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The Private Sector and Family Planning in Developing Countries

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In harnessing the private sector to provide more family planning services to both middle and low income people, governments can use incentives to stimulate private sector investment and can ensure quality control through regulation.

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The Private Sector and Family Planning in Developing Countries: Its Role, Achievements and Potential

Maureen A. Lewis
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EXECUTIVE SUMMARY

While a private sector exists in every society, the nature of its involvement in family planning service delivery, varies widely across countries. This paper reviews the role of the private sector in family planning and discusses how much more of the demand for contraception can be met through the private sector, thereby reducing government subsidies for contraception.

Government has historically taken a leading role in the provision of family planning in developing countries based on the rationales of the negative externalities of high population growth, the unaffordability or inaccessibility of private contraceptive services, the lack of monetization of certain groups, and the lack of information on contraception of populations outside the sphere of private sector providers. Shifts in income, accessibility and monetization have mitigated to some extent the applicability of these rationales for public subsidies for family planning in developing countries.

Public family planning investment is meant to reach: (1) those who cannot afford the commercial contraceptive prices or the medical attention that accompanies some forms of contraception; or (2) those who are deterred from contraception because of a lack of information, motivation or income. The danger of expansive public programs is that they are difficult to scale back for political reasons, and government then becomes the provider for anyone choosing to obtain subsidized contraceptives, even those who would and could buy from the commercial sector.

Reductions in government resources for family planning and rising demand for services has placed an increasing number of governments in the position of having to select what services or populations to subsidize. Government will need to reduce and modify its role by targeting subsidies, and regulating the delivery of services through private channels if it is to afford to meet the needs of low income couples. Indeed from an economic efficiency perspective, government should not be subsidizing consumers or providers where either would act identically without government intervention. Some evidence exists which suggests that private sector delivery of health and family planning is less costly because it is more efficient, having fewer employees and lower operating costs per patient. Government can harness the private sector to achieve the same ends by stimulating private sector investment through incentives, and ensuring quality control through regulation.

Private Investment in Family Planning

The private sector is already involved in multiple facets of family planning from research and development to production to distribution and delivery. There is very little public production of contraceptive products, although private production is increasingly occurring in developing countries. Private production is divided between the pharmaceutical industry's manufacture of medical products (e.g., oral contraceptives, spermicides) and production of nonmedical supplies (condoms). Oral contraceptives are produced in many developing countries under direct licenses to one of the developed countries' pharmaceutical corporations. The volume of production to meet even minimal

efficiency in the production of nonmedical products is so high (700,000 condoms per year and one million IUDs), however, that a large domestic or international market must exist to warrant the establishment of a production plant in a given country.

A number of factors affect the profitability of the private contraceptive market. Among the most important are household income levels and consumer demand for family planning. Government policy on earnings repatriation, the likelihood of devaluation, the possibility of nationalization, tax and tariff levels, as well as policies regarding patent protection, product pricing, advertising of contraceptives and FDA-equivalent screening affect the attractiveness of for-profit investment in family planning.

Another critically important element in private delivery of family planning is the role of the government in delivering family planning. Private sales of contraceptives often decline dramatically with the introduction of public services. Recent experience from Kenya and Nigeria indicates that private markets can be all but eliminated with the establishment of strong public programs, particularly where prevalence is low. In other countries, like Indonesia and Thailand, the success of public programs may have effectively stifled the growth of the private sector in spite of a growing ability and willingness of contraceptive users to pay for services.

Public and Private Collaboration

Public and private collaboration is often seen by the contraceptive industry as the only means of retaining a presence in some markets, although collaboration such as that in Nigeria where government provides the commodities and the private distribution networks distribute for both public and private sources--show promise for a more mutually beneficial arrangement. Contraceptive social marketing (CSM) programs where subsidized products are distributed by the private sector with heavy advertising and promotion supported by the government or donors appears to be an attractive and productive arrangement, especially where the commercial market is small. Evaluation of the relative importance of CSM's components and net impact have not been well studied, however.

Sources and Pricing of Contraceptives

Private providers of family planning services include private physicians and midwives (either in solo practice, at clinics or hospitals) and pharmacists. Among private providers of family planning, pharmacies are the most important source. While many women receive their first contraceptives from physicians or public clinics, resupply is commonly sought at pharmacies. Some evidence suggests that there is little difference in the relative effectiveness of different suppliers of contraception in terms of the reliability of supplies and the accuracy of information offered potential acceptors.

The major source of contraceptives for couples in developing countries varies by method and country. The private sector (for-profits and NGOs) is currently serving the majority of contraceptors in the developing world who

rely on resupply methods. Government is typically the most important supplier of clinical methods, especially in Asia and parts of Latin America, and is heavily relied upon in rural areas in some countries.

In terms of location, government is a major provider in urban areas of Asia and Africa, and in rural areas outside of Africa, while NGOs are major providers in rural Africa. Older women are more likely to use public clinics, possibly because they were introduced and have strong ties to the clinics. As would be predicted, income and education are correlated with greater reliance on commercial suppliers.

The level of reliance on government sources tends to vary more by country than across location within countries. Asian countries such as Thailand, Bangladesh and Sri Lanka are heavily government dependent, while in countries like Lebanon and Egypt government is a minor player. NGOs are particularly active in a few countries, especially in Africa and in some parts of South America, and in others play no role at all.

The reasons for the discrepancies in degree of reliance on private sources across countries is difficult to explain. Differences in public program quality, investment and scope obviously will play a role, as will the existence of incentives and disincentives to private investment in family planning. These characteristics are probably as important as income levels in helping to explain country differences, otherwise users in a country like Bolivia would be more reliant on government than they are, while users in Thailand and Tunisia would more frequently use private sources.

The subsidies users receive also vary markedly across countries. The limited available information suggests that government subsidies benefit a large segment of the user population in Jamaica and Thailand. Given the income levels of these two countries, it is not clear that the current subsidy level is required to keep contraceptive use high. The amount and extent of subsidy that is needed cannot be determined, but as household incomes rise, in general, public subsidies should be phased down as household ability and willingness to pay for family planning services increases.

The pricing of contraceptives varies across brands for the same products, and identical brands are priced differently across countries, even in regions with strong socioeconomic similarities and geographic proximity. Thus there is evidence that commercial providers charge what the market will bear in any given context. NGO prices tend to be significantly lower than commercial prices, and in many countries NGOs offer free services, as do most government programs.

Efforts to Stimulate Growth of the Private Sector

The review of experience with private sector projects includes the following kinds of projects: (1) those that offer family planning as an employee benefit; (2) social marketing projects; and (3) those that promote private sector investment in family planning. Forty one projects are reviewed based on published documentation. Few have been carefully evaluated.

The employee benefit programs that covered family planning services began in the 1950s in Indian factories. These were generated by management as a means of socializing and increasing the well being of employees. Such programs emerged elsewhere, particularly in Asia, offering incentives such as life insurance to recipients of sterilization, paid leave and health care for acceptors, and preferences in access to factory-offered services such as loans. At the same time, some factories introduced disincentives such as limiting access to services after the third or fourth child, limiting maternity leave for high parity women, and in some cases firing employees with continued high fertility.

Since the initial Indian programs, most efforts in this area have been assisted by the International Labor Organization in collaboration with the United Nations Fund for Population Activities and international NGOs. In general these projects offer free contraceptive services and supplies paid for by donors or employers.

The social marketing of contraceptives has been ongoing for well over two decades. These programs subsidize contraceptive commodities prior to distribution and often use existing distribution systems to reach contraceptors. Recent CSM innovations to harness the private sector more intensively include training and supplying itinerant traders in Ghana to deliver commodities in outlying communities, and an existing commercial, brand-specific marketing regime in the Dominican Republic in collaboration with a major pharmaceutical firm. The private sector's distribution and retail establishments have also been used to deliver contraceptives in other countries to supply a new, subsidized product to the commercially available products.

Promotion of self sufficient private sector activity and investment is a relatively new concept and two USAID projects are experimenting with alternative approaches. These have involved the following kinds of efforts: using cost benefit analysis to convince private companies to add family planning to employee benefits without any outside subsidy for commodities as in Peru and Zaire; taking the investment risk of newly established family planning clinics for a limited period, and offering MD training and access to contraceptive commodities at cost in Mexico; working with NGOs to improve their management and financial standing in Thailand and Indonesia; and, assessing the private market for sterilization in Jakarta. These projects typically do not involve donated contraceptives, but assist providers lower their costs for both operations and commodities. The experiments are establishing the structure for self sufficiency from the start, and typically target low income households although not the poorest groups.

Most of the private sector projects track users from the onset of the project, but almost all fail to account for substitution away from other sources. The effectiveness and efficiency of most of these programs is not known, although some evidence on the lower fertility or higher contraceptive prevalence of beneficiaries relative to the rest of the country or baseline users has been shown in some of the early projects. The higher income and education of these target or beneficiary populations will have a bearing on acceptance and on the generalizability of success to other groups. Moreover, only the most recent projects determine the demand for contraceptive services within the plant or community prior to the establishment of a program. One company measured the net financial benefit of the family planning program and

estimated a savings in employee benefits of $189.85 per averted birth, and a total savings of about $59,190 between 1972 and 1976 not counting the cost of contraceptives.

Other important elements in harnessing the private sector include removing barriers to private investment, and contracting out elements of public programs to lower cost private providers. Taiwan reimburses private physicians for IUD insertions and sterilization, and Korea reimburses for sterilization. The Korean government offers tax exemption for employers who offer family planning, and the Malaysian government has stipulated that maternity leave is not mandatory for women who already have three or more surviving children. The relative savings from these initiatives is not known, but offer areas for possible action as an alternative to direct public provision. Incentives are central to encouraging the private sector to help achieve public objectives.

Issues that Need to be Addressed

The outstanding issues regarding the efficiency and effectiveness of these private-oriented programs, who uses them, how much they are subsidized or need to be, and the possible adverse effects of an unchecked private sector role remain to be addressed. These issues are key to reaching public and donor objectives through identifying appropriate types of public-private collaboration, and through developing incentives for private sector investment in family planning.

Other options exist to promote the demand for private services such as insurance coverage for family planning, means testing for subsidized products and adoption of public reimbursement systems. At the same time, assistance to private investors in management, access to loan capital, tax relief and reductions of impediments could enhance the attractiveness of investments in this area and increase the number and kinds of sources for contraception. Government can also promote a greater private sector role through adoption of a reimbursement, voucher, or capitation arrangement for family planning services, contracting out and privatizing services, and expanding social marketing initiatives.

The major gaps include the following: First, a striking lack of evaluation of private and public sector investments and the performance of each in achieving their objectives and at what cost currently exists. Second, the determinants of private sector use are very poorly understood but are key to understanding how to target subsidies and design appropriate programs. Third, the cost and cost effectiveness of programs is unknown and yet they are the basis upon which the rationale for promoting the private sector must rest. Last, the limitations of the private sector in meeting contraceptive demand as well as the necessary oversight and regulatory function of government in ensuring ethical and proper performance by private entities are not well understood or specified.

Thus some experimentation and evidence exists on the role and importance of the private sector. What needs to be determined is what elements work and at what cost, how to achieve objectives most efficiently, and how much of the market the private sector can effectively serve.

I. INTRODUCTION

A private sector exists in every society, although donors and governments have often overlooked the fact in family planning. Traditional healers and midwives outside the private sector have provided family planning advice and services to women throughout history. As a public health intervention, and under the prevailing view that the private sector is inadequate to the social goal of promoting reductions in birth rates in developing countries as well as the suspicion of private sector motives, family planning has evolved as a heavily public intervention. Whether that pattern is or was appropriate is open to question, but to date the issue has received little critical evaluation.

The first issue of importance is the definition of the private sector and privatization. The private sector consists of nongovernment actors that produce, distribute, or retail contraceptives or family planning services through various means. These private groups encompass both nongovernmental organizations (NGOs) as well as private firms, shops, or distribution networks; however, these two entities, NGOs and for-profit groups, are quite distinct in their objectives, operation, and benchmarks of success.

The range of private family planning providers includes private physicians, private hospitals, clinics, dispensaries or outlets, private family planning associations, nonprofit health providers, pharmacies, shops selling contraceptives, vending machines, and traditional healers. The delivery mechanisms for contraceptives include an additional method that is both public and private: social marketing. The importance of social marketing in the provision of contraceptive services is such that it needs to be included here as another method of reaching contracepting couples. These three modes of delivery, for-profit, NGO and social marketing, while all are non-public are quite different:

- the for-profit sector functions entirely outside the public sector, relies exclusively on market forces, and returns on investment. For-profit firms invest in producing or distributing contraceptives and family planning services in response to consumer demand, and are dependent upon adequate financial returns for survival. Investment in family planning indicates that the investment is potentially profitable. The for-profit sector is necessarily affected by government through regulation and legal constraints. The for-profit sector may also be affected by large procurement or distribution contracts negotiated with international donors or governments that affect production, cost and ultimately pricing decisions. Consumer demand, pricing, political and economic stability, and regular and reliable access to supply inputs are key elements in determining profitability; without these, returns may be inadequate to attract or keep private investors. Excessive governmental oversight can also be discouraging to private entrepreneurs because it raises the cost of doing business and therefore of the product to consumers, in this case contraceptives and family planning services.

- the nongovernmental organizations, although not purely market driven (and sometimes not at all affected by markets), typically offer a product for a specified price; subsidies from external sources often supplement revenues, which modifies the nature, incentives, and operation of NGO activities. Altruism and charity drive some NGOs and the need to cover costs or ensure efficiency of operation are generally not binding constraints although some cost recovery is typically expected. In many cases, the objectives of NGOs and governments are very similar in the family planning area: increasing prevalence. Effectiveness in achieving this objective is therefore the major measure of success, although the net effect of program success is typically assessed without evaluating the impact (e.g., reductions) occurring at other sources of contraceptive services. Thus the financial constraints of for-profits do not define the activities of NGOs.

- social marketing is a hybrid of public and private investments that uses market incentives to distribute and market supplies and services through private channels, but provides a public subsidy up-front that covers some of the cost of contraceptives and up to the total cost of advertising, management, and administration.[1]

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1. See Binnendijk (1985), Behrman (1985), Lewis (1985), Chester (1986) and Sheon et al. (1987) for additional details on social marketing of contraceptives in developing countries.

Privatization means "to turn over a Federal (i.e., public) activity, or part of a Federal activity, to a non-Federal entity[, and] allowing Government to provide services without necessarily producing them" (PPSS, 1984). Privatization of public services such as family planning is different from private activity that occurs in response to market forces. Privatization means that the government hires the private sector for a discrete task or set of tasks. This can take the form of contracting out, monopoly franchises, management contracts, or vouchers.

For example, government can contract with a family planning clinic or organization to provide family planning services in its hospitals (contracting out); or allow a private family planning group to provide all contraceptive services in a given area and not allow other providers to operate legally (monopoly franchise);[2] Similarly, the public sector can provide services but contract out elements such as billing or accounts to a private organization (management contract); and, as an alternative to providing services directly, government could provide couples in need of family planning subsidies with vouchers that reimburse private providers for providing voucher holders with contraceptive services at low or zero price.

Equally important to the definition of the private sector and family planning is what it is not. Private sector activity does not include paying private entities to undertake tasks or activities that would be undertaken anyway without government intervention or investment. For example, paying companies to undertake feasibility studies is a questionable endeavor where the benefits have clear financial benefits to a firm, management is aware of the

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2. This is less typical in family planning, but in other public services such as electricity and water supply where economies of scale are particularly important, monopoly franchises are more common in both the developed and developing countries.

benefits, and the firm could and would carry out the study even if donor funding were not available. In this case the public sector is subsidizing a private entity for a task from which the company will profit. The subsidy is therefore unnecessary, an inappropriate use of government resources, and does nothing to promote private enterprise.

Supporting studies that demonstrate the value of providing family planning to employees, or of adding contraceptives to the range of products offered by purveyors of pharmaceutical products provides firms or entrepreneurs with information about a product not previously offered to consumers. It is quite different than either subsidizing an already planned activity or paying a firm to undertake a feasibility study where the benefits to them are already clear.

The point of private sector promotion in family planning is to encourage private individuals, companies, and groups to invest in an area that has historically been dominated by the public sector. In ensuring broad access to free family planning services, donors and governments have assumed away the role of the private sector for all but the highest income groups. This pattern may have produced disincentives to private activity in family planning that might have flourished otherwise. If so, government is extending subsidies beyond the target group of those who require a subsidy to afford contraception. Moreover, crowding out the private sector reduces consumer options and the number of outlets for family planning services. In other words, government can make private investment sufficiently difficult that expansion is unprofitable.

It can be argued that subsidization may have undermined the private sector. Social marketing efforts, which have not received careful evaluation, may well have cut into private provision of contraceptives at commercial outlets and in effect have subsidized couples who neither need the subsidy nor make a decision to contracept based on the availability of a less expensive product. There is

some evidence to suggest that government subsidies crowded out private investment in the Dominican Republic's social marketing effort.

The private sector is already an active participant in family planning through its production and distribution of contraceptives. Multinational companies that produce contraceptives are represented in virtually all developing countries. Their presence suggests an existing or potential market for contraceptive products, which means that some critical proportion of the population has the income and the need for privately provided contraceptives.

The question is, how much of the potential demand can be satisfied by the private market? How sensitive are various segments of the population to contraceptive prices? Are there location and price tradeoffs? How big is the market for contraceptive products priced at marginal cost or above? Can private providers price discriminate sufficiently to meet the demand of high as well as moderate income couples? In other words, how much can the private sector do to meet the demand for contraceptives? Is there an economic rationale for subsidizing the initial development of private distribution systems? The issue of this paper is to explore the current role of the private sector in family planning and assess how much more the private sector can take on that will relieve the government from having to provide services. In so doing many of these topics are touched on but few of the empirical questions are satisfactorily answered.

The Role of Government in Family Planning Provision

The historical rationale for public involvement in family planning provision is based on the negative externalities associated with high rates of population growth, and therefore the divergence between social and private

benefits of large families; the low incomes and level of monetization in most developing countries; and, the lack of adequate information regarding contraception.

Although of externalities provide major rationale for government intervention in providing family planning is still valid, although the recent National Academy of Sciences review of existing evidence on the consequences of high fertility suggests that the private benefits of family planning use exceed the social benefits (NAS, 1986). The report points out, however, that "when negative externatlities exist, a minimum policy prescription would include the subsidized provision of family planning services" (NAS, 1986:84). Incomes and monetization have developed rapidly since the 1960s and no longer provide a logical basis for government's subsidization of services in most countries.

The information gap calls for improving couples' information; provision of contraceptive services as a vehicle for information dissemination suggests that family planning is a merit good. Merit goods are goods or services that while not demanded are perceived by government as important to improving quality of life. Moreover, merit goods are consumed in insufficient quantities, and government must provide consumers with incentives (e.g., subsidized products, easier access) to raise their consumption. Government subsidies serve to alter consumer preferences over the long term through the satisfaction of merit wants (e.g., contraceptive services), and in effect provide information through experience (Lewis, 1981). Therefore, public subsidies can promote consumption of merit goods, since consumption provides information.

As a merit good, family planning is promoted to encourage couples to use a product for their enhanced private well being. Increased consumption of a meri good (family planning) may also increase social welfare through lower fertility that reduces the negative externalities associated with high rates of population

growth. If family planning is subsidized because it is defined as a merit good, subsidies should be phased out once the value of contraception becomes apparent and is internalized by the the target population. The private market then becomes the appropriate sources of contraceptive services. The continued effort to address the social benefit of family planning due to negative externalities associated with high fertility requires the continued presence of government services.

As a practical matter, it is unclear how relevant any of these criteria are (or were, in some instances) to a number of developing countries. These rationales have fueled the expansion of subsidies to family planning by donors, governments, NGOs, and other groups, without ever testing whether the private sector could handle the production, distribution, and marketing of contraceptives to any segment of the market other than the very well off.

Subsidies are considered essential under the assumptions outlined above. Although the reasoning early on may have been sound, much of the developing world has come a long way over the past few decades, and the private sector has grown and matured. Meanwhile, incomes have risen and a middle class has emerged in a number of countries, calling into question the need for the subsidies they may receive through government provided or subsidized family planning services.

Family planning is viewed as a social good, a service that the population should have access to in order to control fertility. In most developing countries there is an added benefit to investing in family planning, and that is the reduction in health care costs related to both maternity (for unplanned births) and treatment of botched abortions. Because health care, particularly inpatient care, is typically free in developing countries, government bears the cost of both services. Thus family planning can serve to lower those costs.

As the demand for family planning and incomes rise, government's role should shift accordingly to promote and regulate the private sector to serve those able and willing to pay for services. Government can then concentrate resources on those for whom family planning is a merit goods or those who cannot afford private prices.

The basic premise regarding government's role is that neither consumers nor providers should be subsidized where either would act identically without government's intervention.

The Economics of Private Sector Family Planning Delivery

The private sector has played a central role in family planning from the development of contraceptive methods, to their manufacture, to their delivery. In the developing world, delivery of contraceptives has meant establishing or building on distribution networks to physicians, clinics and retail outlets that provide family planning services. Low marginal costs of distribution where pharmaceutical companies are already operating has allowed piggybacking on existing networks to distribute contraceptives.

The desire to maximize profits, which drives for-profit firms, results in: designing packaging, information and products that respond to consumer preferences, maximum efficiency of operation to keep costs at a minimum, and charging the price that maximizes profits--the one that equals marginal costs under conditions of perfect competition.[3] The pricing implied by profit maximization suggests that the for-profit sector cannot meet the contraceptive needs of low income households.

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3. Under monopoly conditions, price exceeds the level where marginal revenue equals marginal cost; however, contraceptive monopolies are becoming less common as markets expand and the number of providers increases in response.

Because for-profit entities invest in family planning to earn profits, their incentive to keep costs to a minimum are very strong. Evidence from the U.S. and elsewhere indicates the consistently lower costs of private versus public health care service costs (see Lewis, 1987 for a summary of these). Because it is similar to and often delivered with health care, family planning costs are likely to show a similar pattern; however, family planning specific data are not available. Private services are more efficiently run, have fewer employees, and lower operating costs per patient served. Thus private manufacture and delivery are preferable to public. Hence government's regulation of the private sector and privatization of contraceptive service delivery will be more efficient, that is, costs will be lower, other things equal.[4]

For-profit entities set prices at what the market will bear. So to maximize profits in the family planning business, the number of users and the price are traded off. Thus unlike government with a social objective of maximizing the number of continuing users, private investors will raise the price to where their returns will be highest even though that may mean a decrease in the number of users. If lowering the price raises the number of consumers but reduces earnings, then private entities will prefer to raise prices.

Earnings from contraceptive sales are the incentive which retains private companies in the market. If profits are too low or nonexistent, then no private firm would remain, unless the long term potential of the contraceptive market was perceived as valuable. Thus the operating climate for private business is critical to continued operation of for-profit investors. A number of operating impediments, from restricted marketing of ethical products (prescription drugs, for example) to price controls to foreign exchange controls, will impede private

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4. This assumes, however, that government can effectively oversee and regulate the private sector.

activity. These public sector restrictions raise the cost of doing business thereby discouraging investment, and ultimately raising costs to consumers.

Using the Private Sector to Meet Family Planning Needs

The arguments for a greater private sector role in delivering family planning--that government need not provide for all users, and the greater efficiency of private versus public providers--should also include the argument by Cross (1986) that government will not be able to afford to meet all demand given projected rises in the size of the reproductive aged population in the developing world in the next decade, and the increasingly constrained government budgets. If the private sector is not stimulated, growing demand will not be able to be met. Moreover, without government efforts to reduce barriers to for-profit investments in family planning, services may be too costly for many users.

Government has a key role in both stimulating private activity and in reducing extraneous costs (e.g., price controls, tariffs, exchange rate controls) for private investment. Only government can ensure a conducive investment climate, and it is through government incentives and removal of disincentives that private investment can flourish. This issue is discussed in detail in Section V below.

The private sector can meet family planning demand through direct marketing, contracts with government (e.g., privatization), or partnerships with the public sector. As discussed below, the first and last are the most common forms of private activity. Privatization is most commonly achieved through grants to NGOs whose philosophies are often similar to governments'. Moreover, such grants are to continue existing NGO operations, they are not directed to carrying out a specific activity for the public sector. Greater efforts to expand direct

private sector provision and harness the (potential) efficiency of privatization, particularly among for-profit entities, should be priorities.

As already mentioned, the for-profit sector is an efficient producer and distributor of contraceptives and family planning services. NGOs are a hybrid between public and for-profit entities. Without the need to generate profits and often driven by social objectives to do good, NGOs are probably less efficient than the private sector, but their commitment to social goals may serve to motivate employees and raise their efficiency above that of government. The absolute or relative efficiency of NGOs is simply not known, however.[5] And although its pricing strategies may make services more accessible, population coverage is often spotty, many NGOs are not able to expand rapidly enough either geographically or in numbers served, and its lack of incentive to trade off users and costs can raise the cost of operation considerably. Moreover, to the extent that they rely on government for support, they too will be victims of budget constraints and cut backs. Thus although NGOs are and should be a fixture of family planning provision, they have already been assisted in the past, and, more importantly, cannot take on the entire supply burden anticipated for the coming decades. Thus it is essential that some efforts be made by governments and donors to promote greater for-profit involvement in family planning delivery. This paper focuses on the for-profits, although where relevant and possible NGOs are included.

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5. Lewis (1985) addresses this issue, concluding that there is a dearth of knowledge and documented experience, which prevents any conclusions on the efficiency or general effectiveness of NGOs.

Study Outline

The paper is divided into six sections. The next section, Section II, discusses the characteristics of private sector supply, with a strong emphasis on for-profit producers and distributors of contraceptives. Section III describes the distribution of users across sources and addresses the issue of pricing at public, for-profit, and NGO sources of family planning services. In Section IV the experience to date with private sector approaches is outlined to provide a sense of what has been and is currently going on in public and donor efforts to harness and collaborate with the private sector. Section V presents alternative means for government and donors to promote private sector activity in family planning, and suggests some of the costs of a greater private sector role. The final section summarizes and concludes the paper.

II. CHARACTERISTICS OF THE FOR-PROFIT PRIVATE SECTOR IN FAMILY PLANNING[6]

This section addresses the issues surrounding the supply of contraceptive products and services. Demand and utilization will be discussed in the next section. Private sector involvement in family planning spans the gamut including research and development into new or improved contraceptive products and technologies; production and packaging of contraceptive products; the distribution of products to government and commercial outlets; and, the direct provision of services through, retailers, private clinics and hospitals. The information and analysis presented in this section come from extant data sources and from discussions with executives of multinational pharmaceutical firms that produce or market their products in the developing world. All evidence presented here is derived from the indicated source or obtained from confidential interviews.

Production

Producers can be categorized into two general groups. The first group is pharmaceutical manufactures that produce a line of ethical/medical prescription products in addition to contraceptives; the second group consists of firms specializing in non-medical contraceptive methods like the condom. This demarcation is not exact because some of the former firms produce ethical and non-ethical contraceptive products. Table II.1 contains a list of the major multinational producers that export to the developing world, along with the location of their corporate headquarters, countries where production facilities are located, and the range of products produced.

In general, producers are American and European multinational corporations that have local subsidiaries or direct licensing agreements with local

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6. Nongovernmental organization characteristics are provided in Lewis (1985).

Table II.1

Manufacturers and Their Production Sites for Contraceptives by Method

Manufacturers	Partial List of Production Sites in Developing World	Contraceptive Products Marketed	Notes
Organon (Holland)	Mexico, Brazil, Venezuela, Argentina, Indonesia, Korea, Pakistan, Bangladesh, India, Thailand	Several Oral Contraceptives, IUDs, injectable, implants,	Purported to be one of the largest suppliers to the commercial market in developing countries. Has very export-oriented policies with emphasis on research and development.
Schering Ag West Germany	In almost every major marketing country, e.g., Brazil, Mexico, Venezuela, Thailand	Oral Contraceptives injectable, IUDs	Is purported to be one of the largest supplier to commercial markets in the developing world.
Syntex (U.S.)	Mexico, Brazil	Oral Contraceptives injectable	Won USAID procurement contracts of 100 million pill cycles per year until early 1980s when procurement fell by approximately one half due to phase out of donations to Indonesia. Was awarded to CSM procurement contract for orals for the next four years
Wyeth (U.S.)	In almost every major marketing country, e.g., The Philippines, Pakistan, Peru, India, Turkey, South Korea, Chile, Colombia, Argentina, Uruguay, Mexico, Brazil	Oral Contraceptives	One of the largest suppliers to public sector programs in the developing world. Won USAID contract to supply orals to the public sector for 1988 to 1993. The contract specifies a minimum of 30 million pill cycles; 1988 supplies are expected to be 56 million cycles.

Table II.1 (cont'd)

Manufacturers	Partial List of Production Sites in Developing World	Contraceptive Products Marketed	Notes
Ortho (U.S.)	Mexico, Brazil, Argentina	Oral Contraceptives, spermicides, foaming tablets, jellies, foams,	Has USAID contract to supply foaming tablets (Conceptrol) to the developing world.
Ansell Inc. (Australia)	Malaysia, Thailand	Condom	Has been sole winner of USAID procurement contracts for last 4-5 years due to large production capacity in the U.S. Supplied about 400 million condoms last year.
London Rubber Industries (Durex) (Great Britain)	Philippines[b]	Condom, Diaphragm	Durex product used in some CSM programs. Dominate commercial condom markets of Africa.
Sagami Rubber Industry (Japan)	Malaysia[b]	Condom	Because of size of domestic market for condoms, Japan has greatest production capacity. Of the three large Japanese producers, Sagami is the largest international supplier of condoms.
Eisai Co., Ltd. (Japan)		Foaming Tablet	Neo Sampoon, Eisai's foaming tablet, is the major spermicide donated by international donors and is used in many social marketing efforts.
Holland Rantos Corp. (Holland)		Diaphragm	
Finishing Enterprises (U.S.)		IUD	Supplied 2.6 million Copper T's to USAID last year. Sold to UNFPA as well.

a. Most production of oral contraceptives in the developing world relies on importing the active ingredient.

b. Data are not available but given the worldwide pattern of condom production, it is likely that these firms also have production facilities in India and South Korea.

affiliates in developing countries. While production operations are located all around the world, the bulk of production still takes place in the developed world. This is not the case for all firms. For example, Schering Ag does most of its manufacturing in developing countries, especially in the newly industrialized countries. Manufacturers hoping to win USAID procurement contracts (which can be sizeable) have an incentive to locate production within the United States because, except for rare circumstances, the commodities provided as a part of the contracts must be produced in the United States. Production takes place worldwide mainly through subsidiaries of multinational corporations and to a lesser degree by independent producers.

