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Integrated Incentives for Fertility Control

Wider use of material incentives should make family planning programs more effective.

Lenni W. Kangas

Most of the experience and much of the discussion about the role of material incentives in population and family planning programs have regarded the usefulness of such payments in an unnecessarily restrictive way. Financial incentives have been given, for example, to acceptors of contraceptive methods, to personnel who provide family planning services, or to agent-recruiters who bring clients to service centers. Occasionally, a mix of these rewards is offered (as in India, Pakistan, and the United Arab Republic), but these rewards apply exclusively to events leading to and ending with the initial provision of contraceptive methods. Group and community rewards are conspicuously absent from both present action programs and the majority of proposals to date. Also missing is a system of meshing these rewards with incentives to individuals who adopt and continue contraceptive practices.

Despite limited world experience in the use of incentive rewards to make family planning programs more effective, the innovation has engendered a great deal of speculative discussion and even considerable controversy. Some regard an appropriate incentive system as a near-panacea for circumventing the difficulties and frustrations confronting organized efforts to bring down birthrates in developing countries. Moreover, many of the proposals that have surfaced recently strongly reflect the desire to discover the "one best way" or single kind of payment that will prove to be the determining factor in reducing human fertility.

Critics and skeptics, on the other hand, often view incentive-payment systems as Machiavellian mixtures of bribery and coercion, particularly if they are to be applied with sophisticated popularization techniques to an unsophisticated, tradition-oriented peasant population. Ethical questions have been raised as to whether it is proper to interfere so blatantly (or commercially) in the sacred arena of human reproduction, where, these critics maintain, voluntary and individual freedom of choice should remain paramount. Projected costs, vaguely or explicitly justified with axioms suggesting that an averted birth is equal to one to two times the per capita income, impress real-life planners and policy makers as exorbitant regardless of the presumed logic of the economic analysis.

In this article, I examine some of the characteristics of current programs and proposals that embody incentive schemes and go on to suggest an enlarged, adaptable framework for a more comprehensive approach to employing material incentives in fertility control in less developed countries.

Incentives, as used in this discussion, will refer to the direct (or indirect) payment of money or material goods and services to members of the target population and to service personnel or larger groups in the community (or both) in return for a desired practice supportive of lowered fertility. The frame of reference is both economic and psychological, and the subsequent discussion deals with mechanisms whereby economic and psychological motivations are linked and reinforce one another.

Present Incentive Programs

Present incentive programs operate almost exclusively on the individual level with regard both to recipients and to providers, although some incentives for group performance are offered to providers. In India, a man presenting himself for a vasectomy receives a nominal monetary reimbursement to compensate for time lost from gainful labor, for personal inconvenience, and (unofficially) as an inducement to undergo the operation. In many countries,

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a woman accepting a contraceptive method is financially rewarded and the midwife, nurse-recruiter, or social worker receives a payment for the referral.

Payments to service personnel [for example, to physicians inserting intrauterine contraceptive devices (IUD's)] are common and are frequently prorated among other clinic staff, as in the United Arab Republic, Taiwan, and elsewhere. Agent-recruiters or "canvassers" employed in the vasectomy programs in parts of India and in East Pakistan receive payments on a per capita basis for successful referrals. These "finder's fees" are sometimes shared with "subcontractors," who represent an extension of the authorized canvasser's activity (*1*).

Other inducements that fall into a broadly defined category of incentives include free or reduced-price IUD insertions or contraceptive supplies (Taiwan), free transportation or baby-sitting services (U.S.A.), or state-provided or subsidized abortion and contraceptive services (U.S.S.R. and many Eastern bloc countries). Additional examples could be cited, but these are sufficient to illustrate that all of the incentives used thus far in the vast majority of programs are given to individuals—acceptors or providers, or a combination thereof. It is worth noting, furthermore, that the provision of rewards is largely, if not exclusively, limited to events leading to and usually ending with the initial provision of contraceptive methods to clients; few or no material rewards are offered today for nonbirth or for successfully continuing contraceptive practices.

