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**Market Segmentation Analysis of the Indonesian
Family Planning Market: Consumer, Provider and Product
Market Segments**

and

**Public Sector Procurement Costs of Family Planning under
Different Scenarios of Private Sector Participation**



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OPTIONS II Project

OPTIONS

for Population Policy

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FAMILY PLANNING MARKET:**

**CONSUMER, PROVIDER AND PRODUCT
MARKET SEGMENTS**

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EXECUTIVE SUMMARY

Market Segmentation Analysis of the Indonesian Family Planning Market: Consumer, Provider and Product Market Segments

The family planning program in Indonesia is very successful. By 1994, modern method contraceptive prevalence had reached 52 percent. Over the span of approximately 25 years the average number of children a woman would have in her lifetime has decreased from almost six in the late 1960s to less than three today.

This success has been achieved through a strong government program that has received support from the highest levels. Although governmental support remains vigorous, there is now a commitment to increase the market share of the private sector while ensuring that the poor continue to receive family planning services for free or at reasonable prices from government sources.

Currently, the private sector provides 28 percent of family planning services. More than half of private sector clients use the injectable. The private sector also serves smaller, but still significant, numbers of pill, IUD and sterilization users. The public sector serves a broader range of clients where no single method is used by more than 27 percent of its clients. The special delivery posts (Posyandu, Polindes and family planning posts) serve a niche of the population that uses the resupply methods of pills and injectables and appreciates accessibility of services above all else.

Private sector clients are relatively well off and appreciate quality services. However, almost 50 percent of public sector clients are in the highest two expenditure quartiles. These women represent a large potential market for the private sector.

Public hospitals are serving clients who are very similar to the clients served by the private sector. The women frequenting public hospitals for family planning are relatively well off, pay prices similar to those in the private sector and often go to the private sector for maternal and child health care.

With the exception of implant acceptors, private sector clients pay higher prices than public sector clients. Implants are a special case since no true commercial implants existed in 1994 (the year of the survey). With the exception of injectables, none of the median prices paid, even in the private sector, were as high as commonly-cited commercial prices for the methods.

Consumers who are relatively well off are more likely to be acceptors of sterilization and to use injectables. Poorer consumers are more likely than their well-off counterparts to use pills and implants.

In general, the consumer market is well segmented by price. Well-off IUD, implant and sterilization acceptors pay a much higher price than poorer acceptors. Well-off consumers pay moderately higher prices for pills and injectables. However, if the percent of women receiving free services is the defining criterion for market segmentation, then the market is not well segmented. Well-off users of implants and pills actually receive free services more often than poor women. Well-off and poor users of injectables are equally likely to receive free services. The only clear exception to this skewed segmentation is among poor IUD users who receive their method and service free more often than the relatively well off.

Market Segmentation Analysis of the Indonesian Family Planning Market: Consumer, Provider and Product Market Segments

I. INTRODUCTION

The family planning program in Indonesia is one of the most successful in the world. Over the span of 25 years, contraceptive prevalence has increased from under 10 percent to 55 percent today. The program has been built with the strong leadership of BKKBN (State Ministry of Population/The National Family Planning Coordinating Board) and its long-time minister, Dr. Haryono Suyono.

The program is very reliant on government support. In 1994, the private sector supplied only 28 percent of family planning services. This low percentage is diminished in impact further because, for the most part, the private sector is not fully commercial. Many private sector practices are actually after hours practices operated by doctors and midwives who are dependent on government salaries, benefits and facilities for profitable operation.

BKKBN recognizes the importance of a strong and growing private sector. *KB Mandiri* (Family Planning Self-Reliance) envisages a two-step process. In the first step, clients participate in partial self-reliance by making contributions toward their family planning services. In the second step, when clients have the means, they will frequent fully-commercial private sector providers.

BKKBN has also made a strong commitment to train private midwives. These midwives are trained to supply all methods except voluntary sterilization. Private midwives now supply more than 15 percent of all contraception in Indonesia. This figure will surely increase as more midwives are trained.

There is also a policy in its formative stages to identify family planning clients who are capable of paying for private sector services. Under the *Keluarga Sejahtera* (KS) program,¹ every family in Indonesia has been assigned a welfare classification based on physical, economic, social and spiritual characteristics.² These classifications run from Pre-Welfare at the low end to Welfare Classification 3 Plus at the high end. A new aspect of the family planning policy is a push to orient prosperous families toward the private sector. Families identified as Pre-Welfare or Welfare 1 will be oriented to the public sector, where they will receive services for free. Families identified as Welfare 2 or above will be oriented to the private sector, where they will pay commercial prices.

Importantly, the welfare classification policy can be recognized as part of a nascent market segmentation strategy for private sector promotion. A market segmentation strategy is a package of policies that has at its core the understanding that the public sector will serve the portion of the

¹*Keluarga Sejahtera* (KS), or *Prosperous Family*, is a BKKBN initiative designed to improve the overall welfare of Indonesians by strengthening the family. The program acts on many fronts, including health, religion and economics. KS represents a clear expansion of the BKKBN mandate into areas other than family planning.

² See Appendix C for a more complete description of the Family Welfare Classes.

population that cannot afford or obtain³ fully-commercial services while encouraging those who *can* afford and obtain commercial services to utilize the private sector. The KS program is an important first step in this direction. Still, important details remain to be considered:

- How will the public sector continue to develop methods for identifying couples eligible to use public services?
- How will the public sector re-orient couples who can afford private sector services?
- How will the private sector be regulated to ensure that comprehensive, high-quality family planning services are delivered?
- How will the public sector identify the geographic areas that cannot support the private sector?
- What support roles will the public sector take for itself (e.g., IEC, procurement coordination)?
- How will legal and regulatory reform proceed to ensure that a wide variety of service delivery types can flourish?

This report mobilizes data from the 1994 Indonesia Demographic and Health Survey (IDHS) to help address some of these issues. The IDHS provides a unique set of detailed questions about women's family planning, reproductive health and maternal/child health behaviors, as well as information about household characteristics, including expenditures.

There are many ways that market segmentation can be analyzed. This report looks at the issue from three perspectives:

- Consumer market segmentation
- Provider market segmentation
- Provider market segmentation within the product markets

The first cut at market segmentation looks at consumer groups as defined by their average total monthly expenditures. This analysis defines four quartiles, corresponding to consumer groups running from low expenditures to high expenditures. These expenditure quartiles are usually interpreted as ability to pay. The "consumer segments" have particular characteristics that differentiate them. The analysis will show how the consumer segments are different in terms of demographic characteristics and contraceptive behavior. It will also assess the degree of market segmentation based on where consumers receive their services and on the prices that the different consumer groups pay for their methods and services.

The second look at market segmentation analyzes the current orientation of the market from the provider perspective. Public sector, private sector and special delivery posts (Posyandus, Polindes and family planning posts) are each analyzed separately and compared. This analysis examines profiles of the clients frequenting these sources. These profiles include information

³ The qualifier "obtain" is included because there may be places in a country where population density or degree of overall poverty make a profitable private sector impossible. In this case, even though some individuals may be able to afford private services they will not be able to obtain these services because they do not exist.

about demographic and economic characteristics of clients as well as information regarding the factors that attract clients to the particular provider types.

The third direction of analysis is to look at the provider markets for each of the major methods in Indonesia (i.e., pills, IUD, implants, injectables and voluntary female sterilization). This analysis addresses the degree of segmentation within the individual product markets. The assessments are based on comparisons of the prices paid and key economic characteristics of the clients within each market segment.

II. CONSUMER MARKET SEGMENTS

Income and household expenditures are both indicators of gross purchasing power. The recent IDHS posed a battery of questions concerning household expenditures, providing information about broad categories of expenditures such as food, clothing, housing and health, as well as total monthly and yearly expenditures.⁴

The analysis reported below is based on a consumer market segmentation by expenditure quartiles. Households were divided into four groups of equal size: Expenditure Quartile I consists of women who live in households with the lowest yearly expenditures; Expenditure Quartile IV consists of women who live in households with the highest yearly expenditures. The expenditure quartiles roughly approximate the welfare classes used in the KS program (see appendices B, C and D).

	Expenditure Quartile I	Expenditure Quartile II	Expenditure Quartile III	Expenditure Quartile IV
Average monthly expenditures	100010	159759	235747	510178
Health expenditures last year	13479	22896	46629	133731
Health expenditures as percent of total expenditures	1.1%	1.2%	1.6%	2.2%
Percent of paying contraceptors who had their contraception paid by insurance, their company or office	0.4%	0.6%	0.9%	4.8%
Number of observations	3019	3209	3225	3178

⁴ Only half of the households were queried about expenditures, therefore, sample sizes in this section are about one-half the number reported in the final report of the DHS.

There is a perception noted elsewhere⁵ that only 2-10 percent of the population can afford health care. This perception is fueled by relative poverty in the past and the belief that family planning is an entitlement. However, Table II.1 indicates that women in the upper expenditure quartiles have considerable purchasing power. Households in the highest expenditure quartile spend almost 10 times as much on health care as do the households in the lowest expenditure quartile. As a proportion of the total household budget, health expenditures double in the highest expenditure quartile. The health care budgets of the upper expenditure quartile are further bolstered by their use of third party payers for their contraception. Almost 5 percent of the paying contraceptors in the upper expenditure quartile had their contraception paid by insurance, their office or their company. Third-party payers pay for a negligible portion of family planning for the other three expenditure quartiles.

A. Demographic Characteristics across the Expenditure Classes

Women in the households with high expenditures are on average older, live in urban areas, and are better educated (see Table II.2). Their husbands are well educated and have jobs in occupations normally associated with the high-paying formal sector. The number of women under the age of 30 is 16 percent higher in the lowest expenditure quartile than in the highest. The lowest expenditure quartile is almost completely rural while only about one-third of the women in the highest expenditure quartile live in rural areas. Only 11 percent of women in the lowest expenditure quartile have attended secondary school, while 41 percent of those in the highest expenditure quartile have attended. Their husbands show a similar trend across the expenditure quartiles. Interestingly, the biggest jumps in education are at the third and fourth quartiles of expenditures.