While both multinational corporations and local manufactures are involved in the production of contraceptive products, the former play a dominant role due to the important technological component in ethical contraceptive production and the strong economies of scale in the production of many contraceptive products. These multinational firms handle most of the research and development for contraceptive products although, private-public sector collaboration takes place through agreements with organizations like The Population Council, PIACT, W.H.O., and Family Health International that have been predominantly funded by USAID. There are several reasons that production facilities are located in the developing world.

First, some pharmaceutical companies believe that they will have an advantage over other competitors in local markets if they locate production domestically. Local production has a big impact on public sector sales; even bigger than its impact on commercial sales according to another pharmaceutical firm. Second, developing country governments, like Indonesia, that purchase a high volume of contraceptive products annually to supply their public sector family planning component find it advantageous to purchase locally because

foreign exchange is at a premium. Thus these countries may be willing to offer a firm incentives like tax breaks or purchase commitments to induce it to produce locally. Third, some countries, like India, have such restrictive import policies (marketing is forbidden unless there is local production) that it becomes imperative to produce within a country if a company wishes to do business in that market. Fourth, in some of the newly industrializing countries where chemical and pharmaceutical industries are burgeoning, costs of delivering products within the country as well as to the other countries in the region are lower than the costs of producing further away and bearing high transportation costs.

The production of condoms for export to the developing world is handled mainly by three companies--an Australian owned firm with major production facilities in the United States, Ansell Inc.; a British concern, London Rubber Industries; and, a Japanese firm, Sagami Rubber. These companies have subsidized/joint venture agreements with several third world countries. In addition, independent production takes place on a sizeable scale in India, China, and South Korea.[7]

While condoms are produced in 20 countries worldwide, almost all of the condom production takes place in Japan, the United States, China, the United Kingdom, India and South Korea. One third of the condom production capacity is located in the developing world. Within the developing world, the People's Republic of China has the largest production capacity. Other developing countries with large production capacity are Malaysia, Brazil, Argentina, and Mexico with capacities of one million, 700,000, 500,000 and 60,000 gross respectively (where one gross is 144 condoms) (Sherris et. al, 1982).

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7. The technology for mass-producing condoms is interchangeable with that of latex gloves and given overcapacity in the former and shortages of the

(Footnote 7 Continued on Next Page

Due to the capital intensive nature of condom production and significant economies of scale in production, efficient factories must produce on the order of 70 million condoms annually--which means there would have to be 700,000 couples using the condom for contraception (assuming 100 condoms per one couple year of protection) within the domestic market to ensure profitability (assuming no exports) (Sherris et. al, 1982). This is one reason that production is concentrated in a few countries. While condom production is capital intensive, the packaging of condoms, which constitutes about one half of the wholesale price, is a labor-intensive process. Local packaging of imported condoms occurs in Bangladesh, Thailand and El Salvador and in other countries as part of their social marketing programs. Increasingly, the packaging of contraceptives is shifting toward the developing world, and, social marketing programs almost always have a local packaging component.

Most production of diaphragms is located in the United States and the United Kingdom; Ortho, London Rubber Company and Holland-Rantos Company supply to family planning programs (Sherris et. al, 1984). Although, were demand for the product higher in the developing world where it accounts for a miniscule share of contraceptive users, diaphragms could be economically produced in developing countries in a less capital intensive way than it is produced within the developed world.

Production of oral contraceptives takes place throughout the developing world with plants in Mexico, Brazil, the Philippines, Indonesia, Pakistan, India Bangladesh to name a few countries. This list suggests the diversity of production location, although African countries are notably missing from the

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(Footnote 7 Continued from Previous Page)
latter, some of the condom capacity may be transferred to latex gloves, given rising demand due to the threat of AIDS.

list. No oral contraception production currently takes place in sub-saharan Africa outside of South Africa although there are plans for plant location in one or two countries. As mentioned earlier, factories in the developing world are usually subsidiaries of multinational corporations due to the sophisticated nature of oral contraceptive production.

When oral contraceptives are produced in the developing world, the "active ingredient" (the synthetic hormones) is usually produced by the home factory and imported except in cases such as Indonesia where special arrangements have been made to manufacture the active ingredient locally and supply it to the government for use in the domestic production of orals. The conversion of the active ingredient into progestin, compounding, tabletting and packaging complete the production process. Some countries, like Mexico, have the basic raw material for the production of orals (and the low-wage labor force to extract the raw material) and have domestic production of the active ingredient and thus have no need to import the active ingredients (Sollins and Belsky, 1970). The socially marketed oral contraceptives, like condoms, are often repackaged in-country.

Injectables like Depo Provera are produced in Belgium and in a few Latin American and Asian countries (Liskin et. al, 1983). Depo Provera cannot be exported from the United States because it has not gained approval of the US Food and Drug Administration (FDA). The implants developed by The Population Council, Norplant, are produced in Scandinavia.

IUDs and IUD inserters are produced in China, India, and Mexico. IUDs have been produced in India for more than a decade and Copper T devices have been produced in Mexico and are scheduled to be produced in Brazil, China, India, and Indonesia (Liskin et. al, 1982). Finishing Enterprises, an American firm, produces the Copper T's that are purchased in bulk by USAID. Last year, USAID purchased 2.6 million Copper T's. PROMED, an independent Brazilian firm, also produces Copper T's.

It is estimated that to be efficient, a plant must produce one million IUDs per year. With joint production and the sharing of fixed costs of production, this number can decline (Liskin et. al, 1982). A sizeable industrial labor force seems to be an important consideration in location decisions by multinationals. Because some IUD technology has resulted from private and public collaboration, the chosen licensed distributors of the product are often held to price restrictions set by the developing agency. For example, the Population Council, when arranging for production and distribution of its IUDs will sometimes set limits on prices that can be charged. This has resulted in large disparities between private and public sector prices and has been said to lead to reduced incentives to promote products where prices are set artificially low.

Vaginal spermicides are produced by many of the multinational pharmaceutical firms. In the developing world, one of the most popular of these products is a foaming tablet, due perhaps to its robustness in tropical conditions and its ease of use. The Neo Sampoon foaming tablet has been the most widely used; it is manufactured by a Japanese firm and has been used as a social marketing product and marketed under other names. Neo Sampoon was the main spermicide donated to developing country governments by all donor agencies until recently when USAID started to donate a comparable American brand to its recipient countries. The vaginal suppositories produced in Colombia together with Neo Sampoon attained sales levels on a par with condom sales but fell short of oral contraceptive sales (Sherris et. al, 1984).

Incentives/Disincentives for Production and Marketing

The economic, social and political environment of a particular country influence the decisions of individual private firms with regard to production, marketing and pricing of contraceptive products in that country. The incentives

and disincentives affecting each of these decisions will be discussed in turn, in spite of the fact that they are clearly interdependent. Clearly history also plays an important role in influencing production and marketing location and success. For example, The London Rubber Company has been a major exporter of condoms to anglophone Africa due its long standing involvement in the region (Black, 1973).

There are certain attributes of domestic markets that affect the potential market for all private producers, while there are others that affect producers differentially. Among the key factors that affect all firms, are the income levels of the population in a particular country, the consumer demand for contraception, whether contraceptives are reimbursed through the social security system or through private health insurance schemes, tariffs and taxes on imported products and pharmaceuticals, exchange controls, the distribution and retail outlet networks, speed of approval for ethical prescription products by local FDA equivalents, and restrictions on advertising and marketing.

Additionally, the size and skills mix of the labor force influences the economic feasibility of domestic production. The concentration of production in the newly industrialized countries is partly a reflection of their developed industrial labor forces.

Macroeconomic conditions also affect earnings and viability of production facilities in developing countries. According to one multinational corporation, as the Mexican economy has declined over the last few years, multinational contraceptives producers in Mexico have suffered serious financial losses. Demand for contraceptives dropped off with declines in income, and with the sharply devalued peso the value of repatriated earnings declined precipitously. This almost led to plant shut downs.

Government pricing policies with respect to contraceptives can dissuade companies from producing in certain countries. Where government has set price ceilings on contraceptive products during periods of high inflation, it can be impossible to meet costs as the revenue received for the product remains constant while costs rise. When contraceptive prices are set by the government, underlying changes in costs can not always be translated into higher prices, which leads to unprofitable market situations and disincentives to continued production, much less new investment.

A country's tariff structure influences whether local production is likely to be profitable. Production incentives will depend on the tariffs on both finished contraceptive products and on imported inputs to contraceptive production. Many countries have tariffs on imported contraceptive products, wit the objective of raising revenue, reducing imports to conserve foreign exchange, and/or protecting/encouraging domestic production. This situation can backfire, however. Ghana had a 50 percent tariff on imported condoms and a lengthy licensing process to provide protection to its domestic rubber industry. However, this has not stimulated a domestic condom industry--to date no multinational has located a condom factory there and thus the tariff serves to raise the commercial price of condoms and may discourage firms from marketing their product within the country (Black, 1973). In Turkey, high tariffs on condoms have led to widespread smuggling of condoms. In Colombia, in the early 1970s, import duties, exchange controls and other legal importation requirements were so burdensome that almost all condoms were smuggled into the country and ha prices that greatly exceeded prevailing international prices (Arthur D. Little, 1972).

Higher tariffs on imported contraceptives can, however, serve to induce firms to locate plants within countries where the private market is estimated to

be large and potential profits are great. In 1972, some multinationals did the tabletting and packaging of orals in the Philippines due reportedly to the relatively higher import duties on finished than less processed products (Arthur D. Little, 1972).

However, some countries also have tariffs on imported raw material inputs that increase the cost of production in that country. This can be a real deterrent, especially to oral contraceptive production. One raw input into oral contraceptive production is not found in many countries (Sollins and Belsky, 1980), and if it has to be imported and is subject to a tariff, the domestic costs of production will rise. Reportedly one of the few countries at this time without tariffs on either the imported raw material or oral contraceptives is the Philippines.

Very damaging to private production of contraceptives is government restrictions on foreign exchange movements and the repatriation of earnings. Governments that restrict the repatriation of earnings reduce incentives for multinational corporations to locate plants within developing countries. While some firms have been able to reduce the impact of such disincentives by swapping costs and earnings on a worldwide basis, or by reinvesting domestically, these restrictions have served as a deterrent to private sector expansion in some developing countries.

Another deterrent to domestic production is the risk of the government either creating a subsidized competing factory or purchasing from other sources. A multinational built a plant in India with the understanding that the public sector would purchase its output only to have the public sect or subsequently set up its own plant. Further, the threat of nationalization is said to have deterred firms from locating production in countries where that threat is real.

Location of Contraceptive Markets

For firms that lack production facilities within a particular country, the decision to market products and make investments in that country depends on the size and potential profitability of sales to both public and private sectors. Because so many couples in much of the developing world rely on the public sector for contraceptives, sales to the public sector are quite important to pharmaceutical producers (the public/private sector breakdown is given in Table III.1). Private companies vie to win contracts from USAID, UNFPA, other international donors or local governments to supply the public sector clinics.

Some firms have argued that they just meet marginal costs when supplying to donors and governments at well below wholesale market prices and that they do not cover research and investment costs on these transactions. In part, the economies of scale in production allow them to sell to public entities at a reduced rate. Other firms say that they are able to defray their fixed costs through commercial sales. Further, some firms take a longer run view and believe that the pay off to investments made in developing country markets over the past few decades will occur in the coming years as these markets grow and are committed to long available products. Other firms have stated that it becomes difficult to "break into" a new market when other firms are already well-established.

Firms that supply contraceptives to the public sector may have advantages over competitors at gaining a foot-hold in the private sector. There is evidence from the last round of the Contraceptive Prevalence Surveys (CPS) that in some countries, while most women obtain their initial supply of the pill from a clinic, they are most likely to have obtained their pill resupply from a pharmacy (Tunisia CPS, 1983). Thus the type of oral contraceptives (color, size, brand and hormone mixture) provided in the public sector are likely to be in greater

demand in the private sector, other things equal, than other pills on the market. Evidence that users remain loyal to a product comes from the Eastern Caribbean where new, public free-pill programs are being launched. Potential users are undermining the potential successes of the new program by rejecting the USAID supplied orals in favor of the long standing pharmaceutical products marketed commercially by Schering Ag.

Some private firms also complain that some of their commodities that are sold at concessionary prices to the public sector have found their way into retail outlets where they compete unfairly with the firm's commercial products as they carry deep discounts. Problems have been reported specifically in Thailand and Costa Rica. Firms feel that this direct competition in the commercial sector greatly undermines their commercial sales.

Government Regulations and Contraceptive Supplies

Government imposes a wide range of restrictions on contraceptive marketing and distribution. The private sector provision of family planning is affected not only by the macroeconomic context but also by policies on pharmaceuticals, and policies specifically aimed at controlling the contraceptive market.

Macroeconomic Constraints. A number of macroeconomic factors are important in determining marketing success. The government's pricing, tariff, and taxation policies influence the profitability of commercial sales, as already mentioned. High tariffs, taxes, and price ceilings reduce the margin that private producers can gain by exporting and can result in significant black markets for contraceptives to circumvent high cost restrictions. Price ceilings, particularly prevalent in Latin America, erode profitability in the face of rapid inflation and devaluations.

Exchange controls and limitations on the repatriation of earnings reduce the incentives of both importers to import contraceptives and exporters to export contraceptives, thus reducing the size of the commercial market. Importers are allocated a limited amount of foreign exchange and will choose to purchase the imported products that enjoy the highest mark up. Because other pharmaceutical products enjoy greater profit margins in some African countries, importers may not place a high premium on importing contraceptive products when foreign exchange is scarce and may lead to erratic and lower supplies of imported contraceptive products in Nigeria (Black, 1972, 1973).

When exporting products to different countries, producers prefer to realize their profits in hard currency. Multinationals produce and maintain research, marketing and managerial expertise at their home bases, whose costs must be at least partially met by repatriated profits (unless profits generated from domestic sales totally defray these costs). Further, investment opportunities may not be lucrative enough in these developing countries, so that repatriation restrictions are strong investment disincentives.

Advertising Constraints. Due to the sensitive and private nature of contraception, governments often forbid active advertising for family planning products. Further, advertising on ethical products is often restricted. In other countries, no brand name advertisement is permitted, making only general message promotion legal. This can lead to reduced demand due to lack of information and thus to reduced earnings opportunities for commercial sales. While the demand for contraceptive products depends to some extent on the income level and socioeconomic status of a population, an awareness and interest in family planning among couples of reproductive age also affects demand. To the extent that marketing and advertising can raise awareness and increase willingness to pay for contraception because of better information about the contraceptive

market, restrictions on advertising and marketing limit the growth of the private sector.

In some countries, exceptions have been made to these rules, especially in the interests of contraceptive social marketing programs. Most social marketing programs have a promotional component. These promotional activities vary from point of purchase displays, radio, print or television ads and messages, to staged events geared to draw attention to the benefits of child spacing and family planning. Some private firms have used magazine advertisements in some developing countries although there is little evidence of private advertising of family planning products in the developing world. An advertisement for a vaginal suppository in Colombia which did not apparently directly refer to family planning but instead emphasized feminine hygiene (Arthur D. Little, 1972) reportedly did better than a competing, non-advertised product, but it also had a much lower price (Sherris, 1984).

For-profit firms believe that direct brand advertising and marketing of family planning through the mass media may not be a profitable venture in (some) developing countries. They believe that while they would bear the costs of the campaign, the benefits would likely be spread across all commercial firms and might also lead to increased demand for contraception from the public sector, especially in countries where modern methods of contraception are not widely known or used. They believe that while loyalty to their brand might be enhanced by raising the demand for contraceptive products, they would be underwriting a rise in the overall level of contraceptive demand including that of their competitors and the free service. To the extent that this is private gains fall short of the private costs, subsidization would be necessary to make advertising profitable. No study exists in the developing world that carefully documents the effect of easing advertising restrictions or the effect of private brand

advertising on the demand for other brands. Further, some firms believe that the size of an advertising program may have to be so large to have an impact that it would require an investment that is larger than any one firm would undertake on its own.

Some pharmaceutical firms that market ethical products have detailers that market the product line to local physicians and pharmacists. The detailers use informative (on contraindications and product attributes) and promotional material to inform doctors about their products. This form of marketing is common throughout the world. Free samples are sometimes provided to encourage restocking. One firm gives samples to both public and private physicians under the assumption that MDs who prescribe one product in their public practice will use the same product in their private practice as well. Other firms restrict their activity to stocking commercial outlets.

Detailing and sampling can be a very expensive undertaking for firms and accounted for an estimated 50 percent of the retail price of oral contraceptives in the Philippines, Iran and Colombia in 1971 (Arthur D. Little, 1972). One major recommendation of that study was for detailing, sampling and promotion of family planning to be handled by the government or a nonprofit entity so that costs could be lowered. Although there is no more recent published data on the cost of detailing and sampling, it is unlikely that the high reported share of the retail price absorbed by detailing and sampling in the 1972 study is still relevant today. One firm argues that detail costs are very high when a product is relatively new, but that they decline thereafter, so that the findings in 1972 might be reflecting the novelty of the product at the time.

Evidence on the effect of receiving contraceptive literature along with contraceptive purchases at drugstores is that sales of contraceptive products rise. Pamphlets were given to 60 drugstores that described the proper use and

effectiveness of condoms, suppositories, and oral contraceptives and could be distributed to customers making contraceptive purchases (Bailey and Zambrano, date). Sales data on these three products were collected before and after the introduction of the pamphlets at 60 drugstores. The pamphlets were introduced at only 30 of the drugstores and the other 30 were paired with the 30 experimental drugstores as a way of measuring substitution toward the experimental drugstores. Comparing the sales at the experimental drugstores before and after the pamphlets were added, the researchers found that sales of condoms and suppositories increased significantly while pill sales increased only slightly. The control drugstores experienced no significant change in sales over this period.

Analysis of the sales of the paired control drugstores indicated that in 2 of 16, 4 of 10 and 6 of 11 pairs, sales of suppositories, oral contraceptives and condoms respectively fell but that overall, there was only a net decrease in the condom sales of the control drugstores. Because the data are strictly from retail sales, it is difficult to evaluate how much switching across methods or across supply sources occurred and therefore, it is difficult to conclude what the net impact this sort of program has on overall contraceptive use and births prevented, but it does seem that the use of pamphlets can increase use of condoms and suppositories. This suggests that retailers could play a bigger role in providing contraceptives if they gave customers method-specific information.

Legal Constraints. Obtaining product approval from the local country's Food and Drug Administration equivalent is a precondition for being able to sell a product in most local markets. This can be a long process, especially for new products. In many countries, having American, British, or Swedish FDA approval suffices. Social marketing programs have been able to expedite the approval process for socially marketed products, but products destined strictly for commercial outlets may face long delays gaining approval. Delays have been

experienced recently in getting injectables on the market in some developing countries, for example, because they have failed to gain USFDA approval. Firms complain that it can be difficult to add new orals to the market with different compounds even though they may be more appropriate for some women.

Commercial sales may also be hindered by laws governing the distribution of contraceptive products and provision of services. These laws designate personnel who are authorized to provide contraceptive services and they specify where these services can be provided. Many countries require that oral contraceptives be purchased only with a prescription from a physician (Isaacs et. al, 1984). Despite the potential quality benefits of a prescription requirement, it serves to reduce access. This requirement is not enforced across all countries.

Physician to population ratios are almost always lower than pharmacy or midwife to population ratios, especially in rural areas, so that requiring a prescription to purchase orals will make obtaining contraceptives more costly and difficult. Given that travel time represents an economic cost and serves to deter use, the more outlets from which contraceptive products can be purchased, the lover will be the cost of obtaining contraceptives for users, other things equal. Indeed, the social marketing programs specifically seeks to increase the points of access as well as the affordability of nonclinical family planning methods.

Another deterrent to private contraceptive marketing in developing countries is absence of patent protection, which reduces potential profits from commercial sales of patented products. In Mexico, the absence of patent protection reportedly led to low prices and to nearly 30 brands of oral contraceptives (many of them duplicates under different names) available on the commercial market at the same time (Sollins and Belsky, 1970). Questions have been raised about the quality of some of the locally manufactured imitations, but demand did appear to grow under the competitive supply conditions.

While the absence of patent protection can often stimulate domestic production, the net impact on the size of the commercial sector is not clear a priori. The competition and resulting low prices may attract consumers while variable quality may deter use. The size of the market may not be very different although the share accorded each producer is likely to be affected. Without patent protection, local firms are unlikely to have sufficient incentive in the long run to invest in research and development and to develop new products and multinationals may find a chaotic market that is consequently unprofitable.

Public and Private Sector Relationships and Roles

The effect that the public family planning system has on the size of the commercial sector has not been examined scientifically across countries or over time within one country. Past analyses of the role of the commercial sector (Sollins and Belsky, 1970; Arthur D. Little, 1972) have focused on the condom and the pill because they have been the most important commercial products in developing countries. In the 1970 study of Sollins and Belsky, the commercial sector was shown to have a larger share of the condom and oral market in 5 of the 6 countries studied, while this pattern prevailed in 2 of the 3 markets analyzed by Arthur D. Little. Analysis presented in Section III of more recent data reinforces the method dominance of the pill and condom in private sector family planning provision in the developing world.

Vaginal spermicides have been growing increasingly important in the developing world, which suggest an even broader role for the commercial sector as these methods are inexpensive and conducive to commercial distribution. IUD insertions and sterilizations have traditionally been provided by the public sector in developing countries, although higher income women have obtained these services from private doctors or clinics. Of course, private voluntary organi-

zations have been key providers of these services in some parts of the world, like Latin America.

The common perception is that the public and the commercial sectors serve different clientele. Public sector users are thought to be less educated and have lower incomes than their commercial counterparts. Thus, expanding services offered through the public sector should not have an impact on commercial sales. However, there is reported evidence from private providers that in some countries, as the public sector expands, the commercial sector shrinks. Recent experience in Kenya has been cited as a particularly dramatic case where a public program has almost eliminated the private market and multinationals have pulled back significantly. This seems especially true in countries where contraceptive prevalence is low. Further, as already mentioned, the public sector supplies can find their way into commercial outlets offering unfair competition to the commercially distributed products and cutting down on commercial sales.

The introduction of free government services in Nigeria, for example, was followed by large reductions in the commercial sales of one firm. While some of the reduction in demand might have been related to Nigeria's economic downturn, the total number of acceptors did not change. The increased availability of free contraceptives caused this firm to close down its subsidiary.

According to extensive discussion with managers and distributors, each firm's success in marketing and selling its contraceptive line in a particular country seems to depend on a number of factors. A firm's relationship with the government in that country, however, seems to be a key influence on the firm's long term success in the private market.

For instance, in Nigeria, Sterling Nigeria, (a subsidiary of Sterling Drug), established a cooperative relationship with the government by handling the distribution of donated contraceptive products to regional public sector family

planning clinics. This has placed that firm in a position to break into the market in other ways. Sterling is reportedly contemplating construction of a condom factory in Nigeria. Because Sterling is distributing contraceptives to private clinics and pharmacies throughout the country, it may have an advantage over other commercial producers in the future.

In the 1970's, USAID donated millions of pill cycles per year to Indonesia. Because USAID was phasing out the free commodities and moving Indonesia into a loan category, the Indonesian government was concerned about ensuring future oral contraceptive supplies at a low cost. A private American pharmaceutical company provided technical assistance to the BKKBN (the Indonesian Family Planning Association) to set up a plant to produce oral contraceptives. This firm was well-positioned within Indonesia because its product had been supplied by USAID for many years.

The distribution of contraceptives is handled in developing countries by public and private distribution networks--the latter are sometimes truly local operations while other times they are subsidiaries of multinational pharmaceutical companies. Private distribution networks of wholesalers reach both private and public outlets. Most pharmaceutical companies that sell contraceptive products in a country also sell a broader line of pharmaceutical products and have either developed their own distribution network or rely on and use existing wholesale networks.

The public sector has relied on private wholesaler distribution networks in the developing world to transport contraceptive products. In Nigeria, as already mentioned, a private firm distributes contraceptives to public sector clinics with no apparent complaints from the government. In Tunisia, however, until 1983, the private wholesaler network of grossistes or repartiteurs distributed subsidized government contraceptives to pharmacies along with their other

pharmaceutical products. The National Office of Family Planning in Tunisia (the ONFP) believed that it was too difficult to account for stocks of contraceptives moving through the private wholesaler system and that there were too many stock disruptions, so they set up their own distribution system to deliver contraceptives to family planning clinics and pharmacies.

A recent study (Ronco Consulting Corp., 1986) has taken a preliminary look at the relative costs of delivery for the ONFP and the private distributors and has concluded that the private distributors have lower costs than the ONFP due to more efficient delivery operations. The study results were tentative because the cost estimates were taken from different years, the sample of ONFP and private distributor operations was small, and assumptions had to be made about valuing products delivered through the ONFP. Thus, distribution to commercial outlets has been handled by government and for-profit entities with different results. While most contraceptive social marketing programs entail the sale of subsidized contraceptives at for-profit outlets, some use private transport networks while others rely on an in-house distribution staff. The governments that have taken over all or part of the distribution have claimed that relying on private distribution led to inadequate sales or shortages. On the other hand, the government distribution may be less cost effective.

Contraceptive Social Marketing

The presence and slant of a contraceptive social marketing (CSM) program can affect commercial sales in either direction. Social marketing entails the subsidized distribution of contraceptives through the private sector along with market research and advertising in an attempt to raise awareness of and willingness to pay for contraception. The private sector's distribution networks are used to expand the points of access to contraceptives. There are many social

marketing models that vary by type of management structure employed to handle the project, type of products marketed, type of distribution methods used, and by retail outlets chosen as points of purchase.

Five recent review articles summarizing CSM experiences were cited in the introduction to this study. The most recent (Sheon, Schellstede and Derr, 1987) indicates that CSM has been tried in almost 30 countries and that about one third of these countries currently has a CSM program. Programs in Colombia, Jamaica, Bangladesh, Egypt, and Nepal covered more than twenty percent of contracepting couples in 1984 according to Binnendijk (1986). These may be overstatements, however, because they are generated from program data and not from demand studies. Because program data rely on wholesale level volumes and because of wastage and disappearance of CSM products beyond that point, the retail volumes are likely to be lower.

Social marketing programs often aim to exploit existing distribution networks to expand points of purchase and reach more potential contraceptive users. A current example of how private networks can be used is the SOMARC project in Zimbabwe, launched in 1986, seeking broader distribution of the condom. A commercial distributor, Geddes Ltd. that already distributes deodorants to supermarkets is going to distribute condoms to petrol stations, bars, supermarkets, and bottle stores.

The condom has been the most common socially marketed product, with oral contraceptives, vaginal spermicides, injectables and IUDs following in order of number of programs that have used them. The first CSM program had its inception in 1967 in India with Nirodh, the name chosen for the socially marketed condom. Not only has there been increasing product diversification in socially marketing attempts, but programs have tried to reach self-sufficiency and have added more brands of the same product; high and low dose pills or lubricated and unlubri-

cated condoms, for example. When the Sri Lankan program gained financial self-sufficiency (excluding donated commodities) it came through higher prices and lower sales. Indeed, the proportion of married women of reproductive age covered through CSM declined (Chester, 1986).

Each one of the review articles concludes that insufficient evaluation has been undertaken on the consequences and cost-effectiveness of CSM programs and that the impact that CSM has on the commercial and public sectors has not been adequately analyzed. The presence of a CSM program can be detrimental or beneficial to the commercial sector depending upon effectiveness of the program at raising overall demand for contraceptives and the degree of substitution that occurs away from the commercial sector toward the socially marketed products that are subsidized.

Private firms believe that they can gain from the consciousness raising achieved by the advertising and promotion components of social marketing and through enhanced avareness that contraceptives can be obtained at retail outlet However, some firms have noticed a strong correlation between the establishment of social marketing products, and large reductions in commercial sales in some countries.

The received wisdom is that in countries where contraceptive prevalence is low, the CSM program is likely to have a positive impact on contraceptive use overall with little substitution away from other sources (Sherris et. al, 1985). The Bangladeshi program is cited as a successful model and the fact that both government and CSM provision (the role of the unsubsidized commercial sector is insignificant in Bangladesh) of condoms, foaming tablets and oral contraceptives grew over a nine year period. Further, in the case of oral contraceptives, where the commercial sector does cover a substantial proportion of users, there is evidence that the increases in CSM program sales was not associated with decreases in pill use from other sources (Schellstede, 1986).

Bangladeshi surveys in 1983 and 1985 asked pill users the brand name(s) of their oral contraceptive. This survey found that pill use increased for all brands from government, CSM and commercial sources. The proportion using both CSM and commercial pills increased while the proportion using government pills decreased. While it is difficult to ascertain what would have happened to the volume of commercial sales in the absence of the socially marketing effort, this suggests that they were at least not hindered by the CSM program and may have been helped by it.

Contraceptive social marketing in countries in which contraceptive prevalence is high and where the commercial sector plays a more important role may have less of an overall impact on contraceptive prevalence because of substitution away from government and commercial sources. Further, there is some evidence that when higher income groups are targeted, as they were in Colombia, there may be greater substitution away from commercial products (Binnendijk, 1985).