Proposed Incentive Programs

Some characteristics of recently proposed incentive schemes are given below.

1) Annual rewards to married couples of reproductive age who avoid having offspring; the suggested range of payment is $5 to $10 per year [suggested by J. J. Spengler (1967); see *2*, p. 7].

Economist-demographer Spengler has recently argued eloquently for a broader social security system of deferred payments to couples who limit their reproduction (*3*).

2) Rewards of up to one-half the per capita income "each year to each fertile woman who does not get pregnant" [suggested by Julian Simon (1968); see *2*, p. 7].

3) Blocked savings accounts for women who remain nonpregnant for 3 to 4 years with verifying examinations conducted thrice yearly; the approximate cost would be $25 to $35 per year in rewards only [suggested by Stephen Enke (1960); see *2*, p. 7].

4) A family planning "bond" offered to couples who accept a specified limit on their family size; the bond would be payable at retirement age or at the end of 20 years, whichever is sooner [suggested by R. G. Ridker (1968) (*4, 5*)].

5) A range of incentives for vasectomies depending on couples' parity [suggested by E. Pohlman (1967–68)]. Larger rewards would go to those who limit family size to two or three; smaller rewards for those with four or more. Community incentives would be offered if a substantial number of men in the village participated (*6*).

6) National savings certificates to married women in the reproductive ages who remain nonpregnant for 3, 4, 5, or more years, at the rate of about $3 to $4 per year [suggested by Marshall C. Balfour (1962); see *2*, p. 8].

7) The Institute of Rural Health and Family Planning, Gandhigram, India, has developed a proposal (1969) for community incentives related to India's vasectomy program. Community rewards will be channeled through village leaders in an attempt to gain their active support for family planning activities (*7*).

The first proposal by Spengler and the suggestion by Simon appear to take inadequate account of the fact that, in countries where prolonged lactation is common, the period of post-partum amenorrhea, coupled with the normal risk of conception, means that an average fertile woman who has recently had a child might not become pregnant again for a period of up to 3 years or so even if the couple were not using contraceptives (*8*). In addition to the high cost associated with Enke's proposal, Berelson and others have pointed out the major administrative problems associated with monitoring nonpregnancy among participants three times a year.

With regard to the family planning bond proposed by Ridker, he himself has admitted that "simple mistrust of the government's promise to pay" might be a major obstacle (*4, 5*). Although the bond proposal may be attractive in terms of cost and possible administrative feasibility, this probable mistrust remains a central weakness. Spengler has also raised the question of whether peasant classes are sufficiently future-oriented and trustful of government bureaucracy to go along with a system of long-deferred rewards administered by the state (*3*).

Pohlman's several proposals have evolved to one emphasizing incentives primarily for vasectomies. He has seriously considered additional rewards for group and community participation. As with the concept of community incentives advanced by the Gandhigram proposal, field testing would seem the next logical step. Since both proposals focus on vasectomies, the neglect of other methods is a possible shortcoming, which may, however, be adequately compensated for by fewer administrative complications as a result of dealing with only one method. Finally, Balfour's savings certificate scheme would require a relatively simple verification procedure certifying that there has been no birth (not nonpregnancy). He also ties it to a system of national or "postal" savings in which villagers already have trust.

Conventional Criticisms

Despite the imaginativeness of proposals such as these and the logic of trying to modify and distill from them schemes (the plural "schemes" is emphasized) that would be politically feasible, administratively workable, and not excessively costly, incentive proposals as a genre seem to encounter an undue amount of skepticism and outright opposition. F. W. Notestein has maintained, for example, that "There is also danger that incentives through bonuses will put the whole matter of family planning in a grossly commercial light. It is quite possible that to poor and harassed people financial inducements will amount to coercion and not to an enlargement of their freedom of choice." Notestein goes on to say, "Family planning must be, and must seem to be, an extension of life, not coercion toward its restriction" (*9*). Sentiments such as these, regardless of the conservatism they reflect, are still widely held today. (Curiously, critics of incentives for acceptors commonly express great concern about corrupting peasant populaces but seldom exhibit the same level of concern about corrupting professional providers, such as physicians, with extra fees.)

