

Contraceptive Self Reliance through
Financial Sustainability: A Market
Segmentation Approach

By

Bienvenido P. Alana, PhD
Emelina S. Almario
Aurora E. Perez, PhD
Odilyn M. de Guzman

October 2002



POLICY is a five-year project funded by the U.S. Agency for International Development under Contract No. HRN-C-00-00-00006-00, beginning July 7, 2000. The project is implemented by The Futures Group International in collaboration with Research Triangle Institute (RTI) and The Centre for Development and Population Activities (CEDPA).

CONTRACEPTIVE SELF-RELIANCE THROUGH FINANCIAL SUSTAINABILITY

A Market Segmentation Approach

Bienvenido P. Alano, PhD
Emelina S. Almario
Aurora E. Perez, PhD
Odilyn M. de Guzman

For the POLICY II Project-Philippines
The Futures Group

October 2002

ACKNOWLEDGEMENTS

The authors acknowledge Ms. Carmeli C. Chaves, for drafting the initial report at the time when the study was primarily focused on segmenting the family planning market, Mr. Felix de Ocampo, for the statistical work on market segmentation, and Ms. Vilma M. Aquino for the projection estimates using the Spectrum System.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	iii
TABLE OF TABLES	v
TABLE OF FIGURES	vi
LIST OF ACRONYMS	vii
EXECUTIVE SUMMARY	viii
CHAPTER 1: INTRODUCTION	1
Background	1
Objectives	3
Approach	3
CHAPTER 2: FINANCING SOURCES FOR FAMILY PLANNING	6
Philippine National Health Accounts	6
National Family Planning Expenditures	8
CHAPTER 3: ESTIMATING THE PHILIPPINE FP MARKET	12
Redefining the FP Market	12
The Integrated Market	14
The Market for Selected Modern FP Methods: 1998	16
Market Outlook for Selected FP Methods: 1998, 2002-2008	18
CHAPTER 4: FINANCING THE PHILIPPINE FP MARKET	20
Shifting Public Sector Non-poor Clients to the Private Sector	20
Financing Scenarios for the Public Burden	27
Implications of Dependence on Donor-driven Commodity Support	31
CHAPTER 5: NEXT STEPS	34
National Level: Department of Health	34
National Level: Philippine Health Insurance Corporation	34
LGU as the Coordinator of Services	35
REFERENCES	37
ANNEXES	39
ANNEX 1: Relating Low, Middle, and High Income Classes to ABCDE Socioeconomic Classification	40
ANNEX 2: Technical Notes on Projecting Family Planning Requirements	45
ANNEX 3: Highlights and Methodology of Market Segmentation Studies	47
ANNEX 4: Proposed Policy Matrix and LGU Implementation Plan	61

TABLE OF TABLES

Table 1: Health Expenditures by Sources: 1991, 1995, and 2000.....	6
Table 2: Government Health Expenditures by Use of Funds and by Type of Expenditures: 2000	7
Table 3: FP Expenditures by Source of Funds, 1994 and 1998	8
Table 4: FP Expenditures by Source of Financing and by Expenditure Type, 1994 (in Philippine Pesos).....	9
Table 5: FP Expenditures by Source of Financing and by Expenditure Type, 1998 (in Philippine Pesos).....	10
Table 6: Current Users of Family Planning by Type: Proportions by Marital Status	13
Table 7: Public-Private Shares, Users of Public Provision of Modern Contraceptives by Income Class, Current and Potential Users by Marital Status (Proportions)	15
Table 8: Market Size of Integrated FP Market by Specific Modern FP Methods, 1998 (Thousand Women)	17
Table 9: Total Market Size of Modern FP Market and Market Size by Method, Base Scenario, 2003-2008.....	18
Table 10: Logistic Regression Results: Odds of going to the Private Sector	21
Table 11: Commodity Requirements of Public Sector Clients and Public Burden, Base Scenario (Million Pesos).....	23
Table 12: Estimates of Internal Revenue Allotment, LGU Health Budget, and DOH FP Budget, 2003-2008	23
Table 13: Commodity Requirements of Private Sector Clients and Commercial Opportunity, Base Scenario.....	24
Table 14: Commodity Requirements of Public Sector Clients and Public Burden, Shifting Non-poor Clients.....	25
Table 15: Commodity Requirements of Private Sector Clients and Commercial Opportunity, Shifting Non-poor Clients to Private Sector.....	26
Table 16: Potential PhilHealth Membership by Public-Private Shares and Income Category of Public Sector Clients: 1998.....	27
Table 17: Summary Table of Public FP Burden, DOH and LGU Budget Projections, 1998- 2008	31

TABLE OF FIGURES

Figure 1. Contraceptive Prevalence Rates, 1983-1998.....	1
Figure 2. Total Fertility Rates, 1973-2008	2
Figure 3: FP Market by Marital Status and Potential FP Market	12
Figure 4: Estimated Market Size of Modern FP Market, Public-Private Shares, Income Distribution of Users of Public Provision by Market Group, 1998 (Thousand Women) ..	16
Figure 5: Public-Private Shares of Modern FP Market by Specific FP Method, 1998.....	17
Figure 6: Public-Private Shares of Modern FP Market by FP Method and by Income Group, 1998 (Thousand Women)	18
Figure 7: Public-Private Shares of the Modern Family Planning Market	21
Figure 8. Projected Public-Private Shares of Modern FP Market, Base Scenario (Million Women)	22
Figure 9: Financing Scenarios and Gaps: Base Scenario, 2003-2008.....	24
Figure 10. Projected Public-Private Shares of Modern FP Market, Shifting Non-poor Clients	25
Figure 11: Financing Scenarios and Gaps: Shifting Non-poor Public Sector Clients, 2003- 2008	26
Figure 12: Potential PhilHealth Membership of Public Sector Clients.....	27
Figure 13: Financing Shares for Modern Family Planning, Scenario1 (Million Pesos)	28
Figure 14: Financing Shares for Modern Family Planning, Scenario 2 (Million Pesos)	29
Figure 15: Financing Scenarios and Gaps, 2008: Base Scenario, Scenarios 1 and 2.....	30
Figure 16: Commodity Demand and Supply for Condoms, 1998, 2002-2008.....	31
Figure 17: Commodity Demand and Supply for Pills, 1998, 2002-2003.....	32

LIST OF ACRONYMS

CA	Cooperating Agencies	LGC	Local Government Code
CEB	Children Ever Born	LGU	Local Government Unit
CII	Contraceptive Independence Initiative	LAM	Lactational Amenorrhea Method
CMW	Currently Married Women	MWRA	Married Women of Reproductive Age
CPR	Contraceptive Prevalence Rate	NDS	National Demographic Survey
CSR	Contraceptive Self-Reliance	NGO	Non-Government Organization
DFS	Desired Family Size	NHIP	National Health Insurance Program
DOH	Department of Health	NMW	Never-Married Women
ECOP	Employers' Confederation of the Philippines	NSCB	National Statistical Coordination Board
EMW	Ever-Married Women	PFPP	Philippine Family Planning Program
FIES	Family Income and Expenditure Survey	PNHA	Philippine National Health Accounts
FP	Family Planning	PopCom	Commission on Population
FPS	Family Planning Survey	SHI	Social Health Insurance
FMW	Formerly-Married Women	TFR	Total Fertility Rate
HMO	Health Maintenance Organization	UNFPA	United Nations Population Fund
IEC	Information, Education and Communication	USAID	United States Agency for International Development
IRA	Internal Revenue Allotment	VSS	Voluntary Surgical Sterilization
IUD	Intra-Uterine Device	WRA	Women of Reproductive Age
ICPD	International Conference on Population and Development	YAFS II	Young Adult Fertility and Sexuality Survey

EXECUTIVE SUMMARY

The overall objective of the study is to develop a financial sustainability strategy for contraceptive self-reliance (CSR) in the Philippines using a market segmentation approach. The development of such a strategy is in keeping with the statement of the Department of Health (DOH) in its 2001 Family Planning (FP) Policy that PhilHealth shall be a key partner in the mobilization of investments in the FP program, and that the DOH will adopt the recommendations of the technical working group on the Contraceptive Independence Initiative (CII). In particular, the CII will segment the population and will ensure the availability of commodities for all segments through direct subsidy, health insurance, socialized pricing, and/or commercial procurement.

The specific objectives of the study are to:

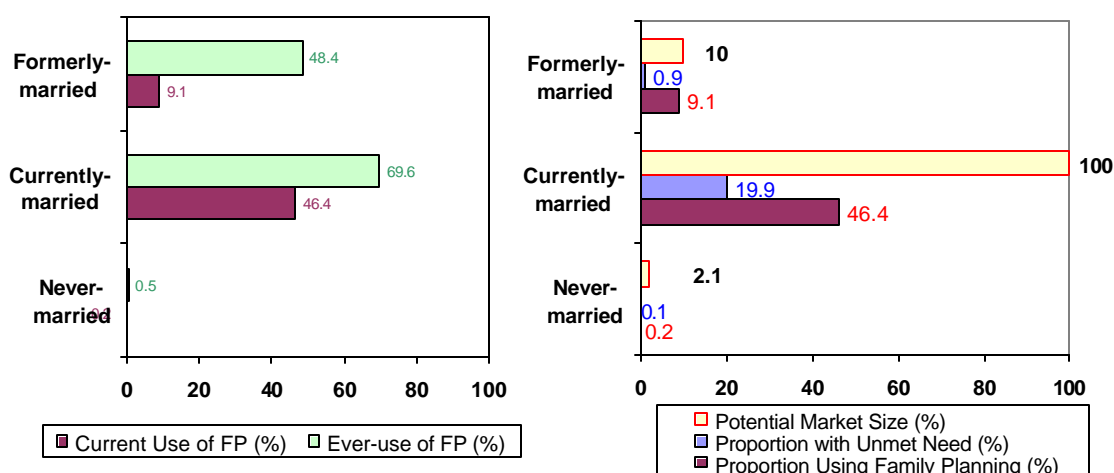
1. Analyse the Philippine FP market using results of the 1998 National Demographic Survey
2. Apply a market segmentation approach to develop an understanding of FP market segment behavior with respect to financing, contraceptive method, and provider choice
3. Do projections on various financing scenarios for FP, given present patterns and levels of FP financing sources
4. Propose strategies to shift such patterns to address financing gaps and ensure financial sustainability of contraceptive self-reliance, and
5. Develop operational policies and procedures in support of these strategies.

To meet its objectives, the study takes the following approach:

First, it redefines the coverage and segments of the Philippine FP market. Second, it interprets contraceptive self-reliance in terms of financial sustainability. Third, the next steps of the study take its findings beyond research into operations, identifying arenas for their implementation and partnership requirements of stakeholders.

REDEFINING THE PHILIPPINE FP MARKET

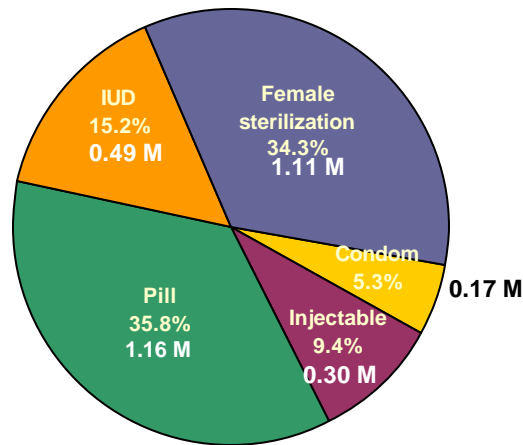
While earlier studies limit the FP market to currently married women, this study redefines it to include never-married women (NMW), currently married women (CMW), and formerly married women (FMW) aged 15 - 49, i.e., all women who, regardless of marital status, are at risk of being pregnant. According to the 1998 National Demographic Survey (NDS), CMW at 8,634 made up 62 percent of women of reproductive age (WRA) while NMW made up another 34 percent. As expected, the CMW registered the highest current use, at 46.4 percent, followed by the FMW at 9.1 percent, and the NMW at 0.2 percent.



For these three groups, the potential market is estimated, consisting of current users as well as immediate potential users, i.e., those who indicated that they intend to limit or space births and yet do not use any contraceptive method or the so-called unmet need population.

Nine percent (9.1 percent) of ever-married women are still using FP and about one percent have unmet FP needs. In the case of never-married or single women, very few have reported using FP or having unmet FP needs. However, in two recent surveys, 1998 National Demographic Survey and 1994 Young Adult and Fertility Survey, two percent of single women reported having had sexual encounters. Thus, this study considers this proportion of single women who had engaged in sex as a potential market for FP. For the currently-married, all (100 percent) are considered in the potential market, with a corresponding 10 percent for the formerly-married.

Whereas the earlier charts considered women using traditional and modern FP methods, the following chart focuses on the WRA using modern FP methods, specifically pills, condoms, IUDs, injectables, and bilateral tubal ligation (female sterilization). In terms of these methods, the largest shares of the market are those of pills (35.8 percent) and female sterilization (34.3 percent) followed by IUDs at 15.2 percent. It is this subset of the market whose contraceptive self-reliance is addressed by the study.