	Expenditure Quartile I	Expenditure Quartile II	Expenditure Quartile III	Expenditure Quartile IV
Percent of women less than 30 years old	47%	42%	36%	31%
Percent rural	91%	82%	69%	37%
Percent of women who began secondary school or attended school beyond secondary school	11%	13%	25%	41%
Percent of husbands who began secondary school or attended school beyond secondary school	15%	19%	32%	47%
Percent of husbands in white collar professions	14%	22%	34%	55%
Number of observations	3019	3209	3225	3178

⁵ Ravenholt, Betty. 1996. "Potential for Expanded Private Sector Delivery of Family Planning Services in Indonesia: Initial Findings and Recommendations." Washington, DC: The Futures Group International. OPTIONS II Project.

TIPOLOGI	Expenditure Quartile I	Expenditure Quartile II	Expenditure Quartile III	Expenditure Quartile IV
WILAYAH1	56%	47%	35%	40%
WILAYAH2	15%	25%	35%	35%
WILAYAH3	20%	21%	21%	18%
WILAYAH4	8%	8%	9%	7.27%
Total Percent	100%	100%	100%	100%

Husbands in the highest quartile are four times more likely to be in professional, technical, managerial, administerial, clerical or sales professions (white collar). This is consistent with the high percent of women seen earlier who had their contraception paid for by third-party payers.

The TIPOLOGI categories (Table II.3) refer to the new BKKBN program to target different levels of family planning, population and family welfare interventions to the various provinces.⁶ These categories of provinces do not track well with the expenditure quartiles. If the categorization of provinces was tracking expenditure categories well then a relatively high percentage of women in the highest expenditure quartile would be in a WILAYAH I province. Similarly, women in the lowest expenditure quartile should be disproportionately in WILAYAH IV. The observed pattern in the data is completely different. Fifty-six percent of women in the lowest expenditure quartile are in WILAYAH I, while only 40 percent of those in the highest expenditure quartile are in WILAYAH I. Interestingly, the pattern is completely reversed for the second highest TIPOLOGI category, where 15 percent of those in the lowest expenditure quartile are in a WILAYAH II province, while only 35 percent of the highest expenditure quartile are in a WILAYAH II province. There is no clear pattern in the lowest TIPOLOGI categories.

B. Use of Contraception

Women in lower expenditure households contracept less than those in higher expenditure quartiles (see Table II.4). The method mix among the lower expenditure quartiles is more heavily weighted toward pills and implants. On the other hand, the higher expenditure quartiles are more likely to use injectables and female sterilization. The use of IUDs follows a peculiar U-shaped pattern

⁶The TIPOLOGI categories are a rank ordering of the development statuses of provinces. WILAYAH I contains the provinces with the highest socioeconomic development. Provinces in WILAYAHs II through IV have descending levels of socioeconomic development.

WILAYAH I: East Java, Central Java, DKI Java, Bali, DI Yogyakarta, North Sulawesi

WILAYAH II: West Java, South Sumatra, West Sumatra, Bengkulu

WILAYAH III: North Sumatra, Lampung, South Sulawesi, South Kalimantan, West Nusa Tenggara, Riau, East Kalimantan, Central Kalimantan, and Central Sulawesi

WILAYAH IV: DI Aceh, West Kalimantan, Central Nusa Tenggara Southeast Sulawesi, Maluku, Irian Jaya, and East Timor

across the expenditure quartiles. Twenty-four percent of women in the lowest quartile use IUDs; this figure dips to 20 percent in the second quartile and to 17 percent in the third quartile before jumping back to 23 percent in the highest expenditure quartile. Male sterilization, diaphragm and condoms each have small market shares and will not be analyzed further.

Across the expenditure quartiles, women use contraception for different reasons. Seventy-two percent of the women in the highest expenditure quartile say they have a limiting need for contraception.⁷ In the lowest expenditure quartile less than 50 percent of women express a limiting need for contraception.⁸

	Expenditure Quartile I	Expenditure Quartile II	Expenditure Quartile III	Expenditure Quartile IV
Current use of modern contraception	47%	53%	53%	56%
Pills	38%	33%	33%	26%
Injectable	21%	30%	34%	30%
Implants	13%	10%	8%	4%
IUD	24%	20%	17%	23%
Female Sterilization	2%	5%	5%	12%
Male Sterilization	1%	1%	2%	1%
Diaphragm	0%	0%	1%	1%
Condom	1%	0%	2%	5%
Total Percent	100%	100%	100%	100%
Percent of users expressing a limiting need for contraception	48%	57%	61%	72%
Number of observations (contraceptors)	1295	1547	1628	1687

⁷ A limiting need for contraception is defined as either expressing the desire for having no more children or being sterilized.

⁸ This pattern of demand does not, however, explain the differences in methods mix across the expenditure groups. Although not reported here, the method mixes remain approximately the same even when "spacers" and "limiters" are analyzed separately. Appendix A presents the detailed results.

C. Prices of Contraceptives across Expenditure Quartiles

The prices paid across the different expenditure categories are revealing (see Table II.5). Prices are an indirect indicator of the degree of market segmentation. An appropriate market segmentation would have more free distribution and lower prices paid by low expenditure consumers. Similarly, high expenditure consumers would receive their contraception less often for free and would pay higher prices.

In general, among those who pay, the market is well segmented by price. For every method, those in the lowest expenditure quartile pay a lower price on average than those in the highest expenditure quartile. On the other hand, with the exception of the IUD market, free distribution is being inefficiently segmented across the expenditure quartiles.

- In the pill market, women in the upper three expenditure quartiles pay more for their pills than women in the lowest expenditure quartile. However, pill users in the highest expenditure quartiles are more likely to receive their pills for free.
- In the injectable market, women in the highest expenditure quartile pay a higher price than women in the lower three expenditure quartiles. Approximately the same proportion of women in each expenditure quartile receive their injectables for free.
- In the implant market, women in the upper three expenditure quartiles pay higher prices than women in the lowest expenditure quartile. However, women in the higher expenditure quartiles are more likely to receive the implants for free.
- In the sterilization market, poor women pay lower prices than relatively well-off women. Although women in the lowest expenditure quartile are most likely to receive their sterilization for free, women in the second quartile are the least likely to receive their sterilization for free. No clear pattern presents itself.
- The IUD market is very well segmented. Nearly three-fourths of women in the lowest expenditure quartile receive their IUDs for free. Similarly, the prices paid increase steadily through the first three quartiles from 1000 to 3000 and then jump dramatically to 19000 in the highest expenditure quartile.

Table II.5: Comparison of Method Prices and Percent of Women Receiving their Method Free across the Expenditure Quartiles⁹				
	Expenditure Quartile I	Expenditure Quartile II	Expenditure Quartile III	Expenditure Quartile IV
Percent of pill users getting method. and services free	18%	21%	19%	23%
Pill median price	375	500	500	500
Percent of injectable users getting method. and services free	7%	5%	5%	6%
Injectable median price	3500	3500	3500	4000
Percent of implant users getting method and services free	39%	49%	49%	45%
Implant median price	5000	6000	5500	8000
Percent of IUD users getting method and services free	73%	67%	56%	39%
IUD median price	1000	1000	3000	19000
Percent of female sterilization acceptors getting method and services free	50%	29%	42%	32%
Female sterilization median price	17500	16000	87500	100000

D. Sources Used across the Expenditure Quartiles

Looking at provider markets across the expenditure quartiles provides another perspective on market segmentation. A relatively efficient segmentation would see women in the higher expenditure quartiles using the private sector more often than those in the lower expenditure quartiles. Similarly, the lower expenditure quartiles would use the public sector and the special delivery posts more often than the higher expenditure quartiles.

Table II.6 shows that the combined share of the public and special delivery sectors decreases from about 80 percent in the lowest expenditure quartile to 54 percent in the highest expenditure quartile. The private sector share increases from only 13 percent in the lowest expenditure quartile to 43 percent in the highest expenditure quartile. At first glance, this appears to be an efficient market segmentation.

⁹ See Appendix F for sample sizes in each cell.

Table II.6: Source Distribution across the Expenditure Quartiles				
	Expenditure Quartile I	Expenditure Quartile II	Expenditure Quartile III	Expenditure Quartile IV
Government hospital	4.7%	7.1%	6.7%	14.1%
Government health center	45.1%	40.8%	33.8%	25.3%
Government field worker	4.6%	1.9%	1.1%	0.9%
Government mobile clinic	1.2%	0.7%	0.9%	0.2%
Other government	2.7%	0.9%	2.3%	1.5%
Total Public Sector	58.3%	51.3%	44.8%	42.1%
Private hospital	0.8%	1.1%	2.6%	7.3%
Private clinic	0.2%	1.2%	3.2%	3.1%
Private doctor	1.3%	3.6%	5.0%	10.0%
Private midwife	10.0%	15.3%	19.1%	18.0%
Pharmacy	0.7%	0.6%	2.4%	5.0%
Other private	0.4%	0.2%	0.1%	0.0%
Total Private Sector	13.4%	22.0%	32.4%	43.4%
Delivery Post/polindes	0.7%	1.1%	0.2%	0.0%
Health post/posyandu	14.3%	13.4%	12.4%	8.0%
FP post/PPKBD	6.4%	6.6%	5.7%	3.8%
Total Special Delivery	21.4%	21.1%	18.3%	11.8%
Other	10.6%	10.1%	10.5%	9.4%
Total All Sources	100%	100%	100%	100%
Number of observations	1295	1547	1628	1687

Closer examination, however, tempers this conclusion. In the two upper income quartiles, there is still more than 50 percent who use either the public sector or the special delivery posts. Also, there is an inefficient segmentation in the public hospitals. Only about 5 percent of the clients in

the lowest expenditure quartile use the public hospitals while more than 14 percent of the highest income quartile clients use the public hospitals.¹⁰

Interestingly, many women who use the public sector for family planning use the private sector for at least some of their maternal and child health care. Table II.7 shows that 41 percent of the women in the highest expenditure quartile who use the public sector for contraception go to the private sector for at least some of their maternal and child health care.¹¹

	Expenditure Quartile I	Expenditure Quartile II	Expenditure Quartile III	Expenditure Quartile IV
Percent of women using the public sector for family planning who use the private sector for at least some of their maternal and child health care	29%	31%	42%	41%
Number of observations (approximate)	755	794	729	710

III. PROVIDER MARKET SEGMENTS

This section of the paper describes market segments from the perspective of the provider. The public sector includes hospitals, health centers known as puskesmas, fieldworkers, mobile clinics and other unspecified government facilities. The private sector includes doctors, midwives, hospitals, clinics, pharmacies and other unspecified private facilities. The special delivery posts include posyandus, polindes and family planning posts.