In Sri Lanka, the Preethi condom was launched as a socially marketed product in 1973. A survey of Preethi users one year and one half after the advent of the program suggested that 65 percent were new contraceptors. The remaining 35 percent was divided among those who had used oral contraceptives, IUDs, traditional method and other condom brands (Davis and Louis, 1977). An estimated four percent had switched to the Preethi brand from another condom brand.

Evidence from the Dominican Republic suggests that commercial sales can decline substantially after a socially marketed product is introduced. The SOMARC project together with the Dominican Republic government chose to market Microgynon, a Schering Ag brand of oral contraceptives as the social marketing product. The commercial price of Microgynon was cut in half and it was promoted through local advertising channels. After the launch of Microgynon as the social

marketing product, Schering experienced a decline in its commercial sales of other oral contraceptives. Overall, however, Schering's sales have increased ten fold. The net returns are higher because of the high volume generated by the lower price even though their other commercial products have suffered.

This particular social marketing strategy has the effect of placing a single private company in a strong position in the family planning market for decades come. While the private sector is being used to increase contraceptive prevalence, private sector competition may have been undermined. While the cos of promoting an already existing and well-accepted product are likely to be lower than the costs of promoting and gaining acceptance for a new product, the long-lasting advantage given to one firm has troubling implications on the free mark and competition among firms, and may afford that firm great bargaining power in that market in the future.

SOMARC is considering providing generic advertising geared toward increasi contraceptive sales to low income households in Panama. SOMARC would handle th advertising and promotion. It is not clear if the commercial firms would lower their prices or provide new contraceptives at lower prices. This type of experiment deserves careful evaluation to test the hypotheses of the for-profit contraceptive companies with respect to the benefits of subsidized advertising.

Private Health Care Providers

Private Physicians. Private physicians constitute the primary source of contraceptive services for women in the developed world. In the developing world, however, the public sector and pharmacies are the most important sources of contraceptive services, followed by private clinics. A recent review article (Tsui and Donaldson, 1987) presents an overview of the role that private physicians and clinics have played in family planning in the developing world.

There seems to be little study of how to mobilize the unemployed or underemployed physicians that abound in some parts of the Middle East and Latin America who are potentially valuable providers of family planning.

Information generated through the Contraceptive Prevalence Surveys and summarized in Tsui and Donaldson (1987) produced rural/urban breakdowns by source of contraception. The average percent across 22 of the more recent surveys of rural users obtaining supplies from private clinics is 13 percent while for urban contraceptive users the figure was 18 percent. The three CPS countries where the private clinics seem to be providing services for the largest proportion of users were Korea, The Dominican Republic, and Bolivia. Private clinics were serving over thirty five percent of users in both rural and urban areas in those countries.

The issue of whether contraceptive users in a particular country shift from the public sector to the private sector over time or whether shifts occur within the private sector between private clinics and other private sources of supply as not been addressed in any depth. Tsui and Donaldson (1987) indicate that there is evidence from Mexico that while private physicians and public clinics are primary initial providers of contraceptive services, pharmacies become the primary points of resupply. Further, the 1983 CPS in Tunisia asked current contracepting women where they originally obtained their current method and where they obtained their most recent supply. Private Doctors provided the original supply of the pill, condom and vaginal method to eight, seven and fourteen percent of women using that method respectively, while they provided the most recent supply to only four, four and seven percent respectively. The net gainers seem to be the pharmacists who were much more likely to have provided the most recent supply of these methods than to have provided the initial supply.

Jones (1984) probes the distribution of contraceptive methods provided by private physicians or clinics in a subset of developing countries from the World Fertility Survey. An erratic pattern emerged from this data. In the Dominican Republic, three quarters of all sterilizations and one fifth IUD insertions were performed by private physicians. Private clinics provided relatively more injectables than other methods in Peru, Costa Rica, and Panama while they covered a significant proportion of pill users in Haiti and Malaysia.

Other Health Providers. One of the major research questions in the area of private physicians has been to what extent do the quality of services suffer when non-physicians handle family planning tasks that have traditionally been in the hands of physicians. This question may be emphasized because of its practicality--when physicians are in short supply and many couples do not have access to their services, what are the consequences of allowing more abundantly available health personnel to take over some of their responsibilities.

Traditional midwives (i.e., unlicensed midwives or birth attendants) are major health care providers in the developing world. They are particularly dominant in the delivery of babies. Many projects have attempted to broaden the role played by midwives so that they either refer couples to clinics or dispense contraceptives directly to clients. A recent review of these projects (Simpsons-Hebert et. al, 1980) concludes that the results are mixed.

Traditional midwives seem to be more effective providers of family planning services when they distribute contraceptives compared to when they only do referrals. A Nicaraguan program allowed midwives to purchase contraceptives and other medical supplies at subsidized prices and then sell them to their clients. A study in the program area indicated that use of oral contraceptives had doubled after two years. Further, there is evidence that the incentives for trained midwives to actively recruit family planners depends upon the economic returns to

them--in relatively more successful programs in Malaysian and Nicaraguan, midwives received compensation, in the former from the program, in the latter, from clients. Since many traditional midwives receive remuneration from deliveries, to an extent, family planning acceptance reduces their potential business. Many different remuneration methods have been tried, but the Malaysian program is the only one in which midwives are paid based on their recruitment of family planning acceptors which is verified by supervisors. No projects have recompensed midwives on the basis of continuation rates or paid them based on the amount she forgoes from not attending a birth attributable to a couple year of protection.

A study by Bailey et. al (1982) examined the pattern on side effects, continuation and pregnancy rates associated with obtaining oral contraceptives from pharmacists, private physicians, and the public sector. They found no significant differences between the continuation and pregnancy rates that prevailed for women who had initially obtained their orals from one of the three sources. No systematic difference emerged in terms of side effects either. In fact, they found that for one subgroup, older, higher parity women, continuation rates were higher for pharmacy users than for those who had obtained their supplies from either of the two other sources. They concluded that this subgroup, either were more highly motivated contraceptors or had interacted more with their pharmacist.

The family planning services of nurses and physicians were compared in a Bogota study (Einhorn and Trias, 1978). While there was no difference in the continuation or pregnancy rates or in the incidence of side effects of women who had seen a nurse compared to women who had seen physicians, the array of methods chosen by these two groups of women was quite different. Those who saw physicians were generally prescribed more effective methods (the pill, IUD, or

sterilization) than those who saw nurses. Physicians inserted relatively more IUDs than the nurses while the nurses compensated by having more users of contraceptive foam. Nurses prescribed the less effective methods on an intermediate basis; their clients tended to return to the clinic for another visit at which time many began taking oral contraceptives.

The effectiveness of IUD insertions by midwives was compared to that of physicians in Turkey and the Philippines (Eren, Ramos and Gray, 1983). The authors found no difference in the IUD expulsion rate of women attended to by midwives compared to physicians. They did find that a higher proportion of women experiencing expulsions inserted by midwives chose to have reinsertions compared to the women whose expulsed IUDs had been inserted by physicians. The authors hypothesize that there may have been a higher level of trust felt toward midwives than doctors.

The incentives and impediments for private sector growth in family planning production and distribution are manifold. While anecdotal evidence abounds on policies that are thought to constrain private sector growth, there is little hard evidence on how much change would result from changes in different policies.

III. DEMAND FOR PRIVATE SECTOR PRODUCTS

The traditional assumption that commercial delivery of contraceptives serves the urban, upper classes and sets charges that are only affordable to that segment of the market has never been examined. There is very little information on the source of contraceptive services, or what users pay in developing countries, because most survey work has focused on utilization patterns and trends. How consumers get their services, who pays for it, and the availability and effectiveness of alternative sources of services are issues that have not been addressed in any depth. Donors and developing country governments have concentrated on developing public programs, and assessing their ability to gain and retain users. The source of contraceptive services has only recently become an issue as donors and governments seek to expand available resources for family planning and health.

How important private sector sources are or could be to contraceptive use is a difficult issue to address. For instance, the existence, effectiveness and funding of government family planning programs that heavily subsidize family planning services may siphon potential consumers away from private sources. In this case, the extent of reliance on private sources may be more a function of dramatic price differentials than the inability of the private sector to meet the contracepting needs of couples. Without price and access to information, as well as family planning source data, the achievements and potential of the private sector cannot be accurately assessed.

New data make it possible to assemble some information regarding where couples obtain contraceptives, and therefore allow some conclusions on the effective demand for private family planning services. The following sections review existing data on source of contraceptives, and, where possible, control

for additional factors. The data are taken largely from USAID's Contraceptive Prevalence Surveys (CPS) and Demographic and Health Surveys (DHS), although information from more modest efforts are included where possible. It should be pointed out, however, that this effort is very preliminary and draws only on accessible data and undertakes little analysis.

Source of Contraceptives in Developing Countries

All Methods. In theory, individuals can obtain contraceptives from a range of sources. The availability of various sources differs across countries and regions, and neither the quality nor convenience of sources can be generalized. More important to the task at hand, many potential sources are not clearly distinguished in data collection, which makes comparisons even more difficult. For example, some countries have data on use of NGO sources while others have lumped these into an "other" or "private" category. None of the surveys make it possible to distinguish between users of a social marketing and a commercial product.[8]

Table III.1 provides figures on contraceptive method source among current users for those countries for which 1980s data are available. Where data exist for multiple years, the most recent year is used. Contraceptive prevalence in each of the countries is listed to indicate what proportion of women of reproductive age in the country contracepts at all. The data in the table suggest no particular pattern to sources of family planning. Some very poor countries rely heavily on government facilities, like Nepal (73.9 percent), Pakistan (66.8) and El Salvador (81.5), while in other countries--such as Paraguay (100 percent), Bolivia (93 percent) and Egypt (69.4 percent)--couples

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8. CSM programs have been successfully established in Bangladesh, Colombia, Dominican Republic, Eastern Caribbean, Egypt, El Salvador, Honduras, India, Jamaica, Nepal, Mexico, Sri Lanka, and Thailand.

Table III.1

Contraceptive Methods by Source Among Current Users for Selected Countries

Country (Year)	Contraceptive Prevalence Nationwide	Government (Percent)	Commercial[a] (Percent)	NGO (Percent)	Other[b] (Percent)
Africa					
Kenya (1984)	17	58.3	8.4	32.2	1.1
Liberia (1986)	6	31.1	18.3	48.2	2.3
Senegal (1986)	12	45.0	50.0	—	5.0
Zaire (1984)		64.1	28.7	3.6	3.5
Zimbabwe (1984)	38	42.8	9.2	46.2	2.0
Asia					
Bangladesh (1985)	25				
Korea (1985)	70	58.0[c]	42.0[c]		
Nepal (1981)[d,e]	15	73.9	2.7	20.4	2.9
Pakistan (1985)	9	66.8	26.5	—	6.7
Sri Lanka (1987)	55	84.4	7.9	2.9	4.8
Thailand (1984)[e]	65	78.0	19.7	0.7	1.6
Latin America					
Barbados (1985)	37	34.4	33.6	21.6	10.4
Belize (1985)	37	38.0	30.0	—	30.0[f]
Bolivia (1983)	26	7.0	93.0	—	—
Brazil (1986)	65	15.0[g]	85.0[g]		
Colombia (1986)[e]	68	34.0	43.6	21.6[h]	1.1
Costa Rica (1985)	68	68.0	21.5	22.1	1.4
Dominican Republic (1986)	46	44.0	44.0	4.0	4.0
Ecuador (1987)	40	37.4	39.2	15.4	6.5
El Salvador (1987)	46	49.7	38.1	—	12.2
Guatemala (1983)	25	31.8	16.1	30.3	11.7
Haiti (1983)	7[i]	32.9	67.1	—	—
Honduras (1984)	35	27.9	22.0	32.9	2.4
Jamaica (1983)	51	66.9	30.2	—	2.9
Mexico (1978)	48[j]	15.8	77.4	0.0	6.4
Panama (1979)	63	65.9	23.4	—	10.7
Paraguay (n.d.)	36	—	100.0	—	—
Peru (1986)	41	56.0	33.0	—	11.0
Near East					
Egypt (1984)[e]	30	30.0	69.4	1.3	1.1
Lebanon (1984)	53	1.2	40.0	58.8	—
Morocco (1984)[e]	26	58.4	40.0	—	1.6
Tunisia (1983)	41	77.7	21.4	—	0.8

Source: CPS; DHS; Bogue et al. (1987); U.N. (1987).

a. Includes private physicians, hospitals, pharmacies, and any other private, non-NGO.
b. Unspecified source, may encompass NGOs when private, nonprofits are not a category, and may include commercial where it is not a separate category.
c. Source allocation data are for 1979.
d. Based on nonusers as well as users.
e. Includes currently married women only.
f. Thirty percent uncertain as to source of contraceptives.
g. Source allocation data are for 1983.
h. Profamilia only.
i. Only 40 percent of users use modern contraceptive methods.
j. Prevalence data is from 1982.

are more likely to rely on commercial sources. Countries with long standing government programs, particularly those in Asia, tend to have big public programs that reach a large segment of the population. This reflects some combination of sound programs and established clients, who have no desire or incentive to pay market prices for contraceptives. The Egypt program is also a long standing, well supported endeavor, but serves only about 28 percent of users, and couples rely much more heavily on commercial sources.

NGOs include religious groups, many of which are active in family planning delivery in Africa, family planning associations (such as Colombia's Profamilia), and other charitable organizations. While NGOs were included as a separate category in some countries' surveys, it was not separated in a number of them. Moreover in some countries like Zaire, there is likely to be confusion among respondents between public and NGO sources since government and private voluntary groups work in tandem, with government financing some of the services and commodities and the NGOs delivering services. Thus although some countries differentiate, comparisons are limited because of the confusion in definition. The limitations not withstanding, NGOs appear to play an important role in much of Africa, in Nepal, Lebanon and a few Latin American countries.

Clinical vs. Nonclinical Methods. Government is more important as a provider (or, less frequently, a financer) of clinical contraception, that is male and female sterilization and IUDs. Table III.2 summarizes the clinical/nonclinical breakdowns for the countries for which data are available. Government is far more responsible for clinical as opposed to nonclinical methods.

Table III.2

Contraceptive Methods by Source among Current Users by Clinical and Nonclinical Methods for Selected Countries

Country (Year)	Government (Percent)	Commercial[a] (Percent)	NGO (Percent)	Other[b] (Percent)
Africa				
Liberia				
Clinical	57.0	8.1	33.7	1.2
Nonclinical	23.6	21.3	52.5	2.7
Asia				
Bangladesh (1983)				
Clinical[d]	92.0	1.0	--	7.0
Nonclinical[e]	42.0	56.0	--	4.0
Korea (1985)				
Clinical	83.0	0.0	--	17.0
Nonclinical	13.0	83.0	--	4.0
Thailand (1984)[c]				
Clinical	91.9	6.9	0.2	1.0
Nonclinical	64.5	32.2	1.1	2.1
Nepal (1981)				
Clinical	84.2	0.0	15.8	0.0
Nonclinical	49.9	6.4	38.9	4.8
Pakistan (1985)				
Clinical	96.7	0.0	--	3.3
Nonclinical	42.6	48.7	--	8.7
Sri Lanka (1987)				
Clinical	91.8	2.1	3.2	2.9
Nonclinical	57.0	29.2	1.9	11.9
Latin America				
Barbados (1985)				
Clinical	77.7	12.7	6.7	3.0
Nonclinical	6.9	44.6	33.7	14.8
Brazil (1986)				
Clinical	52.5	42.7	0.0	4.2
Nonclinical	5.1	82.5	1.4	11.0
Colombia (1986)[c]				
Clinical	54.2	14.5	30.1	1.2
Nonclinical	17.3	64.7	16.2	1.7
Dominican Republic				
Clinical	46.4	53.1	0.2	0.3
Nonclinical	35.6	28.2	16.4	19.8
Ecuador				
Clinical	46.8	34.9	18.3	0.0
Nonclinical	24.6	47.1	11.5	16.8
El Salvador (1987)				
Clinical	64.2	31.1	--	4.7
Nonclinical	22.6	50.9	--	26.4
Peru (1987)				
Clinical	64.5	30.7	--	4.7
Nonclinical	45.1	36.5	--	18.4

Table III.2 Cont'd

Country (Year)	Government (Percent)	Commercial[a] (Percent)	NGO (Percent)	Other[b] (Percent)
Near East				
Lebanon (1984)				
Clinical	1.2	46.4	52.4	0.0
Nonclinical	0.6	78.5	20.6	0.0
Egypt (1984)[c]				
Clinical	45.4	50.5	3.0	1.1
Nonclinical	19.1	19.4	0.5	1.0
Morocco (1984)[c]				
Clinical	71.1	27.3	--	1.7
Nonclinical	55.6	42.6	--	1.9

Source: CPS; DHS; ESCAP (1987).

a. Includes private physicians, hospitals, pharmacies, and any other private, non-NGO.
b. Unspecified source, may encompass NGOs when private, nonprofits are not a category, and may include commercial where it is not a separate category.
c. IUD and male and female sterilization.

The pattern is reversed for nonclinical methods. In every country but the Dominican Republic, commercial providers are the most important source for resupply methods. The discrepancy between clinical and nonclinical methods provision is consistent and quite large for most countries. In some countries the difference in the proportion in each category is dramatic. For instance, in Korea, government finances 83 percent of all clinical methods but only 13 percent of nonclinical methods. Thus the aggregated figures in Table III.1 are strongly influenced by the distribution of methods within each country.

The breakdowns for NGOs vary across countries with no consistent pattern emerging. In some countries (e.g., Nepal, Sri Lanka, Liberia and Barbados) NGOs are a more important source of resupply methods; however, in countries like Lebanon, Colombia and Liberia, they are a key source of clinical method supply. Thus although commercial outlets dominate the resupply methods, and government is the major provider of clinical contraceptive methods, NGOs appear to be the flexible provider that fills the supply gaps. Alternatively, NGOs may be the subsidized competitor to the commercial sector that can claim users because of their low or zero prices. Available data do not allow a resolution of this controversy.

Socioeconomic Characteristics and Contraceptive Source

Who uses public and private services is even less well understood than the aggregate distribution of users across sources. This subsection reviews the available country-specific data on contraceptive source and location of residence; woman's age; woman's education; and, household's/husband's income/ employment. Ideally these variables should be analyzed jointly to control for each set of factors. Thus, this preliminary description merely sets the parameters of possible indepth analysis, which could shed more light on the

question of who uses what services. Akin and Schwartz (1988) have undertaken a multivariate analysis for Thailand and Jamaica that controls for most of the determinants of contraceptive source choice, and the results of this analysis are drawn upon in each of the subsections to place the importance of each variable in some context.

Location. Government is usually the most important contraceptive supplier for rural women. Table III.3 summarizes source of contraception by urban and rural location. In every country but Zimbabwe, government serves a majority of rural contraceptive users. In the Asian and African countries included in the table, government is also the predominant source of contraceptives in the urban areas. In Latin America and the Near East, commercial sources serve close to half or more of all urban users. NGOs outside of Africa are more important as contraceptive providers to urban areas, whereas the African NGOs are more likely to meet the modern contraceptive needs of rural households.

More focused evidence from Chogoria Hospital in rural Kenya indicates the relative success of NGO programs in family planning. Although the full costs of the program are not known, Chogoria achieved a contraceptive prevalence among married women of reproductive age of 34 in 1984, as opposed to the 10 percent figure for the nation as a whole that emerged from the 1984 Kenya Contraceptive Prevalence Survey. Family planning services are free at both government health posts and Chogoria Hospital's 26 clinics (Chogoria Hospital Annual Report, 1986).

Government is fulfilling an important function of meeting the contraceptive needs of rural women outside of Africa. If commercial sources are in short supply in rural sections of these countries, then public investment may be critical to use. However, the available data do not allow any firm conclusions, although on average incomes tend to be lower in rural areas and therefore subsidies are likely to be more needed and warranted.

Table III.3

Contraceptive Methods by Source by Location for Selected Countries

Country (Year)	Government (Percent)	Commercial[a] (Percent)	NGO (Percent)	Other[b] (Percent)
Africa				
Zimbabwe (1984)				
Urban	47.9	10.8	39.2	2.1
Rural	37.8	0.7	53.6	1.4
Zaire (1984)				
Urban	56.5	37.1	2.4	4.0
Rural	86.0	4.7	7.0	2.3
Asia				
Nepal (1981)				
Urban	64.3	7.3	28.4	0.0
Rural	75.4	1.0	21.9	1.7
Korea (1979)				
Urban	39.4	59.2	0.0	1.4
Rural	73.9	22.2	0.0	3.8
Pakistan (1985)				
Urban	63.9	30.2	--	6.0
Rural	82.8	11.4	--	5.8
Sri Lanka (1982)				
Urban	66.3	14.0	18.7	1.0
Rural	82.5	6.9	9.6	1.1
Thailand (1984)[c]				
Urban	65.9	30.7	0.7	2.6
Rural	80.9	17.1	0.7	1.3
Latin America				
Colombia (1986)[c]				
Urban	27.2	45.4	26.0	1.4
Rural	58.2	32.2	8.4	1.3
Ecuador (1987)				
Urban	37.6	51.6	8.4	1.9
Rural	42.4	51.0	4.3	2.3
Honduras (1984)				
Urban	57.8	34.9	3.6	3.6
Rural	68.2	19.7	7.6	4.5
Near East				
Egypt (1984)[c]				
Urban	24.8	72.4	1.8	1.1
Rural	34.2	64.1	0.5	1.1
Morocco (1984)[c]				
Urban	50.9	47.6	--	1.5
Rural	69.2	28.5	--	2.4

Source: CPS; DHS.

a. Includes private physicians, hospitals, pharmacies, and any other private, non-NGO.

b. Unspecified source, may encompass NGOs when private, nonprofits are not a category, and may include commercial where it is not a separate category.

c. IUD and male and female sterilization.

Age. Table III.4 reports on the age-contraceptive source relationship for four countries. The figures show an inverse relationship between three age groupings and use of free government services. Except in Thailand, the difference between those over and under age 35 is the most important distinction, with those over 35 much more likely to use public contraceptive services than their younger counterparts. It may be that those who choose to contracept in the over 35 age group were first served in government family planning programs; however, without information that allows us to control for education and income, it is difficult to attribute any other socioeconomic factors to the consistently greater reliance of women over 35 on public sources. The pattern of reliance on NGOs is less systematic. In all cases but Colombia, a modest proportion of contraceptives are obtained at NGO outlets; in the Colombian case, NGO use parallels that of the government sector, with older women more likely to use NGO than commercial products.

Akin and Schwartz (1988) in their logistic regression results for Thailand and Jamaica found that younger women in both countries were more likely to obtain free (e.g., government) contraceptives than older women. This suggests that the relationship is more complex and other factors, for which the regression analysis could control, play an important role in both affecting the decision to obtain free contraceptives and mitigating the simple observed inverse relationship between use of government services (the only ones that are free) and age.

When the age groupings in Table III.5 are divided into urban and rural, a similar pattern emerges. The exception is urban Morocco, where the youngest women are more likely to use government contraceptive sources than are those aged 25 to 34, although this may be due to a small sample size. One striking fact across all four countries is the discrepancy between urban and rural. Urban women are much more likely to use commercial sources. Whether this is du

Table III.4

Source of Contraceptives, by Age, for Selected Countries

Country	Contraceptive Prevalence	Source of Contraceptives[a] Government (Percent)	Commercial[b] (Percent)	NGO (Percent)	Other[c] (Percent)
Colombia (1986)					
All Women	40.8	34.0	42.5	22.1	1.4
15-24	32.8	25.1	54.3	19.6	0.9
25-34	50.3	29.0	48.1	21.7	1.2
35+	36.9	45.9	28.1	24.1	1.9
Egypt (1984)					
All Women	28.7	28.2	69.4	1.3	1.1
15-24	12.4	23.9	75.4	0.4	0.4
25-34	34.6	24.6	72.9	1.5	1.0
35+	33.1	32.8	64.4	1.4	1.4
Morocco (1984)					
All Women	21.2	58.3	39.9	—	1.8
15-24	16.6	55.1	42.6	—	2.3
25-34	25.5	56.3	42.3	—	1.3
35+	19.7	62.2	35.7	—	2.1
Thailand (1984)					
All Women	54.0	78.0	19.7	0.7	1.6
15-24	42.1	68.2	27.8	0.9	3.1
25-34	61.2	77.6	20.3	0.9	1.3
35+	52.8	82.7	15.7	0.4	1.2

Source: CPS; DHS

a. Sample is currently married women.
b. Includes private physicians, hospitals, pharmacies, and any other private, non-NGO.
c. Unspecified source, may encompass NGOs when private, nonprofits are not a category, and may include commercial where it is not a separate category. Other also includes don't know and not stated.

Table III.5

Source of Contraceptives, by Residence and Age, for Selected Countries

Country Location Age	Contraceptive Prevalence	Source of Contraceptives[a]			
		Government (Percent)	Commercial[b] (Percent)	NGO (Percent)	Other[c] (Percen
Colombia (1986)					
Urban					
15-24	34.4	19.1	54.1	26.1	0.6
25-34	57.8	23.2	51.4	24.4	1.0
35+	40.6	37.4	32.0	28.1	2.5
Rural					
15-24	39.4	40.3	54.8	3.2	1.6
25-34	31.7	55.7	33.0	9.1	2.3
35+	39.4	73.0	15.7	11.2	0.0
Egypt (1984)					
Urban					
15-24	23.7	20.3	79.7	0.0	0.0
25-34	49.0	21.4	75.7	2.1	0.8
35+	43.7	29.1	67.5	1.9	1.5
Rural					
15-24	7.5	28.7	69.6	0.9	0.9
25-34	22.6	30.5	67.9	0.5	1.2
35+	23.0	39.6	58.7	0.5	1.2
Morocco (1984)					
Urban					
15-24	31.1	55.1	44.0	--	0.9
25-34	39.2	46.9	51.7	--	1.5
35+	29.0	54.2	44.0	--	1.9
Rural					
15-24	10.1	55.0	40.6	--	4.4
25-34	16.2	71.9	26.8	--	1.4
35+	13.7	73.0	24.5	--	2.4
Thailand (1984)					
Urban					
15-24	50.7	43.8	52.4	0.0	3.8
25-34	60.9	59.8	35.4	1.0	3.9
35+	63.7	81.2	17.3	0.7	0.7
Rural					
15-24	40.6	73.7	22.3	1.1	3.0
25-34	61.2	81.7	16.8	0.8	0.7
35+	50.6	83.0	15.3	0.3	1.4

Source: CPS; DHS

a. Sample is currently married women.
b. Includes private physicians, hospitals, pharmacies, and any other private, non-NGO.
c. Unspecified source, may encompass NGOs when private, nonprofits are not a category, and may include commercial where it is not a separate category. Other also includes don't know and not stated.

to higher incomes, more accessible supply alternatives, or lower quality public facilities cannot be determined with existing data. The widest variation across age groups and between locations can be seen in Colombia where the difference in the proportion of urban women 15 to 24 using public sources versus rural women over age 35 is a 51 percentage point difference. This suggests a very heterogeneous supply system for contraceptive services, and reliance on a range of contraceptive sources across the country.

In Colombia, NGO sources are far more important in urban than in rural areas, and in the former they serve more women under age 35 than does the government. And although those 35 and over are more likely to rely on NGOs in rural areas, this is not the case in urban areas.

Education. Table III.6 summarizes the relationship between educational attainment and source of contraceptives for the same four countries as well as Sri Lanka and Jamaica. As expected, education and use of commercial sources are directly related. However, in Jamaica, where there is a separate breakdown for college, secondary school graduates are slightly more likely to use commercial outlets than women who have gone to college.

The most striking results in Table III.6 are the proportion of women who rely on private outlets across countries. In Thailand, where per capita income in 1984 was $860, women were most likely to use a government source for contraceptive services. In contrast, Egyptians with a per capita income of $720 rely most heavily on private sources. Even among Egyptian women with no education, fewer than a third use government services.

Dividing level of education into urban and rural in Table III.7 results in a somewhat different pattern of contraceptive source. The constant inverse relationship between educational attainment and use of government services is weakened, especially among rural women. For instance in rural Morocco, only 69.6 percent of uneducated women use public services, while 100 percent of those

Table III.6

Source of Contraceptives, by Women's Education, for Selected Countries[a]

Country Education	Source of Contraceptives: Government (Percent)	Commercial[b] (Percent)	NGO (Percent)	Other[c] (Percent)
Colombia (1986)				
None	64.6	15.4	16.9	3.1
< Primary	44.5	34.5	19.9	1.1
Primary Comp.	36.6	34.4	27.2	1.8
Secondary +	19.2	57.6	22.0	1.2
Egypt (1984)				
None	32.2	65.5	1.2	1.0
< Primary	32.6	64.7	1.5	1.3
Primary Comp.	24.7	72.2	1.3	1.9
Secondary +	15.7	82.2	1.4	0.7
Jamaica (1984)				
< Primary	90.0	10.0	--	--
Primary Comp.	59.3	27.3	--	9.4[d]
Secondary	50.0	50.0	--	--
College	53.9	46.2	--	--
Morocco (1984)				
None	64.2	33.8	--	2.0
< Primary	52.1	45.7	--	2.2
Primary Comp.	40.3	58.4	--	1.2
Secondary +	29.7	70.3	--	0.0
Sri Lanka (1982)				
None	94.5	5.5	--	--
Primary Comp.	87.8	11.5	--	0.7
Secondary +	68.1	30.5	--	1.4
Thailand (1984)				
None	77.2	20.5	0.4	1.9
< Primary	80.5	17.6	0.6	1.3
Primary Comp.	63.1	31.2	2.1	3.5
Secondary +	62.8	33.1	0.9	3.1

Source: CPS; DHS; Akin (1984)

a. Sample is married women for all but Jamaica, which is all women.
b. Includes private physicians, hospitals, pharmacies, and any other private, non-NGO.
c. Unspecified source, may encompass NGOs when private, nonprofits are not a category, and may include commercial where it is not a separate category. Other also includes don't know and not stated.
d. Includes NGOs.