3.23 Million Women of Reproductive Age

ENSURING FINANCIAL SUSTAINABILITY

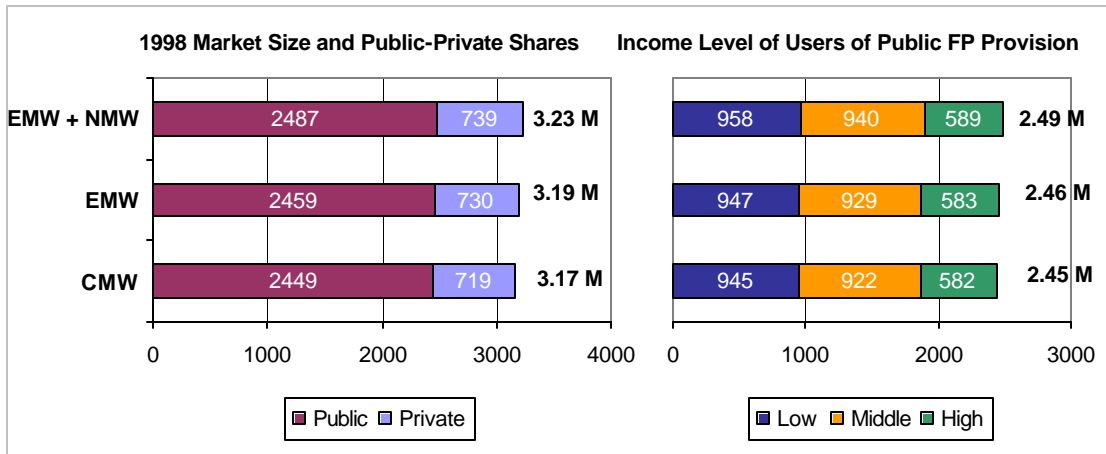
Using 1998 data as the base and inputting DOH FP targets, Spectrum (a computer model developed by the POLICY Project and described in Annex 2) was used to generate financing scenarios to quantify the requirements to reach the strategic goal of financial sustainability for contraceptive self-reliance.

The study defines two conditions for financial sustainability: first, adequate financing exists for the provision of free or subsidized services for the poor; and second, risk pooling is fully explored for those who can afford and are willing to pay for FP services. Thus, a two-pronged strategy is proposed: a shifting strategy to move the public sector non-poor clients to the private sector and a financing strategy for the remaining public burden. The financing scenarios focus on the public sector share of the FP market and take into consideration the National Health Insurance Program of PhilHealth.

Shifting Public Sector Non-poor Clients to the Private Sector

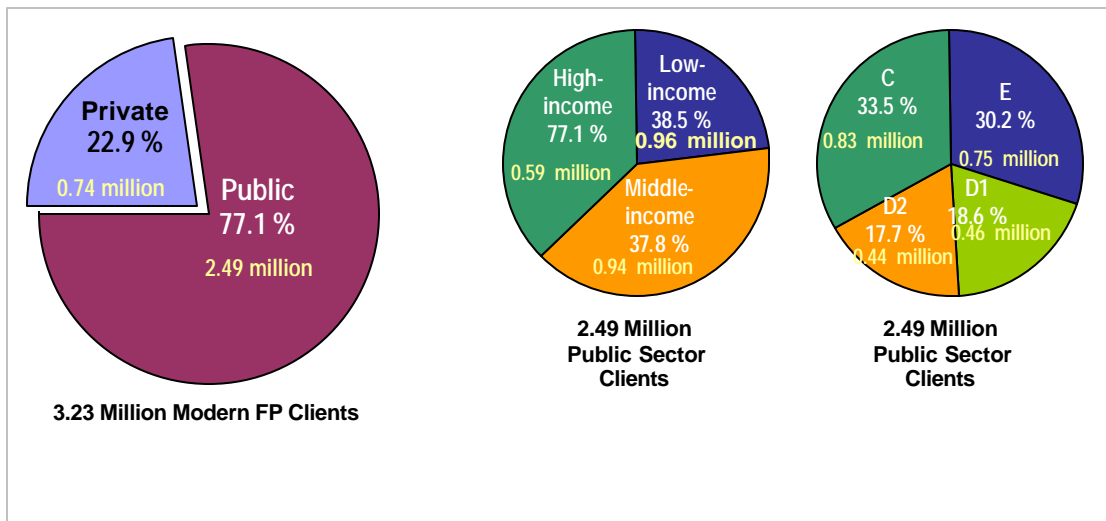
Two major arguments make the shifting strategy compelling.

The first is found in the various market segmentation studies, including this one, which documents the continued provision by the public sector of the FP requirements for the non-poor.

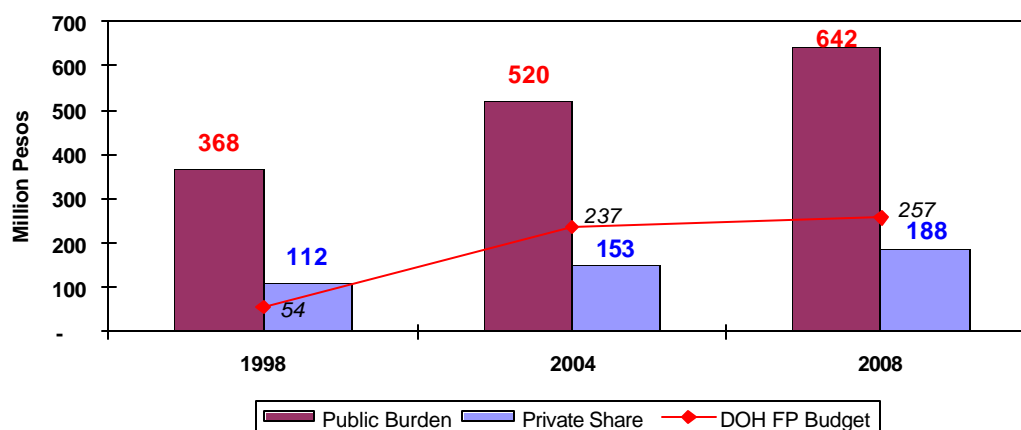


The above chart presents the estimated market size of the modern FP market according to the three market groups. If the market is limited to women who are either married or living together with their partners, there were an estimated 3.17 million women in 1998 with modern FP needs. Of these, 2.45 million went to the public sector and 719 thousand went to the private sector. When this market is expanded to include formerly married women, it increases to 3.19 million women. The integrated market, which further includes singles comes up to 3.23 million women. Of this market, an estimated 77 percent or 2.49 million rely on the public sector for their FP needs, whereas about 739 thousand women seek FP services from the commercial sector. Of the 2.49 million who go to the public sector, 61.5 percent or 1.53 million women come from middle and high-income classes (69.9 percent are non-poor or above the poverty threshold).

When the low, middle, and high income classes of the market segmentation study are made to correspond with the ABCDE socioeconomic classification, the low income group can be classified as Class E, households with an income of PhP5,028 and below/month. Since this corresponds to the National Statistical Coordination Board (NSCB) definition of the poverty threshold for the Philippines, this group can be considered as the poor. All non-poor households will be shifted to the private sector, with the poor remaining as the public burden.

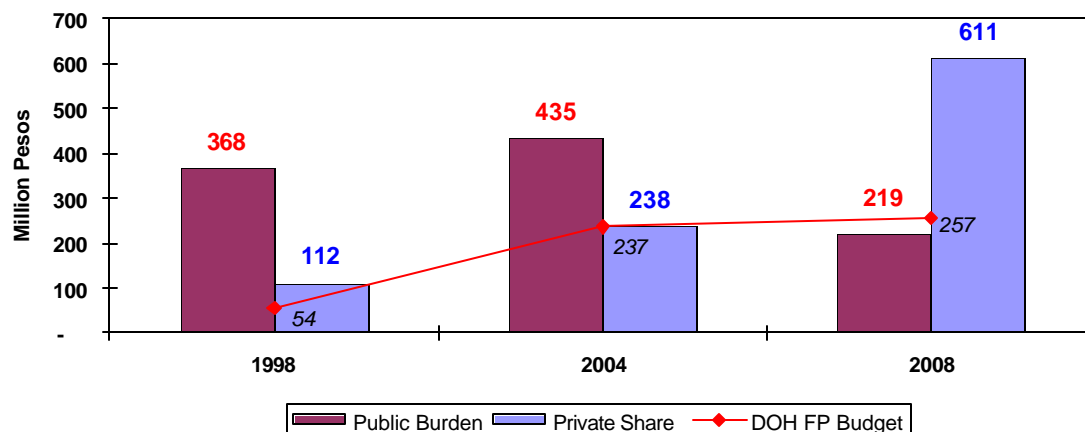


The second argument has to do with the resulting public burden should no shift occur. Using the Spectrum software, the commodity funding requirements of the public sector for the modern methods under consideration were projected using the historical rate of increase in order to estimate the resulting public burden. This base scenario shows the public burden increasing by 74 percent from 368 million pesos in 1998 to 642 million pesos in 2008. To get a sense of how affordable this burden is, the projected amounts are compared with the projections of the LGU Internal Revenue Allotment (IRA) share that is estimated for health and is set at 10% of IRA (henceforth referred to as the LGU health budget) and the DOH FP budget. The table shows the public burden under the base scenario to be 3.7 percent of the LGU health budget in 2004, growing to 4.2 percent in 2008. Compared to the DOH FP budget, the public burden is huge, amounting to 219.3 percent of the budgetary level in 2004 and 250.4 percent in 2008. Clearly, the resulting public burden is overwhelming.



	2004	2008
Public burden as a proportion of DOH FP Budget	219.3 %	250.4 %
Public burden as a proportion of LGU Health Budget	3.7 %	4.2 %

The shifting strategy will not only reduce the public burden (public burden is expected to decrease by 66 percent as compared to the base scenario estimate for 2008). It will also encourage and nurture the growth of the private sector (in this scenario, the private sector is expected to increase by 225 percent as compared to the base scenario estimate for 2008) in the Philippine FP market, a market long dominated by free public goods which have forced commercial players to concentrate on the high-end niche with correspondingly high-priced commodities. The client shift is expected to create a larger private sector market for lower-priced commodities.



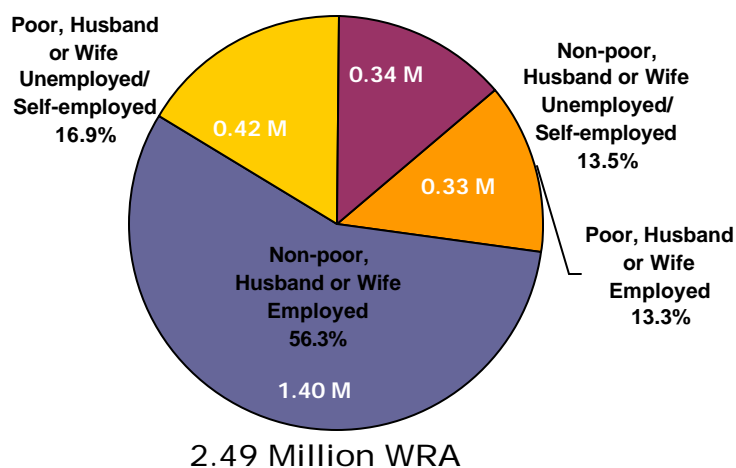
	2004	2008
Public burden as a proportion of DOH FP Budget	183.6 %	85.5 %
Public burden as a proportion of LGU Health Budget	3.1 %	1.4 %

Financing Scenarios for the Public Burden

Given the various policy options available to the government, two possible financing scenarios emerge:

Scenario 1: Additional PhilHealth Funding is Available

An important potential financing source for FP is the National Health Insurance Program. At present, PhilHealth is evaluating the expansion of its FP benefits from bilateral tubal ligation and vasectomy to include pills, IUDs, and injectables. Using employment status as a proxy for PhilHealth membership, estimates show that a policy that withdraws the provision of free public goods from the non-poor coupled by PhilHealth coverage of FP supplies would significantly reduce the public burden to 16.9 percent of those presently being serviced by the public sector. Despite the large reduction shown, this projection of the public burden may, in fact, be an overestimate as it does not account for the possible coverage expansion of PhilHealth programs for the indigent and self-employed.



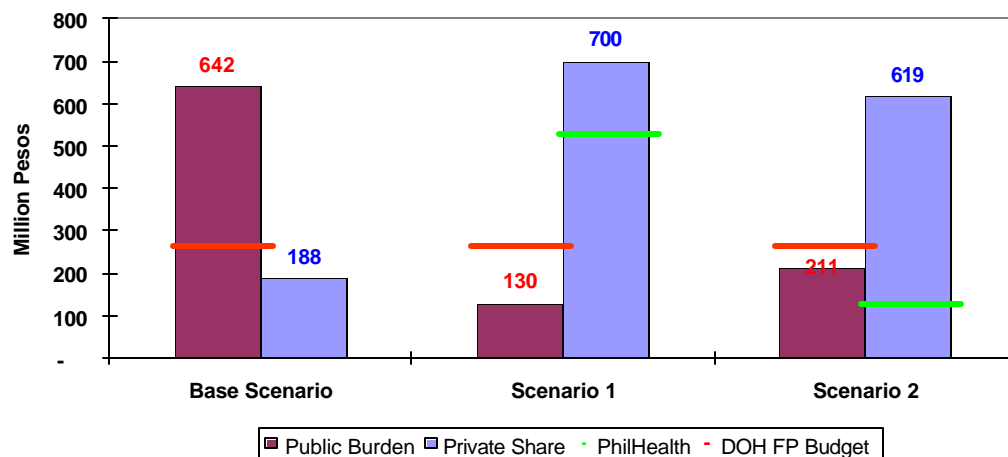
Scenario 2: No Additional Philhealth Financing

In the absence of additional Philhealth funding, other policy options will have to be pursued more aggressively. Among these are:

1. Encouraging the shift through means testing, user fees, and the establishment of a referral system to private facilities and NGOs.
2. Collaborating with the Employers' Confederation of the Philippines (ECOP) and the trade unions in incorporating FP benefits into the collective bargaining agreements and upgrading the capability of company clinics to deliver FP services.