Posyandus are village gatherings at which public sector providers furnish health care, including family planning. The site where this is carried out is often a community center, village leader's house or other appropriate village meeting place. Polindes are small facilities established by private midwives to deliver family planning. Family planning posts are government community-based distribution programs that distribute BKKBN commodities such as pills and condoms.

A. Market Shares

Table III.1. shows the contraceptive market share for each of the three broadly-defined types of providers. The public sector is the major provider with 49 percent of the market. The private sector has a 28 percent market share and the special delivery posts have a 19 percent market

¹⁰ The relatively high acceptance of female sterilization among the high expenditure women is only partially responsible for the high usage of public hospitals by high expenditure women. High expenditure women also use the hospitals disproportionately for IUD insertion and implant acceptance. The next section elaborates this point.

¹¹ This type of analysis is partially based on the work in Foreit, Karen. 1995. "Designing an appropriate mix of sources for contraceptive methods and sources", in *Policy and Programmatic Use of DHS Data: A Tool for Family Planning Program Managers and Analysts*. Options II /The Futures Group International.

share. Within the public market, the health centers have the largest single share of the market. Most of the family planning services are provided by midwives at these centers. Government hospitals provide more than 7 percent of the contraceptive market. In the private sector, private midwives have the single largest share. Private hospitals and private doctors also have significant shares. Posyandus have the largest single share of the special delivery post market. The resupply posts of PKKBD also supply a significant part of the demand in the special delivery post segment.

Table III.1: Provider Distribution across all Contraceptors	
Provider	% of Market
Government hospital	7.6%
Government health center	36.6%
Government field worker	1.9%
Government mobile clinic	0.8%
Other government	1.7%
Total Public Sector	48.6%
Private hospital	3.0%
Private clinic	1.8%
Private doctor	5.0%
Private midwife	16.2%
Pharmacy	2.0%
Other private	0.1%
Total Private Sector	28.1%
Delivery post/polindes	0.4%
Health post/posyandu	12.5%
FP post/PPKBD	5.7%
Total Special Delivery Posts	18.6%
Other or don't know	5.7%
Total of All Sources	100%
Number of observations ¹²	13661

¹² The number of observations here is higher than the sum of the observations in Table II.6 because all observations including those without data for expenditures are tabulated. Expenditure quartiles reported in the following tables are based on predicted expenditures.

B. Demographic Characteristics of Clients

According to recent IDHS data, women using the private sector have the most education and reside in urban areas. They are also concentrated in the well-developed provinces as defined by the BKKBN TIPOLOGI. Women who frequent the private sector are relatively young. Women frequenting the special delivery posts are more likely to live in rural areas and have less education than either the private sector clients or the public sector clients.

C. Method Mix

Special delivery posts and the private sector serve particular niches in the contraceptive market (see Table III.2). The special delivery posts provide resupply methods, predominantly pills. More than half of the method mix in the private sector is injectables. Pills and IUDs have shares of 17 percent and 18 percent, respectively.

The public sector provides a wide range of methods. Pills, IUDs, injectables and implants each have more than a 15 percent share of the method mix in the public sector. Female sterilization has a share of just under 10 percent in the public sector method mix.

METHOD	PUBLIC	SPECIAL DELIVERY	PRIVATE
Pill	22%	74%	17%
Injectable	25%	11%	52%
Implant	15%	6%	3%
IUD	27%	7%	18%
Female sterilization	9%	0%	6%
Male sterilization	2%	0%	1%
Diaphragm	0%	0%	0%
Condom	1%	1%	4%
Total Percent	100%	100%	100%
Number of observations	6714	2287	3324

D. Economic Characteristics

As would be expected, the private sector attracts relatively well-off clients while the special delivery posts and the public sector attract relatively poor clients (see Table III.3). Family planning clients using public sector and special delivery post sectors are concentrated in the lowest expenditure quartiles. Almost 50 percent of public clients are in the highest expenditure quartiles. Thirty-eight percent of special delivery clients are in the highest expenditure quartiles.

TABLE III. 3. Economic Characteristics of Clients			
Variable	Public	Special Delivery	Private
Expenditure quartile I	25%	31%	10%
Expenditure quartile II	26%	32%	17%
Expenditure quartile III	28%	28%	30%
Expenditure quartile IV	20%	10%	43%
Total Percent	100%	100%	100%
Health expenditures last year	39000	30000	70000
Health expenditures as percent of total expenditures	1.3%	1.2%	1.6%
Percent receiving free	38%	24%	9%
Company insurance or office payments	1.9%	0.2%	2.3%
Number of observations	6528	2233	3239

Health expenditures of private sector users are approximately twice as high (in Rp.) as other users. Public sector users are evenly distributed across the four expenditure quartiles. Thirty-eight percent of public sector users received their method free of charge while only 24 percent of special delivery users received their method for free. Surprisingly, almost 10 percent of women frequenting the private sector report that they received their method and service for free.

There is little difference in third-party payments for family planning (insurance, office or company payments) between the public and private sectors. Both are very low at about 2 percent. There are virtually no third-party payments at the special delivery posts.

Relatively well-off women who use public services and relatively poor women who use private services provide interesting perspectives (see Table III.4). Seventy-five percent of the relatively well-off women frequenting the public sector are using pills, injectables and IUDs, which are affordable and accessible in the private sector. Almost two-thirds of the poor women using the private sector are using injectables.

Table III.4: The Method Mixes of Well-off Clients of the Public Sector and Poor Clients of the Private Sector		
	Clients of the Public Sector in the Highest Two Expenditure Quartiles	Clients of the Private Sector in the Lowest Two Expenditure Quartiles
Pill	22%	16%
Injectable	24%	64%
Implant	10%	6%
IUD	29%	11%
Female sterilization	12%	2%
Male sterilization	1%	1%
Diaphragm	0%	0%
Condom	1%	1%
Total Percent	100%	100%
Number of observations	3368	727

Across all sectors accessibility is cited as the major reason that clients frequent their source (see Table III.5). However, women using the special delivery source cite accessibility as the major reason disproportionately. The outreach nature of the polindes, posyandu and family planning posts is clearly filling the niche of easing accessibility for these users. Women using the private sector cite quality considerations disproportionately as the major reason for choosing a source. Cost is not cited as an important consideration in any of the sectors.

TABLE III.5 Reasons Cited for Using Current Source of Contraception			
Variable	Public	Special Delivery	Private
Why Provider Chosen			
Access-related reasons	67%	85%	62%
Quality-related reasons	6%	3%	25%
Low cost	1%	1%	3%
Anonymity	12%	5%	4%
Other/don't know	15%	7%	9%
Total Percent	100%	100%	100%
Number of observations	6714	2287	3324

In general, each of the broad markets is serving a particular niche. The public sector serves a wide range of users with moderate levels of expenditures. The special delivery posts concentrate on resupply methods to low expenditure clients. The special delivery post clients choose these sites because they are very accessible. More than 50 percent of the private sector clients use injectables. IUDs and pills are also important methods in the private sector. Private sectors clients are the best off and appreciate quality in their choice of service delivery post.

IV. A BRIEF LOOK AT INDIVIDUAL PRODUCT MARKETS

Although the broad provider markets have been shown to serve particular segments of the family planning market, it still remains to be seen if those trends hold within individual product markets. Looking at methods individually, the following analysis sheds further light on the degree of market segmentation.

In this analysis, the product markets are separated into method and source segments based on a review of mean prices paid at the sources. The private sector and the public sector are not homogeneous. In the public sector, hospitals charge higher prices than health centers, mobile clinics and fieldworkers. In the private sector, hospitals, doctors and pharmacies charge higher prices than clinics and midwives. All service delivery points charge similar prices.¹³ The analysis presented below is based on five segments within each product market: low-priced public, public hospital, special delivery posts, low-priced private and high-priced private.

¹³ Diaphragms, condoms, and male sterilizations are excluded since they constitute a small percentage of overall use in Indonesia

A. Pill Market

Women using the private sector segments are on average better off than those using the public sector segments and special delivery posts (see Table IV.1). In general, few users are obtaining pills free of charge. Furthermore, when women in the public sector pay, they pay less than women in the private segments. However, none of the median prices calculated in the pill market segments is as high as the prices recommended by the "Gold Circle" program (1625 Rp.).¹⁴

The private sector serves a very small part of the pill market. Within the private sector, pharmacies have a very small share. Current regulations requiring a physician's prescription may be a contributing factor.

The pill market, at present, appears to be effectively segmented. The public and special delivery sectors have captured the women least able to pay for pills and are offering pills at subsidized prices. There is some evidence, however, that at least some of the public sector users may be able to access a low-price private market, since over a third have used the private sector for maternal and child health care.

This apparent segmentation is not perfect. Many well-off women use the public sector for their contraception. In the consumer market segment analysis, the price differentials across expenditure quartiles were shown to be small. The results presented in this section, however, show good potential for an effective market segmentation.

¹⁴ In this section and following sections about other methods, the lowest Gold Circle recommended price for a method is presented as a representative commercial price. The Gold Circle recommended price does not include associated service costs of the health care provider.