Table III.7

Source of Contraceptives, by Women's Education and Area of Residence, for Selected Countries

Country Location Education	Source of Contraceptives[a] Government (Percent)	Commercial[b] (Percent)	NGO (Percent)	Other[c] (Percent)
Egypt (1984)				
Urban				
None	28.5	68.5	1.9	1.1
< Primary	29.8	66.7	2.3	0.8
Primary Comp.	26.8	69.9	1.6	1.6
Secondary +	15.6	82.4	1.4	0.6
Rural				
None	36.2	62.2	0.5	1.1
< Primary	36.6	61.9	0.4	1.1
Primary Comp.	17.1	80.0	0.0	2.9
Secondary +	16.4	80.6	1.5	1.5
Colombia (1986)				
Urban				
None	50.0	15.6	31.3	3.1
< Primary	37.0	34.7	27.3	0.9
Primary Comp.	32.6	36.3	28.9	2.1
Secondary +	17.5	57.9	23.4	1.2
Rural				
None	78.8	15.2	3.0	3.0
< Primary	55.5	34.2	8.9	1.4
Primary Comp.	58.8	23.5	17.6	0.0
Secondary +	46.2	53.8	0.0	0.0
Morocco (1984)				
Urban				
None	58.7	39.7	--	1.6
< Primary	51.1	46.0	--	2.8
Primary Comp.	36.6	62.1	--	1.4
Secondary +	28.9	71.1	--	0.0
Rural				
None	69.6	27.9	--	2.5
< Primary	55.6	44.4	--	0.0
Primary Comp.	76.9	23.1	--	0.0
Secondary +	100.0	0.0	--	0.0

Table III.7 (continued)

Country Location Education	Source of Contraceptives[a]			
	Government (Percent)	Commercial[b] (Percent)	NGO (Percent)	Other[c] (Percent)
Thailand (1984)				
Urban				
None	76.1	23.9	0.0	0.0
< Primary	71.4	26.8	0.0	1.8
Primary Comp.	55.2	37.9	3.4	3.4
Secondary +	56.7	37.5	1.4	4.3
Rural				
None	77.5	19.7	0.5	2.3
< Primary	81.9	16.2	0.7	1.2
Primary Comp.	68.7	26.5	1.2	3.6
Secondary +	74.1	25.0	0.0	0.9

Source: CPS; DHS

a. Sample is currently married women.
b. Includes private physicians, hospitals, pharmacies, and any other private, non-NGO.
c. Unspecified source, may encompass NGOs when private, nonprofits are not a category, and may include commercial where it is not a separate category. Other also includes don't know and not stated.

with at least a secondary education obtain contraceptives at public outlets. In rural Colombia, Profamilia (the predominant NGO source, the family planning association) is increasingly important as a source of contraception as education rise, but those with at least secondary schooling switch to commercial sources and abandon the NGO source entirely. The increase in the proportion using commercial outlets jumps by over 100 percent between completed primary and secondary plus. In contrast, because 80 percent of Egyptian women who have completed primary school use commercial sources, the increases among those with any additional education is negligible.

These findings with regard to education are corroborated by Akin and Schwartz (1988) in their multivariate analyses in both Jamaica and Thailand. Thus even with controls for other characteristics, education remains a powerful determinant of private sector use. What is not reflected in the more sophisticated analysis, however, is the level of reliance on public and private sources.

Although increasing education generally means greater likelihood that a woman will purchase contraceptives, what the foregoing tables suggest is that the level of reliance varies greatly. Well managed and funded government programs such as Thailand's will capture a large segment of the market and retain them, whereas presumably less well organized or newer programs, such as those in Egypt, cannot reach even the uneducated population very effectively. Another explanation may be that Egyptian women prefer not to use public outlets for contraceptive services, even if using private sources involves paying for contraceptives.

Thus, in the aggregate, more education will mean less reliance on public outlets, but there are variations by location within a country and the average proportion who use private sources may even be more important than the differences in education. The average reliance on the private sector may have a

great deal to do with the quality of public programs rather than merely with the extent and convenience of commercial supplies. Comparisons of Thailand and Egypt suggest that this might be the case.

Income. As income rises, the need for public subsidies is reduced, and private providers become more affordable. In general, private sources are considered more convenient, with typically faster service, better ambiance, and greater professional attention. Despite these amenities, consumption patterns across countries is quite disparate. Table III.8 summarizes the relationship between employment status and husband's occupation--as proxies for income--and source of contraceptives in urban and rural areas. The predicted inverse relationship between job categories and employment status emerges for both Egypt and Morocco. However, the levels of use of government facilities in Morocco is almost double that of Egypt in all categories. In both countries, unemployed households are only slightly more likely to use government sources than those at the bottom of the skills ladder, suggesting that these groups are not very different in their preferences across contraceptive sources, and may be very similar because they move between the two categories over time.

Table III.9 shows the relationship between income groups and source of contraceptive services for urban Jamaica, and urban and rural Thailand. In neither country is there a consistent inverse relationship between income and use of government sources; and in Thailand, this is true in both urban and rural areas. In urban areas those with the highest incomes are the most likely to take advantage of commercial sources, but this is not true in rural areas where the lowest income households are the least likely to use government services. These data suggest that in Jamaica and Thailand the distribution of government subsidies is quite even across income groups, and government is subsidizing the contraception of most income earners, including a third or more of those who

Table III.8

Source of Contraceptives by Husband's Employment Status, Husband's Occupation and Area of Residence

Country, Employment Status, Husband's Occupation	Government (Percent)	Commercial[a] (Percent)	NGO (Percent)	Other[b] (Percent)
EGYPT				
All Women				
Employed:				
Professional Technical or Managerial	20.0	78.4	1.3	.3
Clerical, Sales and Service	26.6	70.1	2.3	1.0
Agriculture and Unskilled	31.6	66.1	.9	1.4
Unemployed	30.4	68.4	.6	0.6
Urban				
Employed				
Professional Technical or Managerial	17.6	80.6	1.4	0.3
Clerical, Sales and Service	22.2	74.1	2.7	1.0
Agriculture and Unskilled	29.6	67.7	1.4	1.3
Unemployed	29.5	68.6	1.0	1.0
Rural				
Employed:				
Professional Technical or Managerial	27.9	70.9	1.2	0.0
Clerical, Sales and Service	36.7	61.1	1.3	0.9
Agriculture and Unskilled	34.1	64.1	0.2	1.6
Unemployed	32.1	67.9	0.0	0.0
MOROCCO				
All Women				
Employed:				
Professional, Technical or Managerial	43.9	55.1		0.9
Clerical, Sales and Service	53.5	44.7		1.8
Agriculture and Unskilled	66.8	30.6		2.6
Unemployed	67.2	32.8		0.0
Urban				
Employed:				
Professional Technical or Managerial	42.3	56.6		1.1
Clerical, Sales and Service	51.5	47.2		.6
Agriculture and Unskilled	53.1	43.5		3.5
Unemployed	54.1	45.9		0.0
Rural				
Employed:				
Professional Technical or Managerial	53.8	46.2		0.0
Clerical, Sales and Service	59.4	37.0		3.6
Agriculture and Unskilled	73.0	24.8		2.2
Unemployed	76.3	23.7		0.0

Source: CPS; DHS

a. Includes private physicians, hospitals, pharmacies, and any other private, non-NGO.

b. Unspecified source, may encompass NGOs when private, nonporfits are not a category, and may include commercial where it is not a separate category.

Table III.9

Household Income, Location, and Source of Contraceptives for Jamaica and Thailand

	Government (Percent)	NGO (Percent)	Private (Percent)	Other (Percent)
Monthly Income				
Urban—Thailand				
< $130	63.2	1.5	33.8	1.5
$130-174	67.6	1.2	30.6	0.6
$174-261	65.0	0.6	32.5	1.9
$261-522	57.4	2.1	38.3	2.1
> $522	41.9	2.3	46.5	9.3
Weekly Income				
Urban—Jamaica				
< $12.25	75.0	—	25.0	0.0
$12.26-18.36	68.4	—	15.8	15.8
$18.37-24.50	78.6	—	14.3	7.1
$24-50-40.82	79.1	—	14.0	7.0
> $40.82	66.7	—	33.3	0.0
Rural — Thailand				
< $130	74.3	0.0	21.6	4.1
$130-174	88.9	0.0	11.1	0.0
$175-261	76.8	2.3	20.9	0.0
$262-522	75.0	0.0	18.8	6.3

Source: Akin (1984).

a. 1984 exchange rate for Thailand was: U.S. $1 = 23 Baht.
b. 1984 exchange rate for Jamaica was: U.S. $1 = J $4.9

earn well over the 1984 average per capita income in each country ($1,150 in Jamaica and $860 in Thailand).

This brief analysis has highlighted some of the major factors which are hypothesized to affect household choice of contraceptive source. Although imperfect, it provides some sense of the characteristics of public program users across countries. Greater specificity in analysis of existing data is warranted, as is more targeted and inter-disciplinary data collection that can address the range of unanswered questions regarding both the need and motivation for using public programs. For example, since only outcome data are available, supply factors are ignored. Supply may well correlate with variables like women's education, which makes interpretation of the data difficult and comparisons across countries tentative. A nascent commercial sector may explain heavy reliance on government and vice versa. Older women's greater reliance on public sources may reflect supply constraints rather than the price of private clinical methods. Without more detailed information, these simple cross tabulations can convey little more than relationships between two components of a larger dynamic. In addition, none of the existing data can satisfactorily explain the wide differences in contraceptive source preferences between Egypt and Thailand, and none of the data can help to explain who must rely on contraceptive subsidies to afford family planning.

Pricing

The cash price of contraceptives varies widely and comparisons are difficult. Bogue et al. (1987) provides private sector prices by contraceptive method for Latin American countries (Table IIIA.1). These figures, however, are average prices across all brands. Schearer (1985) has estimated a single price or price range for contraceptives from commercial sources for a number of

countries (Table IIIA.2). Although useful for general comparison, neither compares prices in public (where they exist) programs, nor gives a sense of the range of prices for similar products. This subsection discusses both how much users pay for specific services in Jamaica and Thailand, and then compares public, NGO and pharmacy prices for the same products within the Eastern Caribbean.

Prices vary across methods and across the products offered for each method. For instance, in most markets there are a number of different brands each with different prices and packaging, and sometimes with a significantly different product. Public programs typically offer a more limited choice of contraceptives, usually a single product for each method. The supplies of NGO programs cannot be generalized, since some like Profamilia in Colombia offer a full range of contraceptive products, while those in some of the Eastern Caribbean countries, for example, only offer a single condom or oral contraceptive.

What Consumers Pay for Contraceptives. In both Jamaica and Thailand, public, NGO and private contraceptives are available in both urban and rural areas, but as is typically the case, a broader range of services and outlets are available in urban areas. Table III.10 shows the distribution of prices paid for contraceptives in urban and rural areas of Jamaica and Thailand.[9] Jamaicans in urban areas are far more likely to receive free contraceptives and are far more heavily subsidized than urban Thais. In rural areas about the same proportion receive free family planning services, but the distribution among those who pay indicates that on average rural Thais spend more for contraceptives than do Jamaicans. Given the proportion in each country served by government programs (see Table III.1), these results suggest that Thailand's public

9. It should be noted that prices are averaged across methods, so the distribution of methods will affect the relative levels.

Table III.10

Distribution of Average Price Paid for Contraceptives by Area of Residence for Jamaica and Thailand (1984 U.S. Dollars)

Price Ranges[a]	Urban	Rural
Jamaica		
Free	50.4	45.5
$.01-.20	17.0	10.1
$.21-.50	17.8	27.0
$.51-2.00	8.8	9.5
> $2.00	6.0	7.9
Thailand		
Free	29.3	46.8
$0-$.47	11.3	13.2
$.48-$1.10	15.4	8.8
$1.11-$4.26	14.1	12.2
> $4.26	29.9	19.0

Source: Akin, 1984.

a. See Table III.9 for exchange rates used for conversions.

programs charge nominal fees for contraceptives. In Jamaica, all government family planning services are free.

Table III.11 provides additional detail for both countries on the distribution of prices paid, by method. Male sterilization in Thailand and IUDs in both countries are most frequently obtained from free sources. Since clinical methods are far more costly than resupply methods, this reliance on subsidized services makes financial sense from both individuals' and societies perspective. What is surprising is the small proportion of female sterilizations that are obtained for free in Thailand, as it too is very expensive. Given the distribution of expenditure for female sterilization in Thailand, it is clear that the vast majority of women pay for their own operation, with little or no subsidy from the government. This also suggests a strong demand for tubal ligation in the country.

Condoms are heavily subsidized in Jamaica, with 74 percent receiving them for free and 96 percent for under $.20 apiece.[10] No user pays more than $.50 per condom. In Thailand, 30 percent receive free condoms and 80 percent pay less than $.47 for the product. Twenty percent of users spend over $1.10 per condom, suggesting a broad market in Thailand. In both countries, the pill is the least subsidized and by far the most popular form of resupply contraception. In Jamaica, only about 18 percent receive free oral contraceptives, while 34 percent do in Thailand. The level of subsidy, however, is, on average, much higher for orals contraceptive users in Jamaica when compared to Thailand. In Jamaica, 75 percent of oral users pay less than $.47; in Thailand 58 percent pay under $.50. This again suggests that public programs in Thailand subsidize family planning, but may require some form of copayment from users, otherwise private products are very inexpensive.

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10. All quoted prices are in U.S. dollars.

Table III.11

Distribution of Prices Paid by Method for Jamaica and Thailand
(1984 U.S. Dollars)

Price Ranges[a]	Method					
	Condom	IUD	Injection	Pill	Male Sterilization	Female Sterilization
Jamaica						
Sample Size	(77)	(43)	(194)	(303)	N/A	N/A
Free	74.0	93.0	72.2	18.2	N/A	N/A
<.20	22.1	0.0	3.1	24.1	N/A	N/A
$.21-.50	3.9	0.0	15.5	32.7	N/A	N/A
$.51-2.00	0.0	7.0	0.0	18.2	N/A	N/A
> $2.00	0.0	0.0	9.3	6.9	N/A	N/A
Thailand						
Sample Size	(40)	(49)	(101)	(298)	(36)	(343)
Free	30.0	65.3	12.9	33.6	75.0	31.2
< $.47	50.0	0.0	3.0*	24.2	0.0	0.0
$.48-$1.10	0.0	10.2	31.7	29.5	0.0	0.3*
$1.11-$4.26	20.0	8.2	50.5	12.8	5.6	3.8
> $4.26	0.0	16.3	2.0*	0.0	19.4	64.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Akin (1984).

a. See Table III.9 for exchange rates used for conversion.
* Fewer than 5 cases.

According to these survey results, subsidies for contraception are very high in both countries, and therefore the average price paid for contraception is low for all users. Urban subsidies are slightly higher in Jamaica as compared to rural subsidies, but in Thailand, urban subsidies are definitely lower (see Table III.10). Subsidies are most common for clinical methods (except for female sterilization in Thailand), and least common for oral contraceptives.

Price Levels for Resupply Methods in Public, NGO and Private Outlets. In the Eastern Caribbean countries, a single currency and similar history bind the small island nations. Despite their cultural and economic similarities, there are distinct differences in the prices charged at family planning associations and private pharmacies, both across brands and across countries for the same brands. First, all government family planning services are free. Nonetheless, a number of public programs have complained that they cannot "compete with the private sector" as they are receiving free commodities from USAID, which only supplies U.S. products. The commercial sector is dominated by Schering Ag products; user loyalty is preventing the free contraceptives from attracting users away from existing commercial products, and either there are few new acceptors or they follow user recommendations in shunning a new product.[11]

Table III.12 compares the prices of contraceptives for Dominica, Grenada, and St. Lucia for seven different oral contraceptives, condoms, injections, Neo Sampoon, and foam tablets. The data were collected from a local pharmacy in the capital city of each country; in St. Lucia, three pharmacies were visited and all reported identical prices. Data for all methods are not available for each of the three countries, however, a few comparisons are possible.

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11. The government programs on the islands are relatively new having only come into operation in the past few years.

Table III.12

Prices Charged for Contraceptives at Private Pharmacies in Selected Eastern Caribbean Countries (1986 U.S. Dollars)

Method	Dominica	Grenada	St. Lucia
Orals			
Eugynon	$4.63/cycle		$3.06-4.56[a]/cycle
Microgynen	2.93/cycle	$2.57/cycle	3.33/cycle
Logynon		2.46/cycle	3.70/cycle
Trinoridiol	2.78/cycle	2.41/cycle	
Neogynon		2.57/cycle	3.37/cycle
Diane	8.13/cycle		8.13/cycle
Perle			1.09/cycle
Condoms	.09@	.35@[b]	.04 or .12
Injection	7.22@		
Neo Sampoon	1.85 for 20		
Other Foam Tablets		2.07 for 12	

Source: Data collected by The Urban Institute.

a. Price range reflects price of high-low dose pills.

b. These were high quality Sheik condoms, which explains some of the price differential.

The price of the same brand contraceptive such as Microgynon, probably the most popular pill in the region, ranges from $2.57 in Grenada to $3.33 in St. Lucia, 30 percent higher in St. Lucia. Orals are cheapest in Grenada for all brands, except Diane, which is the same price on both islands that carry the product, and is more than twice as expensive as any other method. Diane is available only with a prescription. Perle, at less than a third the price of other orals in St. Lucia, is the social marketing product distributed through a USAID funded project.

Condom prices vary widely based on quality and consumer willingness to pay It is hard to compare these prices since each country carried different brands. The available products at the time of the survey were quite different, but no information was available on typical periods.[12]

The data on injections and foam tablets are only available for a single country, and these are useful in comparing NGO and private prices for similar contraceptive products. Table III.13 summarizes the prices charged by local family planning associations (FPA) in Antigua, St. Lucia and Grenada for the methods each offers. In St. Lucia, the FPA's industry-based program offers a wider range of products and higher prices than its family planning center, thus there are four columns in the table.

As in the case of the for-profit sector, prices of contraceptives vary considerably across islands. Ironically, the Grenada FPA has the highest prices for oral contraceptives, although its pharmacies had the lowest commercial prices among the countries for which data were available. In the St. Lucia industry-based program, a number of brand name products are offered at concessionary prices, although only one of the three oral contraceptives is priced

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12. Shopkeepers indicated low demand for condoms among local couples.

Table III.13

Prices Changed for Contraceptives at Family Planning Association in Selected Eastern Caribbean Countries (1986 U.S. Dollars)

Method	Antigua	St. Lucia		Grenada
		FP Program	Industry	
Orals	$.37/cycle	$.37/cycle	.74/cycle	
Eugynon			.56/cycle	
Microgynen			1.11/cycle	
Neogynon			.74/cycle	
Condoms	.12@	free	.04@	.05@
Injection	3.70	(some charge)		
Neo Sampoon			.93 for 20	.74 for 20
Other Foam Tablets			.46/vial	.74/vial
Diaphragm	5.56			7.41
Jelly	1.85/tube			2.85/tube
IUD				7.41

Source: Data collected by The Urban Institute.

above that of Grenada's family planning program. Diaphragms are almost two dollars more in Grenada than in Antigua, and Jelly is $1.00 more in Grenada. Condoms are free in St. Lucia's family planning program and is highest at $.12 a piece in Antigua.

Price differentials between pharmacies and FPA commodities are difficult to compare because only two of the countries are the same. Comparisons of oral contraceptive prices, however, shows dramatic variations, with commercial products priced at 5 to 10 times as much as family planning association products. Condoms are closer in price, except in St. Lucia where FPA condoms are free. Foam tablets are roughly 5 times as expensive in pharmacies as in the FPA in Grenada.

Comparing FPA and commercial prices across countries, injections at the Antigua FPA and Neo Sampoon in St. Lucia' industry-based program are about half the price of similar pharmacy products in Dominica.

These tables provide some idea of how identical products are priced differently in a single, well defined location. The pricing patterns reflect the expressed objective of the pharmaceutical companies to charge what the market will bear and their ability to adjust prices to consumer income and willingness to pay for contraceptives. Similarly, as assumed, NGOs price their products well below market. The biggest differential is in oral contraceptives, but all FPA products and methods are considerably more affordable.

Conclusion

The private sector (for-profits and NGOs) is currently serving the majority of contraceptors in the developing world who rely on resupply methods. Government is typically the most important supplier of clinical methods, especially in Asia and parts of Latin America, and is relied upon heavily in rural areas in some countries.

The level of reliance on government sources varies even more across countries than across groups within countries. The Asian countries such as Thailand, Bangladesh and Sri Lanka are heavily government dependent, while in countries like Lebanon and Egypt government is a minor player. NGOs are particularly active in a few countries, and in others play no role at all. In 10 of the 31 countries in the sample, 20 percent or more of all users rely on NGO sources for contraceptive services. African countries rely most heavily on NGOs, and Asian countries least heavily. No systematic pattern of NGO users is possible because of the disparate nature and objectives of the various NGO groups. For instance, the religious missionaries in Africa are more active in rural areas whereas a number of the the family planning associations (e.g., Colombia's Profamilia) are predominantly urban-based programs. Thus generalizations must be made on a country-specific level.

The reasons for the discrepancies in sources across countries is difficult to explain with available data. Differences in public program quality, investment and scope obviously will play a role, as will the existence of incentives and disincentives to private investment in family planning. These characteristics are probably as important as income levels in helping to explain country differences, otherwise a country like Bolivia would be reliant on government while users in Thailand and Tunisia would more frequently use commercial sources.

The prices users pay also vary. The limited information available for this study suggests that government subsidies reach a large segment of the user population in Jamaica and Thailand. Given the income levels of these two countries, it is not clear that the degree of apparent consumer subsidy is required to keep contraceptive levels up. The amount and extent of subsidy that is needed cannot be determined from the available information, but as household

incomes rise, public subsidies should become less necessary and a greater reliance on private sources should be warranted. In neither country does this seem to be happening.

Although the data allow a focus on Jamaica and Thailand, the issue of whom to subsidize for how much is relevant to most countries with large government programs. Public investment is meant to reach: (1) those who cannot afford the commercial contraceptive prices or the medical attention that accompanies some forms of contraception; or (2) those who are deterred from contraception because of a lack of information, motivation or income. The danger of expansive public programs is that they are difficult to scale back for political reasons, and government then becomes the provider for anyone choosing to obtain subsidized contraceptives even those who would and could buy from the commercial sector.

The pricing of contraceptives varies across brands for the same products, and identical brands are priced differently across countries, even in regions with strong socioeconomic similarities and geographic proximity. Thus there is evidence that commercial providers charge what the market will bear in any given context. NGO prices tend to be significantly lower than commercial prices, and in many countries they offer free services.

The implications of these patterns and the means of enhancing the role of the commercial sector in delivering family planning is discussed in Section V. It is important to point out here, however, that a basic tenet, that will be increasingly important to governments receiving less funding and reduced donor assistance (especially in contraceptives), is that those who can pay for services should, so that government can concentrate on reaching those who need subsidies.

The results of this analysis suggest that the commercial and NGO sectors are and can be important partners in the provision of family planning. Given

the disparity in reliance on private sources, there is additional scope for private activity in a number of countries that currently have large public programs, especially among the for-profits. Further analysis of the data presented here is crucial to a better understanding of who uses what contraceptive sources and why, and therefore what groups are being subsidized. Even this preliminary look, however, suggests that promoting greater consumer reliance on the private sector could reduce government's burden while continuing to ensure access to contraception.

TABLE III.A-1

Average Price of Contraceptives, 1986
(in U.S. dollars)

Country	Pills (per cycle)	IUD (per insertion)	Injections	Female Sterilization	Male Sterilization	Condom (per condom)	Other (Spermicide and Others per intercourse)	Medical Visit[a]
Barbados	1.75	33.75	5.75	240.00	150.00	.25	.25	10.00
Belize	1.75	25.00	8.00	50.00	100.00	.30	.50	10.00
Bolivia	2.08	40.00	2.25	3.00	100.00	.26	.25	7.00
Colombia	.60	5.00	7.50	300.00	42.00	.25	.25	4.78
Costa Rica	3.40	20.00	9.00	666.00	100.00	.28	.28	15.00
Dominican Republic	3.00	50.00	-	68.00	85.00	.17	.25	3.40
Ecuador	.82	33.00	2.90	164.00	98.00[b]	.37	.37	7.40
El Salvador	3.00	25.00	-	200.00	100.00	.30	.30	6.00
Guatemala	3.00	22.00	4.00	150.00	125.00	.25	.25	-
Haiti	2.50	40.00	7.00	300.00	150.00	.25	.25	2.00
Honduras	2.50	30.00	5.00	175.00	100.00	.40	3.00[d]	5.00
Jamaica	2.00	25.00	4.75	56.00	56.00	.10	.25	5.00
Panama	1.50	65.00	4.75	400.00	200.00	.35	.40	10.00
Paraguay	1.30	33.00	2.25	150.00	100.00	.33	.33	6.70[e]
Peru	.76	10.80	3.00	162.00	b	c	c	4.70

Source: Bogue et al. (1986)

a. Average amount paid by a person in the poorer segment of society.
b. Procedure currently not available in country.
c. Data not available, but in past set at .25.
d. Per tube
e. $10 with pap test.

(-) Data not available

ml.fp:Table III.A-1

Average Price of Contraceptives from Private Sector Sources in Selected Developing Countries

Country	Female Sterilization	Vasectomy	IUD b/	Oral contra-ceptives (per cycle)	Condom	Injectable per month's supply c/	Diaphragm d/
Bangladesh			46.15	1.28			
Brazil	1,061.25	481.25	327.5	.63	.24	1.72	69.90
Colombia	169.75	123.731	41.63	.80	.23	.72	..
Dominican Republic	200.00	250.00	65.25	2.55	.29	2.29	27.50
Egypt	145.50	181.50	50.39	.46	.19	..	..
El Salvador	232.00	140.00	46.50	3.60	..	5.20	22.00
Guatemala	175.00	100.00	42.00	2.25	.33	2.83	..
Indonesia	120.00	24.30	30.70	1.38	.12	1.17	..
Jamaica	188.50	174.00	33.15	1.74	..	4.00	13.40
Jordan	404.20	301.00	113.26	1.23	.35	2.86	24.00
Kenya	..	..	48.91	3.54	.36	3.79	33.96
South Korea	70.88	70.88	26.62	1.02	.11	..	..
Morocco	..	..	25.04	2.50	.17	..	..
Nigeria	..	..	65.04	6.98	.81	12.61	29.10
Panama	300.00	175.00	35.00	1.98	.25	6.00	..
Philippines	..	..	13.60	1.21	.19	1.56	..
Thailand	155.00	90.00	25.00	1.25	..	..	..
Zaire	88.75	..	60.41	3.55	.27	2.96	..
Madagascar	..	..	..	2.03	.48	2.82	..
Mexico	..	..	..	.41	.16	..	..
Nepal	..	..	..	.85	..	..	..

a. Average is estimated as midpoint of reported range.
b. Includes insertion and follow-up visit.
c. One month's supply is calculated on the basis of three month's effective action.
d. Includes initial fitting and follow-up visit, but not spermicide supply.

Source: Schearer, 1983.

IV. PROMOTING THE PRIVATE SECTOR: ALTERNATIVE APPROACHES

Promoting private sector activity in family planning has not been a central component of public or donor programs until recently. Indeed, historically donor emphasis has been on public programs, and technical assistance and funding were geared almost exclusively to public entities. International Planned Parenthood Federation (IPPF) has made support and assistance to indigenous NGOs (family planning associations) its major mission; however, for-profit activities have been ignored for the most part.

Working with the private for-profit sector can mean many things, including encouraging private companies to provide family planning coverage to their employees, or demonstrating the benefits of extending family planning information and services to employees. Family planning employee benefits help to foster demand for family planning, and typically include the financing and delivery of services. Where such programs serve those previously dependent on governments, they relieve government coffers. Broadening insurance coverage to include contraceptive services but relying on other suppliers to deliver care can also foster demand because a third party pays the bill. Prepaid and cooperative arrangements (such as health maintenance organizations) have an incentive to promote family planning because they avoid the cost of delivery, and where applicable, the cost of an additional dependent's health care. Prepaid groups can either provide services directly or act as a third party payer and refer patients to outside sources of contraceptive services.

Promoting private investment in family planning involves a somewhat different set of activities: improving the efficiency and effectiveness of private and nonprofit provider services to assist them in becoming more

responsive to family planning markets; supporting feasibility studies for possible private investments; supporting demonstration projects with strong evaluation components; providing incentives to producers and distributors that increase family planning availability through private channels; making investment capital available through loans (preferably) or grants; and, eliminating the regulatory and legal impediments to family planning investments.

This section discusses the major initiatives undertaken in delivering family planning through the private sector. Although a complete inventory was intended, limited and inaccessible information have reduced the sample to major activities for which there is at least minimal documentation. Good, empirical information is generally lacking for most ongoing projects in this area. The projects referenced in publications but without detailed description are mentioned in the text.

Table IV.1 provides a summary of each project, indicates the components of the effort, and summarizes selected characteristics. The projects are listed in chronological order under three headings: (1) employee benefits/industry-based services; (2) social marketing;[13] and, (3) promoting private investment in family planning. The existence of an evaluation is included as one of the characteristics since virtually all of these projects are (or were) experimental, and evaluation is key to understanding how well a program worked, what worked, and what elements failed. Most projects only count users, few undertake a true evaluation of what worked, what did not and why; nor do many measure or assess impact, effectiveness or costs. A description of most of the plans in Table IV.1 is provided in Appendix IV.1.