Since option 2 is still in the conceptual stage and its feasibility depends on the willingness of the private stakeholders to cooperate, only the impact of option 1 shall be considered in this simulation as the success of this option is mainly dependent on government action. Shifting the non-poor public sector users to the private sector would leave 30.2 percent of present public sector users as part of the public burden.

The following chart highlights the 2008 public burden and private sector shares of the FP market in the context of the projected budget requirements of DOH and the LGUs. Clearly, the baseline scenario cannot hold given a resulting public burden that is more than two times the FP budget (indicated by the red line) of the DOH and almost five percent of the LGU health budget. As expected, the shifting strategy produces a smaller public burden. Scenarios 1 and 2 show how this public burden can be financed. Scenario 1 shows a smaller burden, since the FP needs of the employed, poor population are covered by insurance. Under Scenario 1, the resulting public burden is reduced to 51 percent of the DOH FP budget (from 676 percent in 1998) and less than one percent of the LGU health budget (from 4.5 percent in 1998) by 2008. Scenario 2, on the other hand, assumes that the FP needs of all poor clients, regardless of employment status, are covered by the public sector. The public burden is consequently higher, amounting to 211 million pesos in 2008, which is 1.4 percent of the projected LGU health budget and 82.4 percent of the DOH FP budget. In 2008, PhilHealth financing (indicated by the green line) is estimated to support private share by 75.4 percent for Scenario 1. Should FP benefits be limited to VSS (Scenario 2), only 19.4 percent of private share would be financed by PhilHealth.



	Base Scenario	Scenario 1	Scenario 2
Public burden as a proportion of DOH FP budget	250.4 %	50.8 %	82.4 %
Public burden as a proportion of LGU health budget	4.2 %	0.9 %	1.4 %

NEXT STEPS

The implementation activities necessarily follow from the shifting/financing strategy discussed. They fall into the two broad categories of national level activities that would be favorable to the growth of the private sector and provide alternative sources of financing, and LGU level activities that flesh out as well as support the national directions.

National Level: Department of Health

At the national level, the DOH has to restate its FP policy especially with respect to its continued provision of services for the poor. It has to be accompanied by a strategy of encouraging the non-poor to pay for FP services and supplies. This is very much in keeping with the pro-poor stance of the present administration. But as it focuses its services on the poor, the DOH should see to it that alternative sources of supplies and services for those who will be denied free services are first in place and are easily accessible. Other less critical but nevertheless important policy decisions at the national level involve issues that would make contraceptives and the correct information about them more accessible to the public, particularly the potential users.

National Level: Philippine Health Insurance Corporation

The decision of PhilHealth to include additional FP benefits – oral contraceptives, injectables, and IUDs in particular – in its basic package has tremendous financial implications. A critical input to the decision is a cost-benefit study that should be able to show the health impact of contraception on PhilHealth members, as well as PhilHealth itself. The result of the cost-benefit exercise should be used to advocate at both technical and political levels. The technical arguments could be derived directly from the study. The political arguments, on the other hand, should build on the government's objective to focus public resources on the poor. Scenario 1 shows that shifting the financing burden on to PhilHealth would accomplish such an objective as the non-poor clients would be shifted out of the public sector. This would allow public facilities to provide more free services and supplies to the poor and underserved sectors of the population. Such a strategy should also sit well with the oppositors of the FP program who have been advocating for a diminished role by government and a more dominant role by the private sector. The strategy would shift much of the service delivery burden to the private sector, aside from shifting the financial responsibility to individuals and their employers.

Local Level: LGU as the Coordinator of Services

The shifting/financing strategy serves to recast the role of the LGU from just a provider of public health services to a coordinator of public and private health services as well. Effective implementation of the strategy requires that stakeholders in the community assume ownership over it. One way to ensure this would be to convene a multi-sectoral body consisting of stakeholder representatives for a planning exercise to formulate ways of operationalizing the strategies. Having the LGU executives act as convenor would serve to introduce them to their role as coordinator of health services and they shall begin to be seen as such by other stakeholders.

The planning exercise, to be most useful, should be knowledge-driven. It should therefore be supported by background studies which would give a sense of the contraceptive supply and demand situation and the state of the contraceptive service delivery system, with a focus on

existing delivery gaps. It should also look into present and potential financing sources for FP, including PhilHealth.

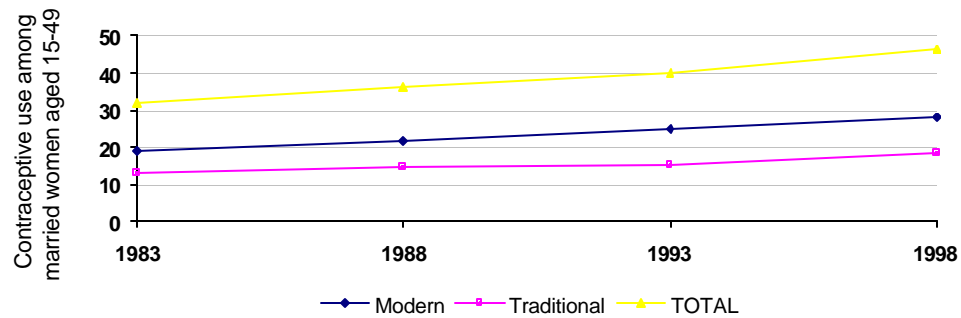
The shifting/ financing strategy should be carried out with a mind to minimizing the risk of drop-outs from the program and ensuring that services and supplies to the poor remain uninterrupted. To help achieve this multi-faceted objective, the following need to be put in place:

- An effective means testing scheme. Experience has shown that such a scheme, to be effective, has to have the support of the political leadership and its constituents. Public sector clients have come to view free public health services as their right, no matter what their economic situation in life. The decision, therefore, to deny access to free goods and services to clients deemed capable of paying, carries with it some political risk. This means that the means testing mechanism should not only be politically sound, it should be well-packaged as well.
- A system of referring public sector clients to the most accessible private clinics. The shift could be eased if low-priced goods and services are made easily accessible. Studies have shown that proximity of supply and service sources encourages contraceptive use.
- A procurement and delivery scheme that would make low-priced supplies available at the LGU facilities. This would avoid having to direct shifted clients elsewhere for their supplies. To implement this, the LGU should explore the feasibility of resource pooling as well as the use of existing parallel importation mechanisms.
- Identification of sustainable financing sources for FP ranging from PhilHealth, LGU budget, and community financing schemes to LGU bond float.

Background

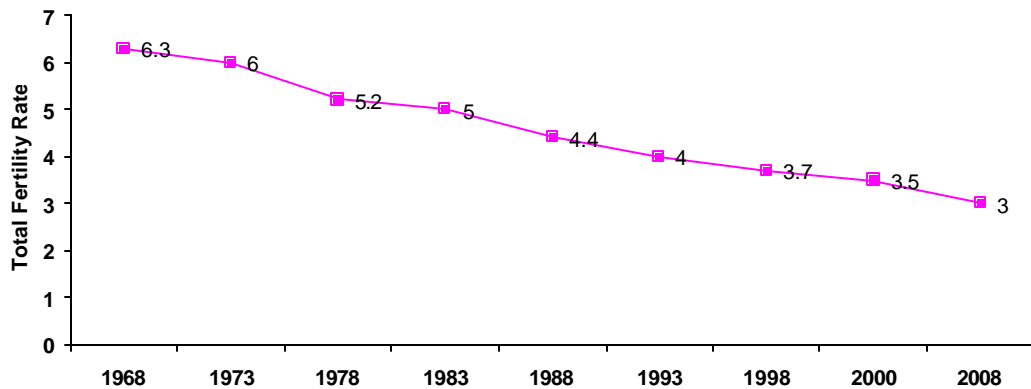
The Philippine Family Planning Program (PFPP) was established in 1971. Since then, it has moved from a demographically driven program to one that focuses on the promotion of health of women and children in support of the Philippine Reproductive Health Program. During its implementation, contraceptive prevalence rate (CPR) has steadily increased from about 3 percent at the start of the program, to 32 percent in 1983, and to 46.5 percent in 1998. A corresponding decrease in total fertility rate (TFR) has been registered from 6.3 in 1968 to 4.4 in 1988. TFR is expected to reach 3 in 2008.

Figure 1. Contraceptive Prevalence Rates, 1983-1998



Source: National Demographic Survey, 1998

Figure 2. Total Fertility Rates, 1973-2008



Source: National Demographic Survey, The Futures Group

The success of the PFPP is premised on ready access to FP commodities, services, and information. Since the program started, the country has depended on foreign funding for contraceptives, particularly on USAID, which provides roughly 80 percent of donor financing for contraceptives in the Philippines.¹ The government has come to recognize the vulnerability of the PFPP to such donor dependence. Thus, the Commission on Population (Popcom) launched in 2000 the CII or the Contraceptive Independence Initiative whose overriding mandate is to develop strategies to sustain the family planning/reproductive health program.

As stated in its synthesis report, one of the six major strategic options of the CII calls for the adoption of a market segmentation system to ensure a contraceptive supply system across all sectors:

*Since there is a need to effectively tap the commercial sector, market segmentation can be a mechanism for socializing the cost of contraceptives to ensure that there is supply across various income classes. The higher income market that can afford to buy their contraceptive needs can be provided for by the private/commercial sector whereas contraceptive needs for those that belong to the poor income brackets can be subsidized by the government. It is important, however, that a thorough study of classifying the market be made to ensure an efficient contraceptive distribution.*²

The Family Planning Policy released by the Department of Health in 2001 clearly stated its support for the CII:

“ . . . to encourage self-sufficiency and eliminate dependence on foreign donors for FP services and commodities, the program shall adopt the recommendations of the technical working groups on the Contraceptive Independence Initiative (CII). The CII will segment the

¹ Commission on Population, “Synthesis Report on the Contraceptive Interdependence Initiative,” February 2001 (Unpublished report).

² Ibid., Commission on Population, “Synthesis Report.”

population and will ensure the availability of commodities for all segments through direct subsidy, health insurance, socialize pricing and/or commercial procurement.”³

The Policy also underscored its expectations of the National Health Insurance Program (NHIP) of the Philippine Health Insurance Corporation (PhilHealth) to play a key role in the financing of family planning in the country.

This study attempts to flesh out the CII strategy.

Objectives

The overall objective of the study is to develop a financial sustainability strategy for contraceptive self-reliance in the Philippines using a market segmentation approach. In particular, it will:

- Analyse the Philippine FP market using the 1998 National Demographic Survey (1998 NDS)
- Apply a market segmentation approach to develop an understanding of FP market segment behavior with respect to financing, contraceptive method, and provider choice
- Do projections on various financing scenarios for FP, given present patterns and levels of FP financing sources
- Propose strategies to shift such patterns to address financing gaps and ensure financial sustainability of contraceptive self-reliance
- Develop operational policies and procedures in support of these strategies.

Approach

The study takes the following approach.

First it redefines the coverage and segments of the FP market in the Philippines.

In the spirit of the ICPD commitment “to provide universal access to family planning information and services whenever and wherever these are needed” and to which the PFPP is a signatory, the study redefines the coverage of the Philippine FP market.

The study redefines it to include never-married, currently married, and formerly married women aged 15 – 49. In other words, the study recognizes that the need for family planning is not limited to women aged 15-49 years who are currently married or in unions. Regardless of marital status, those who are at risk of being pregnant but who would want to postpone or limit childbearing are in need of family planning.

Never-married women comprise about 34 percent of the total 1998 National Demographic Survey (NDS) sample. In two independent surveys, Young Adult Fertility and Sexuality Survey (YAFS-II) and the 1998 NDS, about two percent of never-married women have reported having had sexual relations. This could provide an estimate of the potential FP market among single women. On the other hand, 10 percent of ever-married women are still using FP and should therefore be further studied for inclusion in the FP market.

³2001 Family Planning Policy

The three groups (never married, currently married, and formerly married) are further broken down into two groups. Within each group, *current users* refer to those who are currently using a family planning method, while the *immediate potential users* are those who indicate that they intend to limit or space births and yet do not use any contraceptive method. Because of this gap between intention and behavior, the latter are considered to have an 'unmet need' for family planning and have also been referred to as the unmet need group.

Since the study focuses on financial sustainability of contraceptive self-reliance, the FP methods that will be considered for both current and unmet need users for the three groups will be limited to modern methods.

Moreover, the study builds on the results of the first two major studies on FP market segmentation: "Family Planning Use in the Philippines: Market Segmentation Study" by Alano et.al. (1997) and the more recent 'Family Planning Service Utilization and Market Segmentation in the Philippines' (Lamberte et.al, 2000). Both rely on national secondary survey data. At the same time, this study contributes its own findings on the characteristics and patterns of contraceptive usage by women, including choice of method and provider, vis-à-vis their socioeconomic, demographic, and financial characteristics through a mix of cluster analysis, cross-tabulation, and logistic regression techniques.

Second, the study interprets contraceptive self-reliance in terms of financial sustainability.