Tables IV.1: Economic Characteristics of Pill Clients					
	Low-Priced Public	Public Hospitals	Special Delivery Posts	Low - Priced Private	High-Priced Private
Market share of segment	42%	1%	41%	11%	5%
Expenditure quartile I	28%	0%	30%	16%	2%
Expenditure quartile II	25%	14%	31%	17%	7%
Expenditure quartile III	29%	28%	28%	35%	26%
Expenditure quartile IV	18%	58%	10%	33%	65%
Total Percent	100%	100%	100%	100%	100%
Median price paid	500	600	300	1000	1500
Percent of women receiving method and service free	24%	61%	17%	13%	9%
Health expenditures	31000	31000	29000	45000	81000
Health care expenditures as a percent of total expenditures	1.2%	1.0%	1.1%	1.4%	1.5%
Company, insurance or office payment	0.6%	0.0%	0.3%	0.5%	0.8%
Percent of women using the public sector for family planning but the private sector for at least some of their maternal and child health care	36%	66%	41%	0%	0%
Number of observations	1639	54	1591	415	213

B. Injectable Market

As shown in Table IV.2, the private sector is very strong in the injectable market. The high-priced private segment is serving a niche consisting mostly of higher expenditure women. The public sector, while less well off than the low-priced private segment, still has a considerable number of upper expenditure women. The special delivery posts are serving a relatively large number of poor women.

Very few users of the injectable in any market segment receive their method and service for free. The median prices steadily increase from the special delivery posts to the public segment to the low-priced private segment to the high-priced private segment. The median price in each of the segments is at or above the lowest price recommended for an injectable product by the Gold Circle program (1925 Rp.).

Tables IV.2: Economic Characteristics of Injectable Clients					
	Low-Priced Public	Public Hospitals	Special Delivery Posts	Low-Priced Private	High-Priced Private
Market share of segment	49%	3%	9%	31%	9%
Expenditure quartile I	26%	13%	36%	13%	5%
Expenditure quartile II	28%	33%	35%	23%	14%
Expenditure quartile III	30%	20%	24%	37%	30%
Expenditure quartile IV	16%	35%	5%	27%	51%
Total Percent	100%	100%	100%	100%	100%
Median price paid	3500	3500	2000	3500	5000
Percent of women receiving method and service free	9%	15%	15%	2%	3%
Health expenditures	45000	37000	28000	51000	79000
Health care expenditures as a percent of total expenditures	1.6%	1.3%	1.1%	1.6%	1.5%
Company, insurance or office payment	0.9%	0.0%	0.2%	1.0%	1.0%
Percent of women using the public sector for family planning but the private sector for at least some of their maternal and child health care	35%	49%	28%	0%	0%
Number of observations	1767	98	313	1137	318

As noted in the previous section, injectables have the largest share in the private sector method mix. This is coincident with public sector injectable prices, which approach or exceed prices established as commercially-viable prices. In the pill market, where the gap between the median public prices and a commercially-viable price is large, the private sector share of the market is very small.

The injectable market is making strides toward an efficient market segmentation. The private segments are serving relatively well-off clients and are charging higher prices than the public sector and the special delivery posts. However, this segmentation is not perfect. Many well-off women continue to use the public market and the special delivery posts.

C. Implant Market

The public sector and special delivery posts dominate the implant market with more than a 90 percent share (see Table IV.3). Since there was no commercially-available implant in 1994, there is a very small private sector market. Results should be interpreted with this in mind.

Compared to other methods, implant users are relatively poor. Eighty-eight percent of implant users are served by the low-priced public segment and the special delivery posts. The private segments serve clients who are better off than those in the low-priced public and special delivery

post segments. The hospitals in the public market serve the best-off implant users. Women using the public hospitals spend the most in absolute terms on health care. One quarter of them are receiving their implants free of charge. The prices paid in the private segments are much below the price currently¹⁵ recommended by the Gold Circle program (75,000 Rp.) and are in fact lower than the price that wholesalers charge retailers for the product (65,000 Rp.).

Tables IV.3: Economic Characteristics of Implant Clients					
	Low- Priced Public	Public Hospitals	Special Delivery Posts	Low -Priced Private	High-Priced Private
Market share of segment	74%	5%	14%	4%	3%
Expenditure Quartile I	39%	21%	42%	35%	10%
Expenditure Quartile II	31%	17%	27%	36%	36%
Expenditure Quartile III	21%	20%	28%	12 %	27%
Expenditure Quartile IV	8%	42%	2%	17%	27%
Total Percent	100%	100%	100%	100%	100%
Median price paid	7000	13500	4000	5000	7500
Percent of women receiving method and service free	45%	24%	56%	30%	6%
Health expenditures	24000	59000	36000	24000	22000
Health care expenditures as a percent of total expenditures	1.1%	1.2%	1.3%	1.0%	0.9%
Company, insurance or office payment	0.2%	1.4%	0.0%	2.5%	17.7%
Percent of women using the public sector for family planning but the private sector for at least some of their maternal and child health care	30%	48%	41%	0%	0%
Number of observations	775	47	151	41	31

D. IUD Market

Women using the private segments are relatively well off (see Table IV.4). In each of the private segments more than 70 percent of the women are in the highest two quartiles of expenditures. In contrast, less than 50 percent of women using the low-priced public and special delivery post segments are in the upper income quartiles. The prices in the low-priced public and special delivery segments are low relative to the private sector prices; furthermore, clients who frequent public sources and special delivery posts often receive their services for free.

IUD users frequenting the public hospitals are very different from the other IUD market segments. They are disproportionately in the upper expenditure quartiles and they pay a relatively

¹⁵ True commercial implants did not exist in 1994, the year of the most recent Demographic and Health Survey. The interpretation of the results presented here should be done with caution.

high price. Also, there are many women in this segment who had their method and services paid by a third-party payer.

Tables IV.4: Economic Characteristics of IUD Clients					
	Low-Priced Public	Public Hospitals	Special Delivery Posts	Low-Priced Private	High-Priced Private
Market share of segment	52%	11%	7%	14%	15%
Expenditure quartile I	24%	5%	27%	10%	3%
Expenditure quartile II	26%	18%	38%	15%	4%
Expenditure quartile III	32%	25%	28%	27%	11%
Expenditure quartile IV	18%	52%	6%	47%	82%
Total Percent	100%	100%	100%	100%	100%
Median price paid	500	6500	500	10000	30000
Percent of women receiving method and service free	70%	59%	82%	26%	15%
Health expenditures	29000	61000	33000	73000	139000
Health care expenditures as a percent of total expenditures	1.1%	1.8%	1.5%	1.6%	1.9%
Company, insurance or office payment	4.3%	8.4%	0.0%	1.3%	10.2%
Percent of women using the public sector for family planning but the private sector for at least some of their maternal and child health care	26%	47%	20%	0%	0%
Number of observations	1366	280	195	375	399

Excluding the women who frequent the public hospitals, the IUD market is well segmented. Hospitals in the public market are catering to well-off women who, from all appearances, could be going to a private sector source for their method. In fact, almost 50 percent of the women frequenting the public hospitals for IUDs receive at least some of their maternal and child health care in the private sector.

E. Female Sterilization¹⁶

Two-thirds of the total sterilization market is supplied by the public sector. Table IV.5 indicates that relatively well-off women are using sterilization in both sectors. However, the clients of the private sector are better off than those in the public sector.

¹⁶ Hospitals provide more than 90 percent of all sterilization procedures; therefore, the analysis is conducted on the basis of only two segments, private and public.

While sterilization acceptors are spending more on health than any other group of method users, the median price for sterilization still exceeds their yearly health expenditures. Partially counterbalancing this, considerable numbers in both sectors are receiving the method free and third-party payment covers an additional 8 to 11 percent of users.

Tables IV.5: Economic Characteristics of Female Sterilization Acceptors		
	Public Sector	Private Sector
Market share of segment	71%	29%
Expenditure quartile I	9%	9%
Expenditure quartile II	19%	4%
Expenditure quartile III	30%	22%
Expenditure quartile IV	41%	66%
Total Percent	100%	100%
Median price paid	50000	175000
Percent of women receiving method and service free	37%	22%
Health expenditures	70260	152729
Health care expenditures as a percent of total expenditures	1.8%	1.9%
Company, insurance or office payment	8.7%	11.4%
Percent of women using the public sector for family planning but the private sector for at least some of their maternal and child health care	43%	0%
Number of observations	479	193

IV. CONCLUSION

This report looked at market segmentation from three perspectives: consumers, provider groups and provider groups within each of the method types. Each of these perspectives provided particular insights into the Indonesian family planning market.

Consumers who are relatively well off are more likely to be acceptors of sterilization and to use injectables. Poorer consumers are more likely to use pills and implants than their well-off counterparts.

In general, the market is well segmented by price. Well-off IUD, implant and sterilization acceptors pay a much higher price than poorer acceptors. Well-off contraceptors pay moderately higher prices for pills and injectables. However, if the percent of women receiving free services is the defining criterion for market segmentation, then the market is not well segmented. Well-off users of implants and pills actually receive free services more often than poor women. Well-off and poor users of injectables are equally likely to receive free services. The only clear exception

to this rule is that poor IUD users receive their method and service free more often than the relatively well off.

Clients of the public sector use a wide variety of methods. Pills, IUDs, injectables and implants each have a share in the method mix of more than 15 percent. More than half of the private sector clients use injectables. Thirty-five percent of the private clients use pills or IUDs. The special delivery posts serve clients using resupply methods.

As expected, clients of the private sector are relatively well off. However, almost 50 percent of public sector clients are in the highest two expenditure quartiles. These women represent a large potential market for the private sector.

The special delivery posts are filling a special niche. They serve relatively poor clients in relatively inaccessible areas. Although their clients have a limited ability to pay, large proportions demonstrate partial self-reliance by making monetary contributions for their methods and services.

Looking at provider segments for individual methods, the private sector serves better-off clients more often than the public sector, except in the case of public hospitals. The public hospitals are serving clients who are very similar to the clients frequenting the private sector. The prices of the methods, with the exception of implants, are well segmented between the private sector and public sector. Implants are a special case since no true commercial implants existed in 1994 (the year of the survey). With the exception of injectables, none of the median prices paid, even in the private sector, were as high as commonly-cited commercial prices for the methods.

This report is presented in the interest of motivating dialogue for developing rational and consistent policies for market segmentation in Indonesia. As mentioned in the introduction, future research and policy development can assist market segmentation by: 1) defining means for identifying and reorienting those who can afford to go to the private sector; 2) developing a regulatory environment for comprehensive and effective private sector services; 3) identifying geographic areas where the private sector is not viable; and 4) defining appropriate support roles for the national population program.