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13. Only four of the social marketing projects are included here. These recent additions provide a flavor for the social marketing approach and represent newer programs. Footnote 2 in Section I provides a list of a number of contraceptive social marketing reviews.

Table IV-1

Summary of Experiments in Private Sector Delivery of Family Planning

Country, Title of Project	Funder, Status of Activity	Project Summary	Characteristics of Project: Use Private Distribution System	Company Benefit for Employees	Contract with Private Providers	Training	Evaluation Component
EMPLOYEE BENEFIT/INDUSTRY-BASED SERVICES							
India:							
Family Planning Programme at TVS-Lucas	TVS-Lucas Group of Companies, 1938	Family planning information and services were provided for 16,000 employees. Paid leave and cash incentives of Rs. 260-270 were given to employees/spouses who underwent sterilization. Disincentives were imposed, such as employment restrictions, and elimination of maternity, medical and educational benefits after the third child.	No	Yes	No	No	No
Tata Chemicals Mithapur	Tata Chemicals, 1950	In 1950, the company introduced family planning information with lectures and group meeting, and contraceptives. A Rs. 25 incentive for sterilization was introduced and raised to Rs. 200 in 1965 along with 6 days leave. IUD acceptors received Rs. 25 in 1967. Free orals were offered in 1969.	Yes, (FPA)	Yes	Yes	No	No
Tata Industries Ltd. Family Planning Program Jamsphedpur	Tata Industries 1950s	The company design and funded a comprehensive family planning project beginning in the 1950s. Counseling and services were provided with incentives offered for clinical measures. Currently all Tata plants have such services.	No	Yes	No	No	Only follow users
Godrej & Boyce Manufacturing Co. Ltd., Bombay	Godrej & Boyce Manufacturing Co. Ltd., Bombay	Information, motivation and services were provided to employees and tubectomies were reimbursed at local hospitals. Incentives of Rs. 20/sterilized case was provided along with two days paid leave. Disincentives included no maternity benefits after 3 children, no housing for those with 3 or more children unless the worker was sterilized, and the fourth child would not be adm[illegible] to the [illegible]	Only for tubectomies	Yes	No	Yes, for 150 motivators	No, but track number of acceptors

Table IV-1 (cont'd)

Country, Title of Project	Funder, Status of Activity	Project Summary	Characteristics of Project: Use Private Distribution System	Employee Benefit	Contract with Private Providers	Training	Evaluation Component
EMPLOYER SECTOR/INDUSTRY-BASED SERVICES (cont'd)							
India:							
Family Planning in Tea Plantations	Indian Tea Estates, FPA of India, Ross Institute, 1957	Medical officers were trained in family planning and most estate hospitals had contraceptives. Had full-time social worker just for family planning for motivation. Provided orals, condoms, IUDs and sterilization as of 1968. Incentives for sterilization included Rs 50 - Rs 150 in cash and 7-14 days of paid leave.	No	Yes	Yes	Yes, for medical officers in motivation and family planning	No
Hindustan Spinning and Weaving Mills	Hindustan Spinning and Weaving Mills, 1962	The company hired para-professional staff to run the health/family planning clinic and 9 specialists. Condoms, orals, IUDs and sterilization are provided. Workers receive Rs. 50 as an incentive for sterilization and 2 days leave with pay for vasectomies.	No	Yes	No	No	No
Egypt:							
MISR Spinning & Weaving Company Hospital Family Planning Research Centre	No information 1962	Two family planning clinics—in the Company Hospital and worker's village—were set up. Employees were hired as motivators and leaflets, lectures, conferences, and plays encouraged family planning. Condoms, pills, IUDs, and sterilization were offered.	No	Yes	No	Yes	No, but in 1976 38.17 of fertile women used contraceptives
India:							
Delhi Cloth & General Mills Co. Ltd, 1964	Delhi Cloth & General Mills Co. Ltd, 1964	Employees trained (with certificates) to act as motivators who distributed contraceptives at the work site, undertook a house-to-house vasectomy campaign and compensed households. Also used posters, stories, slogans, and films. Volunteer motivators were paid Rs. 30 per month. Vasectomy incentives of Rs. 70 were provided by management. New Delhi FPA and Employees Insurance Corporation, and Management gave 3 days of paid leave. (Note: other company plants had slightly provided pills, condoms, IUDs and sterilization.	No	Yes, for transportation and refreshment	No	Yes of motivators	No

Table IV-1 (cont'd)

Country, Title of Project	Funder, Status of Activity	Project Summary	Characteristics of Project: Use Private Distribution System	Employee Benefit	Contract with Private Providers	Training	Evaluation Component
EMPLOYEE BENEFIT/INDUSTRY-BASED SERVICES (cont'd)							
India:							
Gujarat Refinery (Indian Oil Corporation, Baroda)	Indian Oil Corporation, Baroda, 1964	Distribution of family planning literature, lectures by experts and exhibitions and films. Contraceptives were free. In 1965, sterilizations and IUDs were offered and added to pills, condoms, jelly and foam tablets. Vasectomy incentive of Rs. 200 (raised to Rs. 500 in 1975).	No	Yes	No	No	No
Alembic Group of Industries, Bombay	Alembic Group of Industries, 1966	Family planning information, services and motivators were provided for the 4,500 workers. A company social worker tracked those "in need" of family planning. Sterilization acceptors were trained as motivators and motivators received incentive payments. Meetings were held with nonacceptors regularly. Sterilization acceptors received time off and Rs. 15-45 depending on circumstances.	No	Yes	No	Yes, for motivators	No but tracked users based on registration and surveys
Philippines:							
Family Life & Family Planning in Hawaiian-Philippine Co.	Hawaiian-Philippine Co., 1970	A company program funded partly by the government offered information, education, and motivation with home (follow-up) visits. Paid leave to attend family planning lectures, paid sick leave after a vasectomy, and scholarships for the children of family planning acceptors. Pills, condoms, IUDs, sterilization, and other methods were offered.	No	Yes, for transportation and refreshments	No	Yes, for motivators	Yes, costs of program and net savings

Table IV-1 (cont'd)

Country, Title of Project	Funder, Status of Activity	Project Summary	Characteristics of Project: Use Private Distribution System	Employee Benefit	Contract with Private Providers	Training	Evaluation Component
EMPLOYEE BENEFIT/INDUSTRY-BASED SERVICES (cont'd)							
Korea:							
Kaum Ho Tire Industrial Company	Kaum Ho Tire Industrial Company, 1972	Company management and the union adopted and promoted family planning and made it part of the personnel management policy. Company oriented new employees and educated existing employees in the benefits and specifics of family planning. Incentives are in the form of priorities for houses and loans, paid holiday after a vasectomy. Disincentives include covered obstetric care through the third child, promotion restrictions for employees with large families and those with more than 4 children must leave the firm. Condoms, pills, and sterilization offered.	No	Yes	No	No	No
Sri Lanka:							
Industrial Sector Programme	Family Planning Association of Sri Lanka, 1972	ILO seminars with FPASL urging convinced labor unions to press for family planning as a benefit. Thirty population educators were trained with paying salaries for the 30 days. Each motivator was given 4 days/month to educate their fellow employees. Institutional questionnaires and follow-up motivational activities for employees are provided. Sterilization was offered with Rs. 50 & 3 (vasectomy) or 10 (tubectomy) days paid leave as an incentive whether the employee or spouse were sterilized.	No	Yes	Yes, government funded FPASL provided services	Yes, for motivators	No

Table IV-1 (cont'd)

Country, Title of Project	Funder, Status of Activity	Project Summary	Characteristics of Project: Use Private Distribution System	Employee Benefit	Contract with Private Providers	Training	Evaluation Component
EMPLOYEE BENEFIT/INDUSTRY-BASED SERVICES (cont'd)							
Indonesia:							
Family Planning at P.T. Inbritex[a]	P.T. Imbritex and BKKBN, 1974	Family planning is integrated with the company health facilities at this company of 1,573 workers. The midwives, physicians and BKKBN staff undertake motivational activities through films, posters, and brochures. IUDs, pills, condoms and sterilization are provided. The company requires registration with the family planning clinic and wages and benefits are withdrawn if they fail to register. Family allowances are only provided to three children.	No	Yes	Yes, BKKBN for free contraceptives	No	No
Bangladesh							
Family Planning Service for Industrial Workers	Pathfinder Fund 1977-1988	Family planning clinics were established at two plants. Eight field workers at each had expected targets and received referral fees for IUDs & sterilization. Clinics provide counseling and services.	No	Yes	No	No	No
Turkey:							
Impact of Trained Female Labor Union Shop Stewardesses on motivators in Family Planning Services	WHO, 1981	The effectiveness of health educators, trained (volunteer) "shop stewardesses" already employed by the firm, and a control group were compared as to their impact on contraceptive use across education programs; no significant differences were noted across type of or lack of a motivator.	No	Yes	No	Yes, of motivators	Yes, of changes in contraceptives
Egypt:							
Tanta Industrial Family Planning Project	Pathfinder Fund 1983	Family planning information, education, counseling and methods (barrier methods, pills IUDs) provided to 4,000 factory workers at a clinic on-site during working hours. Health and sterilization needs will be referred. KAP & CPS be the	Yes, for sterilization	Yes	No	Yes of medical and administration staff	KAP & CPS at project end

Country, Title of Project	Funder, Status of Activity	Project Summary	Characteristics of Project: Use Private Distribution System	Employee Benefit	Contract with Private Providers	Training	Evaluation Component
EMPLOYEE BENEFIT/INDUSTRY-BASED SERVICES (cont'd)							
St. Lucia: Contraceptive Distribution in Factories in St. Lucia	USAID Population Council Operational Research Project, 1984	This was a documented experiment comparing factory motivation and sale of contraceptives (orals, condoms and foam) by factory workers with a nurse as back-up, versus visiting nurse provider. Employees did significantly better.	Yes, to obtain contraceptives for sale at factories	No	No	Yes, for motivators/ sales staff	Yes
Mexico: Family Planning Delivery Strategies in an Industrial Setting (Cuidad Juarez)	USAID Population Council Operational Research Project, 1987	Although a local group provide services already to plants in C.J., these facilities that serve 10,000 employees are to include a promoter program where employees are selected, trained, supervised, and supplied by the local group, MIPFAC.	Yes	No	No	Yes, for motivators	Measure sales
Philippines: Industry-based Family Planning Project	Population Center Foundation, 1985-1987	In-plant volunteers (IPV) were trained to promote family planning use. IPVs referred fellow employees to company seminars, company nurse, and outside clinics as appropriate. The total number of acceptors rose in 90% of the firms.	Yes	Yes	Yes	Yes of IPVs & project administration staff	Only tracked new acceptors
Peru: Electro Lima and MILPO Family Planning	USAID TIPPS Project, Ongoing	After quick overview of demand, undertook a cost/benefit of adding family planning to companies' health benefit packages (15,000 employees and dependents at the two firms). Arranged for contract with local PVO to buy family planning services.	N/A	Yes	Prepaid contract with local FPA	No	No
Turkey: Provision of Family Planning Information & Services in 15 Workplaces	Pathfinder Fund, 1986	Services will be provided to 20,000 workers in 15 factories. Grantee will pay to equip existing health clinics and personnel, train a full-time nurse-midwife per site and MD oversite, and provide education and motivation for employees and their spouses.	No	Yes, but donor paying for it	No	Yes, for nurse and midwives	No

Table IV-1 (cont'd)

Country, Title of Project	Funder, Status of Activity	Project Summary	Characteristics of Project: Use Private Distribution System	Employee Benefit	Contract with Private Providers	Training	Evaluation Component
EMPLOYEE BENEFIT/INDUSTRY-BASED SERVICES (cont'd)							
Bolivia							
Family Planning and Health Services for Organized Workers	Pathfinder Fund, Population Council and USAID Operational Research Project	Family planning information services will be provided to 20,000 mining families in three towns. Services include pills, IUD, foams and condoms. Training for medical staff and promoters is included. MOH physicians will receive non-monetary incentives for family planning services.	No	No	No	Yes, of MOH and Family Planning clinic physicians, auxiliary nurses, field educators, & volunteer promoters	No
Family Planning Program through Employers	USAID Enterprise Centro de Investigaciones Sociales (IS) Program Proposal	Integrated program of research, education, counseling and direct family planning services aimed at working in companies with 150-170 employers to be approached.	N/A	Yes	No	No	Plan to assess benefits and savings of family planning to employers; surveys
Indonesia:							
P.T. Gramsy Djaja Family Planning Program	USAID Enterprise Program Proposal	P.T. Gamey Djaja is a firm with 1,300 employees. The firm will renovate & Enterprise will cover all expenses for a daily family planning clinic for 2 years.	No	Yes	No	Yes	No
Mexico							
Family Planning Services at Industrial Unidas S.A.S.E.P. Quintero Industrial Complex	USAID Enterprise Program Proposal	IUSA proposes to provide family planning services to its 9,000 employees in company clinics. FEMAP (PVO supplies contraceptives under a subcontract). Objective is to reduce birth rate and maternity leave. KAP pre and post program planned.	No	Yes	Yes, for contraceptives	Yes, for MDs and medical personnel. Also training/ orientation for employees 12 times a year	Yes, through KAP, monitoring & evaluation of program by MEXFAM and assessment of net benefits at project close
Nigeria:							
LBN Employee Clinic Family Planning Child Spacing Program	USAID Enterprise Program Proposal	Lever Brothers Nigeria Ltd. wants to set up a family planning program in existing company clinics serving white-collar employees. All methods will be provided and referrals made for sterilization. Will determine demand through focus groups, KAP surveys and TIPPS project analyses.	No	Yes	Unclear, but have plans to obtain contraceptives wholesale, presumably after the project end. Sterilization referrals	Yes, of medical staff, personnel and volunteer motivators	No

Table IV-1

Country, Title of Project	Funder, Status of Activity	Project Summary	Characteristics of Project: Use Private Distribution System	Employee Benefit	Contract with Private Providers	Training	Evaluation Component
EMPLOYER BENEFIT/INDUSTRY-BASED SERVICES (cont'd)							
Thailand: Factory-Based Family Planning Services	USAID Enterprise Program Proposal	Project will extend and improve Mechai's existing factory-based family planning services. MIS for operation and evaluation to cut costs. KAP survey to determine demand. Funds will allow reorientation and streamlining of existing programs and expansion to new sites.	Yes	Yes	No, PVO implementing project	Yes, of volunteer motivators	Assessment of progress
PROMOTING PRIVATE INVESTMENT IN FAMILY PLANNING							
Indonesia: Feasibility of Commercial Clinics Providing Sterilization in Jakarta	USAID Enterprise Program Proposal	The project will assess attitudes of likely candidate couples and their willingness to pay; the likelihood of MD referral; and the cost of outfitting and maintaining a clinic.	N/A	N/A	N/A	N/A	Project is an assessment of what might be possible
The YKB Entrepreneurial Development	USAID Enterprise Program Proposal	PVO clinics (of YKB) which are underperforming, Enterprise will work with YKB to improve their pricing and management, and raise overall utilization.	Yes	No	No	No	No
Thailand: Family Planning Market Survey and Marketing Capability Evaluation	USAID Enterprise Program Proposal	Population & Community Development Association (PDA) will support a PDA--Coopers and Lybrand study of the condom market in Thailand and the development of a business plan for PDA. The latter will include pricing policies, distribution strategies, promotional efforts, and general strategies & financial assessments.	N/A	N/A	N/A	N/A	Management and business planning
Brazil: Assessing Costs and Benefits of Incorporating Family Planning into HMO	USAID Population Council Operational Research Project	Cost-benefit analysis of adding family planning to HMO benefits. Analysis estimated that benefits would be safer and more effective contraceptive use, fewer births, (by 6%), 57.5% reduction in abortion complications. Costs would be increased in OPD and inpatient services for family planning.	Yes	Yes	N/A	N/A	Yes

Table IV-1 (cont'd)

Country, Title of Project	Funder, Status of Activity	Project Summary	Characteristics of Project: Use Private Distribution System	Employee Benefit	Contract with Private Providers	Training	Evaluation Component
PROMOTING PRIVATE INVESTMENT IN FAMILY PLANNING (cont'd)							
Mexico:							
Medical Service Micro-enterprises in Metropolitan Areas	USAID Enterprise Program Proposal	Project will build on an IPPF activity, and set up 20 small health service centers with special emphasis on family planning. Physicians and promoters will be trained, the latter will also receive financial incentives to increase the number of users. MDs will be guaranteed the value of a minimum number of Family Planning visits at the onset which are phased out over two years.	Yes	N/A		Yes	On financial viability of the enterprises
Self-Financing Family Planning Planning	USAID Enterprise Program Proposal	Provide Social Security & private MDs with IUDs and training. Set up new PVO to backstop.	Private MD Offices	For Social Security participants	No	MDs in IUD insertions	Measure costs
Peru:							
Micro-business Women	USAID (ADIM) Operational Research: Micro-business Women	ADIM uses clinic as referral and supplies commodities to street sellers.	Yes	Yes, as part of ADIM	No	Yes	Yes
SOCIAL MARKETING							
Nigeria:							
Sterling Products Private Sector Family Planning Project	FPIA Ongoing 3 Year Project	(1) Sterling Products will use its drug distribution network to distribute pills, foaming tablets and condoms to 3,500 outlets. (2) Add family planning to health services of companies.	Yes	Yes	Yes	Yes, MDs and nurses at company health services in family planning	No
Ghana:							
Social Marketing	USAID SOMARC Project, Ongoing as of 1984	An established pharmaceutical distributor (DANAFCO) is distributing contraceptives to 800 pharmacies and 3,500 chemical sellers. Training and certification of commercial sellers included.	Yes	Yes	No	Of pharmacists and chemical sellers in contraceptive methods and screening	No

Table IV-1 (cont'd)

Country, Title of Project	Funder, Status of Activity	Project Summary	Characteristics of Project: Use Private Distribution System	Employee Benefit	Contract with Private Providers	Training	Evaluation Component
SOCIAL MARKETING (cont'd)							
Nigeria:							
Ibadan Market Project	USAID Operational Research, Columbia University/University of Ibadan Ongoing	Project is expanding retailing of contraceptives (orals, condoms, and foaming tablets) from only chemists' shops to market traders. Approach based on KAP study of traders and focus groups of potential consumers.	Yes, (for ORT, malaria treatment and first aid too)	N/A	N/A	Yes, with certificate at completion	Of sales, prices, and costs
Dominican Republic							
Contraceptive Social Marketing	USAID SOMARC Project	Project will use brand-name advertising and lower priced oral contraceptive (Schering product) to market and raise awareness & acceptability of contraceptives. A second phase may introduce another pill and foam.	Yes	No	Yes, Schering Corporation	No	Yes, KAP surveys impact on user source
Nigeria:							
Gulf Oil Co. of Nigeria, Ltd.	USAID TIPPS Project, 1987	After quick overview of potential demand for services, undertook a cost/benefit analysis of adding family planning to employee benefits. The 836 employee company would see net financial benefits from adding family planning to on-site health services.	No	Yes	No	No	No
Zimbabwe:							
Commercial and Industrial Medical Aid Society	USAID TIPPS Ongoing	Project is estimating the costs and benefits of adding family planning to health insurance companies' reimbursed benefits.	Yes, when implemented	No, unless health is covered by CIMAS as an employee benefit program	Possibly	No	No

a. Excludes company distribution networks.
b. Contract arrangement with outside entity, for example, a family planning association, private company, to provide services for cohort being served by the project.
c. Excludes process evaluations.

Family Planning as an Employee Benefit

Company Programs. Large companies have led the effort toward making family planning services and contraceptives available to workers and their families. The rationale for the involvement is that large families have added to employee stress and demands on their time, which affects productivity and therefore raises company costs (Tata, 1979; Murthy, 1983). Maternity leave, child care needs, and childhood illness are added costs with a large number of female employees because women are more likely to miss work to care for children and, unlike men, require both some maternity leave and medical costs for delivery. Some companies provide benefits to the dependents of employees and where this is the case, medical care costs to employees is directly related to family size. Large families are also more time consuming and distracting for employees than are small families, and the quality of life is substandard for households with large families, and likely to remain so (Tata, 1979; Murthy, 1983). In addition to potential savings from smaller employee families, some firms set up family programs from a sense of social-responsibility. These reasons are not mutually exclusive, so many of these can play a role in a firm's decisions to offer or promote family planning.

The first employee family planning programs were initiated by private Indian companies as far back as the 1930s. Most of the industrial workers in these new industries were hired from rural areas where large families and child labor were the norm. Company provision of family planning was partly an effort to socialize these new urbanites and to assist them in adjusting to a new environment (Tata, 1979).

In 1938 TVS-Lucas began a family planning program; followed by Tata Iron and Steel Company in 1950; Alembic Chemicals in 1956; and, Hindustan Spinning and Weaving Mills, Gujarat Refinery, and Godrej & Boyce, and the Tea Plantations

in the early-1960s. In the Philippines, the Hawaiian-Philippine Company began a family planning effort in 1970. These firms sensitized their work force about family planning; set up various motivational activities; usually covered all costs of contraceptives and family planning services; and, eventually set up monetary incentives for acceptance of clinic methods, especially sterilization, and developed disincentives for large families.

Incentives in these company programs included payment for undergoing sterilization (all six firms); paid leave for a sterilization acceptor of between 2 and 10 days; life insurance policy for employees whose wife underwent sterilization with policy values decreasing as the number of living children increased (Tata); and, a one time payment for an IUD insertion (Tata). Alembic Chemicals, Godrej & Boyce, Gujarat Refinery, and Tata all provided free medicare to sterilized men and their families, and Tata gave preference to sterilized couples in loan allocations (Murthy, 1983).

Disincentives for large families at Indian plants were much more diverse than the incentives. For example, those at TVS-Lucas consisted of elimination of school and medical benefits for the fourth and all subsequent children. At Godrej & Boyce, maternity leave for women employees was only extended up to three children, only three children could be admitted to the company school, and company housing was only open to families with two children. TVS-Lucas, with full union concurrence, adopted hiring practices that involved only hiring men with three or more children if they agreed to a sterilization (Murthy, 1983). In Korea, employees with more than four children were fired (Whang, 1979).

In addition to industrial plant programs, a number of agricultural estates and cooperative organizations have adopted rural programs to encourage family planning use. Three Indian Tea estates that employed large numbers of women and provided living accommodations on the estates began a "no birth bonus scheme,"

contributing 5 rupees a month into a retirement account each month the woman was not pregnant (Ridker, 1980). Three major Indian sugar factories, Jamaican sugar and bauxite companies, Colombian coffee growers, P.T. Imbritex textile factory in East Java, Indonesia, and Pertamina Oil Enterprises all have established some form of motivation or contraceptive service availability at their facilities (Draper Fund, 1986).[14]

Labor unions have also been involved in promoting family planning as an employee benefit. In India, unions were either in tacit agreement with management's policies or were working in tandem with them in the 1950s. In Turkey, family planning has become a top priority for the union organization as the working aged population increases and economic opportunities decline (Draper Fund, 1986). In Sri Lanka, unions have become major promoters of family planning benefits for employees.

International Assistance. In addition to industry and labor union initiatives, international organizations, bilateral donors and NGOs have become involved in family planning as an employee benefit. Indeed, many of the union promoted efforts were stimulated by the International Labor Office (ILO) and in some cases international NGOs. This generally means expanding employee benefit packages to include on-site services (i.e., delivery) or financial coverage for family planning (i.e., financing), and typically involves training medical and administrative personnel, and training and deploying (volunteer) motivators who inform fellow employees about the benefits and sources of family planning. The cost of the programs are almost always borne by the company and/or donors, and only infrequently do users pay something for services. In Sri Lanka, the Family

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14. Weerakoon (1986) also cites two USAID operational research projects in Guatemalan coffee and cotton plantations. Both experiments failed miserably with the former gaining no acceptors and the latter only one.

Planning Association (FPASL) spearheaded an industry-based program where costs were shared by the FPA, government, and industry--both management and unions.

The International Labor Office, a U.N. organization, has a long standing program to address access to private sources of family planning. Their efforts have focused on lobbying for expanded employee benefit packages to include family planning, and has included country studies, conferences and seminars, and documentation of successful experiences (ILO, 1979, 1985; ILO Regional Office for Asia and the Pacific, 1974; Murthy, 1983). Much of ILO's work has been undertaken in collaboration with or with funding from the U.N. Fund for Population Activities (UNFPA). Among nongovernmental organizations (NGOs), Pathfinder Fund, International Planned Parenthood Federation (IPPF), Family Planning International Assistance (FPIA) and the Population Council have initiated employee-based schemes in a few countries. Virtually all projects subsidize contraceptives and most have covered the costs of establishing and training personnel.

Although not a major player in this area historically, USAID has recently launched two large family planning projects whose mandates are to promote the private sector in family planning. The subprojects of USAID's Technical Information on Population for the Private Sector (TIPPS) begun in 1984 and the Enterprise Program begun in 1985 are a mixture of innovative and new approaches, as well as expansion of existing employee benefit models. Both of these programs will be described in more detail and some specific examples will be given to innovative projects that have been undertaken. Another USAID project, OPTIONS, is attempting to address the legal and other policy-related impediments to greater private sector activity in family planning. Together, these programs constitute the most significant concerted efforts in the area of private sector and family planning, and have quickly dominated the field.

Social Marketing of Contraceptives

Social marketing applies a model of using private distributors to market subsidized, nonclinical contraceptives (pills, condoms, injectables or vaginal methods), thus using market incentives to distribute and retail the contraceptives at below market prices. Subsidized products are provided a new brand name, slogan and packaging and are sold alongside traditional private sector products. Typically the new contraceptive brand is developed and marketed intensively through an aggressive and broad advertising campaign. Market research accompanies the product choice, packaging and the advertising campaign so as to ensure community acceptance. It is assumed that the product will be of greater interest to lower income couples than the commercially priced commodities that are beyond their means. USAID's long standing Social Marketing of Contraceptives (SOMARC) project has pioneered this effort to use the incentives and methods of private marketing to encourage private wholesaling and retailing of family planning, thereby greatly expanding access points (Sherris et al., 1985).[15]

SOMARC is adjusting its traditional approaches to take greater advantage of its relationship with the private sector. In Ghana, SOMARC is training traditional chemists and pharmacists to assist potential users in selecting an appropriate contraceptive product and identifying complications. The premise is that an informed seller can and will promote a product with a sufficient profit margin. Since there are more chemist shops than pharmacies, the approach would reach a broader audience than relying on trained pharmacists alone. A similar

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15. Social marketing campaigns often promote different facets of private sector involvement. Local market research, survey and advertising firms are used for product development and product launch as well as for monitoring program progress, local packaging operations are often used to do the over-packing of the socially marketed products.

USAID supported project in Nigeria is attempting to market a number of products through existing retail outlets and is also providing family planning service provision training to traditional and modern providers. In the Dominican Republic, a brand-specific effort by SOMARC is piggybacking on the distribution network of the selected brand's manufacturer. Brand-specific advertising is planned during the second phase of the project, which is likely to give the manufacturer, Schering Ag, a major boost in terms of market share.[16] Traditionally, SOMARC developed a new social marketing product with its own brand and slogans. The Dominican Republic is the first effort to introduce a subsidized, known brand (and price) through an established manufacturer and distributor.

Promoting Private Sector Activity in Family Planning

While companies have established family planning programs and NGOs and donors have assisted companies and distributors to design, finance and deliver services, it is only recently that incentives for greater private sector investments in family planning have been tried. Virtually all of these efforts are products of two of the new USAID projects mentioned above, the TIPPS Project and Enterprise Program.

These two new projects are currently in the proposal or initial stage and take fresh approaches to promoting the private sector. USAID's TIPPS project is undertaking a "business analysis" (cost benefit analysis) to demonstrate the savings that firms could realize from introducing family planning to their employees. TIPPS disseminates the findings widely to encourage other firms to consider offering family planning, and currently has projects to work in Brazil, Nigeria, Zaire, Zimbabwe, India, and Indonesia.

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16. This issue was discussed at length in Section II above.

Another innovative approach is being tested under USAID's TIPPS project in Zimbabve. A business analysis is being undertaken with CIMAS, the country's largest health insurance company with 135,000 clients and 2,100 member companies. The company anticipates that it will be able to reimburse for family planning with little or no increase in premiums based on a preliminary assessment.

Two different projects in Mexico involve innovative approaches to increase the number and types of outlets that offer family planning products. The Enterprise Program's Micro-enterprises Project is assisting private physicians to set up family planning clinics, and Enterprise is absorbing all of the investment risk in the first few months by guaranteeing the physicians' salary; however, the project's risk is systematically reduced over 12 months after which donor support is totally withdrawn and the clinics must operate on their own without a subsidy. This type of project should be carefully assessed and will be discussed further in Section V.

Enterprise's Self-Financing Project in Mexico is training private and social security physicians in IUD insertion and selling contraceptives to them at cost to ensure that the low income populations they serve can afford and will pay for the contraceptive. No other subsidy is contemplated. While the latter raises the issue of when or if the contraceptive subsidy can be withdrawn, the incentive structure of the project is to encourage the private sector to operate in response to market forces.

Two Enterprise projects, one in Thailand (Family Planning Products Market Survey and Marketing Capability Evaluation), the other in Indonesia (the YKB Entrepreneurial Development Project) propose to assist local NGOs in improving their management, financial viability, and effectiveness in distributing family planning. Both efforts are aimed at making these enterprises more competitive

and attractive to users. Since public sector ability to continue to provide free contraceptives is questionable over the longer term, these NGOs may well be the major alternative source for current users who cannot offer unsubsidized commercial prices and who must rely on public or quasi-public service programs. Thus, reducing overall costs of family planning provision even for NGOs is in the long term interests of family planning availability.

Enterprise Program's Feasibility Study of Commercial Clinics Providing Sterilization in Jakarta is also an interesting method of encouraging private sector activity in an area that has an uncertain demand, and therefore may constitute a risky investment. Gathering and analyzing information on the nature and extent of the family planning market is an appropriate and useful use of public funds, especially where the social benefits are high and individual risks are high.