In order to arrive at a better understanding of the financing issues behind contraceptive security, the study uses the national family planning expenditures template as a framework. (Herrin et al, 2000) Data are available for this framework only for the years 1994 and 1998. Financing sources for the two years are grouped according to four categories: government, donors, NGOs, and household out of pocket. Over the four-year period, two categories have increased their spending: government expenditures from 25.1 percent to 35 percent and household out of pocket expenditures from 29.5 percent to 37.7 percent. The other two categories in turn have decreased: donors from 35.9 percent to 18.5 percent and NGOs from 9.5 percent to 8.8 percent.

Financial sustainability for FP has to be crafted within these financing realities and should in fact address the drivers as well as the reach of these financing categories. A critical question is whether existing financing sources are appropriate for the FP commodities and services being financed. In this connection, mechanisms to provide free or subsidized FP services to the needy and underserved should be explored, in tandem with private/commercial service options for higher income clients who have both the capacity and willingness to pay. Other financing sources should be identified as well. Local government units (LGUs) can assume financial responsibility, even if partially, for the provision of FP/RH services at their level, since health and family planning services have been devolved to the LGUs by the 1991 Local Government Code. Then, there is the potential of the National Health Insurance Program to bring in additional resources to the PFPP, beyond the currently covered voluntary surgical services through their basic benefit package.

Given an overburdened public sector, a heavily subsidized contraceptive market, and the eventual phase-out of foreign donor support for contraceptives, financial sustainability to ensure contraceptive self-reliance becomes imperative. This study provides quantitative estimates of financing required for contraceptive self-reliance given various assumptions about financing source movements and levels. It defines two conditions for financial sustainability: first, adequate financing exists for the provision of free or subsidized services for the poor and second, risk pooling is fully explored for those who can afford and are willing to pay for FP services.

Third, the study takes its findings beyond research into operations, identifying arenas for their implementation, as well as partnership requirements of stakeholders, through its proposed next steps.

The financing strategies proposed by the project are translated into operational guidelines. While the study recognizes that there are national policies key to the strategies proposed such as the inclusion of additional FP benefits in the NHIP benefit package and the change in classification of pills to OTC drugs, the main arena to test the financing strategies proposed is rightfully the LGU which has been given the mandate to manage and finance a local health system.

LGUs now face the challenge of population and FP in their localities. Using information culled from the analyses of their FP market both from the perspective of supply and demand, they must secure a robust policy and operational framework for delivering FP services as an essential part of improving general community welfare.

Their program should exploit the full potential of local autonomy and localized governance in order to deliver better performance in contraceptive use, manage the organized resistance of the Catholic Church against contraception, and secure sustainable domestic funding support and financing for service delivery and contraceptive use. It should build on local ownership of FP priorities, establishing links with other local structures to ensure that FP priorities are owned primarily by LGU stakeholders such as pertinent government organizations, the Sanggunian, DOH and PhilHealth representatives, public and private providers, and NGOs. In this way, the LGUs can develop locally specific and meaningful interventions including innovative financing schemes such as user fees in public outlets, local community insurance schemes that may or may not be in partnership with the NHIP, and other modes of public-private partnerships that are not feasible to implement on a national scale.

CHAPTER 2: FINANCING SOURCES FOR FAMILY PLANNING

Philippine National Health Accounts

Financing sources for FP are best understood in the context of the Philippine national health accounts (PNHA).

Table 1: Health Expenditures by Sources: 1991, 1995, and 2000

FUND SOURCES	PERCENTAGE SHARE		
	1991	1995	2000
GOVERNMENT	38.51	35.32	41.08
National	34.66	19.33	21.51
Local	3.85	16.00	19.57
SOCIAL INSURANCE	5.44	4.54	7.10
Medicare	5.17	4.25	6.87
Employees' Compensation	0.27	0.28	0.23
PRIVATE SOURCES	56.05	60.14	51.81
Out of Pocket	47.69	50.43	41.02
Private Insurance	2.88	1.77	2.03
HMOs	1.25	1.98	3.86
Employer-based Plans	3.41	4.98	3.76
Private Schools	0.82	0.97	1.14
ALL SOURCES	100.00	100.00	100.00

Source: National Statistical Coordination Board

Over the past ten years, the country's health spending patterns in terms of distribution of the three broad sources of financing has remained fairly constant with private sources expenditure accounting for more than 50 percent followed by government constituting more than one third of the total expenditure. Social insurance contributed a very small share. From 5.4 percent in 1991, it dipped to 4.5 percent in 1995 and increased to 7.1 percent in 2000.

The only significant change in shares over the last decade has been a gradual increase in local government expenditures and a corresponding decline in national government

contribution, a direct consequence of devolution. The increase in the share of social insurance especially for the year 2000 has been noted as well and has been explained by twin increases in the benefit ceilings implemented by PhilHealth in 1999 as well as the increased accessibility of the National Health Insurance Program to its members.

The following table summarizes the latest available data on government spending on health care. The shares of the DOH, other national agencies, and the local government in terms of use of funds and type of expenditure are given for the year 2000.

Table 2: Government Health Expenditures by Use of Funds and by Type of Expenditures: 2000

Source of Funds	Amount (in million pesos)				Percentage Share (%)		
	PS*	MOOE**	CO***	Total	PS	MOOE	CO
Department of Health	7,264	7,290	701	15,255	47.6	47.8	4.6
Personal	5,247	4,441	665	10,353	50.7	42.9	6.4
Public	508	2,136	2	2,646	19.2	80.7	0.1
Others	1,509	713	35	2,257	66.9	31.6	1.5
General Administration and Operating Cost	1,445	667	35	2,147	67.3	31.1	1.6
Research and Training	64	46		110	58.3	41.7	0.0
Other National Agencies							
Personal	2,066	1,782	28	3,876	53.3	46.0	0.7
Public	174	191	5	371	47.1	51.5	1.4
Others				911			
General Administration and Operating Cost				828			
Research and Training	45	38	1	83	53.7	45.3	1.0
Local Government							
Personal	4,105	1,171	155	5,431	75.6	21.6	2.8
Public	7,693	2,740	300	10,733	71.7	25.5	2.8
Others				6,042			
General Administration and Operating Cost				6,042			
Research and Training							

Source: National Statistical Coordination Board

* Personal Services

**Maintenance and Other Operating Expenses

***Capital Outlay

If patterns for financing sources for FP have to be tracked within the national health care accounts, these have to be gleaned from the public health care expenditures.

In 2002, local government spending for health was almost 19.6 percent of the country's total health expenditures. Almost half of these expenditures or 48.3 percent went into public health. In fact, local government facilities continued to be the biggest source of public health spending as its P10.7 billion public health expenditures accounted for 67.9 percent of the country's total public health expenditures of P15.9 billion. Local government facilities especially rural health units run by municipalities are the main channels for delivering

services of national public health programs. It must be noted, however, that most of local government's public health care expenditures go to personal services. In fact, local government spent more than 70 percent of its expenditures on these.

National Family Planning Expenditures

A study of Herrin et al (National Family Planning Expenditures in the Philippines: 1994 and 1998 Estimates by Alejandro Herrin, Rachel H. Racelis, and Maritess G. Manalo, 2000) takes a closer look at FP expenditures and comes up with estimates for 1994 and 1998.

Table 3: FP Expenditures by Source of Funds, 1994 and 1998

SOURCE	1994		1998	
	Amount	Percent	Amount	Percent
GOVERNMENT	385,911,380	25.1	964,625,338	35.0
National agencies	140,420,910	9.1	378,697,089	13.7
Foreign assisted (national)	142,222,374	9.3	216,382,695	7.9
Local government	103,268,096	6.7	264,590,853	9.6
Foreign assisted (local)			104,954,701	3.8
DONORS	551,168,501	35.9	510,575,367	18.5
USAID/Cas	496,666,380	35.9	445,648,499	16.2
UNFPA/Cas	53,192,750	3.5	20,216,525	0.7
Other donors	1,309,371	0.1	44,710,343	1.6
NGOs	146,529,706	9.5	241,683,230	8.8
Household out of pocket	452,822,147	29.5	1,037,944,357	37.7
Donations to government providers	148,061,097	9.6	339,158,294	12.3
Fees paid to private for profit and NGO providers	304,761,050	19.8	698,785,433	25.4
TOTAL	1,536,431,735	100.0	2,754,828,293	100.0

Note: A further source of financing, especially for voluntary surgical sterilization, is the national health insurance program (PhilHealth). Data is not available on claims paid in 1998, but available data for June 1999 to March 2000 show total claims of P946,016.

Table 4: FP Expenditures by Source of Financing and by Expenditure Type, 1994 (in Philippine Pesos)

EXPENDITURE TYPE	GOVERNMENT				DONORS			NGOs	Household Out of Pocket	Total	%
	National Gov't	National FAPs	Local Gov't	LoF	USAID	UNFPA	Others				
Salaries & Wages	55,069,341	1,105,884	82,341,055		26,887,549	11,396,398		38,481,801		215,282,028	14.0
Commodities and Supplies	28,550,461	3,488,228			195,286,234	14,467,284		14,831,594	212,277,069	468,900,870	30.5
<i>Contraceptives</i>					195,000,000	14,300,000		11,404,213	212,277,069	432,981,282	28.2
<i>Other supplies</i>	14,091,778	2,361,828			286,234	167,284		2,363,758		19,270,882	1.3
<i>Unallocated supplies</i>	14,458,683	1,126,400						1,063,623		16,648,706	1.1
MOOE	11,604,858	2,834	18,133,689		5,286,712	8,845,590		26,809,789		70,683,472	4.6
CO	45,034,810		2,793,352		881,180	6,160,804		2,068,366		56,938,512	3.7
Others		27,486,466			6,482,606			6,469,061		40,438,133	2.6
Unallocated	161,440	110,138,962			261,842,100	12,322,674	1,309,371	57,869,095		684,188,720	44.5
TOTAL	140,420,910	142,222,374	103,268,096		496,666,381	53,192,750	1,309,371	146,529,706	452,822,147	1,536,431,735	100.0

Source: Herrin Study

Table 5: FP Expenditures by Source of Financing and by Expenditure Type, 1998 (in Philippine Pesos)

EXPENDITURE TYPE	GOVERNMENT				DONORS			NGOs	Household Out of Pocket	Total	%
	National Gov't	National FAPs	Local Gov't	LoF	USAID	UNFPA	Others				
Salaries & Wages	251,239,643	14,508,341	211,462,220	15,059,620	58,734,633	3,680,736	1,276,790	87,597,274		643,559,257	23.4
Commodities and Supplies			8,817,984		205,457,139	844,270	12,950,000	27,092,987	803,876,845	1,059,039,224	38.4
<i>Contraceptives</i>					203,578,827	54,149		24,698,283	803,876,845	1,032,208,103	37.5
<i>Other supplies</i>			8,817,984		1,290,007	306,816	12,950,000	127,655		23,492,462	0.9
<i>Unallocated supplies</i>					588,035	483,305		2,267,049		3,338,659	0.1
MOOE	68,490,221	135,847,237	40,550,764	2,298,478	55,619,343	7,142,648	2,530,000	27,143,566		339,622,258	12.3
CO	15,244,225	2,437,298	3,759,885	30,039,662	10,226,744	1,307,831	2,020,000	704,899		65,740,535	2.4
Others		2,037,034		2,314,590	9,680,522	6,928,281	2,718,000	6,158,213		29,836,640	1.1
Unallocated	43,723,000	61,552,785		55,242,350	105,930,118	312,579	23,215,553	92,986,301	234,067,513	617,030,379	22.4
TOTAL	378,697,089	216,382,695	264,590,853	104,954,701	445,648,499	20,216,525	44,710,343	241,683,230	103,794,4357	2,754,828,293	100.0

Source: Herrin Study

Unlike the national health accounts, the Herrin study tracks the category of donors: the largest of which are USAID with its Cooperating Agencies (CAs) and UNFPA with its CAs, as well as NGOs. The study is even able to get breakdowns for foreign assisted national FP programs and foreign assisted local FP programs. No data are available for FP expenditures coming out of PhilHealth. The study's household out of pocket sources consist of donations to government providers and fees paid to private for profit and NGO providers while those of the national health accounts account for out of pocket, private insurance, HMOs, employer-based plans, and private schools.

According to the Herrin study, in terms of expenditure shares by sources of funds, government's share rose from 25 percent in 1994 to 35 percent in 1998, while that of donors declined from 36 percent in 1994 to 19 percent in 1998. The share of household out of pocket payments share rose from 30 percent in 1994 to 38 percent in 1998. About two-thirds of these were payments to private for-profit and NGO providers. Foreign assisted local projects emerged as a new funding source in 1998.

When the funding sources for the national health account and for FP are put side by side, the most apparent differences are the absence of social insurance as well as the presence of donors and NGOs as a funding source in the latter. The presence of social insurance may in fact account for the slight decrease in spending from private sources for national health expenditures from 1991 to 2000. These sources, on the other hand, increase for FP expenditures. For both national health expenditures and FP expenditures, the local government as a funding source (including foreign assisted projects for the former) exhibits an increasing trend.

The next two tables show FP expenditures by source of financing and type of expenditures for 1994 and 1998. It is unfortunate that relatively large shares of expenditures are unallocated (44.5 percent for 1994 and 22.4 percent for 1998) but the remaining data still provide some patterns that are worthy of note.

From 1994 to 1998 the following expenditure types increased their shares in FP expenditures: salaries and wages from 14 percent to 23.4 percent, commodities and supplies from 30.5 percent to 38.4 percent, and maintenance and operation from 4.6 percent to 12.3 percent. The following expenditure types decreased minimally: capital outlay and others.