**APPENDIX A:
METHOD MIX ACROSS EXPENDITURE QUANTILES CONTROLLING
FOR LIMITING STATUS**

Table A.1								
	Expenditure Quartile I		Expenditure Quartile II		Expenditure Quartile III		Expenditure Quartile IV	
	Limitier	Spacer	Limitier	Spacer	Limitier	Spacer	Limitier	Spacer
Pills	37%	39%	26%	42%	31%	37%	25%	28%
IUD	29%	19%	29%	9%	22%	9%	25%	19%
Injectable	14%	28%	24%	39%	26%	45%	25%	45%
Implant	12%	13%	11%	9%	8%	7%	3%	6%
Condom	1%	0%	0%	0%	2%	1%	5%	3%
Female sterilization	5%	***	10%	***	8%	***	16%	***
Male sterilization	2%	***	2%	***	3%	***	1%	***
Total Percent	100%	100%	100%	100%	100%	100%	100%	100%

*** Sterilization acceptors are limiters by definition.

APPENDIX B: KELUARGA SEJAHTERA (KS) AS MEANS OF SEGMENTING THE MARKET

Currently, BKKBN has adopted a market segmentation strategy that can be summarized as follows: women from families defined as being Pre-Welfare or Welfare Class 1 will receive their family planning for free from the public sector. Women from Welfare Class 2 and higher will be oriented to the private sector, where they will pay full commercial prices (see Appendix C for a description of the welfare classes). Although the classifications are meant to be holistic measures of well-being, most of the defining characteristics of the welfare classes can be described as economic characteristics or characteristics normally contributing to greater wealth (e.g., education).

A question of particular interest is whether the welfare classifications are similar in nature to the expenditure quartiles used here. Unlike questions to assess household expenditures or income, the guidelines for assessing a family's welfare class are relatively non-intrusive and inexpensive to evaluate. However, the DHS does not ask all of the questions necessary for unambiguously assigning a welfare class to each respondent. However, this report has made an attempt to proxy welfare classes (see Appendix D for details).

Table B.1 crosses the expenditure classes with the welfare classes. Very few women in the lowest expenditure class are identified as being in the highest KS categories. On the other hand, quite a few women in the highest expenditure class are misidentified as being in the lowest two welfare classes. The trends in the table are, however, correct. The percent of women in the Pre-Welfare class decreases steadily as the expenditure quartiles move from the lowest to the highest. Similarly, the percent of women in the highest welfare classification increases as the expenditure quartiles move from the lowest to the highest.

Even though there is some correspondence between the expenditure quartiles and KS welfare classes, the totals do not match very well. The total percent of families in each of the welfare classes calculated from the proxies developed from the DHS miss the actual percentages by as much as 13 percent. For the interested reader, all of the tables in this section are reproduced in an appendix replacing the expenditure quartiles with the Welfare Classifications.

Table B.1: Welfare Classifications across the Expenditure Quartiles						
	Expenditure Quartile I	Expenditure Quartile II	Expenditure Quartile III	Expenditure Quartile IV	Average across all quartiles	Actual ¹⁷
Pre-Welfare	47%	38%	24%	14%	31%	28%
Welfare level 1	34%	39%	47%	44%	41%	28%
Welfare level 2	14%	15%	18%	23%	17%	23%
Welfare level 3 and 3 plus	5%	8%	11%	19%	11%	21%
Total Percent	100%	100%	100%	100%	100%	100%

¹⁷ The "actual" numbers come from enumeration done each year by BKKBN.

**APPENDIX C:
CREATION OF KS CLASSIFICATIONS**

The KS classification of family welfare classes is a holistic measure of family welfare that takes into account economic, physical and spiritual welfare of families. The Indonesian DHS was not designed to categorize families into these welfare classes. Therefore, the classifications indicated at various points in this report are rough approximations only.

The table below summarizes the actual criteria for family welfare along with the criteria that proxied for them from the Indonesian DHS.

Table C.1: Creation of KS Classification Proxies	
FAMILY WELFARE CLASS INDICATOR	PROXY USED IN THE MARKET SEGMENTATION ANALYSIS
WELFARE CLASS ONE	
Family members practice religion.	No measure in DHS.
All family member normally eat twice a day.	No measure in DHS.
All family members have different clothes to wear at home, at work/school, and on travel.	No measure in DHS.
The largest floor area is not dirt.	Directly asked in DHS.
When a child is sick or a couple needs contraception, they go to a health facility/personnel and receive modern medication/contraception.	If a child was reported sick, the investigators checked to see where care was received. If a woman used contraception, the investigators checked to see if it was a modern method.

WELFARE CLASS TWO	
Family member regularly practice religion.	No measure in DHS.
Family members eat meat/egg/fish at least once a week.	Verified that at least some money was spent on meat, eggs or fish in the last month.
All family members received at least one new outfit in the last year.	Verified that at least some money was spent on clothing in the last year.
Floor area is square meters per family member.	Directly calculated.
All family members were in good enough health to perform their daily functions in the past three months.	No measure in DHS.
At least one family member over 15 years of age earns a regular income.	No measure in the DHS.
All family members 10-60 years are literate in Latin script.	Verified that all related household members between 10 and 60 years had received at least two years of schooling.
All children 6-15 years are in school.	Verified that all children present between 6 and 15 are in school
If the number of children is two or more, the couple is using a contraceptive method (except if the woman is pregnant).	Verified that the conditions were met.

WELFARE CLASS THREE	
The family tries to improve religious knowledge.	No measure in the DHS.
Part of the income is saved.	No measure in the DHS.
The family usually has at least one meal together, and the opportunity is used by the members to interact.	No measure in the DHS.
The family usually participates in neighborhood activities.	Verified that respondent participates in social activities.
The family participates in recreation at least once every six months.	No measure in the DHS.
Family members have access to news on radio/television or in newspapers/magazines.	Verified that the respondent reads a newspaper, listens to the radio or watches television.
Family members have access to transportation in the area.	Respondent passed this qualification if either they lived in an urban area or if they owned a mode of transportation.

WELFARE CLASS THREE PLUS	
Family members regularly give a voluntary contribution in kind to social causes.	No measure in the DHS.
The family head or family members are actively involved in an organization.	No measure in the DHS.

**APPENDIX D:
TABLES OF VARIOUS INDICATORS DISAGGREGATED
BY PROXIED WELFARE CLASSES**

Table D.1: Ability to Pay for Family Planning Across the Welfare Classes				
	Pre-Welfare	KS 1	KS 2	KS 3 & 3+
Expenditure quartile I	42%	24%	14%	3%
Expenditure quartile II	31%	27%	22%	13%
Expenditure quartile III	19%	28%	33%	32%
Expenditure quartile IV	8%	21%	32%	53%
Total Percent	100%	100%	100%	100%
Health expenditures last year	33K	53K	70K	72K
Health expend as % of total	1.3%	1.5%	1.7%	1.5%
% of paying contraceptors who had their contraception paid by insurance, their company or office	0.5%	0.9%	2.7%	3.4%
Number of observations	7142	11020	4061	3092

Table D.2: Demographic Characteristics of Women and Their Husbands by Welfare Class				
	Pre-Welfare	KS 1	KS 2	KS 3 & 3+
Less than 30 years old	57%	67%	45%	66%
Percent rural	86%	69%	63%	48%
Percent of women who attended secondary school or higher	13%	17%	37%	42%
Percent of husbands who attended secondary school or higher	17%	24%	43%	46%
Percent white collar workers	19%	29%	42%	51%
Number of observations	7343	11440	9245	3193

Table D.3: Location of Women across the Expenditure Quartiles, Location Defined by the TIPOLOGI Categories				
TIPOLOGI	Expenditure Quartile I	Expenditure Quartile II	Expenditure Quartile III	Expenditure Quartile IV
WILAYAH1	60%	35%	33%	54%
WILAYAH2	15%	32%	40%	23%
WILAYAH3	16%	23%	21%	19%
WILAYAH4	8%	10%	6%	4%
Total Percent	100%	100%	100%	100%
Number of observations	7343	11440	9245	3193

Table D.4: Use of Contraception and Method Mix by Welfare Class				
	Pre-Welfare	KS 1	KS 2	KS 3 & 3+
Current use of modern contraception	49%	40%	70%	75%
Pills	32%	37%	31%	29%
Injectable	26%	32%	33%	25%
Implant	14%	9%	7%	5%
IUD	22%	15%	18%	27%
Female sterilization	4%	5%	6%	10%
Male sterilization	0%	1%	1%	0%
Condom	0%	0%	2%	4%
Diaphragm	0%	0%	0%	0%
Total Percent	100%	100%	100%	100%
Percent limiters	53%	53%	45%	57%
Number of observations (contraceptors)	3061	4485	2792	2406

Table D.5a: Prices Paid for Methods by Welfare Class				
	Pre-Welfare	KS 1	KS 2	KS 3 & 3+
Percent pill users getting method and services free	20%	18%	17%	22%
Pill median price	500	500	500	500
Percent injectable users getting method and services free	7%	6%	4%	5%
Injectable median price	3500	3500	3500	3500
Percent implant users getting method and services free	41%	55%	41%	32%
Implant median price	6000	5000	7500	7700
Percent IUD users getting method and services free	73%	59%	43%	48%
IUD median price	500	3500	13000	10500
Percent female sterilization acceptors getting method and services free	39%	33%	25%	36%
Female sterilization median price	27500	70000	150000	75000

Table D.5b: Sources of Contraception by Welfare Class, Number of Observations				
	Pre-Welfare	KS 1	KS 2	KS 3 & 3+
Percent pill users getting method and services free	970	1654	934	692
Pill median price	727	1243	722	501
Percent injectable users getting method and services free	860	1310	904	573
Injectable median price	674	1154	794	524
Percent implant users getting method and services free	424	383	158	105
Implant median price	215	133	70	56
Percent IUD users getting method and services free	630	806	540	698
IUD median price	216	384	307	380
Percent female sterilization acceptors getting method and services free	105	222	158	193
Female sterilization median price	64	149	116	125

