table 40. The level of motivation is obvious when even 30 or 40 percent of women who live 30 minutes or more from an outlet are using contraception. Ef-

forts to provide more accessible services could result in higher levels of use.

Incentives

Because incentive schemes to increase family planning vary considerably, their impact on fertility cannot be adequately assessed. Nevertheless, they have engendered considerable controversy—less because the incentives themselves are inherently discriminatory or coercive than because of the ways in which they have been implemented. India's widely publicized sterilization campaigns are a prime example.

An incentive is here defined as something of value (usually, though not always, financial) given by a government or an organization to an individual, couple, or group to encourage certain fertility planning behaviors. Both the 'value' and the 'behavior' must be specified for each type of incentive scheme.

Value is usually specified in terms of payments in cash or commodities (government provision of family planning services and/or commodities is excluded because many governments already provide these services free or at minimal cost), but can be in the form of indirect benefits. In Singapore, for example, access to better education is offered as an incentive to encourage couples to have small families. Education is free for their first two children, but costs rise for third and higher order births.

The desired fertility planning behavior is specified by the government or organization

Table 39.—Percentage of Currently Married Women Using an Efficient Contraceptive by Perceived Availability of Services

		Colombia	Costa Rica	South Korea	Malaysia	Nepal
Total contraceptive prevalence		30	53	27	24	2
Perceived availability (Nepal)						
5–15 min.	0–2 hrs.	44	55	32	33	27
20–30 min.	3–8 hrs.	41	56	31	26	14
≥ 60 min.	≥ 1 day	36	56	27	24	15
Knows no outlet		9	35	6	5	1

SOURCE: G. Rodriguez, "Family Planning Availability and Contraceptive Practice," *International Family Planning Perspectives and Digest*, 4(4): 100–115, 1978.

Table 40.-Contraceptive Use Among Currently Married Women Who Knew a Family Planning Source, and Travel Time to Outlet

Country date and survey	Percent currently married women using contraception			
	Total	Know outlet		Do not know outlet
		Travel time		
		Less than 30 minutes	30 minutes or more	
Costa Rica, CPS, 1978	67.5	88.8	63.0	(13.7)
Panama, WFS, 1976	59.9	NA	NA	38.2
Colombia, WFS, 1976	55.2	57.2	51.4	18.3
Thailand, CPS, 1978	52.9	56.6	44.8	(10.7)
South Korea, CPS, 1978	50.7	52.0	46.9	(3.4)
Mexico, WFS, 1976	50.3	52.4	48.6	10.8
Indonesia, WFS, 1976	47.6	NA	NA	6.7
Mexico, CPS, 1978	47.4	51.4	32.2	15.5
Philippines, WFS, 1978	43.9	47.2	38.0	9.9
Malaysia, WFS, 1974	39.3	42.3	34.7	10.9
South Korea, WFS, 1974	39.0	41.2	38.9	9.4
Kenya,WFS,1978	13.0	15.5	12.3	2.1
Pakistan,WFS, 1975a.....	7.7	NA	NA	4.4

NA = Not available.

^aFor Pakistan the data relate to women who had met a family planning worker only. Numbers shown in () were based on fewer than 20 cases.

SOURCE: J. W. Brackett, "The Role of Family Planning Availability and Accessibility in Family Planning Use in Developing Countries," paper presented at the WFS Conference, London, July 1980.

providing the incentive, and in most cases is the adoption of a particular method—the IUD, for example—or consent to a sterilization. In Singapore, limiting family size to two children is the desired birth planning behavior.

In some incentive schemes payment is made to a "diffuser," who motivates individuals to use specific methods, to a "provider," such as the individual who inserts an IUD, or to a community when its percentage of couples practicing contraception reaches a target level.

Most current schemes usually include the following elements: the government is the grantor of incentives; payment is made to individuals rather than groups; funds come from the program budget; cash rather than in-kind incentives are used; immediate and single, rather than installment and deferred, payments are made; payments are of a fixed amount and are made at the time of adoption of a family planning method; and incentives are positive rather than negative.