The government, whether at the national or the local level, never spent for contraceptive supply for the two years. These were provided by USAID and its CAs, UNFPA and its CAs, NGOs, and households. In terms of contraceptive supply, households were the largest source: 49 percent in 1994 and 78 percent in 1998, followed by USAID and its CAs at 45 percent and 20 percent respectively. NGOs contributed 2.6 percent in 1994 and 2.3 percent in 1998 while UNFPA and its CAs brought in 3.3 percent in 1994 and 5.2 percent in 1998.

CHAPTER 3: ESTIMATING THE PHILIPPINE FP MARKET

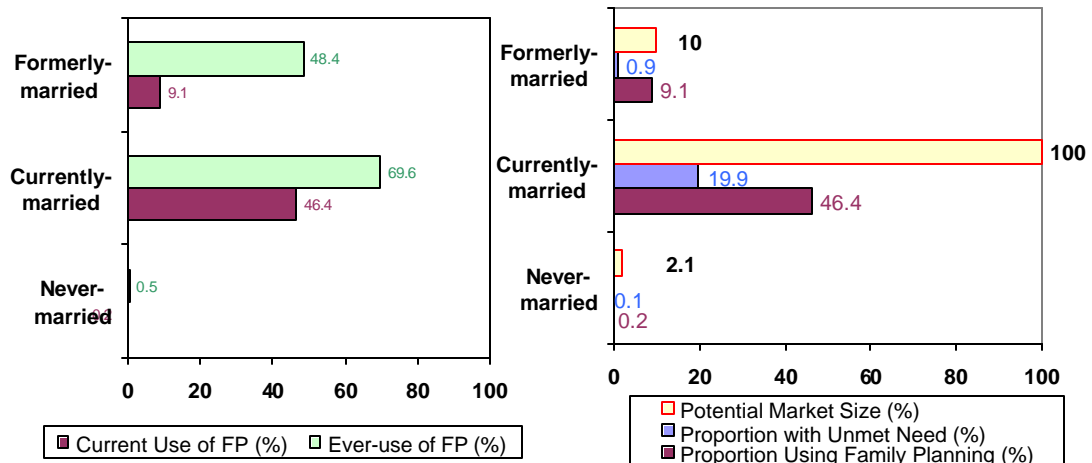
In market research parlance, there are many ways to cut or segment the market. The same holds true for the FP market. This study offers alternative views of the FP market that it believes should be explored in order to better address its financial sustainability. The views are in keeping with the spirit of the International Conference on Population and Development (ICPD) commitment “to provide universal access to family planning information and services whenever and wherever these are needed.”

Redefining the FP Market

While earlier studies limit the FP market to currently married women, this study redefines it to include never-married women (NMW), currently married women (CMW), and formerly married women (FMW) aged 15 – 49. In other words, the study recognizes that the need for family planning is not limited to women aged 15-49 years who are currently married or in unions. Regardless of marital status, those who are at risk of being pregnant but who would want to postpone or limit childbearing are in need of family planning.

Although the PFPP targets currently married women aged 15-49 years, Figure 3 shows that there are users of family planning from the never-married and formerly married women. In terms of current use, a very small proportion (0.2 percent) of never-married women are using

Figure 3: FP Market by Marital Status and Potential FP Market



FP, while this figure increases to 0.5 percent when women’s past usage of FP is considered. Currently married women are the greatest users of FP, with a current use of 46.4 percent. Among the formerly married, nine percent are still using FP. It is also interesting to note that 30 percent of currently married women and 52 percent of formerly married women had never used FP.

Never-married women comprise about 34 percent of the total NDS sample. Since they are a huge potential market for FP, it is useful to study their risk for premarital sex or childbearing, their need for FP services, as well as their capacity to pay for such FP services. On the other hand, two percent of formerly married women use non-permanent FP methods and 11 percent are not using any FP method but intended to use FP within a year of the NDS survey.

The three groups (never married, currently married, and formerly married) are further broken down into two groups. Within each group, *current users* refer to those who are currently using a family planning method, while the *immediate potential users* are those who indicate that they intend to limit or space births and yet do not use any contraceptive method. Because of this gap between intention and behavior, the latter are considered to have an ‘unmet need’ for family planning and have also been referred to as the unmet need group.

Table 6: Current Users of Family Planning by Type: Proportions by Marital Status

Marital Status	N of cases	Proportion Using Family Planning by Marital Status		
		Modern (%)	Traditional (%)	Total (%)
Never-married	4,822	0.1	0.1	0.2
Currently- married	8,634	27.7	18.7	46.4
Formerly- married	527	8.2	0.9	9.1
Total	13,983			

Source: National Demographic Survey, 1998

Figure 3 provides a closer look into the size of each group in terms of current users as well as immediate potential users.

Among currently-married women, 46.4 percent reported using a family planning method, however only 27.7 percent of these women are into modern FP methods, the rest of the contracepting population relies on traditional methods. Within the CMW, 19.9 percent reported an unmet need for spacing and limiting their births. In terms of market potential, all (100 percent) CMW are considered potential FP clients.⁴

In the case of single or never-married women, less than one percent (0.2 percent) reported to be currently using FP, of which very few use modern methods. While there have been

⁴ In the study by Alano, et.al (1997), the potential FP market was defined as *women with a met or unmet need for contraception*. The study purposely excluded the following groups from the analysis: (1) women with no desire to limit or space births; (2) pregnant women whose pregnancy is wanted; and (3) non-ligated women who cannot get pregnant (menopausal, amenorrheic, had hysterectomy, etc.). However, in analyzing the levels and patterns of FP use and the market behavior of FP users, the study restricted the discussion to currently -married women. In comparison, the current study excluded the three groups in the cluster and logistic regression analysis. However in projecting the demand for FP these three groups were not excluded. This was done because the projection software (Spectrum) used generates the number of FP users needed to meet a particular TFR or CPR target. Also, the figures generated already account for the prevailing postpartum insusceptibility and sterility.

identified cases of unmet FP needs (0.1 percent), this is deemed very small. The immediate potential market for FP comes to less than one percent (0.3 percent).

Exploring the NMW's sexual experience and exposure to the risk of pregnancy results in findings that coincide with the Young Adult Fertility Survey (YAFS-II), conducted by the University of the Philippines Population Institute in 1994. Both the 1998 NDS and YAFS-II surveys reveal that: (1) two percent of unmarried women reported having had sexual relations and (2) less than one percent reported having a regular or occasional sex partner. It should be noted though, that these figures may be an underreporting of premarital sexual relations. In contrast, 22 percent of male respondents in the YAFS-II survey reported having had premarital sexual relations.

For purposes of identifying NMW's potential market for contraception, this study opted to base its estimates on those who reported having had sexual relations, which is two percent of the NMW population. Rather than limit FP provision to the met and unmet need market, this approach ensures that the market would also accommodate women with occasional need for contraception. Another option is to utilize data on non-users who intend to use FP in the next twelve months. The 1998 NDS reveals that 17.5 percent of NMWs intended to use FP within a year of the survey. The study uses the conservative estimate of two percent.

Among formerly-married women, nine percent reported using an FP method. Eight percent of FMW use modern contraceptive methods, while the remaining FP users (1 percent) are into the traditional methods. Unmet need among FMW comprises about one percent. Although 11.9 percent of non-users among this group reported their intention to use FP within a year of the 1998 NDS survey, this study uses the conservative estimate of 10 percent (consisting of FP users and those with unmet need) as the potential FP market within the FMW group.

The Integrated Market

The three market groups, discussed in the previous section are integrated to come up with an estimate of demand for family planning. This demand is limited to the commodity-driven contraceptive methods of pills, condoms, IUDs, injectables, and bilateral tubal ligation (female sterilization).

Table 7 presents a comparative picture of family planning users through various groupings of the FP market. These groups correspond to the earlier groups on CMW, FMW, and NMW, but are presented cumulatively in Table 8. These three groups consist of (1) currently-married women (CMW); (2) ever-married women (EMW), which in this study refers to CMW and formerly-married women who are using a modern contraceptive method; and (3) EMW and single women who reported having had sexual intercourse and have used a modern contraceptive method. Each is further segmented in terms of their choice of FP provider (public or private). Public sector users are further classified into high, middle, and low-income. The study came up with its own definition of high, middle, and low-income classes.

Table 7: Public-Private Shares, Users of Public Provision of Modern Contraceptives by Income Class, Current and Potential Users by Marital Status (Proportions)

Market Group	FP users (A)						FP Users and Women with Unmet Need (B)					
	N of cases	Public-Private Shares (%)		Income level of Users of Public Provision (%)			N of cases	Public-Private Shares (%)		Income level of Users of Public Provision (%)		
		Public	Private	Low	Mid	High		Public	Private	Low	Mid	High
CMW	2298	77.3	22.7	38.6	37.6	23.7	2914	65.6	34.4	40.2	36.8	23.0
EMW	2340	77.1	22.9	38.5	37.8	23.7	2959	63.5	36.5	40.1	36.9	23.0
EMW and Singles	2344	77.1	22.9	38.5	37.8	23.7	2965	63.4	36.6	40.0	36.9	23.1

Source of basic data: 1998 National Demographic Survey, 1997 Family Income and Expenditure Survey

The low-income class refer to respondents whose households have an annual per capita income below P15,000; the middle-income class refer to those whose household per capita income range from P15,001 to P25,000; and high-income refers to those whose income falls above P25,000. An explanation of how these income classes compare with the standard ABCDE socioeconomic classification is presented in Annex 1.

Table 7 shows that including FP users among formerly married women in the basic FP market comprised mainly of CMW, increases the number of current FP users by 1.8 percent. If current FP users among single women are considered together with FMW FP users, current FP users increases by two percent. Considering the FP needs of unmet need women among these three market groups increases the base markets of each group by 26 percent. Including unmet need women in the picture results in a 1.5 percent increase between CMW and EMW; and a 1.7 percent increase between CMW and the integrated market (EMW and singles).

The above table also shows there are very slight differences in terms of public-private market shares and proportion of low, middle, and high-income users going to the public sector for their FP needs among the three market groupings. The right half of Table 8 indicates that this is also true if women with unmet FP needs are integrated in the market. Thus, for FP users, whether the market group being considered is CMW, EMW, or EMW and single women, the public-private sharing of the current modern FP market still comes to 77-23 percent, respectively. Likewise, the income distribution of public sector users hovers at 38.5 percent (low), 37.8 percent (middle), and 23.7 percent (high) among current FP users, regardless of market groups. In the same manner for FP users and women with unmet need, public-private shares and income distribution of users of public FP provision are close to each other if not the same for CMW, EMW, and EMW and singles.

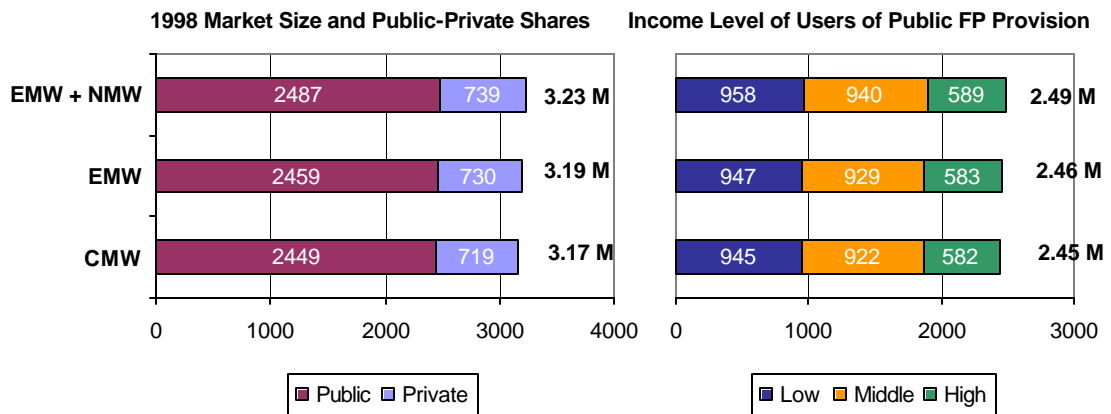
However, when FP users are compared to FP users and women with unmet need, variations emerge. For the FP users and women with unmet need, the public-private sharing is at 63-37, indicating a greater proportion of clients willing to avail of FP from the private sector. In turn, a slightly smaller number of middle and high-income clients avail of public sector FP services.

For current FP users, data on FP provision refer to the respondent's most recent source of FP. However, a proxy variable was used for those with unmet need, who are primarily non-users of FP. The proxy variable used to determine FP provider choice is the respondent's willingness to pay for FP. Those who indicated a willingness to pay for FP, are assumed to

be potential private sector clients, whereas those who were not willing to pay for FP, are considered potential public sector clients.

For purposes of this study, the resulting estimates of the market for modern FP already incorporate women with unmet FP needs (column B of Table 7). However, since the study opts to provide conservative estimates, the distribution of public-private shares and corresponding income distribution of public sector clients used in the estimates are those of current FP users (column A of Table 7). The resulting market size follows.⁵

Figure 4: Estimated Market Size of Modern FP Market, Public-Private Shares, Income Distribution of Users of Public Provision by Market Group, 1998 (Thousand Women)



Source of basic data: 1998 National Demographic Survey, 1997 Family Income and Expenditure Survey

Figure 4 presents the estimated market size of the modern FP market according to the three market groups. If the market is limited to women who are either married or living together with their partners, there is an estimated 3.16 million women in 1998 with modern FP needs. Of these, 2.44 million went to the public sector and 719 thousand went to the private sector. When this market is expanded to include formerly married women, it increases to 3.19 million women. The integrated market, which further includes single women comes up to 3.23 million women. Of this market, an estimated 77 percent or 2.49 million rely on the public sector for their FP needs, whereas about 739 thousand women seek FP services from the commercial sector.