Table D.6: Sources of Contraception by Welfare Class				
	Pre-Welfare	KS 1	KS 2	KS 3 & 3+
Government hospital	4.5%	7.5%	7.5%	13.3%
Government health center	46.0%	35.6%	31.6%	28.4%
Government field worker	1.7%	2.0%	1.9%	1.9%
Government mobile clinic	1.5%	0.6%	0.3%	0.4%
Other government	1.7%	1.9%	2.0%	1.1%
Total Public Sector	55.5%	47.6%	43.3%	45.1%
Private hospital	1.1%	2.6%	4.5%	5.2%
Private clinic	1.2%	1.5%	1.9%	3.2%
Private doctor	2.8%	3.8%	6.7%	8.7%
Private midwife	12.1%	17.5%	20.0%	16.1%
Pharmacy	0.6%	1.2%	2.9%	4.8%
Other private	0.2%	0.1%	0.1%	0.0%
Total Private Sector	17.9%	26.8%	36.1%	38.1%
Delivery post/polindes	0.6%	0.4%	0.5%	0.0%
Health post/posyandu	13.2%	13.9%	11.7%	9.8%
FP post/PPKBD	7.5%	6.0%	4.3%	4.0%
Total Special Delivery	21.4%	20.3%	16.4%	13.8%
Other	5.3%	5.4%	4.2%	3.0%
Total All Sources	100%	100%	100%	100%
Number of observations	3061	4485	2792	2406

Table D.7: Percent of Women Using the Public Sector for Family Planning but the Private Sector for at Least Some of their Maternal and Child Health Care

	Expenditure Quartile I	Expenditure Quartile II	Expenditure Quartile III	Expenditure Quartile IV
Percent public sector family planning acceptors who are using private MCH services	28%	38%	40%	45%
Number of observations (approximate)	1699	2135	1209	1085

**APPENDIX E:
PROVIDER MARKET SEGMENT PRICE SUMMARIES**

Table E.1: Pill Market Segments				
	Share of Market Segment	Pct. of Method and Services Free	Mean Price Paid	Median Price Paid
Public Hospitals				
Government hospital	3%	61%	379	600
Low-Priced Public				
Health center-pusk.	80%	20%	730	500
Fieldworker-PLKB	11%	39%	578	500
FP mobile-TKBKTMK	1%	18%	671	500
Other government	5%	41%	367	500
High-Priced Private Sector				
Private hospital	19%	28%	2039	1000
Private doctor	15%	22%	2694	2000
Pharmacy, drugstore	67%	3%	2124	1125
Low-Priced Private Sector				
Private FP clinic	13%	40%	919	1000
Private midwife	87%	9%	1002	1000
Special Delivery Posts				
Deliv. post/polindes	0%	28%	265	500
Health post/posyandu	58%	15%	418	500
FP post PPKBD	41%	20%	306	250

Table E.2: Injectable Market Segments				
	Share of Market Segment	Pct. of Method and Services Free	Mean Price Paid	Median Price Paid
Public Hospitals				
Government hospital	5%	15%	4362	3500
Low-Priced Public				
Health center-pusk.	10%	8%	4091	3500
Fieldworker-PLKB	1%	8%	3007	1000
FP mobile-TKBKTMK	1%	46%	2732	4500
Other government	0%	12%	1890	4000
High Priced Private Sector				
Private hospital	23%	18%	4503	4000
Private doctor	77%	0%	6148	5000
Pharmacy, drugstore	0%	0%	4000	4000
Low-Priced Private Sector				
Private FP clinic	8%	18%	3524	4000
Private midwife	92%	1%	3860	3500
Special Delivery Posts				
Deliv. post/polindes	2%	0%	2845	3000
Health post/posyandu	91%	16%	1988	2000
FP post PPKBD	7%	7%	2564	3000

Table E.3: Implant Market Segments				
	Share of Market Segment	Pct. of Method and Services Free	Mean Price Paid	Median Price Paid
Public Hospitals				
Government hospital	100%	24%	12366	13500
Low-Priced Public Sector				
Health center-pusk.	81%	41%	5373	7500
Fieldworker-PLKB	1%	84%	1057	6000
FP mobile-TKBKTMK	7%	58%	2532	5000
Other government	11%	73%	1890	5500
HighPriced Private Sector				
Private hospital	18%	49%	9261	8750
Private doctor	100%	2%	18094	7500
Pharmacy, drugstore	2%	0%	2000	2000
Low-Priced Private Sector				
Private FP clinic	16%	14%	10597	10750
Private midwife	65%	33%	3758	5000
Special Delivery Posts				
Deliv. post/polindes	10%	16%	2766	4500
Health post/posyandu	72%	59%	1479	3500
FP post PPKBD	19%	80%	958	2500

Table E.4: IUD Market Segments				
	Share of Market Segment	Pct. of Method and Services Free	Mean Price Paid	Median Price Paid
Public Hospitals				
Government hospital	100%	59%	21610	6500
Low-Priced Public Sector				
Health center-pusk.	92%	68%	969	500
Fieldworker-PLKB	0%	100%	0	.
FP mobile-TKBKTMK	3%	81%	365	1500
Other government	5%	89%	325	1100
High-Priced Private Sector				
Private hospital	31%	32%	20053	17500
Private doctor	100%	7%	54408	35000
Pharmacy, drugstore	0%	.		.
Low-Priced Private Sector				
Private FP clinic	14%	51%	10831	5000
Private midwife	56%	20%	10955	15000
Special Delivery Posts				
Deliv. post/polindes	3.6%	100%	0	.
Health post/posyandu	88%	82%	198	500
FP post PPKBD	9%	73%	367	900

Table E.5: Sterilization Market Segments				
	Share of Market Segment	Pct. of Method and Services Free	Mean Price Paid	Median Price Paid
Public Sector				
Government hospital	98.2%	37.2%	109085	52500
Health center-pusk.	1.8%	27.7%	53032	30000
Private Sector				
Private hospital	85.6%	23.2%	255616	175000
Private FP clinic	7.7%	7.4%	611271	87496
Private doctor	6.7%	5.6%	169602	100000

**APPENDIX F:
SAMPLE SIZES OF TABLE II.5**

Table F.1: Comparison of Method Prices and Percent of Women Receiving their Method Free Across the Expenditure Quartiles (Number of Observations)				
	Expenditure Quartile I	Expenditure Quartile II	Expenditure Quartile III	Expenditure Quartile IV
Percent of pill users getting method and services free	504	547	557	453
Pill median price	382	402	423	329
Percent of injectable users getting method and services free	312	436	527	473
Injectable median price	258	381	445	416
Percent of implant users getting method and services free	158	161	125	62
Implant median price	80	63	51	26
Percent of IUD users getting method and services free	267	322	314	413
IUD median price	80	126	153	261
Percent of female sterilization acceptors getting method and services free	26	67	69	173
Female sterilization median price	16	47	42	115

**PUBLIC SECTOR PROCUREMENT COSTS OF FAMILY PLANNING UNDER
DIFFERENT SCENARIOS OF PRIVATE SECTOR PARTICIPATION**

by

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**The Futures Group International
OPTIONS II Project**

In Collaboration with BKKBN

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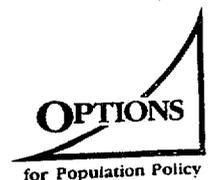


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EXECUTIVE SUMMARY

Public Sector Procurement Costs of Family Planning Under Different Scenarios of Private Sector Participation

Although the Indonesian family planning program is a success by most measures, it still faces significant challenges. If replacement level fertility is to be achieved by the year 2005, the number of contraceptive users will need to be increased by about 50 percent. The family planning coordinating board, BKKBN, has begun to think of strategies for addressing the challenges of mobilizing resources for the last push to replacement level fertility. One of the strategies is a private sector promotion strategy.

This small study projects the public and private quantities of contraceptive users and acceptors; and public sector procurement costs that would be encountered under different scenarios of private sector participation. A baseline scenario projects the users, acceptors and public procurement costs if the current source mix is maintained. A second scenario projects users, acceptors and procurement costs in the case where all families in the highest family welfare categories are moved to the private sector for their family planning needs. A third scenario projects users, acceptors and procurements costs in the case where all women with previous experience in the private sector for MCH are moved to the private sector for family planning.

In the baseline scenario, public sector procurement costs will increase by about 50 percent to more than 110 billion Rupiah over the next 10 years. In the scenario where all families in the highest family welfare categories receive their family planning from the private sector, procurement costs will increase only moderately to about 80 billion Rupiah. In the most aggressive strategy where all women with private sector experience in MCH are moved to the private sector for family planning, the procurement costs would actually decrease to about 60 billion Rupiah.

Increasing the share of the private sector in the family planning market requires efforts on many fronts. A first step is to create specific goals for transferring market share from the public sector to the private sector. For example, the five-year family planning projections, exemplified most recently in Repelita VI, could be expanded to include projections for source mix as well as method mix. BKKBN can take steps to strengthen the private sector. For example, BKKBN can encourage the private sector to expand its array of MCH services to include family planning. Also, BKKBN can continue to assist in the family planning training of private midwives as well as provide business training and loans for a broad range of potential private family planning providers.

Public Sector Procurement Costs of Family Planning Under Different Scenarios of Private Sector Participation

I. INTRODUCTION

Indonesia has witnessed remarkable growth in the use of family planning during the last 25 years. Contraceptive prevalence has increased from under 10 percent to almost 55 percent among married women. As a result, the average number of children a woman would have in her lifetime has decreased from nearly six in the late 1960s to less than three today.

To ensure that the success of the program continues into the future, BKKBN recognizes that the private sector will have to play an increasingly large role. As part of that vision, BKKBN instituted the KB Mandiri (Family Planning Self Reliance) strategy. Public sector family planning clients achieve partial self reliance by contributing to their family planning needs through partial payment for services. As a client's financial status improves, she is steered to the private sector where fully commercial prices are charged.

Recently, BKKBN has formalized the criteria for determining which type of clients should be encouraged to use private sector family planning services. The Keluarga Sejahtera (KS) or "Prosperous Family" program classifies families into one of five categories based upon the household's physical, economic, social and moral status. Women in the three highest categories (Welfare Classes 2, 3 and 3 plus) will be encouraged to make use of private sector services. Women in the lowest two categories (Pre-Welfare and Welfare Class 1) will be eligible to receive services in the public sector. Currently, 46 percent of families are categorized as being in Welfare Class 2 or above and are candidates for orientation to the private sector.