These experiments are altering the definition of private sector activities. They are not only persuading firms to shoulder the cost of family planning provision, but they do not always provide financing for services. These new initiatives offer services that can help initiate or enhance a family planning service delivery operation, provide seed money for family planning investments and feasibility studies, or demonstrate the financial benefits of such investments. It is a different and much more market oriented approach than those applied in the past and it bodes well for sustained service availability without long-term donor involvement.

Privatization and Government Incentives to the Private Sector

Although not well documented, there are developing country examples of the privatizing of family planning delivery. Public family planning programs in Korea and Taiwan have contracted with private physicians to perform sterilizations and, in Taiwan, IUD insertions as well. The government reimburses private providers for the services provided to eligible low-income couples. Seventy-five percent of IUD insertions and 80 percent of all sterilizations financed by the Taiwan government are performed on a reimbursement basis. Nearly all sterilizations in Korea are obtained from private providers both on a fee for service basis or reimbursement basis, depending on the income group of the recipient (Draper Fund, 1986). In Nigeria, a private pharmaceutical firm handles the distribution of contraceptives to government health centers.

Government incentives to encourage private provision of family planning is not an area with much information. Korea, however, allows companies a tax exemption if they have over 500 employees and provide subsidized contraceptives for employees (Whang, 1979). In 1976, Malaysia legislated that women with 3 or more surviving children need not be allocated the legally mandated maternity benefits (Perumal, 1979).

Information on tax incentives (or elimination of disincentives) in developing countries, and incentives to expand insurance coverage and include family planning in that coverage is lacking.[17] The TIPPS effort in Zimbabwe is attempting to encourage a private insurance company to add family planning, but this is a donor rather than a government generated effort. Nonetheless, this kind of program represents an important means for achieving increased demand for private family planning services.

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17. USAID's OPTIONS project is initiating an activity with the government of Morocco to assess the consequences of altering the tax structure on local

(Footnote 17 Continued on Next Page

Salient Characteristics of Private Sector Projects

A number of the newer projects are taking into account consumer demand--an element frequently overlooked in previous efforts in both the public and private sectors. In order to ensure that provision and subsidization of family planning will have any effect on use and is a sound investment, some idea of the extent of demand for services is essential. Otherwise services may go unused, and investments are wasted.

Cost-benefit studies in family planning often assume that all births are unwanted. Analyses such as that of Nortman et al. (1986), which assume that family planning interventions will result in averting all births, are unrealistic and only are useful as theoretical exercises. In practical terms, investments in services should be based on a perception of the value of the service to the employer and the potential demand among employees. For example, Mexico's Industrias Unidas project, Egypt's Tanta project, the Dominican Republic's social marketing project, Zimbabwe's business analysis, and Bolivia's Family Planning Program determined demand through surveys and focus groups. However crude, at least these programs are making an attempt to assess potential use.

A number of projects are tracking utilization, often by method, as was done in WHO's Turkey project; however, most fail to account for substitutions from other sources which inflates the impact and value of the program. Less common are financial assessments or measurement of net project benefits. Table IV.2 summarizes the financial characteristics of each of the projects in Table IV.1. The included factors indicate whether contraceptives have been donated and by

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(Footnote 17 Continued from Previous Page)
production of contraceptives. The results might indicate how minor tax changes could alter private investment behavior.

Table IV.2

Financial Characteristics of Private Family Planning Delivery Experiments

Title of Project, Country	Contraceptives Donated	Subsidization			Policy and Estimates of Costs/Revenues or Budget
		Company Subsidy	Donor Subsidy for Services	Client Pays Fees	
EMPLOYEE BENEFIT/INDUSTRY-BASED SERVICES					
India:					
Family Planning Programme, TVS Lucas	No	Yes	No	No	No information
Tata Chemicals, Mithapur	No	Yes	No	No	No information
Tata Industries Ltd. Family Planning Program	No	Yes	No	Yes (originally higher income employees paid fees)	No information
Godrej & Boyce Manufacturing Co. Ltd., Bombay	No	Yes	No	No	No information
Family Planning in Tea Estates	Yes, by FPA of India	Yes	No	No	No information
Hindustan Spinning and Weaving Mills	No	Yes, full subsidy for all but oral contraceptives	No	Rs. 1.50/cycle orals	Rs. 2,375 per month for physician fees
Egypt:					
MISR Spinning & Weaving Company Hospital Family Planning Research Centre	No information	Yes	No information	No information	No information
India:					
Delhi Cloth & General Mills Co., Ltd.	Yes, by FPA	Yes	No	No	No information
Gujarat Refinery (Indian Oil Corp., Baroda	No	Yes	No	No	No information

Title of Project, Country	Contraceptives Donated	Company Subsidy	Donor Subsidy for Services	Client Pays Fees	Policy and Estimates of Costs/Revenues or Budget
EMPLOYEE BENEFIT/INDUSTRY-BASED SERVICES (cont'd)					
India:					
Alembic Group of Industries, Bombay	No	Yes	No	No	Company spent an average of about Rs. 15,000 per year on literature, incentives and other incidentals. Personnel and some operating costs were not included.
Philippines:					
Family Planning in Hawaiian-Philippine Co.	Yes, by government	Yes, for personnel and medical expenses	No	No	Total program cost to the company = 117,820 (contraceptives, educational material, and training provided free by the government). Staff costs = 35,000/year (U $1 = 7 Pesos)
Korea:					
Kaum Ho Tire Industrial Co.	No	Yes	No	No	1972 - mid-1978 costs = 57,330,000 won, almost 70% of it for incentives
Sri Lanka:					
Industrial Sector Program	Yes, by FPASL	Yes, for incentive payments and motivator activities	No	No	No information
Indonesia:					
P.T. Imbritex	Yes, by BKKBN	Yes	No	No	No information
Bangladesh					
Family Planning Services for Industrial Workers	Yes, by Ministry of Health and Population Control	No information	Yes	No information	Project costs: 1977-78 = $30,426 1983-84 = 23,437 1987-88 = 26,696
Turkey					
Impact of Trained Female Labor Union Shop Stewardesses on Motivators in Family Planning Services	No information	Yes, for clinic space	No	No information	Project cost = $28,810
Egypt:					
Tanta Industrial Family Planning Project	No information	Yes	Yes, for LOP	No information	Project cost = $19,659 from Pathfinder

Table IV.2 (cont'd)

Title of Project, Country	Contraceptives Donated	Subsidization			
		Company Subsidy	Donor Subsidy for Services	Client Pays Fees	Policy and Estimates of Costs/Revenues or Budget
EMPLOYEE BENEFIT/INDUSTRY-BASED SERVICES (cont'd)					
St. Lucia:					
Contraceptive Distribution in Factories in St. Lucia	No	No	No	Yes, well below market	Project cost = $25,000
Brazil:					
Assessing Costs and Benefits of Incorporating Family Planning into HMO	N/A	N/A	No	Yes, at least through prepayment	Project cost = $26,000 (plus undetermined contribution by AMICO)
Mexico:					
Family Planning Delivery in an Industrial Setting (Ciudad Juarez)					
Philippines:					
Industry-based Family Planning Project	No, but starter packs for the first visit were donated by manufacturers. FPOP performed vasectomies	No	No	Yes, at commercial outlet; no information on vasectomies	No information
Peru					
Electro Lima & MILPO Family Planning (Lima)	No	Yes	No	No	Cost for 4 years $23,000-$50,500 for Electro Lima, and $38,400 for MILPO
Turkey:					
Provision of Family Planning Information and Services in 15 Workplaces	Yes, by Pathfinder Fund	No	Yes	No	Costs 10/86 - 9/88 = $196,1883
Bolivia:					
Family Planning & Health Services for Organized Workers	Yes	No	Yes	Yes, but heavily subsidized	Project costs Pathfinder fund = $105,192 COBRETH = $35,212 USAID = $56,792
	Yes	No	Yes, [illegible] on [illegible]	Yes, but estimate	Project cost: $108,112

Title of Project, Country	Contraceptives Donated	Subsidization			Policy and Estimates of Costs/Revenues or Budget
		Company Subsidy	Donor Subsidy for Services	Client Pays Fees	
EMPLOYER BENEFIT/INDUSTRY-BASED SERVICES (cont'd)					
Indonesia:					
P.T. Gamay Djaja Family Planning Program	Yes, by BKKBN in year one and by BKKBN and Enterprise in year two.	Yes	Yes, for two years	No information	Project cost = $25,180
Mexico:					
Family Planning Industries at IUSA EPQ Industrial Complex	No, obtained through subcontract with PVO	Yes, for space & equipment. May also cover long term operation	Yes, through MEXFAM: training materials, donations & services	Unclear, but no mention is made of this	Project cost = $83,000
Nigeria:					
LBN Employee Clinic Family Planning Child Spacing Program	Yes, and company will obtain some contraceptives at wholesale prices	Yes	Yes	Not yet determined	Project cost = $114,070, with 435,000 from Enterprise Program. The costs of contraceptives are not included.
Thailand:					
Factory-based Family Planning Services Project	Yes	No	Yes	Yes	Project cost = $260,255
PROMOTING PRIVATE INVESTMENT IN FAMILY PLANNING					
Nigeria:					
Gulf Oil	No	Yes	No	No	No information predominately technical assistance
Zimbabwe:					
Commercial and Industrial Medical Aid Society	No	Yes	No	Yes	$31,911 for employee survey
Indonesia					
Feasibility of Commercial Clinics Providing Sterilization in Jakarta	N/A	N/A	N/A	N/A	Project cost = $24,000
The YKB Entrepreneurial Development Project	Yes, by BKKBN	N/A	Yes, from PVO	Yes	Project cost = $10,552

Table IV.2 (cont'd)

Title of Project, Country	Contraceptives Donated	Subsidization			Policy and Estimates of Costs/Revenues or Budget
		Company Subsidy	Donor Subsidy for Services	Client Pays Fees	
PROMOTING PRIVATE INVESTMENT IN FAMILY PLANNING (cont'd)					
Thailand:					
Family Planning Market Survey & Marketing Capability Evaluation	N/A	N/A	N/A	N/A	Project cost = $59,038
Mexico:					
Medical Service Miccenterprises in Metropolitan Areas	In first year only	N/A	Only for first M.D.	Yes	Project cost = $150,039
Self-Financing Family Planning Project	Sold to MDs at cost and donated to Social Security MDs	Social Security services only	No	Yes, but below market price for IUD because of subsidy. Consultation fee for private MDs	Over $150,096/year
SOCIAL MARKETING					
Nigeria:					
Sterling Products Private Sector Family Planning Project	Yes to both distribution projects	Yes, for provider time at health clinic	Yes	Clients pay for pharmacy & chemist shop products for benefits project	Sales from distribution project grossed $700,000 in first four months. Total project cost =
Ghana					
Social Marketing Program	Yes	N/A	N/A	Yes, but below market price	$1,000,000 over four years
Nigeria:					
Ibadan Market Project	Yes	N/A	N/A	Yes	Three quarters of revenue goes back to project, one-fourth to traders
Dominican Republic					
Contraceptive Social Marketing	No	No	No, only paying for advertising	Yes, but less than market price	Not yet determined

whom, whether the firm, donor, or user pays for the services, and the reported costs (usually anticipated expenditures) of the program.

The TIPPS project, USAID's operational research project (Columbia University) in Nigeria, Mexico's Industrias Unidas project and Enterprise Program's Medical Service Micro-enterprises in Mexico are attempting to measure net costs both ex-ante (all TIPPS projects) and ex-post (both Mexico projects).

Even where the cost of the project is recorded, in-kind donations are frequently ignored even where the donation consists of all contraceptives, which constitute the bulk of program recurrent costs in developing countries. Only one company has measured the net financial benefits of a company family planning program, the Hawaiian Philippine Company.

The company's annual costs for the family planning program were $ (P$35,000.00), which covered salaries of clinic staff and motivators as well as contingencies. The clinics were already furnished, the vasectomy operating room had been donated to the company, and contraceptives were donated by the government. The company's costs were modest. Their savings came from not having to pay the following maternity and birth costs per woman: pre-natal consultations and medications (U.S. $37.00), the full cost of delivery (U.S. $40.50), maternity leave benefits (U.S. $102.15 for 42 days), and post natal care (U.S. $10.10), which amounted to $189.85 in current U.S. dollars (P$1,405) per averted birth.[18] In addition, the company saved on social services for dependents, particularly savings for health care and education. The company estimates that between 1972 and 1976, they saved a net total of $59,190 (P$ 438,007). Thus significant savings can accrue from the establishment of family planning. However, the true cost of the service should take into account the

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18. Exchange rate for 1975 was P$ = 7.4 = U.S. $ 1.00.

cost of the contraceptives and the depreciation of the family planning's share of the clinic facilities. This would have reduced the net savings.

The extent of financial and human resources required to operate a project are almost never known, and the "cost/budget" estimates reported in the table virtually always exclude technical assistance personnel regardless of the funder. Technical assistance is frequently a costly if valuable project element and therefore all the cost figures are gross underestimates.

Assessing the impact of company or donor investments is infrequent. A number of the early Indian company programs compared employee birth rates and contraceptive use with national averages. In the Indonesian P.T. Imbritex company, the company indicated that the employee birth rate was 8 per thousand as compared to 34-36 per thousand in the "general community" (Suma'mur, 1979). In all cases, however, employees had lower birth rates and higher prevalence rates than the community at large. What to attribute these differentials to is impossible. The employee cohort was better off than the average Indian, there were convenient, subsidized services, motivational activities and, in some cases, strong disincentives to large families at each of the industrial sites. All of these have the potential for affecting family size decisions, but the relative importance of any one activity has not been assessed.

Thus the evaluation component of these projects is limited, and even those that have attempted to measure some aspects of the projects have fallen short of the ideal.

Who pays for Contraceptives?

Charging users for services or commodities is uncommon in both public and private programs. There are exceptions, of course. Where there is an attempt to promote private networks and expand availability of family planning, such as

the SOMARC efforts, or where private, for-profit suppliers are the exclusive focus of an intervention, family planning services have fees attached. Some of the newly designed projects of the Enterprise Program are introducing nominal fees that are well below those markets, and a few of these (e.g., the Self-Financing Project in Mexico) are planning to phase-in a self-supporting fee-for-service arrangement. TIPPS, while its main objective is demonstrating the financial benefits of family planning provision to employers, has also begun to served as a broker to Peruvian firms that wish to introduce family planning into employee health services. Donors are not paying for contraceptives or services under TIPPS assistance; either management or, less often, users will cover all operating and recurrent commodity costs. All of these innovations are new and none has received any form of evaluation. As a result no firm conclusions can be reached on their effectiveness, but their design are worth tracking as a source for future guidance.

At the other extreme of subsidies and user payments are a number of companies in Asia, notably in India, and Korea, that in the 1960s established incentive payments for employees to select sterilization and, in some cases, the IUD; the companies absorbed the costs not only of services and commodities but of recipient payments as well. These two countries as well as companies in Sri Lanka and Indonesia also set up disincentives to large families and many pregnancies, as already mentioned. All of these programs were managed, designed, and funded with minimal if any outside assistance, suggesting that managers recognize the benefits of smaller employee families.

Where companies and donors bear the entire cost of bringing family planning information and services to workers, programs do not promote private providers or the private sector unless companies contract out for services. Employee benefit programs inform individuals about family planning through trusted

sources, make services more convenient and, as mentioned, usually cover the cost of service delivery and commodities. The effects of new employee benefits for family planning include: shifting the source of service from other public or private sources; shifting users from traditional or less effective methods to more effective contraceptive methods; or, increasing the level of overall acceptance from improved information and access. Which of these is most common is unclear, although some programs have assessed method shifting, increases in knowledge, and new users at the site (ignoring the possibility of a shift from outside sources).

Whereas firms that elect to supplement employees salaries through family planning services are providing an additional benefit, donors that are serving the factory population through subsidized services are aiming their subsidies at middle income earners, even if that means lower middle income. It is unclear why those services need to be subsidized by donors or how long the donor will be able to bear the cost of the program. Thus there is an issue of whether there should even be a commodity subsidy on an ongoing basis, and how long such an arrangement should or can go on. Social marketing programs, on the other hand, are aimed at lower middle or upper lower income households under the assumption that the poorest couples will seek free public services. However, there is equal access for all users and since no assessment of social marketing users has ever been undertaken, no evidence exists on who uses the products. The SOMARC project in the Dominican Republic, however, is planning to undertake such a study.

The other issue, which none of the projects consider, is how much of a subsidy is required to reach the target population. Some of these projects have modest budgets, mainly because contraceptives are not purchased for the clinic. What has not been assessed is the relative effectiveness of modest technical

assistance and seed-money programs and those with generous budgets that pay for most program elements including contraceptive commodities.

The potential drawback of benefit programs where donors are involved and have promoted the program to management through offers to cover (some) costs, especially for contraceptive commodities, is when the subsidization can be terminated. Where management and employees come to expect the provision of free contraceptives, changing the rules is difficult. The constant extension of FPIA's Nigeria project may be due to their inability to withdraw since it is a popular and working program, and has received a number of extensions since its inception.

The question is, should donors subsidize private services? Should they finance the recurrent costs of programs of for-profit entities? Providing free contraceptives to employee benefit programs essentially subsidizes recurrent costs of for-profit activities. The TIPPS Project does not subsidize contraceptive commodities (except in Africa where contraceptives can only be obtained through donor programs), although many "private sector projects" do so. Where contraceptives are totally subsidized, employees have no incentive to use the private market and rely instead on the largesse of their companies. When companies extend services, management decides who benefits and what to buy for employees, rather than letting employees make the decision.

Conclusion

There are a number of established projects in promoting family planning through private means, and a number of new and innovative projects are in their infancy. The latter are going beyond the traditional, employee benefit programs with frequent donor subsidies for services and contraceptives, to try new approaches that both foster demand and encourage private investment in

family planning. Moreover, projects that rely on employers are trying new approaches. The gap in these experiences are evaluation and issues of long term sustainability.

This rich set of experiences is testing numerous different approaches and assessment of these could be the source of future guidance in designing alternative delivery and financing modes that do not rely on public funds.

V. HOW TO PROMOTE PRIVATE ACTIVITY

As discussed, promoting family planning use in developing countries has historically implied government and donor collaboration in making contraceptives widely available at concessionary prices. The vast majority of those services were meant to be delivered through public sector outlets, usually at zero price. The means of designing successful programs, reaching all population groups, and retaining users have been studied, tested, and perfected so that in some countries at least government programs are reaching the bulk of users with effective means of contraception.

The role of nongovernmental entities has been afforded considerably less attention. Indeed, little is really known about what kinds of NGO family planning programs work best, how much they cost, or who they serve. On the for-profit side, little hard analysis exists to guide governments in how best to promote and regulate commercial endeavors.

The foregoing sections of the paper attempted to set out what is known regarding: (1) private production, distribution, and delivery of contraceptive services; the incentives, disincentives, and impediments faced by private companies and investors; (2) the distribution of users across sources, with some attempt to explain the correlates between user characteristics and source; and (3) the private sector delivery initiatives that have already been identified or tested.

This background sets the stage for the topics discussed here, which focus on the possible options for public sector (and by extension, donor) intervention to expand the use and improve the operation of the private family planning market, as an alternative to direct public intervention. The following provides options and a guide to the most appropriate role for government in nurturing the

private market. While not all of these options will be appropriate in every setting, they provide a panoply of possible actions for governments and donors to consider.

Role of Government Policy and Action in the Private Health Sector

Government policies set the parameters under which private entrepreneurs function. Fundamentally, the governmental role should not be to subsidize either consumers or producers/distributors of contraceptives where otherwise the market would lead to the same outcome. The public sector can set obstacles or enhance the climate for the private sector. For instance, when tariffs are set to discourage imports due to balance of payments difficulties, they will affect private investors' attempts to modernize a family planning clinic--if most equipment must be imported--and will force private providers to raise the price they charge for imported contraceptives. Overregulation can cramp the expansion of private insurance and offer disincentives for innovations such as adding family planning to employee benefit packages; restrictions on new health care delivery mechanisms can limit the development of pre-paid group practices such as health maintenance organizations (HMOs), a particularly valuable outlet for family planning with HMO emphasis on preventive care; licensing, price controls, and taxation can make family planning investments unprofitable and unattractive; and restrictive earnings repatriation policies can discourage new entrants and competition, thus leading to higher prices. These kinds of restrictions, while perhaps legitimate to achieve other policy objectives, can create disincentives for entrepreneurial activities in health and family planning.

Government can promote greater private sector activity through modifications in policy; introducing legislation, or establishing new or revised laws that encourage and facilitate private investment; and through direct technical

and financial assistance. This can mean either assisting the private sector expand the supply of family planning service delivery through assistance and removal of impediments, or through efforts to raise the demand for private care. The former implies access to technical assistance and capital for family planning-related investments. The latter suggests encouraging alternative financers of health care, that is, promoting insurance coverage, the development of HMOs, and other third-party payers through tax incentives or other regulatory means.

Private Sector Options and Their Applicability Across Countries

A number of different kinds of interventions can be undertaken to promote private sector activity. Table V.1 summarize these options, explaining the possible initiatives that can affect the demand for private sources or the supply of private contraceptive services, and the necessary steps for initiating each.

Because of the complexity of the effects of the multiple objectives to be achieved by specific interventions, the following discussion is organized around major options.[19] The major kinds of interventions that government can make to foster greater private sector activity cover a broad range. Not all of these are applicable in all cases, and in some countries all of these can be difficult to implement. The degree to which public and private entities coexist, the

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19. For example, establishing a reimbursement system to replace or complement direct public provision of family planning relies on private providers to deliver care while the public sector pays for it. This kind of system obviously expands the demand for private family planning services, stimulates private investment in family planning, and reduces the role of public entity; however, it can be a complex and involved proposition when it is part of an overall shift in government's financing of health and family planning.

Table V.1

Summary of Options for Promoting Increased Demand for and Supply of Private Family Planning Services

Means to Foster Private Family Planning Services	Steps Needed to Accomplish Effort
Foster Demand for Private Sector	
Partially subsidize private sector services	Social marketing (type) programs; reestablish eligibility for subsidies, which forces those able to pay to seek private sources of contraception
o Social marketing initiatives	
o Means testing for public services	
Promote private insurance coverage, HMO and other third-party payers, including family planning with existing new insurance and employee benefit packages	Legislation, tax breaks and other legal and financial incentives requiring broad public sector endorsement
Adjust public payment reimbursement, voucher or capitation system for patients treated by private providers instead of direct provision	Legislative and bureaucratic changes
Promote Private Supply of Family Planning	
Technical Assistance	
o assistance to improve the management and efficiency of private operations[a]	o supporting experts to assist private organizations and firms
o upgrading and assistance to management	o new or modified programs
o information on private sector status and impediments to its expansion	o information gathering and studies
o research and evaluation to assess cost effectiveness of alternative arrangements	o new programs/evaluation of existing programs

Table V.1 (cont'd)
Page 2

Means to Foster Private Family Planning Services	Steps Needed to Accomplish Effort
Financing	
Provide access to loan capital (with donors/government taking foreign exchange risks)	Establish loan fund and effective method of operation. Absorbing risk may involve higher level concurrence o loans to encourage private investment o tax relief to providers o reduction in impediments, (see below)
Incentives to private providers, based on an understanding of private sector impediments and what constitutes attractive returns. For example, reducing tariffs on contraceptives, or easing price controls	Can involve simple nonenforcement; adjustments to existing regulation, or legislative changes, depending on constraint and necessary action
Privatization of Public Delivery	
Contracting out to make greater use of the private sector in the delivery of services	Entails adding a provider under government contract.
Reimbursement, voucher or capitation system for family planning to rely on private rather than public providers	Involves legislative and bureaucratic changes, but can help to narrow eligibility and lower costs
Shift existing programs and resources to private providers/managers to provide or operate facilities. For example, paying NGOs to deliver services	Difficulties with shifting resources/firing government employees may require high level approval
Social marketing-type collaboration between public and private entities to address equity concerns as well as operational efficiency	Develop joint activities with the private sector with incentives to attract private entities

a. Such assistance, however, is inappropriate for profitable multinationals or parastatals where the companies have access to and can afford appropriate expertise.

existing level of private activity, and consumer perceptions of the accessibility, quality and reliability of private suppliers will all play a role in determining what course is most appropriate.

Information/Technical Assistance. Promotion of private activity involves understanding the legal, financial, and economic climate in which (potential) family planning investors operate. First, it is important to identify the incentives and disincentives investors face in establishing or expanding health care programs.

Secondly, the constraints that impede investments, need to be understood and addressed. Government and donor actions can serve to identify and redress the disincentives and constraints, bolster existing incentives, and design initiatives that complement existing incentives and promote new activities. For example, if a fledgling insurance industry is concentrating on life insurance, encouraging companies through tax breaks to provide health and family planning coverage to their employees can spur the demand for private family planning commodities and services. In turn, the rise in demand offers an incentive to companies to add family planning to existing policies or develop health insurance programs that include contraceptive services.

Every country can benefit from a better understanding of the role and importance of the private sector, gaining a more informed basis upon which to proceed. In many instances, the private sector is dismissed by government as ineffective and too small to be considered before any kind of assessment has been attempted. Promoting for-profit or even NGO activities depends on knowing the impediments these investors face, and such a study can be undertaken anywhere. Similarly, almost any country can develop a social marketing program that piggybacks on existing distribution networks. These activities are virtually universally applicable and potentially useful to governments

interested in harnessing the private sector in meeting fertility reduction goals.

Access to capital is a very real constraint in many countries due to underdeveloped capital markets and the modest profits of small scale health investments. Providing access to loans, including foreign exchange, can critically affect whether indigenous companies can invest in family planning. Giving potential investors access to capital may be a key element in promoting greater private sector activity. For instance, if establishment of a private family planning clinic is constrained by insufficient capital and a shortage of foreign exchange to import medical equipment, then loans in both local currency and foreign exchange are a means of promoting the finalization of the investment. Moreover, this tends to be a problem in the International Development Association (IDA) countries as well as the newly industrialized countries (NICs), and it is an adaptable activity across the spectrum of recipient countries.

Financing Assistance. Donor assistance in private activity can be critical in making consultants available to the government, in developing and financing the process of establishing and carrying out these initiatives, and, most importantly, in evaluating their contribution to reducing facilities' costs and/or raising quality while ensuring continued access to family planning of the indigent. Foreign exchange loans may only be obtainable through a donor financial loan scheme. Moreover, some concessions on repayment arrangements (e.g., repayment in local currency may be necessary since health and family planning services do not generate foreign exchange) may be best handled through foreign assistance.

Public-Private Collaboration. Expanded public cooperation with the commercial sector (i.e., private pharmaceutical companies and distributors) to

accomplish greater user reliance on private providers with a minimal subsidy from the government is warranted, especially given the successful collaboration that has occurred in social marketing endeavors. Based on observations across countries, it seems that private firms are not induced by current market conditions to dramatically lower the price of orals and achieve a higher volume of sales through pharmacies. This suggests that the profit maximizing position entails high prices and low volume. This does not mean that acceptable profits could not be gained from higher volumes and lower prices. Schering Ag's experience in the Dominican Republic provides some indication that positive profits can be generated from such a strategy, provided there is adequate advertising and promotion for the product. The issues are how do profits differ across the two pricing strategies, and what kinds of incentives are needed to encourage the high volume lower price option.

Social marketing-type approaches where public and private groups collaborate at what each is best at can be an important avenue to pursue for possible reductions in cost or improvements in delivery efficiency. For example, were the government to subsidize generic advertisement and promotion for orals and emphasize that they are now more affordable and that pharmacies are a possible, convenient place for purchase, and, in return, private firms (or a subset) agreed to lower the price on at least one of their marketed orals, prevalence might be raised with minimal government investment and subsidy. Whether privat firms would benefit enough to participate is an empirical matter. Also, the degree to which this approach gains new users is also an open question. Nonetheless, enhanced public-private collaboration is warranted in the long run interests of keeping supplies available to potential and current users.

Privatization. Privatization, where the government can hire private specialists or groups to undertake certain tasks for the government, is a key

method to increase the demand for private health care and stimulate potential suppliers. Privatization options, however, are more complicated and involve investments of greater political capital than many of the other options discussed here. For example, privatization is only possible where there is a political will to change the manner in which services are delivered. This can mean firing government employees if contracted private services are being substituted for public services, which requires endorsement and support from the highest levels of government.

Privatization may also help to improve the efficiency of family planning delivery as well as reduce the public sector's subsidy burden. The Jamaican government with USAID assistance has just completed the transfer of laundry and housekeeping services to a private contractor in four major public hospitals. Government employee unions posed an obstacle to the reforms since the contracting implied firing government employees currently carrying out those tasks; however, since privatization the cost of these same services has been halved while performance has been enhanced.

Economic Policy Changes. Changing the incentive structure for private entities investing in family planning may well involve changes blessed at the same high levels as privatization initiatives. Granting tariff adjustments or exceptions, relaxing price controls, or offering tax breaks cannot be accomplished by ministries of health, the government body typically responsible for family planning. These decisions require the concurrence of other ministries, the legislature, where relevant, and perhaps the head of state. Thus a consensus and strong political backing are required to implement some of the key changes in incentives that affect private family planning providers.

Promoting Private Activity. Building on existing strengths and exploiting weaknesses to advantage within the market can also bolster efforts in private

family planning activity. For instance, an over supply of physicians is reducing wages in some countries and leading to unemployment among doctors. Creating incentives to encourage their participation in family planning delivery (as is occurring already in Mexico under the USAID Enterprise Program project) can be a means of obtaining services at a reasonable charge for the government's target population. Greater reliance on the for-profit private sector for the provision of family planning services in the developing world is possible where the private sector resources already exist, are dormant, or can be mobilized through proper use of incentives. The potential seems greatest in Latin America and the Middle East where physician unemployment is a rising problem. Many of the NICs in Asia already have large private sectors and these can also be encouraged to expand and modify short term objectives (e.g., profits).