Table 41 contains a listing by country of incentives paid for IUD insertion and contraceptive sterilization (no countries are paying incentives to pill or condom users). In Bangladesh, India, Pakistan, and the Republic of Korea, incen-

tives are paid to the diffusers. In most Asian countries the medical practitioner who inserts IUDs is reimbursed on a fee-for-service basis.

Voluntary sterilization has been a traditional focus of incentive schemes. Many payment schemes have been tried; clothing was given to those undergoing sterilization in India and food rations were offered in India and the Republic of Korea. In 1974, Singapore relaxed certain of its disincentives for families who chose sterilization. If one parent is sterilized, the fourth child, who would otherwise be given lower priority in primary school admission, is given the same priority as the first three, and women with two or more living children, who are not otherwise entitled to paid maternity leave, receive this benefit if they choose postpartum sterilization (table 43).

Governments that elect to implement incentive schemes must plan carefully to avoid compromising individual choice. Incentives cannot substitute for full availability of services, and although culturally defined, questions of coercion must be carefully considered. The often overlooked aspect of coercion is the social coercion to have more children than are wanted.

Table 41.—Incentives Provided for IUD Insertion, by Country (1975-77)

Region and country	Incentives provided to diffused provider	Fees charged to user in U.S. dollars
Africa^a		
Botswana	—	0.59
Egypt	0.58-1.15	Free
Gambia ^a	—	0.58
Ghana	—	0.79-0.98
Kenya ²	—	Free
Mauritius	3.00-4.00	Free
Morocco	—	Free
Zimbabwe	—	3.54
Tunisia	0.50-2.00	Free
Uganda	—	0.70
Asia and Pacific		
Bangladesh	0.40-0.80	Free
China ^{3b}	—	Free
Fiji	—	Free
Hong Kong	—	1.10 ^a
India ^c	0.14-0.27	Free
Indonesia	—	Free
Malaysia	—	Free
Nepal	0.24-0.47	Free
Pakistan ^d	0.25-0.60	0.05
Philippines	—	Free
South Korea	0.42-1.05	Free
Singapore	—	1.40-2.00 ^e
Sri Lanka	—	Free
Thailand	—	Free
Turkey	—	Free
Americas		
Chile	—	Free
Colombia	—	Free
Costa Rica	—	Free
Dominican Republic	—	Free
El Salvador	—	Free
Guatemala	—	0.25 ^a
Honduras	—	Free
Jamaica	—	Free
Mexico	—	Free
Nicaragua	—	Free
Puerto Rico	—	Free

^aData for 1973.^bChina provides 18 days leave for induced abortion.^cIndia is the only country to pay IUD acceptors, giving them \$0.81 (6 rupees).^dData for 1974.^eService provided free to those unable to pay.

SOURCES: UNFPA, Policy Development Studies, No. 4; from 'Nortman and Hofstatter, *Population and Family Planning Programs*, 1st through 9th editions, New York, Population Council, 1969-78 (unless otherwise noted). ¹J. C. Likimani and J. J. Russel, "Kenya" in *Country Profiles* (New York: Population Council, 1971). ²A. Faundes and T. Luukkainen, "Health and Family Planning Services in the Chinese People's Republic," *Studies in Family Planning*, 3 (7):165-76.

Legal considerations

Legal considerations impinge directly on both the implementation of family planning programs and on other population-related efforts at the individual and national level.

Legal considerations apply to four major areas in the implementation of family planning programs:

1. dissemination of fertility planning information and provision of methods;
2. distribution of fertility planning methods—whether a prescription is required, which methods can be sold and where, and who can provide the services (included here are laws governing voluntary sterilization and induced abortion);
3. training requirements for personnel who will distribute contraceptives; and
4. who shall be eligible to obtain family planning advice and contraceptives.

Eligibility is especially relevant where both premarital and extramarital sexual activity contribute significantly to fertility rates (30).