Increased private sector involvement in the next few years will result in substantial savings to BKKBN. As the private sector attracts new clients, the public sector will be serving fewer clients than it would otherwise. The lower number of clients served by the public sector will translate into lower commodity procurement costs for BKKBN.

This report investigates three scenarios of private sector involvement:

- **SCENARIO 1** - the private sector maintains its current market share of 28 percent.¹
- **SCENARIO 2** - the private sector gains a larger market share by serving all appropriate families defined by the KS categories.
- **SCENARIO 3** - the private sector gains a larger market share by serving all women with past experience accessing the private sector.²

¹ The private sector, as defined in this paper, excludes Polindes, Posyandus and Family Planning Posts. See footnote 5.

The analysis uses data from the 1994 Indonesia Demographic and Health Survey (DHS)³ to estimate current levels of contraceptive usage, current source mix and the potential for private sector growth. The BKKBN Repelita VI development plan⁴ supplies estimates of current and future eligible couples and future method mixes.

In Repelita VI, BKKBN projected increased use (as a percentage) of injectables, implants and female sterilization, decreased use of pills and condoms, and constant use of IUDs. In the first scenario, the private sector holds a 28 percent share of the market from 1995 until 2005. In the second scenario, based on targeting families in the highest family welfare categories, the private sector share would increase from a 28 percent share to a 48 percent share in 2005. In the third scenario, the private sector share would increase from a 28 percent share to 57 percent. For each scenario, the number of users, acceptors and commodity costs required to achieve replacement level fertility are projected.

² The definition of women who have previous experience with the private sector is based on whether they have in the past either used the private sector for family planning or have at some point in time accessed the private sector for maternal and child health services.

³ Macro International, Inc., Calverton, MD.

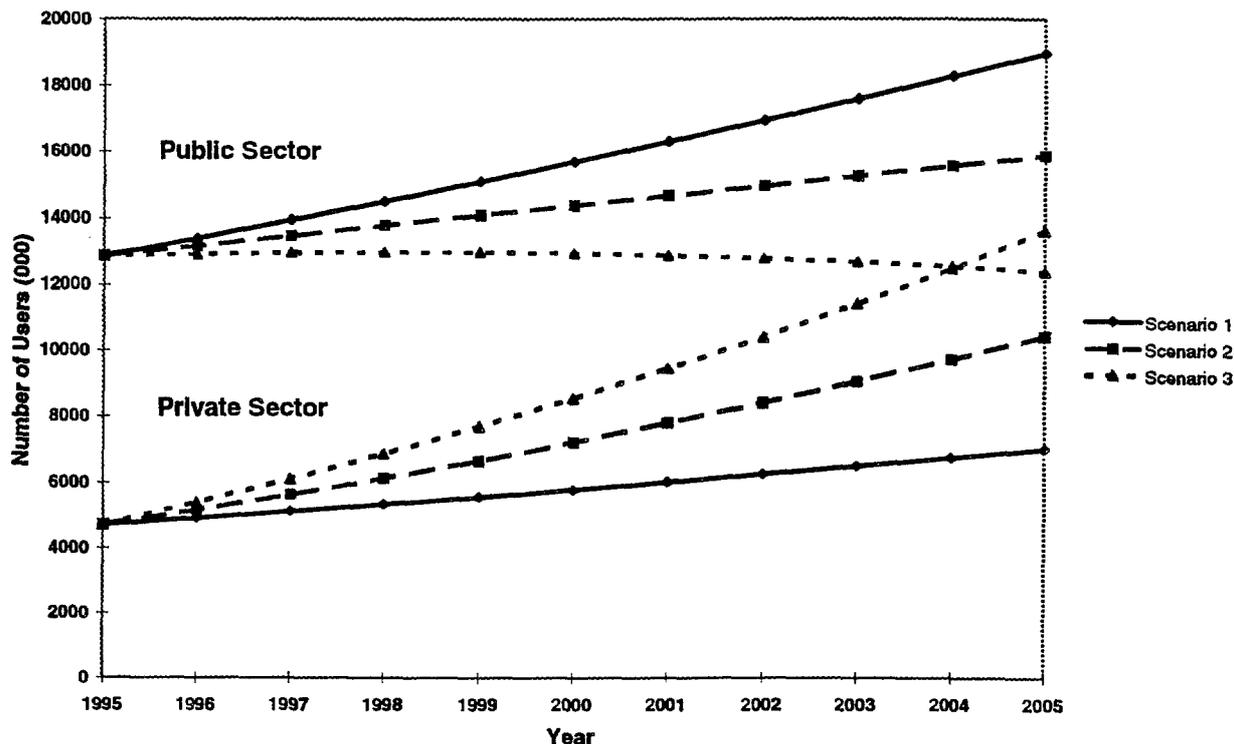
⁴ BKKBN. 1993. Asumsi Dan Hasil Perhitungan Perkiraan Permintaan Masyarakat Dalam Gerakan KB Nasional Repelita VI. Jakarta, Indonesia.

II. FINDINGS

A. Users

Figure 1 below presents an estimate of the number of contraceptive users in each sector that would be necessary to achieve replacement level fertility. Although it subsumes a considerable degree of diversity, the public sector noted here consists of all traditional government outlets plus the special delivery posts known as Polindes, Posyandus and Family Planning Posts.⁵

Figure 1. Projected Number of Users in Service Delivery Sectors



If the current source mix is maintained (Scenario 1), both the private sector and public sector will need to increase their number of clients by 50 percent in order to reach replacement level fertility. However, if an aggressive reorientation of clients away from the public sector toward the private sector occurs, then the burden on the public sector will be much less. If the KS-based strategy (Scenario 2) is followed fastidiously, the public sector will need to serve 25 percent more clients. If the very aggressive strategy of re-orienting all women with experience in the private sector is followed (Scenario 3), then the public sector will actually serve fewer clients.

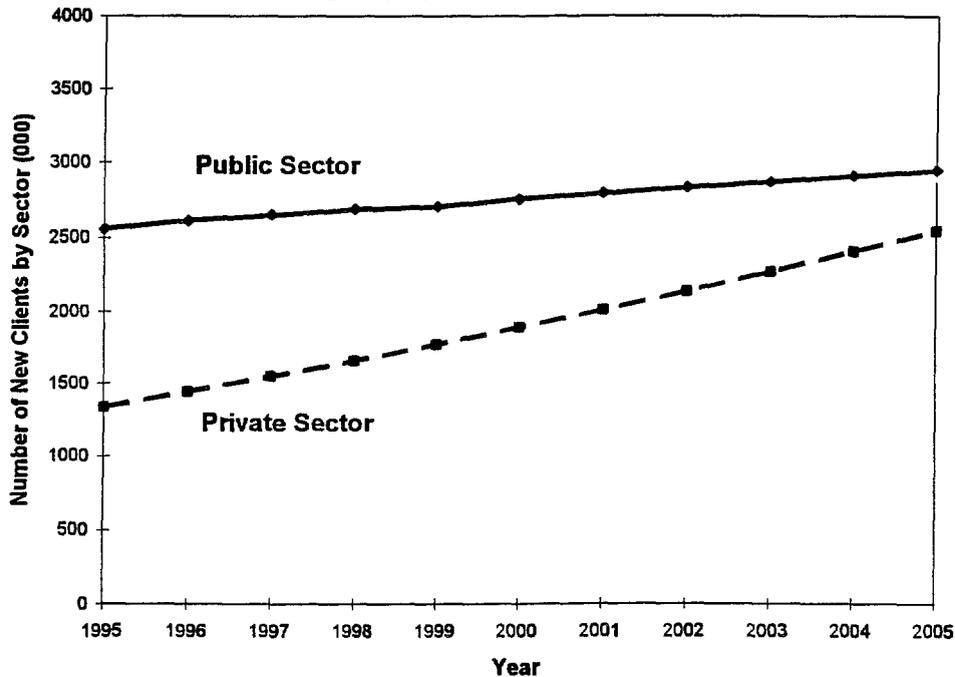
⁵ Polindes, Posyandus and Family Planning Posts depend on public support, but are organized by the community and depend on community action for their continued existence. The public sector supplies almost all commodities to these special delivery posts. Since commodity costs are emphasized in this analysis, the special delivery posts are lumped together with the traditional public sector.

The flip side to the public sector analysis is that the private sector must grow quickly. If the KS-based strategy is followed consistently, then the private sector must double its client load. If the more aggressive strategy of reorienting women with private sector experience to the private sector for family planning is followed, then the private sector must triple its client load. The challenge is large in either case.

B. New Clients

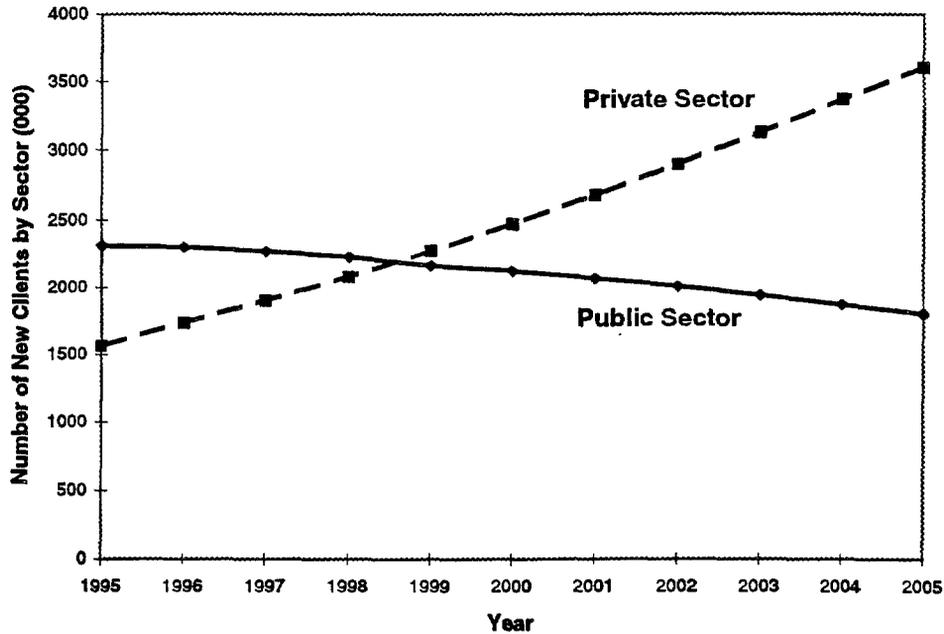
To establish the large client base noted in the private sector promotion scenarios, the private sector will need to attract a large number of new clients each year. Often new clients are referred to as "acceptors." In this exercise, acceptors would be a misnomer because these clients are not always new users of family planning. In a strategy of private sector promotion, the public sector and the private sector will choose their roles either explicitly or implicitly. For example, the public sector may choose as its role serving the underprivileged, as in the KS segmentation strategy, and attracting new acceptors with inexpensive services. In this case, the private sector would serve continuing users who can afford to pay for family planning services. To make this strategy work, a large number of the new clients in the private sector would need to be couples who are switching sources rather than actually being new acceptors. A complete private sector promotion strategy would have goals both for attracting new acceptors and for moving clients from the public to the private sector. Figures 2 and 3 show the numbers of new clients needed in the private sector under scenarios 2 and 3.