In Africa, where the monetized economy is smaller and public programs tend to be weak, however, contraceptive prevalence is low even among urban couples employed in the monetary economy. Therefore, getting private firms to add family planning benefits to their health benefits may be a very fruitful approach to raising contraceptive prevalence.

The degree of subsidy necessary to attain high contraceptive prevalence is going to depend on the ability of people to pay for contraception and on their desire to contracept. The ability and willingness to pay for contraception often move together. In Africa, the commercial prospects for increasing contraception seem poor because the profit-maximizing prices are beyond the reach of most (potential) users. However, the public sector is also underdeveloped and typically lacks the administrative capacity and resources to expand family planning services that the Thailand and Indonesian governments have. Therefore, donor and government resources should be directed at using the

private sector as much as possible as SOMARC is trying in Zimbabwe, or as a new USAID project is attempting to do in Nigeria.

Alternative Financing Options for Family Planning. Insurance is probably the most important means of fostering demand for private sector (especially for-profit) services, although the focus of insurance has historically been on curative care. It is a most relevant approach in the NICs where an established insurance industry exists, although this option may offer the opportunity to foster a nascent industry. Insurance is a complex service that is often beyond the capacity of countries with minimal managerial and technical talent, however (Wasow and Hill, 1986), so this option needs to be pursued with caution.

A federal reimbursement system where government reimburses private providers for services to the eligible population is in theory applicable in many settings, but it too is complex. In most cases, adopting a medical reimbursement system implies a total revamping of the financing and delivery of health care, although it may be an initiative that could be tested or applied on a limited basis for some services such as family planning. In tandem with such a switch, some assistance must be given to the private sector both to gain access to the resources it needs to develop services, and to promote insurance or other coverage (e.g., HMOs) for the population not covered by the reimbursement system. Hence, the proposition has a number of different facets that need to be considered as a package if the political, medical and economic issues are to be addressed.

Portugal has recently established a diagnostic related groups (DRG) system in its hospitals thereby adopting the U.S. model, so new reimbursement systems can be adopted, but it is an involved and lengthy process. A reimbursement system requires that the government has the ability to oversee and manage a great many tasks from defining eligibility, to setting acceptable charges, to

managing and administering a complex set of billings, payments as well as service access. It may be overly complicated and involved for some governments. However, reimbursement arrangements have worked well in Korea and Taiwan.

Government Regulations

The other role for government that has not yet been discussed, but becomes important as privatization occurs and the private sector takes on greater responsibility for delivering care, is that of oversight. Whether the initiative is a contract to a private entity or greater latitude for private actors, the government needs to track progress and performance, and regulate activity for the social good.

In contracting out, for example, it is essential that the terms of agreement are met and that the government has some recourse to remove the contractor. This obviously requires human and financial resources. Contracting out has some hidden costs to the government that are not readily apparent. Additionally, if the government decides to let multiple contracts for a number of small, discrete tasks, the oversight responsibilities become major undertakings. Fewer contracts encompassing a number of different tasks may be preferable and less time consuming because there is only one firm with which to negotiate. Regardless of the size of oversight the issue is a very real one for thinly (professionally) staffed ministries of health.

Regulation of the private sector to prevent abuses, ensure quality, help mitigate waste and control costs are common throughout the developed world, including the U.S. For example, the acquisition of costly high technology in the health field in the U.S. is typically regulated to prevent overcapacity, which unregulated would raise the cost of care so that all owners could cover the cost of their underutilized equipment. Reimbursements for family planning

and health services to indigents are priced by the government based on a package of minimal services to control costs. Another implicit tool used by governments, especially the U.S., is competition, which helps to control costs. The advent of HMOs in the U.S., for example, has promoted competition and helped to contain costs.

Thus where private providers are active in introducing or expanding existing services to encompass family planning, government can help to improve affordability and mitigate limitations of alternative private financing mechanisms through regulations. Moreover, government's oversight rather than direct delivery may be a more efficient way to provide family planning.

Conclusion

Thus donors and governments can work jointly to: (1) promote the private health and family planning sector through tax incentives, improved private access to (loan) capital, expanded technical assistance, relax existing legal and political obstacles, and provide better access to information; (2) redesigning public financing of health care to reimburse private providers for delivering care rather than relying exclusively on direct provision through government-operated facilities; and, (3) hire private contractors to take on functions for the government such as: management of family planning clinics, leasing out clinic management and service delivery, or outright selling of public health and family planning facilities.

Although there are a number of options, their applicability must be assessed on a country-by-country basis. Each option involves a set of primary actions and may require secondary, supporting actions on the part of the government. Since many of the proposed options involve tradeoffs (economic and political), governments and donors will need better analyses on the costs and

benefits of the options. Evidence on the costs (in terms of lower contraceptive prevalence or depressed sales, for example) associated with particular impediments like price ceilings, taxes, or tariffs would provide governments with the information needed to gauge whether policies should be changed.

VI. CONCLUSIONS AND RECOMMENDATIONS

This paper has reviewed existing evidence on the private sector, what it is, where and how it operates, the kinds of impediments it faces, and the options for structuring closer public-private collaborative arrangements. This section provides a summary of the key findings with regard to who the private sector is serving, how commercial ventures have fared, and the appropriate role for private sector groups, and then outlines outstanding issues and areas deserving further attention.

The private sector is made up of both for-profit entities that operate exclusively on earnings, and nongovernmental organizations that function under subsidies from government, charity, and sometimes earnings from users, but are privately run.

The commercial sector serves a wide range of contraceptive users in developing countries. It is the major source of nonclinical methods in almost every country, and in some countries the key source of clinical services. For example, in Thailand the commercial sector provides the bulk of female (but not male) sterilizations. Younger women tend to rely on commercial sources for contraception as do urban relative to rural women. And as expected, more education and higher incomes are associated with a greater likelihood that commercial sources rather than subsidized services will be used.

Despite these patterns, there are dramatic differentials in reliance on commercial sources across countries of relatively similar socioeconomic status. In Thailand, only 33 percent of married women with more than a secondary education use commercial sources, whereas 66 percent of Egyptian women with no education rely on commercial sources. Contraceptive prevalence, however, is twice as high in Thailand (65%) as it is in Egypt (30%). Thus the expected

relationships within each society are borne out in most cases, but the differentials across countries are far more significant and call for a reexamination of the determinants of use of commercial sources of contraception.

Private producers and distributors of contraceptive services have continued to invest in countries where the climate is poor (i.e., low returns), in the hopes of gaining a foothold for future profits. Impediments such as price controls, tariffs, restrictions on repatriation of earnings, and general bureaucratic difficulties have raised the price of commercial products and reduced profits in many countries. Most importantly, government programs have cut into commercial companies' market shares and profits. Indeed competition from government programs has forced private-public collaboration to allow private companies to survive locally. In effect, strong public programs have crowded out private activity, especially that of the for-profits.

Private providers offer an alternative to government programs, are typically more convenient and reportedly offer higher quality products and services. Commercial providers, however, can only serve those who can pay, and the pattern of operation in developing countries suggests that high volume and modest prices are less profitable than high prices and low volume; although no firm evidence exists on the existence of such a strategy. The current pattern, however, effectively closes out commercial sources to some segment(s) of the population. Lowering prices to capture a larger market share does not appear to be common, although there are a few new efforts such as the SOMARC-Schering Ag collaboration in the Dominican Republic to deliver a mid-priced product commercially. But a firm may be reluctant to lower its price without having the ability to attract new users to the product--they are prevented from advertising their product in most countries.

NGOs appear to flourish where the government has had difficulty building strong health or family planning infrastructures, as in Africa, but their role is mixed in other regions. NGOs can also play key roles where governments cannot--by taking the lead and supporting contraceptive services--like sterilization that are perceived as too controversial to be a part of the official government program. How much NGOs compete with for-profits is not known. The for-profits are more efficient than government while NGOs are in some undefined place in between. Lack of information prevents any generalizations about NGO performance and efficiency.

Although options for promoting private activity have been discussed (see Table V.1 for a summary of the suggested options), none has been tried and documented, so these have emerged from theory, discussions with the affected parties, and a review of the literature on somewhat similar actions. The planned and ongoing efforts in this area deserve greater attention and evaluation and the next subsection addresses these gaps.

Unanswered Questions and Areas for Future Activity

Despite the volume of activity in the area, the many surveys that have addressed some aspects of the private sector, and the modest attempts to understand the mechanism, efficiency and effectiveness of family planning programs in the private sector, a great deal of pertinent data and analysis are lacking. Indeed, few firm conclusions can be made regarding the experience with private sector approaches, partly because so many are in the formative stages, but also because the level of evaluation has been so poor. Similarly, conclusions regarding potential users of commercial products are inadequate both in terms of appropriate data and analysis. Data on costs and efficiency are exceedingly poor. Cost data, where they exist, are incomplete, and comparative

costs across programs are hampered by incomparability of the services and service components costed out. No definitive conclusions can be made on costs of programs or delivery modes.

This subsection points out the weaknesses of the existing literature and highlights areas for further work. It is divided into three separate sections: evaluation, determinants of private sector use, and costs and cost effectiveness.

Evaluation. Despite the progress in evaluation, most of the private sector projects summarized in Section IV do or are planning an inadequate assessment of the costs and benefits of the investment. The evaluation criterion most often used is the increase in the number of contraceptive users occurring after the introduction of the project. Rarely is cost per user calculated. Counting new users by method is quite useful, but it is equally important to measure the costs and benefits of the program to decide if there are better and cheaper means of financing and delivering family planning services.

In particular, evaluations need to focus on the family planning behavior of the target group to gain a better understanding of the following: importance of motivators versus printed matter in advertising the availability of services; the importance of on-site services as opposed to vouchers or reimbursement arrangements through commercial outlets; the shifts in sources that take place with the introduction of benefits, that is, the permanence of the increase, the number of acceptors, the effectiveness of the methods, and the profile of the (potential) user who benefits most from on-site services; what is the most appropriate and effective roles for donors; and, whether donating contraceptives enhance or inhibit the establishment of a self-sustaining family planning program?

The impact of alternative means of promoting private delivery of family planning should be assessed in both absolute and relative terms. These evaluations generally are not anticipated for the ongoing projects described earlier. For example, does it pay to provide grants or loans to physicians to set up clinics? Do firms improve their operation and efficiency through a management review? Does including family planning in an insurance or HMO benefit plan raise the demand for family planning? This is particularly relevant where wage earners make up the middle class, many of whom may already practice contraception. What are the tradeoffs between convenience of on-site contraceptive services and reimbursing referrals in terms of costs and continuing users? Despite the ex ante cost benefit analysis, do firms actually save money over time either on a gross or net basis by introducing family planning to their employees? What kinds of firms are more likely to experience net savings? For what kinds of target groups (i.e., different prevalence, income or fertility levels) will the impact and cost savings be greatest? These kinds of questions address the gaps that currently make project design difficult. Guidance on what elements to stress and how to structure private sector programs in the future can only be obtained through careful evaluation of planned or ongoing projects.

Capital markets in most developing countries are not well developed. Small operators and businessmen often cannot raise the necessary investment capital to set up a family planning (or health and family planning) facility even if profitability were assured. Thus, consideration of loan funds to make capital available, including foreign exchange, could contribute to ameliorating the critical deficiency in investor incentives in developing countries. Indeed, experimenting with different loan arrangements would be ideal to reach different investors and maximize investment.

The question of how to price contraceptives is an important issue too, if the premise is that the private sector will eventually take over and continue programs. Where management has decided to provide family planning as an employee benefit free of charge, the issue is decided, but where free-standing projects are planned or NGOs are assessing how to become more efficient and solvent, how to price services to both earn revenues and yet retain users are important questions. There is some evidence that the price elasticity of demand varies across contraceptives and therefore cross subsidization may be possible. Most of the projects reviewed in section IV assume an inability to pay or an ability and willingness to pay only nominal amounts. Some experimentation and documentation is warranted in measuring the elasticity of demand for contraceptives with respect to price, and to establish how much of a trade off there is between convenience and price. Although this is really an adjunct issue, it is nonetheless key to the continuation of private sector projects and will be important in future endeavors. The sustainability of many of these projects over the long term depends on recovering some share of costs.

Determinants of Private Sector Use. The available data on source of contraceptives was reviewed in Section III. The analysis provided an overview of the topic and indicated regional patterns and disparities. However, the CPS and DHS data are somewhat limiting in not being complete enough to capture some of the issues of interest, such as the difference in reliance on NGO, social marketing and commercial sources of contraception. Moreover, better information on supply would help interpretation of the source information, and would allow demand analyses to control for supply characteristics.

Most important, however, is the need to analyze these data in greater depth, controlling for the many factors that affect consumers' decisions. Comparative multivariate analysis is key to a better understanding of the

information presented here. The CPS and DHS data are available, accessible and of reasonably high quality. They deserve to be further analyzed along the above dimensions.

Thus, both an effort to exploit existing information and to collect broader and more focused information on consumer behavior in family planning decisions are warranted. Moreover, a more rigorous approach is called for given the emphasis to date on anecdotes and the dearth of data. Both data and analysis of existing (and new) data could contribute importantly to a better understanding of the role and contribution of the private for-profit and NGO sectors.

Costs and Cost Effectiveness. As part of the review of what is known concerning the private for-profit sector and how it compares with other providers, the cost and cost-effectiveness of alternative providers was explored. Little good evidence exists on the costs of government programs, commercial providers consider costs proprietary information, and social marketing programs have never been costed out. The NGOs have probably the most available cost data, although it is virtually always incomplete and only available for some endeavors. The majority of this evidence is compiled in Lewis (1985).

The lack of cost information prevents comparisons of the cost effectiveness of alternative financing and delivery arrangements. No guidance is available on the most efficient means of delivering family planning to different income, location, education, and age groups. Even the industry-based programs have by and large ignored the (full) cost of their programs. For example, there are no plans to compare costs and effectiveness across projects to determine the best approaches to fostering demand for family planning or promoting activities by the private sector. Cross-project evaluations are neither mandated by any project nor anticipated by any entity. Assessing the costs, effectiveness, and

savings (e.g., to firms) across experiments would assist the next generation of projects avoid pitfalls and focus on the most valuable project designs of the projects reviewed in this study. Only the Philippines' Philippine-Hawaiian program measured company costs and savings of the family planning effort, but even there, no contraceptive costs are included, since commodities were donated Some new projects plan to do impact evaluations, but none has even begun. The lack of analysis will inhibit their ability to measure the savings from family planning service delivery, and prevent comparisons across alternative delivery arrangements.

Thus, collection of cost information and assessments of relative efficiency and effectiveness is key to helping donors and policymakers make sound decision regarding resource allocations and program design. Currently, little information is available to assist that process in family planning.

The private sector is a major actor in family planning--and its actual and potential role should be much better understood. The future agenda should address the gaps in information regarding consumer behavior and consumer demand for private services; introduce greater rigor in analysis of existing data (e.g., CPS and DHS data); collect specific data that can address the topics suc as cost and cost effectiveness of alternative providers; introduce sound evaluations into planned or initiated efforts aimed at promoting the private sector; experiment with and document alternative means for establishing effective incentives to promote private activity; experiment with and assess privatization of public services; and, introduce greater cost recovery in NGO programs.

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APPENDIX IV.1

Summary of Key Private Sector Approaches in Family Planning

AFRICA

Ghana: Social Marketing Program, Ghana

Funding From: USAID SOMARC Project

Source: SOMARC Reports

The Contraceptive Social Marketing (CSM) program in Ghana is implemented by a Ghanian commercial firm (DANAFCO) that sells oral contraceptives without prescriptions at pharmacies and chemist shops where personnel have received special family planning training. DANAFCO will subcontract advertising and promotion to Lintas Ghana, a local ad agency. Pharmahealth Ltd. will train pharmacists and chemical sellers to sell oral contraceptives and other family planning products provided by AID. Three products will be marketed initially: an oral contraceptive, a foaming tablet and a condom. Because of the low rate of contraceptive prevalence, (12.4 percent of married women of reproductive age are currently using), the potential CSM market is estimated to be quite large. SOMARC thus intends to increase oral contraceptive prevalence in urban areas, from 7 percent to 10 percent. The total number of urban women of reproductive age is 842,000. Total urban men over age 15 is 937,000. A retail audit will be used to develop a pricing strategy. Estimated prices are C 10 for a package of four condoms, C 30 for three cycles of pills and C 20 for one package of foaming tablets. Estimated budget for the program is $1,000,000 spend over 4 years ($250,000 for the first year, $310,000 for the second, $295,000 for the third and $170,000 for the fourth).

Market research conducted prior to product launch will include a consumer intercept interview of 600 contraceptive users, name testing, focus groups, package testing. Contraceptive sales and usage will be closely monitored through periodic retail audits, in-pack coupons to identify new buyers and provide a crude measure of side effects and a longitudinal study of CSM customers. A monitoring program will evaluate the results of the demonstration.

Training for pharmacists and retail sellers began in March 1986, with virtually 100 percent participation for pharmacists and 41 percent participation for chemical sellers. The project will examine how well pharmacists and chemical sellers screen women, especially first time oral contraceptive users. Ghana currently has a prescription requirement on oral contraceptives and it is hoped that the trained chemical sellers and pharmacists will effectively convey to potential users the likely side effects and advise women for whom strong contraindications are present that they should see a physician before issuing the orals.

Nigeria: LBN Employee Clinic Family Planning/Child Spacing Program

Funding From: USAID Enterprise Program

Source: Proposal Prepared by Lever Brothers Nigeria, Ltd.

Lever Brothers Nigeria Ltd. is a manufacturer and marketer of soaps, detergents, edible products and personal products. It is requesting $35,500 from the Enterprise Program (out of a total budget of $114,070) for a family planning program at its existing clinics in Apapa, Agbara and Aba which serve 3,000 employees. Its program will also be used in three clinics serving 1,600 employees at United Africa Company (UAC), LBN's sister company. LBN projects 800 new acceptors out of the target population of 4,600 employees currently served by the clinics. It will also train its clinic staff in family planning motivation, contraceptive distribution and program management, and develop a system to evaluate and monitor the program.

LBN will serve employees' families through outreach and take-home components. LBN will tailor the program to employee needs by using results of focus-group interviews, user surveys (KAP) and marketing studies (TIPPS) of the workers' attitudes and preferences regarding family planning. Nursing staff and medical directors will receive training in all contraceptive methods: pill, IUD, condom, vaginal foam, diaphragm, injectible, natural family planning and sterilization. The estimated number of potential female acceptors is 721.

LBN clinic nurses and motivators will be trained by Planned Parenthood Federation of Nigeria (PPFN), the Lagos University Teaching Hospital (LUTH) and Sterling Products Ltd. LBN's medical director has already seen other family planning programs. Two staff nurses and one nursing sister have already been certified in IUD insertion. Personnel managers have attended a seminar on the importance of family planning. The program will also be supported by field workers: in-plant motivators and educators selected from among the medical units' "first-aiders" and the workforce at large. LBN will obtain pills, condoms and foaming tablets from Sterling Products Ltd. at wholesale prices: 60 kobo for one cycle of pills, 32 kobo for four foaming tablets and 32 kobo for four condoms. The contraceptives will be sold either at cost, less-than-market mark-up or freely distributed, depending on LBN's management decision. USAID/Lagos or the Enterprise Program will supply other commodities: 1040 cycles of pills, 11,520 condoms (plus 10,000 for community sales), 240 injections, 320 IUDs, 2880 foaming tablets and eight medical kits for sterilization. This supply is based on six months for 760 new acceptors. (Since the program is new, even previous users will be considered new acceptors.) The nursing sister/program coordinator will distribute commodities. The projected product mix based on the KAP study will be 20 percent pills, 40 percent IUds, 10 percent Depo-Prevora, 25 percent barrier methods, 5 percent natural family planning. Patients will be referred elsewhere for services such as voluntary sterilization. Emphasis will be placed on male acceptance of family planning.

Nigeria: Sterling Products (Nigeria) Private Sector Family Planning Project

Funding From: Family Planning International Assistance

Source: Private Sector Family Planning Project, Project Description and Budget, FPIA

The project aims to increase the distribution of contraceptive products and services through two distinct channels. First, Sterling Products Nigeria, a pharmaceutical firm with production facilities in Nigeria and an established network that distributes its full line of pharmaceutical products through Nigeria, has decided to add contraceptive products to the products it sells to its wide-reaching retail outlet network. Its 115 distributors in the 19 states of southern Nigeria added pills, foaming tablets, and condoms to the products sold to the several thousand retailers. Sterling is already well positioned in the family planning arena as it handles the distribution of contraceptive products in the public sector. In the first four months of project activity, an average of 1.25 million condoms and 125,000 pill cycles had been distributed per month in 19 rather than just 11 states. The sales from contraceptives had generated NB 700,000 in the period with 20 percent of the revenue meet operating costs and the went into other family planning projects. An estimated 30 percent of Nigeria's chemist shops and pharmacies had received and sold contraceptives as part of the project.

The second effort aimed at increasing family planning acceptance is to convince private companies in Lagos to add family services to their already existing health services. The training of company educators and nurses is paid for by the project while the private companies pay for enlarging the scope of health care provision. The middle-income employees and their spouses are the projected target group. Seminars on the productivity-enhancing aspects of offering family planning services to employees were given to personnel managers. Nurses and doctors from 36 organizations were trained in family planning services and 24 companies added these services to their health services. In the long term, the project aims to train more than 1,000 nurses and educators and 30 doctors. Contraceptives were provided free at the factory clinics. Factories covered some of the costs of the family planning services.

The success of the privately distributed products was partly undermined by the free pills from pubic health facilities that found their way to the commercial outlets, offering competition with the Sterling pills. Additionally, because the foaming tablets were in limited supply, they were not incorporated in the distribution effort. It is maintained that the program had almost become self-supporting by the end of its first funding period, and it was anticipated that a surplus would be produced that could be used to finance other family planning projects. However, given that the commodities are donated, it is not clear whether revenues from the project cover all costs, or if only operating costs are covered.

The existence of a well-developed and functioning distribution system that reaches chemist shops and pharmacies that are dispersed throughout the country seems key to the usefulness of this model for application to other

countries. Given such a system, more information would be needed on the commercial profitability of the effort, cost of distribution and mark up at each stage of the distribution chain and the mark up taken by each agent to assess its long term sustainability without subsidy or at least determine what kind of subsidy would be necessary.

This was anticipated as a five year project, with a committed three year funding period: June of 1985 to October 30, 1986. It was extended to November 1, 1986 then to February 29, 1988

ASIA

Bangladesh: Family Planning Services for Industrial Workers

Funding From: Pathfinder Fund

Source: Pathfinder Proposal

Two family planning clinics were planned, one at Adamjee Jute Mills and one at the Labor Welfare Center in Srimangal. Eight field workers provide outreach services at each cite. Each field worker will be responsible for referring at least 12 clients per month to the clinics (four for sterilization, five for IUDs, three for injectibles and three for condom/foam). Field workers will receive Tk 200 per month plus referral fees for sterilization and IUDs. Clinics will be opened for six days a week, from 8:30 am to 3:30 p.m. Each clinic will have a female counselor, a clinic coordinator and a technical committee which will meet every three months.

Funding from Pathfinder was $30,426 in 1977-78, $23,437 in 1983-84, and $26,696 was requested for 1987-88. Funding from Pathfinder was requested in 1987 to continue the clinic services in Admajee and Srimangal. From March to October 1986, the clinics performed 598 sterilizations, 278 IUD insertions and distributed 288 injectibles, 2640 cycles of pills and 38,206 condoms. During 1987-88, 1,100 sterilizations are expected. Immunization will also be provided to women and children under two. Contraceptives are provided by the Ministry of Health and Population Control. Evaluation will be based on progress reports, quarterly financial reports and summaries of technical committee findings. An Evaluation Review Committee in Boston will evaluate the project at midpoint.

No mention is made of costs to individuals.

Indonesia: Feasibility Research into a Commercial Clinic Providing Sterilization Services in Jakarta

Funding from: USAID Enterprise Program

Source: Project Proposal

The Enterprise Project is supporting three different projects in Indonesia that attempt to increase the role of the private sector in meeting

the family planning needs of Indonesians. The original impetus for the project came from the recognition by the Indonesian government that the family planning needs of Indonesians could not be met through exclusive reliance on the public sector. In 1983, the public sector supplied 94 percent of the contraceptive services. While the government hopes that contraceptive acceptance will double between 1980 and the year 2000, it is facing budget constraints that limit the expansion of government services. Curiously, rural contraceptive prevalence rates exceed urban rates. Complaints about the public health system in urban areas center around the inconvenient and short hours, the long waiting times, the shortage of contraceptive products and the suspicions about the quality of the free products at the public clinics. Each one of the three projects aims to tap the resources of the private sector and to exploit the willingness to pay for health services that exists among the middle income class in Indonesia.

The first project involves assessing the viability of a self-sustaining commercial clinic for sterilizations in Jakarta. The project will gather evidence on--fist, the attitudes of likely candidate couples (married couples, already practicing contraception in their late thirties) toward willingness to pay for sterilization; second, the likelihood of physicians referring patients for sterilization; and third, the costs of outfitting and maintaining a clinic. The outcome of this analysis is an assessment of the viability of a commercial sterilization clinic. The budget is $24,000.

Indonesia: The P.T. Gamay Djaja Family Planning Program

Funding from: USAID Enterprise Program

Source: Project Proposal

The second project is intended to be a model example of how employees and employers alike benefit from family planning services provided on site. P.T. Gamay Djaja, a firm with 1,300 employees has agreed to provide daily family planning service on the premises. The firm will absorb the costs for renovating rooms for the service provision and will provide the necessary furniture. The Enterprise project will provide technical assistance, equipment and supplies, and a full-time nurse midwife and part-time physician for the first two years after which responsibility will be assumed by P.T. Gamay Djaja. The BKKBN (the Indonesian family planning board) will provide the contraceptive products free of charge the first year and The Enterprise project together with the BKKBN will provide the contraceptives free of charge in the second year. Success of the project will be measured in terms of new acceptors and continuation rates. No mention is made of employee contributions or of estimating the net cost to the firm of continuing to provide the services. The estimated budget is $25,180.

Indonesia: The YKB Entrepreneurial Development Project

Funding from: USAID Enterprise Program

Source: Project Proposal

The third project involves determining both the best location in Jakarta and the optimal operating and service structure of a family planning clinic offering gynecological, maternal and child health service to an upper middle income clientele so that the clinic would generate a profit. the Enterprise Project is collaborating with the Yayasan Kusma Buana (YKB), an Indonesian Private Voluntary Organization that has run 8 family planning clinics in Jakarta for the last several years to drav up the plans for the nev clinic and to make the other clinics more self-sufficient. Of the 8 clinics, only one is self supporting, and overall, only 50 percent of costs are met through revenues. Through interviews with actual, past and potential clients and staff, attempts will be made to understand the low utilization and revenue levels of some of the clinics. It is felt that full cost recovery may not be possible because some of the clinics are located in lower middle income areas. Ultimately, it is hoped that cross-subsidization across clinics can lead to overall self-sufficiency. It is not clear whether their definition of self-sufficiency encompasses clients paying for the contraceptive products because it appears that the BKKBN donates commodities. The Budget is $10,552.

Philippines: Industry-based Family Planning Project (Manila)

Funding from: Population Center Foundation

Source: Final Technical Report

In an 18-month project begun in 1985, 30 industrial establishments in metro Manila used a program developed by the Population Center Foundation to use in-plant volunteers (IPVs) to generate demand for family planning information and services. IPVs were trained with lectures seminars, audiovisual presentations and other materials. FP services were made available to employees either in company clinics or through outside FP service clinics. Outside clinics either brought services to the company, or provided services through referrals.

Family Planning Organization of the Philippines (FPOP) sent a surgery unit to firms to perform vasectomies. Contraceptive starter packs (pills or condoms) were donated by manufacturers for users' first visit. Acceptors subsequently purchased contraceptives from drug stores.

IPVs were recruited from among employees who were using family planning, and received a 10 hour orientation. Refresher courses were offered monthly. IPVs approached workers to discuss family planning, then referred them to the company clinic nurse. Group activities, such as lectures and seminars, were held for interested employees at least once a month. Most activities were held during breaks from work. The project staff--five project officers and a project coordinator--were trained to act as resources on FP and to provide support and guidance to IPVs. Their course lasted for 12 days; three refresher courses were offered.

A mid-assessment of the study included interviews with a random sample of MWRAs from 30 companies, and 10-16 IPVs from each company. The end of project status was compared to baseline data. Results indicated that family planning increased in all but three of the companies. Total acceptors enrolled in the project were 2,844, out of a total combined workforce of 22,000.

Thailand: Factory-Based Family Planning Services Project

Source: Proposal Prepared by The Population and Community Development Association

Funding from: USAID Enterprise Program

The Population and Community Development Association (PDA) has been offering family planning services since 1974. Through its sales of non-clinical birth control in drug stores, clinics and factory health centers, it generates funds to pay for rural family planning programs and other social services in Thailand. PDA is requesting B4,953,000 ($190,500) to supplement its own expenditure of B1,816,237 ($69,855) for a two year project to expand and improve its existing factory-based family planning services. The improvements will include developing a Management Information System to increase efficiency and aid in evaluation. PDA's existing factory program involves both on-site clinics and mobile clinics. In the on-site clinics, a factory employee is trained by PDA to distribute pills, condoms and foaming tablets. The mobile clinics will also distribute clinical methods to factories with on-site clinics and the full complement of services to those without.