Legislation that specifically affects women and their positions in the family is important because it affects the options available to them beyond their traditional roles as wives and mothers. In some countries, under Moslem law, a husband can terminate a marriage by simply declaring his intention to do so to his wife. In others, married women must be represented in judicial proceedings by their husbands, cannot work without their husband's permission, and often need the approval of their husbands before they can avail themselves of family planning services (30).

As pointed out in chapter 4, minimum age at marriage is a direct determinant of fertility change. Directly related to changes in age at marriage is the legal right of women to consent to a marriage, a right still not available in many countries. Child betrothal and subsequent early marriage also aggravate the low position of women, both because they lack free choice and must marry while young, and because husbands are traditionally 2 to 5 years older than their wives. Although many countries have set minimum ages for marriage, these laws are not always strictly enforced, and may not be sufficient to raise the status of women unless women are given opportunities beyond childbearing, such as education and paid employment.

Table 42.—incentives Provided for Sterilization, by Country, 1975-77

Region and country	Cash payments to:		Fees charged to user (dollars)
	User (U.S. dollars)	Provider (dollars)	
Africa			
Botswana ^a	No cash payment		0.57
Tunisia (female)	11.65	2.35	Free
(male)		4.89	Free
Asia and Pacific			
Bangladesh (male)	2.10	2.10 ^c	Free ^b
Hong Kong	No cash payment		20.00 ^d
India	2.00-3.00	1.37	
		0.69 ^c	Free
Indonesia	No cash payment	—	Free
Iran	No cash payment		Free
Malaysia	No cash payment	—	Free
Nepal	No cash payment	1.98	Free ^e
Pakistan (male)	1.50	1.50	Free
(female)	2.00	2.00	Free
Singapore	No cash payment		1.68
Sri Lanka	No cash payment	—	Free
South Korea	No cash payment	10.50 (for male)	
		31.50 (for female)	Free
		0.74 ^c	
Thailand	No cash payment		2.50 (male) ^e
			7.50 (female)

^aData for 1973-74.^dFree to those unable to pay.^bData for 1974.^eFree in rural areas.^cTen rupees in camps.^fCash payment given to diffuser.SOURCE: UNFPA, *Policy Development Studies*, No. 4; D. Nortman and E. Hofstatter, *Population and Family Planning Programs*, 1st through 9th editions, New York, Population Council, 1969-78.

When family planning information is restricted, couples can remain unaware that they can limit their fertility. In Chad and several other countries, an old French law makes it a criminal offense to disseminate "contraceptive or antinationalist propaganda" through speeches in public or by placing in "public channels" books, written material, drawings, pictures, or posters. A major restriction on contraceptive distribution in LDCs is the requirement for a prescription. In Nigeria, where a prescription is required for oral contraceptives, there is one physician for each 40,000 people. (In some countries where prescriptions are required for the pill, the legal requirement is ignored and they are available on a nonprescription basis in the private sector (48).)

The status of induced abortion is always legislated. Even where induced abortion is legal, access to properly performed procedures can be impeded because restrictive legal provisions limit induced abortion to hospital settings or determine who may perform the procedure. If only physicians may legally perform first tri-

mester abortions in countries where the number of physicians is limited, illegal abortions continue to be performed by untrained personnel.

In many LDCs, where marriage is nearly universal and takes place at a very young age, premarital sexual activity is negligible and laws that restrict access of supplies and/or information to married adults are not a problem. In countries where there is increasing demand from adolescents and single adults for contraceptive information and supplies, laws that restrict dissemination of family planning education in schools and other settings can interfere with the ability of these individuals to plan their fertility (30).

Do family planning programs make a difference?