Among the women who go to the public sector, more than half come from the middle and high-income classes. This pattern is true for the three market groups. For the integrated market, 1.53 million women or 61.5 percent of public sector clients come from the middle and high-income classes.

The Market for Selected Modern FP Methods: 1998

In terms of specific FP methods, female sterilization and pills have the biggest following in the integrated market with an estimated 1.19 and 1.15 million clients respectively (Table 8 and Figure 5). The market for IUD (13.3 percent), injectables (8.6 percent), and condoms (5.7

⁵ These estimates were generated with the aid of Spectrum, a computer model developed by the POLICY project to analyze existing demographic data and determine future consequences of present population programs and policies, (a brief description of the model and its underlying assumptions is in Annex 2).

percent) are relatively smaller than the female sterilization and pill markets, accounting for 36.8 percent and 35.6 percent of the market for commodity-specific modern FP methods.

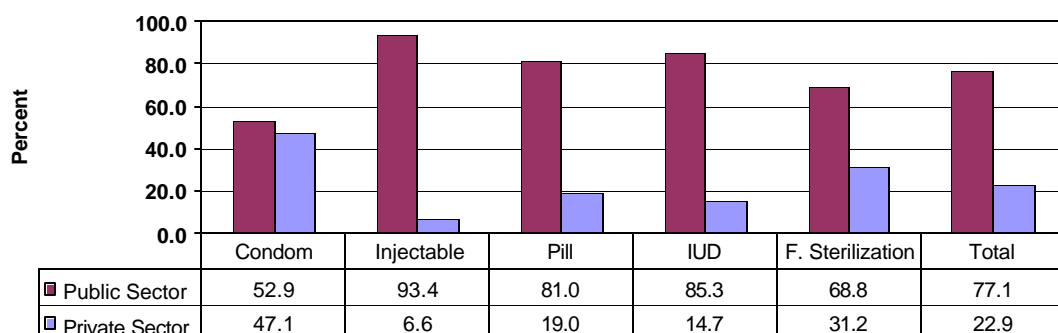
Table 8: Market Size⁶ of Integrated FP Market by Specific Modern FP Methods, 1998 (Thousand Women)

	Public Sector	Private Sector	Total
Condom	91	81	172
Injectable	284	20	304
Pill	936	220	1,156
IUD	417	72	489
Female sterilization	760	345	1,105
Totals	2,487	739	3,226

Source of basic data: 1998 National Demographic Survey

Table 8 and Figure 5 show that across methods, the public sector shoulders the greater share of the FP market. Only 23 percent of the FP market avails of commercial sector provision. The distribution of this private-going market across FP methods (Table 9 and Figure 5) show that the condom market is fairly equally distributed between the public (52.9 percent) and private sectors (47.1 percent). The private sector also has a fair share of the sterilization (31.2 percent) and pill (19 percent) markets. On the other hand, IUD and injectable are methods that are mostly availed of in the public sector.

Figure 5: Public-Private Shares of Modern FP Market by Specific FP Method, 1998

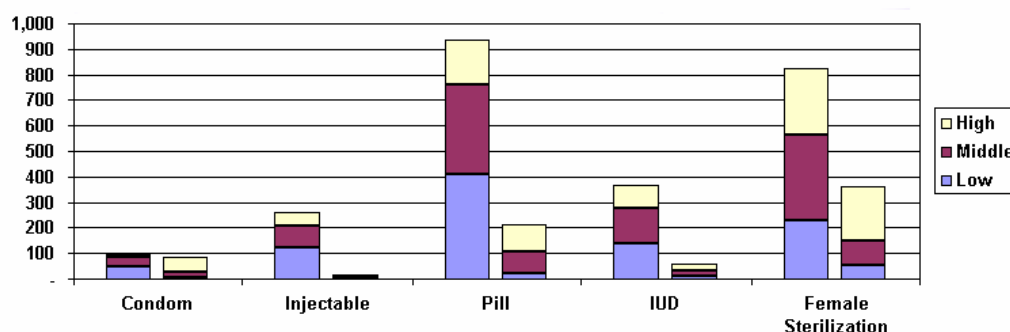


Source: 1998 National Demographic Survey

⁶ These figures refer to the estimated number of users pertaining to each selected method. For condoms, pills, and injectables, the estimated figures represent the number of women who need these products on a regular basis. However, in the case of IUD and female sterilization, the estimated number of users represents a cumulation of all WRA who are protected from the risk of pregnancy because of the permanent or semi-permanent FP method availed of. For subsequent demand forecasts of commodity requirements for IUD and sterilization, only new acceptors are considered.

Figure 6 shows the income distribution of FP users by method and by provider choice. In the figure, the first bar for each method corresponds to public sector users, while the second bar corresponds to private sector users. Across the five modern FP methods, 61.5 percent of public sector users come from the middle and high-income groups. Among the five methods, female sterilization has the greatest share of middle and high-income users in the public sector (72.1 percent). This is followed by IUD, with 62 percent of public sector users coming from the middle and high-income groups. For the pill and injectable, this figure comes to 56.5 percent and 52.9 percent, respectively. Likewise condom clients are equally divided into low-income clients and middle and high-income clients.

Figure 6: Public-Private Shares of Modern FP Market by FP Method and by Income Group, 1998 (Thousand Women)



Source: 1998 National Demographic Survey, 1997 Family Income and Expenditure Survey

Market Outlook for Selected FP Methods: 1998, 2002-2008

Projections of the demand for FP for the years 2003 to 2008 are presented in Table 9. With 1998 as base year, these projections are pegged at a TFR goal of 2.7 in 2004 and 2.0 in 2008, which deviate from the historically projected figures of 3.25 and 3.0. The DOH in its 2001 Family Planning Policy set a TFR goal of 2.7 in 2004. In order to attain this, from the 1998 TFR of 3.7, TFR should decline by 0.17 annually. At this constant rate of decline, TFR is estimated to be at 2.0 or replacement level by 2008. A detailed discussion of the assumptions and inputs used in the projection is provided in Annex 2.

Table 9: Total Market Size of Modern FP Market and Market Size by Method, Base Scenario, 2003-2008

	1998	2002	2003	2004	2005	2006	2007	2008
Number of FP Users (million women)	3.23	4.30	4.58	4.86	5.15	5.45	5.75	6.07
Commodity Requirements (millions)								
Condom (pieces)	15.69	20.92	22.25	23.61	25.03	26.49	27.98	29.50
Pill (cycles)	17.79	23.73	25.23	26.78	28.39	30.04	31.73	33.46
Injectable (vials)	1.38	1.85	1.96	2.08	2.21	2.34	2.47	2.60
IUD (kits)	0.21	0.26	0.28	0.29	0.31	0.32	0.34	0.36
Female sterilization (kits)	0.15	0.15	0.16	0.17	0.17	0.18	0.19	0.20
Total Cost of Commodities (in million pesos)	479.79	600.43	635.64	672.97	710.29	748.61	787.80	830.67

Source of basic data: 1998 National Demographic Survey

In terms of numbers of users, by 2008 it is estimated that the contraceptive market would have to increase twofold from 3 million women in 1998 to meet replacement level fertility. This doubling of the market likewise requires a proportionate increase in commodity requirements, as indicated in Table 9. This is true for all temporary and repeat purchase methods. Female sterilization, being a permanent method, is projected to register significant growth in the 10-year period, but not as dramatically as the growth of other methods.

The corresponding cost of these commodity requirements is also indicated in Table 9. Addressing the commodity requirements for 2003 would require 636 million pesos and by 2008, 831 million pesos is needed to finance the Philippine FP market.

CHAPTER 4: FINANCING THE PHILIPPINE FP MARKET

Having estimated the current and projected magnitudes of the FP market and given the provider preference of FP clients, this chapter proceeds to look at financing scenarios that will answer the market's requirements. At the same time it keeps in mind two conditions for financial sustainability: first, adequate financing exists for the provision of free or subsidized services for the poor and second, risk pooling is fully explored for those who can afford and are willing to pay for FP services. Thus, the financing scenarios focus on the public sector share of the FP market and take into consideration the National Health Insurance Program of PhilHealth. Before the public sector share can be addressed, steps must first be taken to shift those who can afford to pay for FP services out of the public sector to the private sector. Once this shift has occurred, financing scenarios for the remaining public burden can then be explored.

Shifting Public Sector Non-poor Clients to the Private Sector

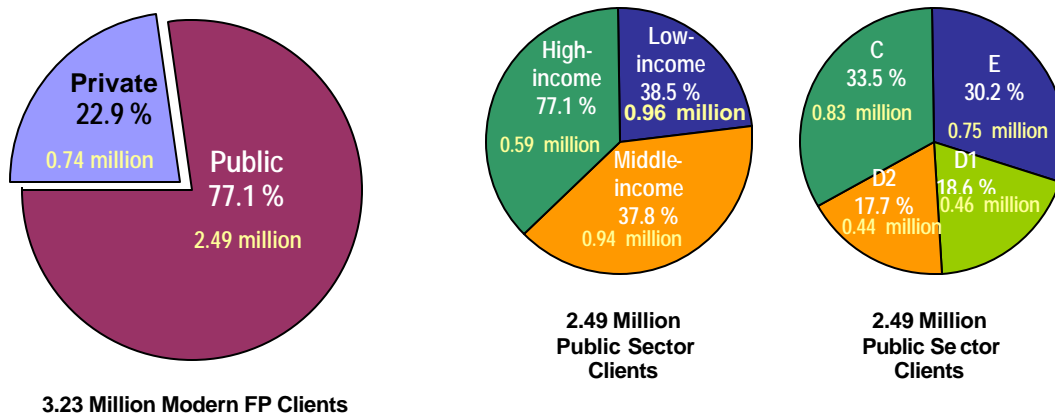
Two major arguments make the shifting strategy compelling.

The first is found in the various market segmentation studies, including this one, which documents the continued provision by the public sector of the FP requirements for the non-poor.

Figure 7 shows that 77.1 percent of the integrated market for contraceptives go to the public sector for their supplies, while 22.9 percent go to the private sector. The figure further shows that 61.5 percent of these public sector users belong to the high and middle-income groups.

When the low, middle, and high income classes of the market segmentation study are made to correspond with the ABCDE socioeconomic classification, the low income group can be classified as Class E, households with an income of PhP5,028 and below/month. Since this corresponds to the National Statistical Coordination Board (NSCB) definition of the poverty threshold for the Philippines, this group can be considered as the poor. All non-poor households will be shifted to the private sector; with the poor remaining as the public burden.

Figure 7: Public-Private Shares of the Modern Family Planning Market



Source: 1998 National Demographic Survey, 1997 Family Income and Expenditure Survey

To further understand how to shift the non-poor to the private sector, the study conducted logistic regression analysis on the odds of going to the private sector. The results indicate that five variables (age, household per capita income, urban-rural residence, CEB, and education) are significant in increasing the likelihood of women going to the private sector. The odds ratios resulting from the logistic regression are summarized in Table 10.

Table 10: Logistic Regression Results: Odds of going to the Private Sector

Socio-economic and Demographic Factors	Odds Ratio
Age	1.054
Household per capita income	1.174
Residence	
Rural	Reference
Urban	1.586
Children ever born	0.879
Education	
Not College	Reference
College	1.6

The above table shows that income, measured by household per capita income, has the biggest effect on the odds of going to the private sector. For every P2,500⁷ increase in income, there is a 17.4 percent increase in the odds of women seeking private sector services.

Other variables such as CEB, age, residence and education are also seen to affect the choice of service provider. The effect of CEB on the odds of going to the private sector is negative: with every child born, the likelihood of going to private sector decreases by 12 percent. With a one-year increase in age, there is a corresponding 5.4 percent increase in the odds of going to the private sector. The place of residence also has a major effect on the likelihood of going to the private sector: an urban resident is 1.6 times as likely to go to the

⁷ For this study, one unit of income is P2,500

private sector than a rural resident. A woman with some college education is 1.6 times as likely to go to the private sector than a woman who has not reached college.

Historically, the FP private sector has remained small because of the following factors:

Free public goods dominate the market, thereby forcing commercial players to crowd the high-end niche.

Commercial players commonly practice a pricing policy that uses each other's prices as benchmarks thus resulting in a cartel-like behavior. A supply side study by Mallari, et. al (1999) revealed that prices in the Philippines to be among the highest in the region, most likely as a result of such market behavior.

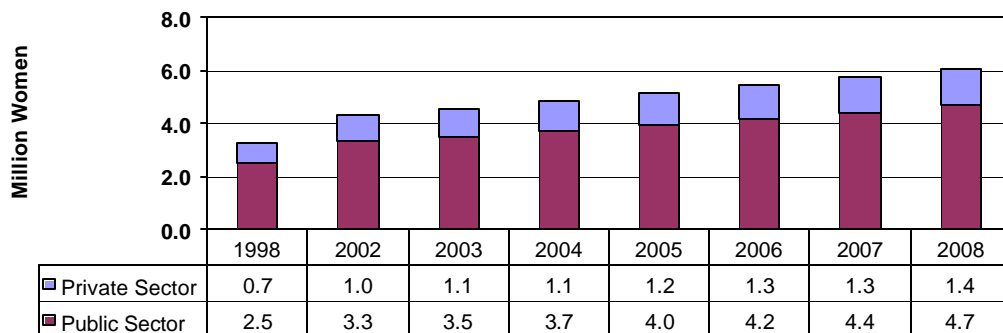
Their reluctance to venture into the lower end market is partly driven by a fear of reprisal from the church which may affect sales of their bread-and-butter products. In fact, a number of major suppliers have declared that they classify contraceptives as "service products" from which they do not expect to generate significant revenue.