PDA proposes to improve its services in three ways. First, it will streamline and focus delivery by conducting a KAP-like survey to determine actual need for services. Records will be established of the sex and age of continuing and new acceptors. PDA expects to be able to market its service more effectively, increasing its sales of contraceptives to factory employees and serving 15 percent more acceptors in the first year. Its second goal is to add 200 new factories to the 219 it already serves (180 more in Bangkok, 10 each in Chiang Mai and Nakhon Ratchsima). A survey of factories will identify more than 300 potential factories and their family planning needs to target those that could best use PDA's services.

The Management Information System (MIS) will enable PDA to provide more detailed data on the costs of products and services which will help to identify cost savings opportunities in production, set prices and develop marketing strategies, and identify an appropriate portfolio of products and services. Expanding and refining its management information and financial management systems will identify cost savings and determine a more optimal package of services. A management information team will assess PDA's management information needs by interviewing managers and technicians. Two training sessions will be held: one for technicians, and one for managers. Consultant services will be hired to aid in system design and evaluate the system after implementation.

PDA intends to provide IUDs, injectibles and vasectomies through mobile clinics. On-site clinics will distribute brochures explaining the PDA mobile unit. Volunteer distributors will coordinate mobile clinic visits, and

register employees for services. Employee organizations and trade unions will be recruited to facilitate promotion of the project. PDA will have a project staff which will recruit factories and volunteer distributors (motivators)--training distributors in groups of 40. Training materials for the distributors will be based on needs determined by the initial surveys of factory employees and distributors coordinator. Training will emphasize motivating acceptors, distributing non-clinical birth control and promoting mobile services. Project staff will keep records on usage in all factories and review the project at the end of the first year. Volunteer coordinators will resupply distributors with non-clinical birth control.

PDA expects that most of the users will be white collar male workers. The goal of its model program is to provide more services at a lower cost to a larger number of people. In order to implement the project, PDA is requesting 638,950 cycles of birth control pills, 7,675 dozen condoms, 500 packs of foaming tablets and 7,800 IUDs. PDA provides no estimates of fees charged to users.

Thailand: Family Planning Products Market Survey and Marketing Capability Evaluation

Funding from: USAID Enterprise Program

Source: Proposal Prepared by Population and Community Development Association, Thailand

The Population and Community Development Association (PDA) has distributed birth control devices in Thailand for 12 years. Mechai Viravaidya founded PDA as the Community-Based Family Planning Service (CBFPS) in 1974 to address the unmet need for contraception in Thailand. PDA sells family planning products through drug stores and clinics, and uses the revenues to finance some of its family planning and other community programs. PDA recruits residents of communities to distribute contraceptives and provides family planning services in clinics and family planning centers, school health programs, counseling services, institutional programs and a mobile vasectomy service.

PDA's condom marketing program generates income to support the rural family planning programs. Condoms are distributed in towns and cities through drug stores and clinics; pills are distributed in rural areas through PDA's family planning volunteers. (The government family planning program supplies rural areas with condoms.) In urban areas, PDA's price to merchants is almost twice that of other distributors, who must then raise the price charged customers. Of the three types of PDA condoms available to customers from retailers, the cheapest is given to PDA free of charge from IPPF, re-packaged and sold over the counter at three for B5 ($US $.19).

PDA wishes to improve the efficiency and effectiveness of its family planning products marketing programs and proposes to evaluate its own marketing capability and conduct market research with assistance from a subcontractor (Coopers and Lybrand). The project will also study the family planning products market in Thailand to assess the demand for and distribution of family planning products and explore consumer behavior towards family planning products. Objectives of the project include collection of informa-

tion about the market, which will be used to develop a strategy for business development and marketing--including the market for contraceptive methods other than the condom and the pill. The long-term objective is to lower the cost and increase the availability of non-clinical family planning methods. Information on distribution will be gathered from existing research as well as through interviews with contraceptive distributors. Information about consumer behavior and attitudes will come from a survey of households in selected cities in the Northern, Northeastern, Central and Southern regions of the country.

PDA's own marketing program will be evaluated to reduce costs and re-orient the program as a commercial activity. PDA hopes to increase usage of contraceptives by improving its marketing of condoms, pills and spermicides and by serving new markets. Coopers and Lybrand and PDA's Research and Evaluation Division (RED) will consolidate findings and present a recommended business plan, which will include specific pricing policies, distribution strategies, promotional efforts, managerial strategies and financial assessments.

From its market survey, PDA will determine what contraceptive products it will sell. The total budget for PDA's market studies is $59,038, $55,000 of which is requested from the Enterprise program.

LATIN AMERICA AND CARIBBEAN

Bolivia: Family Planning and Health Services for Organized Workers

Funding from: Pathfinder Fund

Source: Proposal Prepared by Consultora Boliviana de Reproduccion Humana (COBREH)

Family planning services will be provided to families of organized mine workers in the Altiplano region of Bolivia: La Paz, Oruro and Potasi. Information and services will be provided to 20,000 families that currently have no access to family planning, and about 5,000 new acceptors are expected in the first year. Three clinics will be established and 27 MOH physicians will be trained. The project has been undertaken at the request of the labor systems in Latin America, which is primarily composed of members of the Miners' Labor Unions.

Awareness of the service will be promoted through IE&C and community activities: volunteer promoters, trained clinic staff and pamphlets. MOH physicians will be trained to provide family planning services (pills, IUDs, foams and condoms), and equipment and educational materials will be purchased for the project. Three auxiliary nurses and three field workers will be trained in family planning education and in record-keeping skills. The nurses will provide family planning services, field educators will train volunteer promoters. Four community workers will be trained to provide family planning counselling (including home visits) to 210 volunteer promoters, who will be selected from members of local mothers' clubs. All clinics will provide free services and subsidized contraceptives.

Prices for the contraceptives will be BS 1.00 (US $.54) using 1986 exchange rate US $1 = BS 1.86) for one cycle of pills or 20 condoms or one can of foam, and BS 5.00 (US $2.68) for one IUD. The MOH physicians will provide services in MOH hospitals and maternity clinics, and are supposed to receive unspecified non-monetary incentives. Voluntary promoters will talk to people in their neighborhoods and refer them to informational talks given by field educators. Community workers will follow-up with clients who have not continued with services. The La Paz clinic staff and facility will be used to train physicians, nurses, community workers and field educators. Three clinic physicians will be trained in family planning services and IUD insertion, as will the 27 MOH physicians. Field educators will train volunteer promoters in techniques to promote the benefits of family planning.

Evaluation will be based on the amount of educational materials developed, the number of trained workers, the number of referrals to clinics and the amount of contraceptives distributed. Monthly reports and user feedback will form the basis for the evaluation. The estimated budget BS 195,658 (US $105,192) from Pathfinder Fund and BS 65,464 ($35,212) from COBREH.

Bolivia: Family Planning Program Through Employers

Funding from: USAID Enterprise Program

Source: Centro de Investigaciones Sociales, La Paz, Bolivia

The "Centro de Investigaciones Sociales" (CIS) or Social Research Center in La Paz proposes a project to promote family planning for working women in the four largest cities in Bolivia. It consists of an integrated program of research, education, counseling, and direct family planning services to be implemented through the industrial and commercial sector.

CIS has chosen working women because of the family difficulties that this group frequently encounters. It will contact 150-170 employers and plans to work closely with them in the planning, education, and direct implementation of the project. Through concurrent research, CIS hopes to demonstrate the indirect benefits to employers of these family planning services and thus to encourage industrial, commercial, and banking enterprises eventually to establish similar projects.

The project will be implemented by an education/promotional team in each of the four cities, overseen by a central coordinating team in La Paz that will ensure consistency and quality. All tasks will be implemented in conjunction with a local advisory board of industrial, commercial, and banking institutions.

The research component of the project will include several studies: pre- and post-tests of family planning knowledge, attitudes, and practices will be administered to women in participating enterprises; and studies on the costs of pregnancy and maternity to firms and the social security system will be undertaken in the hopes of showing the savings to be obtained through a family planning program.

The latter study will be based on a number of variables, including the direct costs associated with payments to social security for pregnancy and maternity, the indirect costs to the firm of absenteeism and replacement wages, and the costs to the family or individual. Another planned study is a process evaluation of the project's components.

The information and education component will sponsor a series of seminars for employees on family planning and general welfare and will produce promotional educational materials. CIS expects to hold close to 200 seminars for a targeted group of 6200 participants. Seminars will be mostly for women, but on occasion will include men and with their wives. The seminars will be held in the workplace.

As part of the project's research, pre-tests will be distributed to women in the various participating firms. Six months after the seminars, questionnaires will be given to the same respondents in order to measure attitude change and the educational impact of the seminars.

Private counseling on family problems, especially on reproductive conflicts and family planning, will be offered in three ways: 1) immediately after the seminars; 2) consultation hours in the workplace; 3) appointments at other times in another location.

The fourth component of the project will be direct family services for women who want them. Services will be given in conjunction with the seminars and counseling. CIS projects attracting 1560 new users. In addition to these, because the project is increasing the social acceptability of these issues and is promoting changes in attitude toward family planning, CIS predicts a multiplier effect in the communities at large, which should increase contraceptive services to 3000 new recipients within a year.

Cost of services is not spelled out in great detail, but CIS lists the price for minilaparotomies (tubal litigation) at US $60 (including clinic, lab, and medical fees, and care for 1 to 2 days) and "reversible methods" at $5. The project hopes that women should be able to pay some portion of the cost -- perhaps only 3 to 5 percent -- of the contraception and medical attention. CIS hopes to see the employers continue the project by incorporating these services into their medical offices, with the project providing these contraceptives for an undefined period. Alternatively, the employers could contract with CIS to provide these services.

Brazil: Assessing Costs and Benefits of Incorporating Family Planning Service Delivery into HMO

Funding from: USAID Operational Research Project Implemented by Population Council and Assistenia Medica a Industria e Comercio Ltda. (AMICO)

Source: Final Report

Brazilian HMOs do not generally offer family planning services. Introducing family planning into the HMO network would make these family

planning available to an estimated 2 million potential users, up to 90 percent of whom, should they be current family planning users, have little or no access to medical back-up. The study was carried out in the city of Belo Horizonte, capital of the state of Minas Gerais.

Need for family planning. The analyses revealed a clearly perceived need for adding family planning, both on the part of the beneficiary population (women ages 20-44), and on the part of the services providers (physicians with whom these women come into contact). Fifty-two percent of the women not currently pregnant have already met or exceeded their desired family size, and another 26 percent wish to delay further childbearing for two years or more. Nevertheless, only 55 percent of the non-pregnant population use an effective contraceptive method.

Although the beneficiary population have already achieved low fertility levels, through high contraceptive practice the health risks incurred in the pursuit of this fertility control are considerable. Chief among them are high rates of induced, illegal abortion; high rates of caesarian delivery to accomplish a simultaneous tubal ligation; and high rates of pill use with medical contraindications for lack of access to other effective temporary methods. In addition, 42 percent of all women of moderate to high obstetric risk are not adequately protected against a future pregnancy, despite the fact that a majority of them also do not want to become pregnant.

Feasibility of offering family planning. Ninety-two percent of the women not currently pregnant report that they would use some contraceptive method if family planning were offered by the health care program. While this figure is unrealistically high, it does reflect a strong interest among the beneficiary population in receiving these services.

More conservative projections indicate that incorporation of family planning services would both increase total contraceptive prevalence and improve the method mix of contraceptives used (i.e., substitute more effective methods for less effective methods and safer for less safe methods). Furthermore, the extra demand generated by the family planning services could be handled within the existing institutional capacity in Belo Horizonte, without requiring either additional staff or additional facilities.

The physicians surveyed showed positive attitudes towards incorporating family planning services delivery. Many already provide these services on an ad-hoc basis, and even more would participate if family planning were formally recognized by the health plan.

Costs and benefits of offering family planning. Projections indicate that incorporation of family planning services delivery would reduce the number of births covered by the health plan by 6 percent. the number of abortion complications treated by 57 percent, and the rate of caesarian section delivery by 10 percent. Outpatient service utilization in gynecology would increase by 6 percent, and utilization of hospital surgical facilities would increase by 7 percent.

Quantification of the benefits to cost ratio depends on the methodology employed--marginal costs versus opportunity costs. Marginal costs were adopted because at the present time the Belo Horizonte region shows unused

capacity of 19 percent in terms of physician (ob/gyn) time and 35 percent in terms of the physical plant. Estimation of benefits is based on contraceptive user targets and is uninfluenced by prevailing market conditions. Estimation of costs is based on the number of acceptors needed to achieve these user targets and is sensitive to changes in market conditions (client turn-over, whether or not other health plans also adopt family planning). However, under both the worst-possible case conditions (high client turn-over and no other HMOs offering family planning) and under best possible case conditions (low client turnover and/or family planning offered by all health plans) a positive benefits to cost ratio would be achieved in the third year of program operations, according to these projections.

Dominican Republic: Contraceptive Social Marketing

Funding from: USAID SOMARC Project

Source: Contract Prepared by SOMARC

SOMARC and La Asosiacion Dominicana Pro Bienstar de la Familia (Profamilia) have developed a contraceptive social marketing (CSM) program in the Dominican Republic (D.R.). The project will be implemented in two phases. The first, which is already underway, involves marketing of a low cost oral contraceptive (Microgynon, a Schering brand of orals) procured by Profamilia and sold at just over US $1.00 (10/87 exchange rate for DR $3.7 = U.S. $1.00)--half the price of currently available contraceptive pills. The second phase would introduce a new product line of AID supplied birth control, as well as brand-specific advertising. Phase II is contingent upon receiving exemption from the country's ad valorem tax on all imported goods (including contraceptives). The goals of the CSM project are to increase availability and the correct use of contraceptives, and to document such increases.

The CSM market in D.R. is estimated at 48,840 women. About 83 percent of users are expected to select oral contraceptives, and 17 percent to use either condoms or vaginal foaming tablets. The current market for condoms is estimated at 4,000 men. Phase one concentrates on marketing low-cost pills, using non-brand specific advertising to increase awareness of the availability and acceptability of contraceptives.

SOMARC originally estimated selling 250,000 condoms to 2,500 men in the first year of phase two, and introducing a second type of pill as well as foaming tablets. During Phase one, SOMARC determined that it would not be cost-effective to introduce a second pill. The decision to sell condoms will be based on a demonstrated market need for them, taking into consideration that the fact that condoms have not been advertised before in the D.R., as well as the fact that condoms may reach young adults and lower socioeconomic classes.

SOMARC will contract with Interprocon to conduct a KAP survey of respondents following on a 1984 baseline survey of 1504 men and women. Of these 1504, it expects to receive responses from 700. The survey will be used to determine the change in behavior of CSM users and estimate the net impact of CSM on contraceptive prevalence. SOMARC also intends to do a time series study to determine the substitution effects of a CSM oral contraceptive. OMSA

has been selected to conduct initial market research evaluating the promotional campaign for Microgynon (the Phase one pill) and determining the extent of usage of temporary methods for child spacing. In addition, market research will be used to determine if Microgynon is reaching the lower socio-economic classes.

The cost of the project has not been determined.

Mexico: Family Planning Delivery Strategies In an Industrial Setting (Ciudad Juarez)

Funding from: USAID Operation Research Project

Source: Population Council Summary and PI Description

The Materno-Infantil y Plainificacion Familiar de Ciudad Juarez, Chihuahua (MIPFAC), currently provides family planning services to workers in maquiladora (in-bond) plants on the Mexican Border by training and supplying plant-paid nurses working in the maquiladora plant clinics. The plants employ 10,000 workers, 60 percent of whom are women. Although the system works fairly well, the growth of MIPFAC's current service delivery strategy has been hampered by several problems. Included among these are that often plants have no clinics or medical personnel, many plant managers do not accept the services for fear it might interfere with production. Moreover, medical personnel either are not allowed much time to provide the services or they refuse to cooperate.

MIPFAc proposed to implement an alternative service delivery strategy program, employing plant workers as promoters to be trained, supervised and supplied by MIPFAC. Its previous experience suggests this was a feasible strategy. The implementation of this strategy has the advantage of giving MIPFAC's current program much greater strength and flexibility as both strategies can be used alone or combined, depending on the particular service delivery problems of each plant. A brief contraceptive use prevalence survey will be conduced in 8 of the plants (4 from each service model) in order to establish baseline prevalence of service delivery. Another brief prevalence survey will be conducted to assess program effects of each strategy.

Mexico: Family Planning Services at IUSA's Ernesto Peralta Quintero (EPQ) Industrial Complex

Source: Proposal Prepared by Industrias Unidas, S.A.

Funding from: USAID Enterprise Program

Industrial Unidas, S.A. (IUSA) is an industrial firm with 9,000 employees in two locations. It produces plastic materials. Alejo Peralto, owner and operator, proposes to provide family planning services in his company clinics. The first service will be provided in Queretero, Mexico, in the Ernesto Peralta Quintero (EPQ) complex. The program will be implemented by providing family planning training to the doctors and nurses already in the company's clinics. FEMAP, a Mexican Family Planning PVO, would supply contraceptives under a subcontract. IUSA is requesting $83,000 for start up costs.

Mexican Social Security Institute services are located too far from IUSA's factories to be convenient to its workers. The program has three objectives. The first is reduce the birth rate at the EPQ complex from 10.2 percent to 5 percent within two years. The second is to cut in half the work hours lost due to maternity leave. The final objective is to provide a model for other companies to follow. To achieve these goals, IUSA intends to refurbish and expand its medical facilities and provide education in family planning. A month-long family planning course will be offered 12 times per year for industrial workers at EPQ's pre-training school. (All new hires attend the pre-training school.) Three six-week courses will be offered to professionals and semi-professionals in groups of 30 to 40. Two 12-week courses will be offered at the technical high school to 35 students, most of whom will later be employed by IUSA. All courses will be offered to mixed groups (men and women). Personal counseling will be provided as needed.

Although IUSA states that the program will train doctors and nurses already in its clinics, it appears that it will hire new staff for its clinic at EPQ. The Project Operations Director will be an obstetrician-gynecologist with family planning experience, and will be assisted by an assistant nurse. A social worker will implement educational and informational activities and act as liaison between education and social services as well as assist in evaluation. The social worker and the physician will conduct classes after working hours. An anesthesiologist will be contracted for microsurgery. Actual services will include education and provision of family planning services, including an IE&C program. MEXFAM will train the physician, nurse assistant and social worker in family planning and evaluate their capabilities afterward. The program will be evaluated periodically as to benefits to employees and profitability to the company. MEXFAM will conduct a KAP study of 150 IUSA employees and develop a monitoring system for data collection. It will conduct five monitoring/evaluation visits during the project. Materials for courses will be obtained free of charge from MEXFAM. After reviewing results of the KAP study, the social worker and projects operations director will determine the content and duration of training programs for new employees, assisted by MEXFAM. The KAP survey will also be used to determine the services to be provided by the clinic. A monitoring system will be developed by IUSA and MEXFAM to collect data on costs and benefits. A second KAP survey will be conducted at 6 months prior to the end of the project to determine changes in knowledge, contraceptive prevalence and pregnancy rates.

It is not clear what contraceptives will be offered, although condoms, IUDs and sterilization are mentioned. No mention is made of costs to users for the contraceptives or counseling.

Mexico: Medical Service Microenterprises in the Metropolitan Areas of Fast-Growing Cities (Mexico City, Guadalajara, Monterrey, Puebla, Coatzacoalcos, Torreon, Morelia, Masatlan, and Culiacan)

Funding from: USAID Enterprise Program

Source: Fundacion Mexicana para la Planeacion Familiar Proposal

This project hopes to generate a network of twenty small medical enterprises that offer health services, with special focus on family planning in 9 cities. The network should be self-financing by the end of the project. The Fundacion Mexicana para la Planeacion Familiar (MEXFAM) will be responsible for the execution, follow-up, evaluation, and administration of the project. The Enterprise Program is expected to participate in project evaluation.

MEXFAM has selected these cities because their populations through fertility or migration are growing at a much faster rate than the national growth rate. In addition, there are an estimated 60,000 unemployed doctors in the country while about 25 million Mexicans are receiving no health care. The goal is to attain 20,000 family planning acceptors in the first part of the project.

Twenty sites will be selected, based on the areas with the highest poverty and population growth levels, and the fewest medical services. One doctor and ten family planning promotion assistants will be chosen for each site. In addition, each promotion assistant will be assigned two sites, and receive financial incentives to increase the number of users of contraception. In addition, a Health Committee (comprised of the community's "moral authorities") will be formed at each site to act as the community's liaison with the project, and will eventually take over the basic infrastructure at the end of the project.

The doctors will be trained in the anatomy, physiology, and methods of family planning, and will also receive training in administration, community promotion of family planning, and the operating systems of MEXFAM.

Doctors will set up convenient consultation hours (no further details available). The project will procure the necessary equipment for the project, but will pay those costs for the first year only. MEXFAM will pay the doctor for all first-time family planning visits, and in addition, will guarantee a minimum of paid visits, decreasing over time (from 120 visits the first month, to 5 in month 24). The doctor will charge patients for all general consultation and subsequent family planning consultations. It is expected that by the termination of this project, the doctor will have a regular clientele.

Fees have been set for specific services (ranging from a family planning consultation to cycles of birth control pills or IUD insertions), with slightly lover fees for poorer, marginal areas. In addition, physicians are authorized to make exceptions in the case of people who cannot pay the set costs.

Some of the evaluation criteria to be applied include: number of users who continue to participate in the project, the time that it takes each

micro-enterprise to reach financial self-sufficiency, and how administrative mechanisms are working.

The estimated budget is $150,039.

Mexico: Self-Financing Family Planning Project

Funding from: USAID Enterprise Program

Source: La Academia Mexicana de Investigacion en Demografia Medica Proposal

Two organizations are involved in this project: La Academia Mexicana de Investigacion en Demografia Medica (The Mexican Academy for Research in Medical Demography), a private non-profit research group, and PROTA (Proteccion Anticonceptiva) (Contraceptive Protection), an organization to be specially created for this project and which will consist of a group of at least five associates, an advisory board and a president. The Academia will function as the recipient of donations of funds and contraceptives, and PROTA will develop the necessary infrastructure to actually distribute the contraceptives.

The principal idea behind this project is that the continuity of use of contraceptives is crucial. The project thus has chosen to concentrate on the IUD because of this high level of continuity and its effectiveness. The objectives of the project are to improve the efficiency of private family planning in distributing IUDs, to promote the project' self-sufficiency, and to gather statistical information on IUD users.

PROTA will implement the project through two avenues: doctors in the Social Security system (IMSS) who also have private practices, and family doctors with exclusively private practice. PROTA will provide two services: 1) training for the doctors on family planning in general and IUD insertion in particular, and 2) the provision of IUDs and informational material for both doctors and patients. An extensive study suggests that a total of about 3600 doctors will participate, of whom 997 to 1703 would require training. PROTA will be providing the IUDs to the doctors in private practice at the lowest possible cost, but will rely on the doctors to take responsibility to ensure that the total fee charged to the recipient (i.e., including the doctor's fee) is as low as possible.

The proposal gives two alternative methods for charging the participating doctors. In Alternative A, the IUDs will be given free of charge to all doctors associated with the IMSS and assesses a charge or donation from the private sector doctors. In Alternative B the obstetrician-gynecologists within the IMSS would also be charged, the assumption being that the incomes of IMSS recipients are higher than the social security's general practitioners.

Because a survey with the users would be too delicate and too costly, a careful controlled evaluation is planned. A random number of doctors will be asked to provide information on what the users paid for the consultation, the IUD and the IUD insertion.

The project would cover four years and would begin in the urban Mexico Valley for the first two years, gradually expanding to include the rest of the country.

The budget for the first year is US $150,096 (using an exchange rate of 470 pesos to the dollar). Equipment costs were not included, however, because it was unclear whether these might be covered by the Enterprise Project.

Peru: Electrolima and Milpo Family Planning Projects

Funding from: TIPPS Project (USAID)

Source: TIPPS Proposal

TIPPS has designed a project to interest private companies in family planning. The project consists of a country assessment, a business analysis (employee survey and cost-benefit analysis) and dissemination of results of the analysis. It should be noted that the TIPPS project does not provide actual family planning services, but rather provides a business analysis to chairmen and Chief Executive Officers (CEOs) of companies, which then may elect to offer services.

The first "subprojects" were at Electrolima and Milpo in Peru. TIPPS conducted business analyses at these companies and presented the results to the Board of Directors at each. Electrolima decided to offer family planning services to its 11,500 employees and dependents; Milpo decided to offer family planning as part of a comprehensive package of preventive services to its 6,000 employees and dependents.

The basis of the business analysis is a cost-benefit model which analyzes fertility behavior, estimates potential family planning demand and projects future fertility behavior under present conditions and higher contraceptive prevalence. Benefits include reduced maternity costs, treatment of abortion complications, and cost of dependent care, among other things. Results of the business analysis indicate positive benefit/cost ratios at the two subprojects (nine to one at Milpo, five to one at Electrolima). The cost at Milpo for four years of service is estimated at $38,000. The cost at Electrolima ranges from $23,800 to $50,500, depending on which of three models is used. Employees and spouses at both companies expressed desire for smaller families and access to family planning services.

After determining the results of the business analysis, TIPPS held two conferences for CEOs of major Peruvian companies to disseminate information. After the two-day regional conference, two companies (representing a total of 3,840 workers) requested assistance in implementing a family planning program, and three companies (9,478 workers) requested training for company personnel. TIPPS expects a large spin-off impact from its project: the mining industry (with 600,000 workers and dependents) will "lead the way" in offering family

planning. TIPPS has also arranged for local PVOs (National Family Planning Associations) to provide fee-for-service and pre-paid services to private companies.

St. Lucia: Contraceptive Distribution in Factories in St. Lucia

Funding from: USAID Operational Research Project

Source: PIP Excerpt from Landry, Louisy and George (1986)

Family planning services in the work place can be convenient and effective. Between 1983 and 1984, two contraceptive delivery systems were tested in factories in St. Lucia. In the experimental factories an employee in each was selected and trained to sell oral contraceptives, condoms, and foam and to answer questions and make referrals. A nurse visited twice a month to provide back-up. In other factories the visiting nurse was the only source of supplies and services. In the factories with an employee as distributor, contraceptive prevalence increased from 32 to 38 percent, whereas in the factories served only by the nurse use actually decreased slightly.

NEAR EAST

Egypt: MISR Spinning and Weaving Company
Hospital Family Planning Research Centre

Funding from: Unknown

Source: Presentation by Dr. Sayed Etman --
International Conference on Family Planning
(New Delhi, 1972)

In 1962, two family planning centers were instituted for the workers of MISR Spinning and Weaving Company: one in its hospital (which serves 30,000 workers) and the other in the company workers' village. A committee of workers was formed to encourage participation in a variety of family planning activities: leaflet distribution, conferences, lectures and plays. In 1967, the same procedure was used in 73 villages in the Gharbia province. The program was evaluated in 1972 and again in 1980; results were presented by Dr. Etman.

In 1976, it was determined that 79.6 percent of the women who had access to the project were fecund. Of these, 38.1 percent used contraceptives--84.8 percent using the pill. Of those who were not using family planning, 50 percent wished to become pregnant, but were not opposed to family planning. In 1980, it was determined that only 40.7 percent of family planners used the pill, compared to 67.3 percent in 1976. Tubal sterilization was used more frequently: increasing from 3 percent of users in 1973 to 8.9 percent in 1980. IUD use rose from 24.9 percent in 1976 to 47.6 percent in 1980. Condom use decreased from 1.9 percent in 1976 to .5 percent in 1980.

There are no indications about where contraceptives are obtained, how much they cost to acceptors, or other specifics about the clinics.

Egypt: Tanta Industrial Family Planning Project

Funding from: Pathfinder Fund

Source: Gharbiza Family Planning Association

Under a project proposed in 1983, Pathfinder provided $49,659 for a special site on the premises of the Oil and Soap Factory in Tanta that was renovated and equipped to provide family planning services to factory workers and their families. A baseline survey was conducted to determine contraceptive prevalence at the factory. A project supervisory committee, composed of the factory chairman, the association director, government representatives, religious leaders and a doctor was to meet monthly during the project to supervise and make recommendations. The project staff received a five day orientation and was to include a gynecologist, internist, nurse social worker, financial officer and secretary.

Services provided were to include family planning group sessions, individual counselling, contraceptive distribution (barrier methods, pills, IUDs), referral for sterilizations, MCH and other general health services. The area in which services will be provided is rural, agricultural, and mid to low income. The project will serve a population of 4,000 factory workers and will provide services during working hours. The objectives are to obtain baseline data on contraceptive prevalence, to provide group I & E sessions to 1,500 participants and to provide contraceptives to 2,000 new acceptors: 1,600 pill users, 200 IUD insertions, 100 female barrier users and 100 condom users.

Progress reports will be submitted including results of a KAP study, a time schedule for implementing all project activities, a quarterly statistical report on all services provided. A contraceptive prevalence survey will be conducted at the end of the project and compared with the baseline survey.

No mention is made of contraceptive prices to users, or where contraceptives will be obtained.

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The private sector might meet more of the demand for contraception, thereby reducing government's subsidies for contraception.

The private sector is already involved in many facets of family planning — from research and development to production and to distribution and delivery. It is the major source of contraceptive resupply methods (oral contraceptives and condoms) in most countries. And it is an important source of more permanent methods terilization and IUDs) in a few countries.

Some public efforts have been exerted to harness and collaborate with the private sector. These include incorporating family planning with employee health benefit packages (the most common experience), social marketing projects where a subsidized contraceptive is distributed through commercial channels), and stimulants to private sector investment in family planning.

Few of the experiments have been evaluated, but some arrangements appear to be appropriate and effective in raising contraceptive prevalence. Moreover, steps could be taken to improve and expand the methods that donors and national governments adopt to promote greater private sector investment in family planning service delivery.

Clearly needed is an evaluation of existing programs and projects. More needs to be known about what determines consumer reliance on private as opposed to public sector sources of services, the cost and cost-effectiveness of different interventions, and the limits of the private sector in meeting contraceptive demand.

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