There is, of course, nothing unusual or undesirable about the critical debate surrounding the incentive issue. Most

proposals we have seen thus far have serious weaknesses in terms of their cost, administrative feasibility, and political or ethical acceptability. Similarly, it is likely that subsequent refinements or additional proposals (including the one that follows) will also include major shortcomings when carefully examined.

Two issues emerge in this process, however, which warrant our special attention. One is the tendency to dismiss almost offhandedly the entire concept of incentives before adequate trials have been made, simply because our limited experience with some schemes has revealed certain flaws or occasional abuses or because the proposals presented to date are less than completely perfect. As noted earlier, population policy makers and family planning officials have treated these several ideas one at a time with almost no attempt to synthesize, adapt, and modify them into more workable schemes. Secondly, we have dealt with incentives in a narrow and unnecessarily restricted fashion, looking for one basic method to serve as the single moving force required to bring about fertility reduction. In what could be described as a search for the "one best way," we have unintentionally limited the scope of our consideration of incentives to (i) those applicable to fertile couples or contraceptive acceptors; and (ii) reward systems consisting of only one kind of payment rather than systems representing a multidimensional and reinforcing mix of incentives designed for individuals, groups, and larger communities (*10*).

Integrating Family Planning with Community Development

Organized, government-supported efforts at reducing human fertility have generally adopted the approach of attempting to match the capabilities of an existing bureaucratic apparatus to the task of reducing the nation's birthrate. By concentrating almost exclusively on available resources, family planning programs have become locked into what could be termed an "input orientation." For example, government officials have reasoned, "We have a health ministry that consists of an infrastructure of clinics and hospitals, a hierarchy providing administrative control, plus doctors, nurses, health educators, and paramedical personnel; now, how can we utilize these available resources to promote and facilitate the practice of contraception?" The common result of this kind of policy decision leads to a program that emphasizes a clinical rather than a demographic approach—one in which the individual acceptor becomes the focal point of attention and broader population considerations "recede into the shadowy background" (*11*).

A different and somewhat opposite approach would begin by focusing on the goal of lowered fertility and then identifying the known or suspected components of population growth that must be changed, restructured, or manipulated to reach that goal. On a macro or nation-state scale, this approach is essentially what Davis proposes when he urges family planners to recognize that "the creation and care of new human beings is socially motivated, like other forms of behavior, by being a part of the system of rewards and punishments that is built into human relationships, and thus is bound up with the individual's economic and personal interests. . . ." He goes on to recommend that "the social structure and economy must be changed before a deliberate reduction in the birth rate can be achieved" (*12*). Although he specifically advocates changes in the role of women, family structure, and other behavior patterns affecting fertility, Davis leaves unsaid how these changes should be wrought, what their cost might be, and what administrative and management mechanisms must be employed to implement them.

The following conceptual model for a family planning program, designed for implementation at the community (*13*) level, relies on a mix of material and financial rewards to stimulate societal control and greater individual motivation toward reducing family size. Although it may represent only a modest step toward the kind of social and economic restructuring called for by Davis and others (*14*), it does, by using the vehicle of incentives, seek to set in motion some of the social and economic forces supportive of that end. Furthermore, it engages the assistance of other important "change agents" and socioeconomic influences in the community in fields such as agriculture, education, and social services to support family planning goals and activities.

By assuming that there exists a favorable national policy regarding birth control and that a family planning program is at least moderately operational, we can identify several broad categories of inputs or social-economic influences that have an impact on fertility and that are currently or potentially operative in the community. The variables listed do not represent a definitive list and are not necessarily the most important variables affecting fertility; they were selected because they potentially lend themselves to administrative control or manipulation in a way that supports lowered fertility. These variables are listed below in three categories: community-wide social and economic inputs and services, financial and material incentives for contraceptive practice, and the inputs of traditional family planning programs.