One way to nurture the growth of the private sector therefore would be to withdraw the provision of free commodities from those who can afford to pay for them. This will not only reduce the public burden but will also create a larger market for the private sector, which hopefully it will try to capture by offering lower-priced commodities.

The second argument has to do with the resulting public burden should no shift occur. Using the Spectrum software, the commodity funding requirements of the public sector for the modern methods under consideration were projected using the historical rate of increase in order to estimate the resulting public burden.

The following figure shows a base scenario projection with the 72 percent public and 23 percent private shares prevailing from 1998 to 2008.

Figure 8. Projected Public-Private Shares of Modern FP Market, Base Scenario (Million Women)



Source of basic data: 1998 National Demographic Survey

If no change occurs in the public-private share pattern, the public sector will need to finance the FP needs of 3.5 million women in 2003, at an estimated cost of 491 million pesos (Figure 8 and Table 11). This demand on the public sector will increase to 4.7 million clients in 2008, with an accompanying cost of 642 million pesos.

Table 11: Commodity Requirements of Public Sector Clients and Public Burden, Base Scenario (Million Pesos)

	1998	2002	2003	2004	2005	2006	2007	2008
Commodity Requirements (in millions)								
Condom (pieces)	8.29	11.05	11.75	12.47	13.22	13.99	14.77	15.58
Pill (cycles)	14.41	19.21	20.43	21.68	22.98	24.32	25.68	27.08
Injectable (vials)	1.29	1.72	1.83	1.94	2.06	2.18	2.30	2.43
IUD (kits)	0.18	0.22	0.24	0.25	0.26	0.28	0.29	0.31
Female sterilization (kits)	0.10	0.10	0.11	0.11	0.12	0.12	0.13	0.13
Estimated Cost of Commodity (in million pesos)	368.05	463.42	490.82	519.77	548.84	578.67	609.19	642.35

Source of basic data: 1998 National Demographic Health Survey

This base scenario shows the public burden to increase by 43 percent from 368 million pesos in 1998 to 642 million pesos in 2008. To get a sense of how affordable this burden is, the projected amounts are compared with the projections of the LGU Internal Revenue Allotment share that is estimated for health (henceforth referred to as the LGU health budget) and the DOH FP budget⁸. Since these budgetary levels fluctuate erratically, budget allocations being sensitive to economic environmental factors, the projections (Table 12) assume a constant annual rate of increase based on the most recent yearly increase available (2001-2002).

Table 12: Estimates of Internal Revenue Allotment, LGU Health Budget, and DOH FP Budget, 2003-2008
Million Pesos

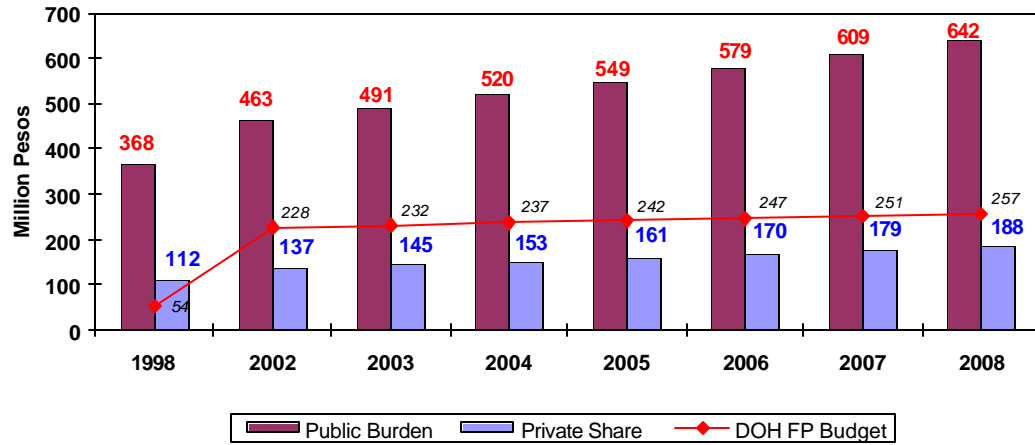
	1998	2002	2003	2004	2005	2006	2007	2008
Total IRA	80,990.76	134,422.36	137,110.81	139,853.02	142,650.08	145,503.09	148,413.15	151,381.41
LGU Health Budget	8,099.08	13,442.24	13,711.08	13,985.30	14,265.01	14,550.31	14,841.31	15,138.14
DOH FP Budget	54.43	227.78	232.34	236.98	241.72	246.56	251.49	256.52

Sources of basic data: Government Appropriations Act, 1998-2002; Internal Revenue Allotment, 1998-2002

Figure 9 shows the public burden under the base scenario to be 3.6 percent of the LGU health budget in 2003, growing to 4.2 percent in 2008. Compared to the DOH FP budget, the public burden is huge, being 211.3 percent of the budgetary level in 2003 and 250.4 percent in 2008. Given the onerous public burden that results, the shifting strategy becomes imperative.

⁸The study estimates a benchmark of 10 percent of the LGU IRA for health expenditures. Section 287 of the 1991 Local Government Code mandates each local government unit to appropriate 20 percent of its share from IRA for development projects. This is in recognition of the Philippine government's commitment to the World Summit on Social Development, where the Group of 77 pledged its support to the 20:20 Initiative. The 20:20 Initiative affirms that 20 percent of official development assistance and 20 percent of government resources shall be allotted for human priority expenditures, in order for nations to achieve decent levels of human development. Human priority expenditures pertain to basic social and human priority services such as primary health care including reproductive health, basic nutrition, basic education, early childcare, basic social welfare, and low cost water supply and sanitation. A study by Manasan (2001) revealed that LGU spending on health for the years 1991-1998 exhibited the highest growth and magnitude among these social and human priority services at 0.42 percent of GNP for this period.

Figure 9: Financing Scenarios and Gaps: Base Scenario, 2003-2008



	1998	2002	2003	2004	2005	2006	2007	2008
Public Burden as a Proportion of DOH FP Budget (%)	676.2	203.4	211.3	219.3	227.1	234.7	242.2	250.4
Public Burden as a Proportion of LGU Health Budget (%)	4.5	3.4	3.6	3.7	3.8	4.0	4.1	4.2

Under the base scenario, the share of the private sector is expected to be limited to 23 percent of the total market share. This translates to 1 million clients in 2003 and 1.4 million clients in 2008 (Figure 8). Table 13 details the commodity requirements and commercial market opportunity of this scenario.

Table 13: Commodity Requirements of Private Sector Clients and Commercial Opportunity, Base Scenario

	1998	2002	2003	2004	2005	2006	2007	2008
Commodity Requirements (in millions)								
Condom (pieces)	7.41	9.88	10.50	11.15	11.82	12.50	13.21	13.93
Pill (cycles)	3.39	4.52	4.81	5.10	5.41	5.72	6.04	6.37
Injectable (vials)	0.09	0.13	0.13	0.14	0.15	0.16	0.17	0.18
IUD (kits)	0.03	0.04	0.04	0.04	0.05	0.05	0.05	0.05
Female sterilization (kits)	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06
Estimated Cost of Commodities (in million pesos)	111.75	136.01	144.82	153.21	161.46	169.94	178.61	188.32

Using the market segmentation studies as support, the shifting scenario of all non-poor public sector clients to the private sector can be fleshed out as follows:

- Non-poor public sector clients comprise 69.8 percent of public sector clients (in terms of this study's defined income groups, 61.5 percent of public sector clients are from the middle and high-income groups)
- Shifting mechanism to be instituted in 2003 and shall begin to take effect in 2004. By 2008, all non-poor clients in the public sector would have been shifted to the private sector. This can be achieved if non-poor clients are shifted beginning 2004, at the following increments annually for each method:
 - o Condom - 0.02 million clients
 - o Pill – 0.22 million clients
 - o Injectable - 0.07 million clients
 - o IUD – 0.05 million acceptors
 - o Sterilization – 0.02 million acceptors
- Although voluntary surgical sterilization (VSS) is included in the current PhilHealth benefit package, this scenario assumes that insured clients do not avail of PhilHealth benefits

Figure 10. Projected Public-Private Shares of Modern FP Market, Shifting Non-poor Clients

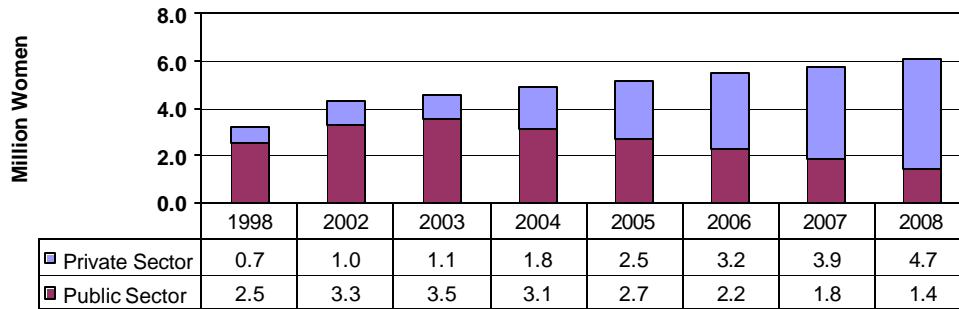


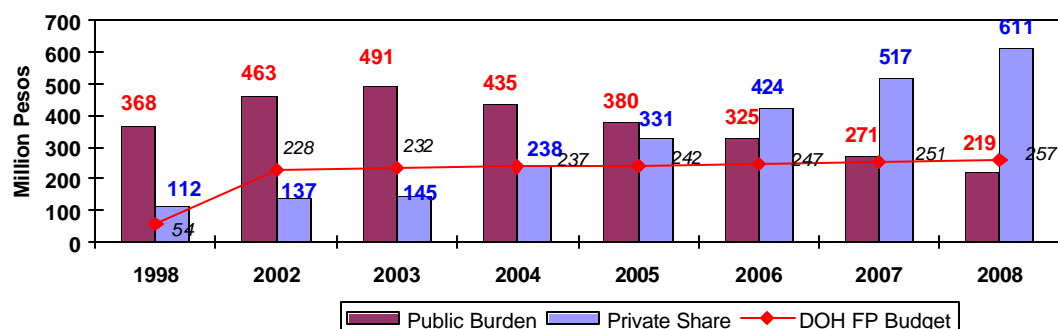
Figure 10 depicts the prescribed shifting of non-poor clients from the public sector to the private sector. The full effect of this shift is expected to be felt by 2008, when only poor clients will be serviced by the public sector. In 2008, 1.4 million poor women are projected to need public FP provision, while 4.7 million will be serviced by commercial FP provision.

Table 14: Commodity Requirements of Public Sector Clients and Public Burden, Shifting Non-poor Clients

	1998	2002	2003	2004	2005	2006	2007	2008
Commodity Requirements (in millions)								
Condom (pieces)	8.29	11.05	11.75	10.67	9.63	8.60	7.60	6.61
Pill (cycles)	14.41	19.21	20.43	18.24	16.12	14.02	11.95	9.92
Injectable (vials)	1.29	1.72	1.83	1.64	1.45	1.27	1.09	0.91
IUD (kits)	0.18	0.22	0.24	0.20	0.17	0.14	0.11	0.08
Female sterilization (kits)	0.10	0.10	0.11	0.09	0.08	0.06	0.04	0.03
Estimated Cost of Commodity (in million pesos)	368.05	463.42	490.82	435.16	379.62	324.85	270.76	219.31

With this shifting scenario, the public burden is significantly reduced in terms of commodity requirements and financing burden. From a financing burden of 642 million pesos in 2008 (Table 11) at base scenario conditions, this burden is reduced to 219 million pesos (Table 14), which translates to a 66 percent decrease from the base scenario estimate for 2008. As a proportion of the DOH FP budget, Figure 11 shows the public burden in 2008 to decrease to 85.5 percent, while it represents only 1.4 percent of the LGU health budget for 2008.

Figure 11: Financing Scenarios and Gaps: Shifting Non-poor Public Sector Clients, 2003-2008



	1998	2002	2003	2004	2005	2006	2007	2008
Public Burden as a Proportion of DOH FP Budget (%)	676.2	203.5	211.3	183.6	157.0	131.8	107.7	85.5
Public Burden as a Proportion of LGU Health Budget (%)	4.5	3.4	3.6	3.1	2.7	2.2	1.8	1.4

The shifting strategy is also expected to serve as catalyst for growth of the commercial FP sector as well.

In this scenario, the private sector is expected to grow by 225 percent from the base scenario estimate in 2008. Should the public sector service only poor clients, the commercial sector has to grow to 73.6 percent of the FP market by 2008. Table 15 details the commodity requirements for specific FP methods from 2003 to 2008.