Although there are exceptions, and the reasons for these exceptions are fairly well known, family planning programs do make a

difference in reducing fertility. In 1978, Mauldin, Berelson, and Sykes undertook a major analysis to determine the relative contributions of program effort and social setting (level of socioeconomic development) to fertility declines in LDCs. Countries classified by both strength of family planning effort and level of socioeconomic development produced the groupings in table 43. The authors found that:

- In 94 LDCs during 1965-75 there were significant—some quite spectacular—fertility declines.
- The large countries—those with populations of 35 million or more—showed greater declines than did the smaller countries (although Bangladesh, Pakistan, and Nigeria are exceptions to this).
- The better-off countries, particularly those near the top in table 43, do better than the less well-off. But, on balance, family planning programs have a significant, independent effect over and above the effect of socioeconomic factors. Weak programs might as well not exist, so far as fertility reduction is concerned.
- The longer a family planning program has been in operation, the greater its effect (although several weak programs have existed for many years).
- Countries that have adopted population policies with demographic goals to reduce their rates of population growth have experienced much greater fertility declines than countries without family planning programs or countries whose programs were adopted for health reasons only.
- There is synergism between social setting and program effort. Countries that rank well on levels of socioeconomic variables and also make substantial program effort average much greater declines than do countries that have one or the other, and far greater declines than those with neither. A country that wants to reduce its fertility should seek a high degree of modernization (which of course all do, and find costly and difficult) and should adopt a substantial family planning program; for countries at or near the bottom of the socioeconomic scale, a special kind of determination—as found in India, Indonesia, and China—is re-

quired to implement a strong program effort (19).

The contributions of various factors to observed fertility declines can be separated. These contributions vary among countries, but on average, about 60 to 65 percent of the decline in fertility is attributable to social setting, 15 to 20 percent to the family planning effort of the population program, about 5 to 10 percent each to the age structure of the population and to program efforts to raise age at marriage, and about 15 to 25 percent to various unknown or unmeasured factors (table 44). Program effort thus accounts for 20 to 25 percent of the observed declines in fertility between 1965 and 1975.

McGreevey (18) added national income distribution to the index that Mauldin and Berelson used (the original index used GNP and GNP per capita), in an attempt to relate distribution of income to changes in fertility. He found that fertility is higher when poor people are much poorer relative to the rich. If the poor stay poor relative to the rich, fertility will decline more slowly than if the poor raise their relative income levels. He also added a government index which was associated with fertility decline, further confirming the Mauldin and Berelson finding that program effort may be an index for effective government in general.

Tsui and Bogue (42) extended the analysis by adding the total fertility rate at the time the family planning program was initiated. This additional variable serves as an index for a fertility decline which may or may not already be in process when the program begins. They found the greatest effect on the total fertility rate of 1975 to be associated first with this rate for 1968 (the index of whether a fertility decline may be in process); second, with family planning program effort; and third, with socioeconomic variables.

Another approach to assessing the impact of family planning programs is to first estimate the fertility change resulting from a particular change in contraceptive use and then use these estimates to determine the effect on fertility rates of a family planning program. Two countries for which these analyses have been carried out are Thailand and Colombia. Khoo and Park (16) estimated that some 200,000 births were probably averted by the Thailand program in

Table 43.-Crude Birth Rate Declines (in percents), by Social Setting and Program Effort: 94 LDCs, 1965-75

Social setting	Program effort							
	Strong (20 +)		Moderate (10-19)		Weak (0-9)		None	
	Country	Decline	Country	Decline	Country	Decline	Country	Decline
High	Singapore	40%	Cuba	40/0	Venezuela	10/0	Korea, North	5%
	Hong Kong	36	Chile	29	Brazil	10	Kuwait	5
	Korea, South	32	Tdnldad and Tobago	29	Mexico	9	Peru	2
	Barbados	31	Colombia	25	Paraguay	6	Lebanon.	2
	Taiwan.	30	Panama.	22			Jordan	1
	Mauritius.	29					Libya	- 1
	Costa Rica	29						
	Fiji	22						
	Jamaica	21						
	Mean	30	Mean	29	Mean	9	Mean	3
Upper middle	Median	30	Median	29	Median	9.5	Median.	2
	China.	24	Malaysia	26	Egypt	17	Mongolia	9
			Tunisia	24	Turkey.	16	Syria.	4
			Thailand	23	Honduras	7	Zambia	-2
			Dominican Republic	21	Nicaragua	7	Congo	-2
			Philippines	19	Zaire	6		
			Sri Lanka	18	Algeria	4		
			El Salvador	13	Guatemala	4		
			Iran	2	Morocco	2		
	Mean	24	Mean	18	Ghana	2		
Lower middle	Median	24	Median	20	Ecuador	0		
	Vietnam, North.	23	India	16	Iraq	0		
			Indonesia	13				
					Papua New Guinea	5	Angola	4
					Pakistan	1	Cameroon	3
					Bolivia	1	Burma	3
					Nigeria	1	Yemen, P.D.R.of	3
					Kenya	0	Mozambique	2
					Liberia	0	Khmer/ Kampuchea.	2
					Haiti	0	Ivory Coast	1
Low					Uganda	-4	Senegal	0
	Mean	23	Mean	14			Saudi Arabia...	0
	Median	23	Median	14.5			Vietnam,South	0
							Madagascar	0
							Lesotho	-4
							Mean	1
							Median	1.5
Low								
Mean		29		21		4		2
Median		29		22		2		2
								3