Community-Wide Social and Economic Inputs and Services

The activities in this category tend to be provided or controlled largely by the state. Typical inputs and services can be found under some or all of the following headings.

Agriculture. Price subsidies, production controls, extension services, fertilizer and seed allocations, and credit facilities.

Economy (nonagricultural). State support of present or designation of future manufacturing or other industrial activity, employment and manpower training activities, and state-supported cooperatives of various kinds.

Education. Primary and secondary systems, new school construction, facilities, equipment, and teachers.

Medical and health services. Maternal and child health programs, special efforts to combat infant mortality, communicable disease control, sanitation activities directed at provision of potable water, and construction of drainage systems.

Nutrition and food distribution. Nutrition education, supplementary food distribution programs, and personnel engaged in nutrition activities.

Social service activities, facilities, and institutions. Community organizations such as state-supported cooperatives, credit institutions, organizations for such special groups as youth, farmers, women, and other occupational classifications; also welfare and charity services.

Anticipated future services. Social security measures, welfare assistance, unemployment insurance, and additional land reform and redistribution measures.

Financial and Material Incentives for Contraceptive Practices

These incentives for the practice of contraception would include a mix of the following items directed to two principal categories of people, acceptors and providers, in accordance with the level of activity or results achieved. An operating program would not attempt to cope with all these possibilities or combinations but would select an appropriate mix from the several major groups and subgroups described.

Incentives to acceptors:

1) To individuals for (i) delaying age of marriage, (ii) accepting a contraceptive method or sterilization, (iii) continuing to practice contraception, and (iv) nonmaternity.

2) To couples in return for (i) accepting a contraceptive method, (ii) continuing to practice contraception, (iii) postponing first child, (iv) spacing between children, and (v) limiting family size (with rewards inverse to number of children).

3) To groups (for instance, large, extended families, clans, and organizations such as farmer clubs, cooperative society members, or otherwise identifiable and cohesive social units) for (i) the number of new contraceptors recruited from membership, (ii) the percentage of contraceptors in membership, (iii) other practices adopted such as postponement of age of marriage and limitation of family size, and (iv) lowered group birthrate.

4) To the entire community (with rewards channeled via elected or appointed officials and public institutions, or both, as appropriate) for clearly stated public purposes and benefit. Rewards would be based on the level of fertility control achieved, as measured by (i) increases in the number of contraceptors among eligible population (could be limited to vasectomies only or to a combination of methods adopted), (ii) the percentage of contraceptors (or sterilized) among reproductive age groups, (iii) increases in average age of marriage, (iv) participation in activities related to family planning (for instance, support of the vital registration system, participation in special surveys and studies or educational projects related to fertility control), and (v) reduction in community age-specific birthrates.

Incentives (fees) to providers (15):

1) To individual providers (including physicians, nurses, midwives, field workers, and agent recruiters). (i) For services rendered (for instance, patients recruited, IUD's inserted, or vasectomies performed). (ii) According to the number of acceptors who continue to practice contraception successfully, monitored by a follow-up system. (More emphasis to ensure greater continuation seems especially important. Too often, family planning programs concentrate on events leading to and ending with initial acceptance and give insufficient attention to what happens to the acceptor after leaving the clinic. Although follow-up work is often criticized as being too costly and administratively cumbersome, such criticism overlooks the importance of providing psychological and, possibly, medical support to the many who are not totally convinced of the wisdom or safety of practicing a new method of birth control.) (iii) For support provided to the family planning program by "secondary" personnel resources, such as referrals made by the agricultural extension agent, the local school teacher, a religious leader, or nutrition worker. Although the precise contributions of such people would be difficult to measure, experimenting with modest retainer fees might produce reasonable results.

2) To groups of providers (such as all clinic and field personnel or distributors of conventional methods). (i) For the percentage of various targets achieved—that is, IUD's inserted, vasectomies performed, or birthrates reduced. (ii) For the extent of supporting activities carried out (for instance, group educational meetings, training sessions held, and so forth).