**Figure 2. Number of New Clients by Sector
Scenario 2: All Women in Households Classified as KS 2 or above
are Oriented to the Private Sector**



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Figure 3. Number of New Clients by Sector
Scenario 3: Women Who Have Frequented the Private Sector for MCH in the Past Obtain Family Planning in the Private Sector



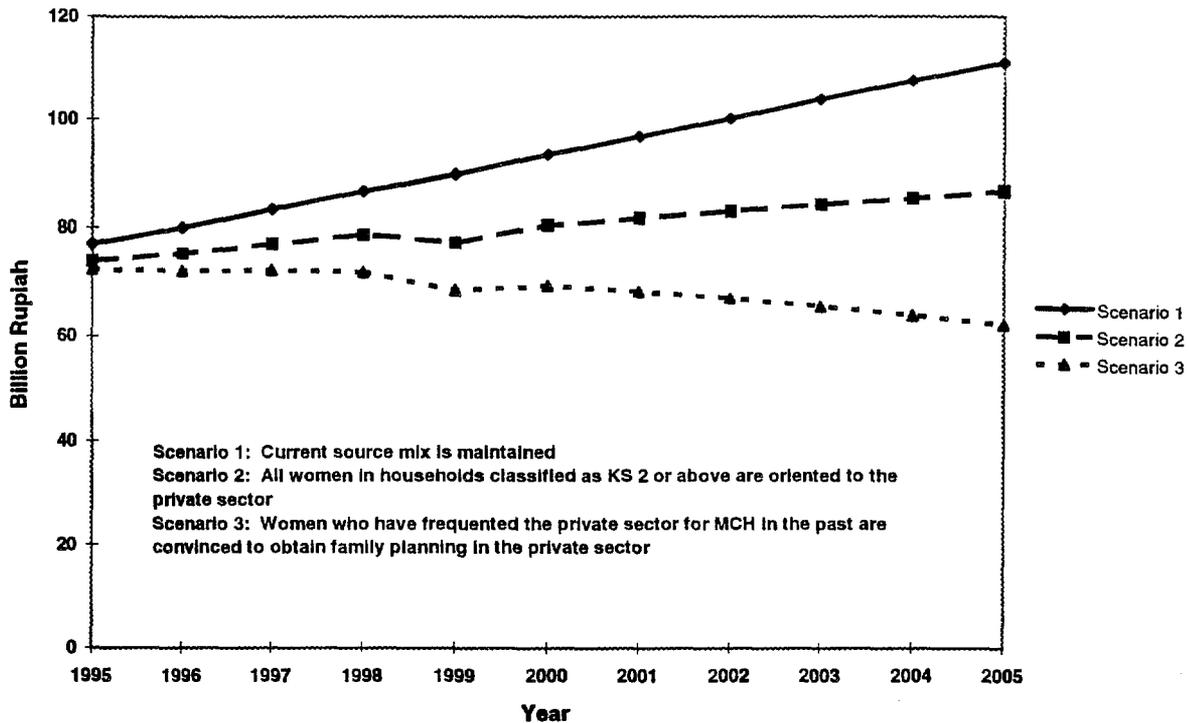
C. Commodity Costs

An increase in private sector participation will yield large savings to BKKBN in terms of reduced commodity procurement and reduced sterilization reimbursements. As the public sector transfers clients who can afford to pay to the private sector, it will be able to slow the growth of the commodity procurement budget. This analysis assumed that current procurement costs and per sterilization reimbursements remain constant. The definition of costs used here is very narrow, a more comprehensive assessment of costs would include service delivery costs, infrastructure, overhead, research and evaluation costs.

As shown in Figure 4, if the current source mix is maintained (Scenario 1), BKKBN will need to increase its procurement budget by 50 percent over the next 10 years. If the strategy of transferring families in the highest KS categories to the private sector is pursued, then the procurement budget will level off at its current level. In the very aggressive strategy of transferring all women with experience in the private sector to the private sector for family planning services, procurement costs will actually decrease.

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Figure 4. Projected BKKBN Procurement Costs Under Different Scenarios of Private Sector Participation



III. CONCLUSIONS

Invigorating the private sector for family planning is a process that requires explicit and implicit public sector support. In a strategy of private sector promotion, the results above demonstrate that a considerable number of clients will need to be shifted from the public sector to the private sector. While the number of clients in the public sector will not change by much, there will be rapid growth in the private sector under both scenarios 2 and 3. BKKBN will see its procurement costs level off or decline as a result.

Increasing the share of the private sector from 28 percent to 48 percent or more is a very real challenge. Identifying potential private sector clients is an important first step. BKKBN can also take an active role in transferring clients to the private sector. Counseling can include information about private sector alternatives to public services. Means testing can include the Family Welfare classifications as defining criteria.

BKKBN can also take steps to strengthen the private sector. For example, BKKBN can encourage the private sector to expand its array of MCH services to include family planning. Also, BKKBN can continue to assist in the family planning training of private midwives as well as provide business training and loans for a broad range of potential private family planning providers. The USAID/OPTIONS II report, "Potential for Expanded Private Sector Delivery of Family Planning Services in Indonesia: Initial Findings and Recommendations," gives a more

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detailed rendering of steps that can be taken to increase the participation of the private sector in the provision of family planning services.

BKKBN can also include private sector promotion in its planning processes. For example, BKKBN currently produces family planning goals every five years. These plans include goals for users and acceptors for each method in each province. These plans could be expanded to also include goals for the transfer of public sector clients to the private sector.

APPENDIX A: INPUTS

The projections in this paper were made using the Target-Cost computer model developed by The Futures Group International. This model is based on the proximate determinants framework as articulated in the work of John Bongaarts and Robert G. Potter.⁶ The inputs to the Target-Cost model used in this paper come from the five-year plan (Repelita VI).⁷ Below are tables of inputs which are different or modified from the inputs used in Repelita VI.

The method mix in 1995 is based on the method mix reported in the final report of the Demographic and Health Survey of 1994.⁸ The method mix in 2005 extrapolates from the trends displayed in the Repelita VI.

METHOD MIX USED FOR ALL SCENARIOS		
Method	1995	2005
Oral	31.3	23.5
Injectable	27.8	31.6
Implant	9.0	14.0
IUD	18.9	19.1
Female Sterilization	5.7	6.7
Male Sterilization	1.3	1.1
Condom	1.6	.6
Traditional	4.4	3.4
TOTAL	100%	100%

⁶ Bongaarts, John and Robert G. Potter. 1983. *Fertility, Biology and Behavior: An Analysis of the Proximate Determinants*. New York: Academic Press, Inc.

⁷ BKKBN. 1993. *Asumsi Dan Hasil Perhitungan Perkiraan Permintaan Masyarakat Dalam Gerakan KB Nasional Repelita VI*. Jakarta, Indonesia.

⁸ Central Bureau of Statistics [Indonesia] and State Ministry of Population/National Family Planning Coordinating Board Ministry of Health, and Macro International, Inc. 1995. *Indonesia Demographic and Health Survey 1994*. Calverton, MD: Central Bureau of Statistics and Macro International, Inc.

The source distribution was established for each of the methods based on an analysis of the DHS raw data. The following three tables show the same mix for each of the three scenarios.

SCENARIO 1: CURRENT SOURCE MIX MAINTAINED						
Method	Public		Private		Special Delivery	
	1995	2005	1995	2005	1995	2005
Oral	43%	43%	16%	16%	41%	41%
Injectable	51%	51%	40%	40%	9%	9%
Implant	77%	77%	9%	9%	14%	14%
IUD	62%	62%	30%	30%	8%	8%
Female Sterilization	69%	69%	31%	31%	NA	NA
Male Sterilization	85%	85%	15%	15%	NA	NA
Condom	20%	20%	67%	67%	13%	13%

SCENARIO 2: ALL WOMEN IN WELFARE CLASS TWO OR HIGHER ARE TRANSFERRED TO THE PRIVATE SECTOR						
Method	Public		Private		Special Delivery	
	1995	2005	1995	2005	1995	2005
Oral	43%	33%	16%	36%	41%	31%
Injectable	51%	51%	40%	39%	9%	10%
Implant	77%	63%	9%	26%	14%	11%
IUD	62%	50%	30%	44%	8%	6%
Female Sterilization	69%	48%	31%	52%	NA	NA
Male Sterilization	85%	48%	15%	52%	NA	NA
Condom	20%	17%	67%	73%	13%	11%

SCENARIO 3: ALL WOMEN WITH EXPERIENCE IN THE PRIVATE SECTOR ARE TRANSFERRED TO THE PRIVATE SECTOR FOR FAMILY PLANNING						
Method	Public		Private		Special Delivery	
	1995	2005	1995	2005	1995	2005
Oral	43%	27%	16%	49%	41%	24%
Injectable	51%	33%	40%	61%	9%	6%
Implant	77%	54%	9%	36%	14%	10%
IUD	62%	44%	30%	50%	8%	6%
Female Sterilization	69%	39%	31%	61%	NA	NA
Male Sterilization	85%	37%	15%	63%	NA	NA
Condom	20%	16%	67%	73%	13%	11%