SOURCE: P. W. Mauldin, B. Berelson, Z. Sykes, "Conditions of Fertility Decline in Developing Countries, 1965-75, *Studies in Family Planning*, The Population Council, New York.

Table 44.—Sources of Fertility Decline in 94 LDCs During 1965-75

Factor	Age structure	Marital patterns	Marital fertility	Total
Social setting		25%	40-45% – 5% lactation = 35-40%	60-65%
Program effort: Family planning			10-15% + 5% spillover = 15-20%	15-20%
Legal sanctions and organized pressure		5-10%		5-10%
Consequence of earlier demographic trends	– 5-10%			– 5-10%
Unknown		5-10%	10-15%	15-25%
Total	– 5-10%	35-45%	60-75%	Approximately 100%

SOURCE: P. W. Mauldin, B. Berelson, Z. Sykes, "Conditions of Fertility Decline in Developing Countries, 1965-75," *Studies in Family Planning*, 6(5):89-147, The Population Council, New York.

1975, and that 47 percent of the decline in fertility between 1968-69 and 1975 could be attributed to contraceptive protection provided by the program. Londño and Bogue (17) found that about 56 percent of the fertility decline observed in Colombia from 1964-75 is attributable to organized family planning programs.

In both of these cases the presence of family planning programs has clearly made a difference. The declines in birth rates would not have been as great if the programs had not made fertility planning services widely available.

Meeting future needs

At least 495 million couples (excluding China) will need contraception in 2000 (See table 51, ch. 9). If fertility were to fall to replacement levels over the short term, there would have to be a fourfold increase in contraceptive use at a minimum cost of \$4.5 billion in 1980 dollars. Although there are regional differences, and countries within regions vary widely, several policy and program issues will be of concern for both the short and long term: 1) allocating resources; 2) establishing cost effective, self-supporting programs; 3) expanding availability of services to reach rural populations; 4) integrating family planning with other components of development; 5) strengthening program management; 6) increasing opportunities for women and raising their status; and 7) effectively using present and new technologies (45, 46).

Allocating resources

Although over 90 percent of the population of the developing world lives in countries that

have formal policies in support of family planning, the financial commitment of their governments to family planning remains a small fraction of current health expenditures. In many countries, half or more of total government health budgets are devoted to a few urban hospitals and clinic based medical systems that do not reach the vast majority of the country's rural poor. Developing administrative systems to effectively provide fertility planning services to rural areas is one of the most important tasks for the next 10 to 20 years.

Establishing cost effective, self-supporting programs

Development of the private sector through social marketing techniques is crucial to the gradual self-financing of family planning programs in LDCs. These systems not only effectively reach rural areas where clinic coverage is weak and expensive to maintain, they also allow governments to put resources into medical sup-

port for MCH and for complications due to contraceptive use.

Countries that use multiple delivery systems—government health services, private physicians, private family planning clinics, commercial retail sales networks, and community-based distribution systems—can give couples the advantages of a comprehensive range of methods. Moreover, because many of the methods most easily distributed in community-based systems (condoms, pills, spermicides, etc.) need only backup medical services, a multiplicity of systems is also cost effective.