Traditional Family Planning Program Inputs

Incentives could be paid for specific improvements in the quality and efficiency of the following services and activities:

1) Delivery of clinical contraceptive services.

2) Supply and distribution of conventional or nonclinical contraceptives.

3) Informational, educational, and motivational programs.

4) Related support activities such as vital statistics and registration, special surveys, program management, and evaluation.

Impartial boards could judge improvements in these activities if baseline data were collected at the beginning of the program.

The Value of Integration

Although my arbitrary breakdown of activities and influences related to fertility could be further enumerated or defined, it is clear that a number of variables exist within a typical community that potentially lend themselves to control or manipulation in a way supportive of lowered fertility. It is recognized, of course, that it would be administratively difficult, if not impossible, to control too large a mix of variables at one time according to several, and often difficult-to-measure, indicators of achievement. Nevertheless, measurement techniques can be refined, and we should no longer be content with stagnation and inefficiency at the working level on this particular front of population program administration.

It would seem worthwhile, therefore, to attempt a systematic linkage of such economic and social influences with various mixes of incentives to determine whether an integrated approach to implementing more effective fertility control measures at the community level is within practical reach. A schematic presentation of such a linkage system is given in Fig. 1 and serves as a frame of reference for the remainder of this discussion.

The basic hypothesis is straightforward: A greater reduction in births at the community level could be achieved by integrating the family planning program with other ongoing economic and social development activities than without such integration. The purpose of integration would be, first, to increase the awareness among villagers and their leaders that their immediate and long-term well-being depends largely on the level of initial acceptance and subsequent successful practice of contraception. Second, once people became sufficiently aware of the value of practicing birth control, it should be possible through the mechanism of the incentive program to enlist their support for more effective family planning efforts and thereby to generate a greater community commitment toward lowered fertility. Such support and commitment are conspicuously lacking in most programs today, and, unless ways are devised that provide concrete payoffs to potential supporters, it seems likely that they will remain apathetic bystanders outside the mainstream of the fertility control effort.

Two illustrations of change-agent or leader participation can serve to elaborate this point. The agricultural agent,

for example, could be expected to make a personal commitment of some part of his energy and time to aspects of family planning education and recruitment once he realizes that the delivery of a new piece of farm equipment for the local agricultural cooperative depends on population program success. His participation could be stimulated further if the future allocation of more fertilizers and new seed varieties depended partly or largely on the level of contraception achieved in his area. Similarly, the local school teacher, who is likely to be a respected person in the village, would be motivated to extol the importance of the small family norm to pupils and their parents if she were paid a modest "consultant fee" and if she further realized that the construction of better facilities or the purchase of new equipment also depended partly or wholly on gains in family planning practices.

This kind of practical—as opposed to purely exhortatory—involvement of citizens and leaders would contribute significantly to the development of a genuine commitment to fertility control on the part of other development agencies, their officials, public leaders, and the people themselves. The family planning movement needs all the intelligent allies it can attract and should actively seek to enlist other development workers and change agents in the effort.

Use of the Incentive Mechanism

As shown in Fig. 1, the incentive mechanism would relate to selected components in the broad range of social and economic inputs presently flowing into the community. By affecting the level of additional future inputs (the current level of these services would not be reduced) in areas such as agriculture, health services, education, and economic development, it harnesses these essential activities into powerful supporting forces for population program objectives. And what is particularly important in terms of political and financial feasibility, it does this with no additional cost to the government treasury since, over time, these developmental programs would be expected to increase gradually in magnitude.

The other direction in which the incentive scheme would be expected to stimulate behavioral changes would be in the area of providing rewards to individual acceptors, program personnel, and to the community as a whole, depending again on the level of contraceptive practice achieved. This aspect of the program would, of course, require additional funds. Payments to individual acceptors and providers require little further elaboration, but it might be useful to illustrate how community rewards might be determined and implemented.

First of all, it would seem highly desirable that members of the community, with as many from the citizen level as possible, have a major voice in determining both the goals and the rewards for achieving them. Working in collaboration with elected and appointed officials, they could participate in setting goals for vasectomies or IUD insertions or in deciding upon an increase in the average age of marriage. At the end of a successful year, they could elect to receive badly needed water pumps or tube wells or a new tractor for the agricultural cooperative. The following year they may choose a power generator for the school or an increase in their fertilizer allotment. If the program reached its targets ahead of schedule, rewards could be paid sooner, thereby accelerating the entire effort. The psychological impact on the community of this kind of reward system should be apparent. Once the new water pumps had been installed or the agricultural equipment placed in the field, they would serve as daily reminders of the "payoffs" that come from practicing contraception. Thus, visible and tangible benefits would be provided in a program that otherwise seems committed to operating in an unseen or, at best, shadowy and often unappreciated manner.

This aspect of the program would also require additional funding, but the amount could remain relatively modest. Installation of tube wells and the purchase of tractors for a community of 10,000 could probably be accomplished with a budget of, say, $3000 to $5000 per year. Larger rewards might stimu-

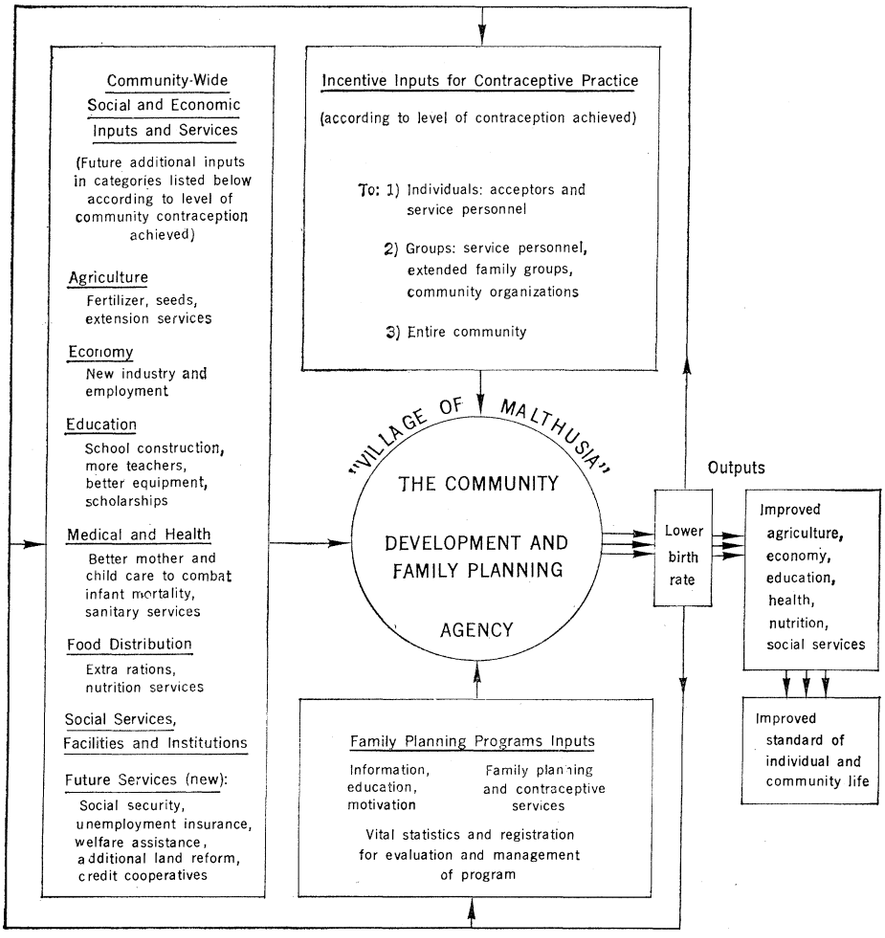

Fig. 1. Schematic linkage of economic and social influences mixed with various incentives for an integrated approach to fertility control.

late higher performance, and it would be important to experiment with various amounts. The extra cost would have to be measured against increased commitment, participation, and performance—perhaps a difficult but certainly not an impossible task.