Expanding the availability of services to reach rural populations

Countries with strong programs where fertility is beginning to fall have been, for the most part, “easy,” that is, these countries have relatively high levels of socioeconomic development, a fair degree of infrastructure, and trained personnel. The countries that will need support for the next 20 years are “difficult.” These are countries that will require innovative approaches to reach rural populations and major efforts to train personnel and develop infrastructure capabilities and support for basic health services. In most, only small sectors of urban populations presently have real access to family planning services.

Rural couples who have sufficient resources and time can usually obtain some type of contraceptive method, but full access to family planning services—nearby presence of an outlet that offers services, information, and supplies, without major cost or inconvenience—remains out of reach of all but a few rural populations in LDCs.

Integrating family planning with other components of development

Although family planning programs have traditionally been linked in varying degrees with other health services, recent efforts have combined family planning with other community services (e.g., nutrition, nonformal education) and existing organizations (e.g., cooperatives, women’s clubs). Because most of these projects require significant collaboration between agen-

cies in allocation and control of resources, determination of priorities, and development of personnel policies, integration attempts often encounter administrative problems. Their experimental nature can also make them expensive to establish, particularly where few development services are in place. A decentralized approach that identifies and meets community level needs, focuses on primary health care, and capitalizes on local institutions appears to hold the most promise.

Strengthening program management

As the demand for services grows and programs expand in coming years, a crucial need will be for well-trained, highly skilled managers for family planning programs; experience has shown that expert managers can have tremendous impact on program performance. Senior management skills, which tend to be in short supply in LDCs, will be a major need, but substantial numbers of middle-level managers and supervisory personnel and a wide range of family planning workers will also be required. Governments will have to give high priority to management recruitment and training and to devising the new directions and flexible, innovative approaches that will be necessary to broaden services provision. Decentralized organizational structures designed to foster local decisionmaking and community participation will be needed to supplement today’s largely centralized organizational patterns.

Increasing opportunities for women and raising their status

Women in many LDCs are restricted in their ownership of property, their ability to marry and divorce, their freedom of movement and employment, and their access to education and other resources. These social and economic constraints adversely affect their status and strengthen existing cultural pressures for women to define their lives solely in terms of their maternal roles. Improving the status of women through legal change, greater access to education and income-generating opportunities, and fuller participation in community life are key factors in redressing this imbalance. Greater ability to control decisions about their fertili-

ty will benefit women as spouses, mothers, and/or active members of the community, and enable them to make important contributions to the development process.

The needs of adolescent women in LDCs today are particularly acute. There are far more adolescents in the world at present than ever before in history because of high fertility in the recent past, and their potential fertility is far greater than that of their counterparts of previous centuries because better nutrition has lowered the age of menarche, making these adolescents capable of childbearing at much younger ages.

Their access to contraceptive services is frequently limited, especially in LDCs, and those who do use contraception tend to use ineffective methods. In Latin America, for example, most married teenagers have never used a contraceptive method even though they want to limit their fertility. Many use ineffective methods—some by choice—but often because of insufficient supplies or difficult access. Special approaches responsive to the needs of this vast group of young people will require major family planning program efforts in coming decades.

Effectively using present and new technologies

Because all of today's available fertility planning technologies have significant deficiencies and drawbacks, it will be a continuing challenge for family planning programs to use these technologies in ways that minimize their shortcomings. Ideally, programs offer a wide range of methods, but most have difficulty providing even four or five. The logistics of distribution, storage, and backup medical services can intervene to prevent the provision of some methods, as can cultural, religious, and legal restraints. With costs of supplies expected to increase at the same time that numbers of prospective users multiply rapidly, countries will have to carefully consider the costs and benefits of establishing their own production facilities. Couples will need reliable counseling to enable them to choose fertility planning technologies that are appropriate to their needs. Governments should thus give high priority to efforts to communicate accurate information on current methods and on new methods as they become available.

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