Administrative Control and Feasibility

Within our hypothetical village of "Malthusia" is an administrative controlling mechanism or "processor" called the "Community Development and Family Planning Agency" (Fig. 1). What is intended here is that a coordinating agency be established, again at the community level, specifically to regulate and administer the incentive program and facets of other developmental activities that are selected to relate to the population program.

Although considerable bureaucratic restructuring of existing functions might ultimately be desirable along these lines, there is no reason why such reorganization could not be slowly phased over a period of time. For instance, it could begin quite modestly as an informal council consisting of representatives from concerned operating agencies, village officials, and participating citizens. Gradually, such a council could be expected to acquire greater legitimization and authority as it demonstrated its usefulness. Further organizational moves could be implemented on an incremental basis associated, for example, with normal personnel attrition or according to a reasonable timetable that would not seriously threaten incumbent officeholders and that would be acceptable to respective parent agencies. Key development agents could, of course, become staff members of the new agency as it expanded its influence over a wider area of community life. In the beginning, they could serve as staff associates or consultants.

The range of administrative problems anticipated in a proposal like this one could be expected to vary according to the ambitiousness of its undertakings. For instance, the accounting effort required to manage a multifaceted incentive program undoubtedly would face formidable obstacles, but these difficulties may have been overestimated. Would they, for example, prove any more complicated than those already being handled, albeit imperfectly, by agricultural agencies, which simultaneously deal with credit, fertilizers, seeds, storage, and subsidies? Similarly, sheer administrative inefficiency, interagency rivalry, and problems of possible corruption would undoubtedly impose constraints on the scheme's effectiveness. Nevertheless, a minimum amount of integration presumably could be achieved without encountering an unmanageable number of difficulties. It is not possible to be more specific without knowing the setting in which this scheme might be tried.

Summary and Conclusions

Incentive proposals for fertility control have stimulated considerable debate and only narrowly conceived trials. As a result, there exists a tendency to dismiss almost offhandedly the entire concept of using material incentives to further contraceptive practice before any have been adequately tried. Moreover, a majority of proposals thus far have been characterized by a search to uncover the "one best way" to circumvent the myriad frustrations encountered in attempting to reduce birthrates in traditional societies.

The principal weaknesses of social security, bond, or other deferred payment schemes derive from the presumed lack of future orientation of peasant classes, coupled with widespread mistrust of a government's ability or willingness to pay at a distant future date. Another disadvantage of locking into a payment system that extends for 10, 20, or more years is that such a decision may take inadequate account of the possible impact of new technology or changes in cultural norms and social practices upon desired family size. The likelihood of radical innovations in contraceptive technology or of social-legal changes permitting greatly liberalized access to safe abortions should make us wary about becoming heavily committed to cumbersome and expensive systems of incentives which, over a short period of time, might outlive much of their usefulness.

The principal advantages of the concept of integrated incentives based on periodic or yearly payments are that long-term commitments are avoided, results could be more quickly measureable, and the scheme lends itself to localized trial and administration. By linking family planning efforts to other development activities—a linkage that could be effected with little extra cost to the government treasury—critically needed support and a greater sense of commitment on the part of leaders and citizens alike could be mobilized.

Just as development programs in areas such as agriculture have gradually come to understand and employ a "package," or systems, approach, so it seems that population programs should broaden their action horizons. Recent experience with managed attempts to increase agricultural production in developing societies has demonstrated that peasants do respond to material incentives that are sufficiently large and are also clearly understood. Incentive systems for fertility control, despite their widely discussed imperfections, provide the promise of being practical instruments for constructing similar packages. What seems needed now is bolder experimentation to determine their effectiveness and administrative feasibility and less speculation about their possible shortcomings.

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