Table 15: Commodity Requirements of Private Sector Clients and Commercial Opportunity, Shifting Non-poor Clients to Private Sector

	1998	2002	2003	2004	2005	2006	2007	2008
Commodity Requirements (in million)								
Condom (pieces)	7.41	9.88	10.50	12.94	15.40	17.88	20.38	22.89
Pill (cycles)	3.39	4.52	4.81	8.53	12.27	16.02	19.78	23.54
Injectable (vials)	0.09	0.13	0.13	0.45	0.76	1.07	1.38	1.70
IUD (kits)	0.03	0.04	0.04	0.09	0.14	0.18	0.23	0.28
Female sterilization (kits)	0.05	0.05	0.05	0.07	0.10	0.12	0.14	0.17
Estimated Cost of Commodity (in million pesos)	111.75	137.01	144.83	237.81	330.67	423.77	517.04	611.36

Financing Scenarios for the Public Burden

With the private sector rightfully taking over the provision of the FP requirements for the non-poor, the financial requirements of the public sector can now be addressed. Two possible financing scenarios emerge, taking into account the various policy options available to the government.

Scenario 1: Additional Philhealth Funding is Available

An important potential financing source for FP is the National Health Insurance Program. At present PhilHealth is evaluating a proposal to include pills, injectables, and IUDs in its basic benefit package. These would be in addition to the bilateral tubal ligation and vasectomy now covered as part of the VSS benefit.

Figure 12: Potential PhilHealth Membership of Public Sector Clients

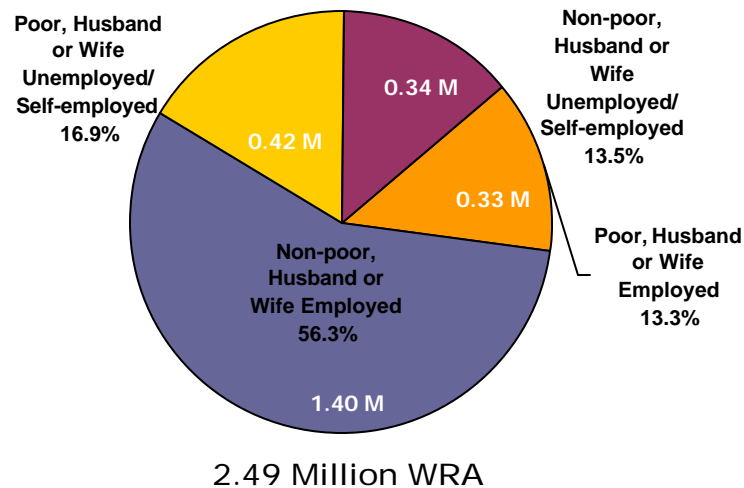


Figure 12 and Table 16 tries to show the possible impact of such a financing decision by further segmenting the market into employment status as proxy for Philhealth membership. Although Philhealth has programs that seek to extend coverage to the self-employed and the indigents, these programs have yet to see full implementation. This exercise therefore takes the conservative and more expedient option of excluding those covered by these programs from the analysis.

Table 16: Potential PhilHealth Membership by Public-Private Shares and Income Category of Public Sector Clients: 1998

(Million Women)

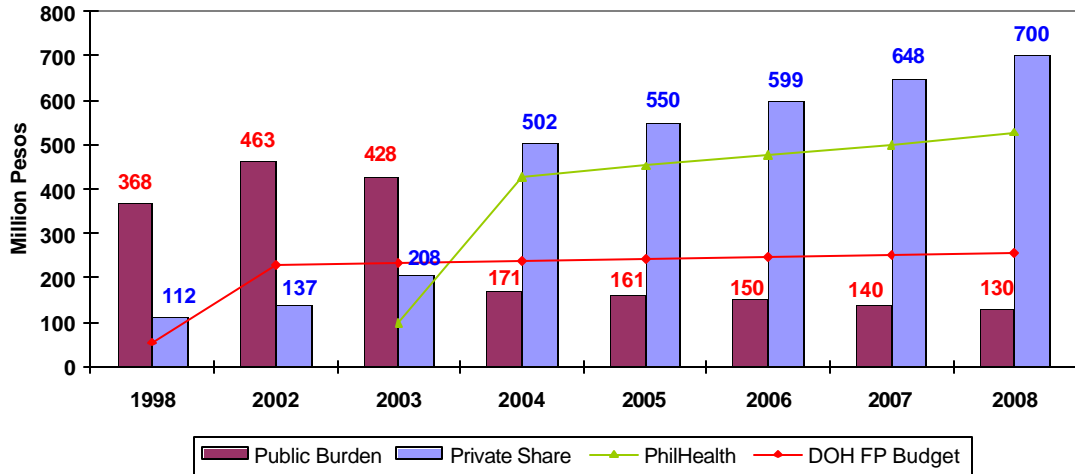
Employment	FP Source	Income Category of Public Sector Clients	
	Public	Poor	Non-poor
Husband or wife employed	1.73 (69.6%)	0.33 (13.3%)	1.40 (56.3%)
Husband or wife not employed or self-employed	0.76 (30.4%)	0.42 (16.9%)	0.34 (13.5%)
Total	2.49 (100%)	0.75 (30.2%)	1.74 (69.8%)

Source of basic data: 1998 National Demographic Survey, 1997 FIES

Since the employed straddles all income sectors, Table 16 (the right half) shows that a policy that withdraws the provision of free public goods from non-poor clients coupled by Philhealth coverage of FP supplies would significantly reduce the public burden to less than half a million public sector clients or 16.9 percent of those presently being serviced by the public sector.

In terms of estimated financing shares, Scenario 1 results in a decrease in the public burden from the base scenario by 67 percent in 2004 and by 80 percent in 2008 (Figure 8 and Figure 13). In terms of financing, FP users shifted out from the public burden would be shouldered by social health insurance and out-of-pocket expenses. Scenario 1 also lightens the financial burden for the out-of-pocket expenses of the employed sector with access to social insurance funds. In 2008, when all non-poor clients have been shifted to the private sector, PhilHealth (indicated by the green line) is estimated to shoulder 75.4 percent of the private share. Figure 13 and its accompanying table indicate the estimated financing shares for Scenario 1.

Figure 13: Financing Shares for Modern Family Planning, Scenario1 (Million Pesos)



	1998	2002	2003	2004	2005	2006	2007	2008
Public Burden as a Proportion of DOH FP Budget (%)	676.2	203.5	184.0	72.3	66.4	60.9	55.6	50.8
Public Burden as a Proportion of LGU Health Budget (%)	4.5	3.4	3.1	1.2	1.1	1.0	0.9	0.9

Scenario 2: No Additional Philhealth Financing

In the absence of additional Philhealth funding, other policy options will have to be pursued more aggressively. Among these are:

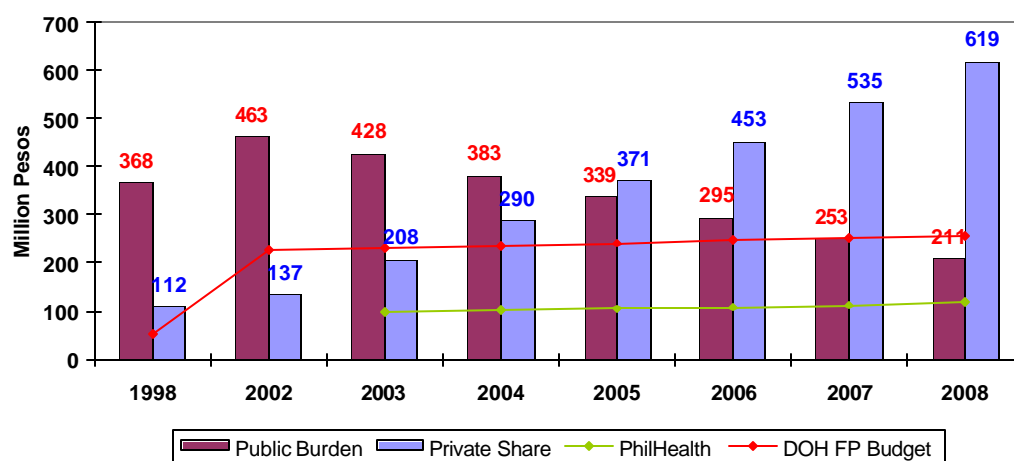
1. Encouraging the shift through means testing, user fees, and the establishment of a referral system to private facilities and NGOs.

2. Collaborating with the Employers' Confederation of the Philippines (ECOP) and the trade unions in incorporating FP benefits into the collective bargaining agreements and upgrading the capability of company clinics to deliver FP services.

Since option 2 is still in the conceptual stage and its feasibility depends on the willingness of the private stakeholders to cooperate, only the impact of option 1 shall be considered in this simulation, as the success of this option is mainly dependent on government action. As the right half of Table 16 reveals, shifting non-poor public sector users to the private sector would leave 30.2 percent of present public sector users as part of the public burden.

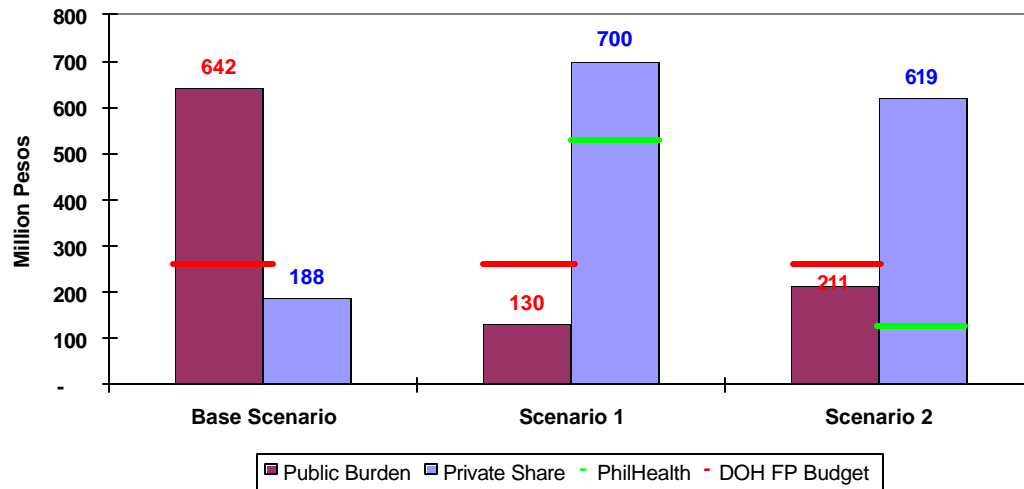
In 2004, Scenario 2 results in a 24 percent decrease in the public burden from the base scenario and by 2008 a 67 percent decrease is expected (Figure 8 and 14). In 2008, when all non-poor clients have been shifted to the private sector, PhilHealth is estimated to finance 19.4 percent of the private share. Figure 14 details the resulting financing shares for Scenario 2.

Figure 14: Financing Shares for Modern Family Planning, Scenario 2 (Million Pesos)



	1998	2002	2003	2004	2005	2006	2007	2008
Public Burden as a Proportion of DOH FP Budget (%)	676.2	203.5	184.0	161.5	140.2	119.8	100.5	82.4
Public Burden as a Proportion of LGU Health Budget (%)	4.54	3.45	3.1	2.7	2.4	2.0	1.7	1.4

Figure 15: Financing Scenarios and Gaps, 2008: Base Scenario, Scenarios 1 and 2



	Base Scenario	Scenario 1	Scenario 2
Public burden as a proportion of DOH FP budget	250.4 %	50.8 %	82.4 %
Public burden as a proportion of LGU health budget	4.2 %	0.9 %	1.4 %

As expected, the two scenarios, which involve shifting public sector clients to the private sector result in reduced public sector burden with Scenario 1 showing a smaller burden. This is so because insurance coverage of the FP needs of the employed implies that the employed poor would be taken off the public burden. This is about 43.8 percent of the poor sector.

Thus when this strategy is fully implemented in 2008, the resulting public burden is reduced to 50.8 percent of the DOH FP budget (from 676 percent in 1998) and less than one percent of the LGU health budget (from 4.5 percent in 1998). With the expansion of PhilHealth benefits, the private share is reduced by 75.4 percent.

Scenario 2, on the other hand, assumes that the FP needs of all poor clients, regardless of employment status shall be shouldered by the public sector, thereby resulting in a heavier burden. This amounts to 211 million pesos in 2008, which is 1.4 percent of the projected LGU health budget and 82.4 percent of the DOH FP budget. Likewise, the private share is only reduced by 19.4 percent, representing PhilHealth's financing of VSS.

While the shifting/financing scenarios show a drastically reduced public sector burden when fully implemented, the resulting burden is still significant when compared with the DOH FP budget (50.8 percent under Scenario 1 and 82.4 percent under Scenario 2). Considering that most of the DOH FP budget is devoted to salaries and that the DOH has yet to allocate its own budget for commodities, it would be unrealistic to expect DOH to shoulder the public burden. The amount, on the other hand, is well within the mandated LGU IRA allocation for health. Since devolution has placed the onus of health service delivery on the LGUs, one would therefore expect such a mandate to serve as an incentive for LGU executives to find ways to finance this burden.

Table 17: Summary Table of Public FP Burden, DOH and LGU Budget Projections, 1998-2008

	1998	2002	2003	2004	2005	2006	2007	2008
Projected Public FP Burden (in million pesos)								
Base Scenario	368.05	463.42	490.82	519.77	548.84	578.67	609.19	642.35
Non-poor clients shifted to private sector	368.05	463.42	490.82	435.16	379.62	324.85	270.76	219.31
Scenario 1	368.05	463.42	427.59	171.27	160.52	150.05	139.84	130.44
Scenario 2	368.05	463.42	427.59	382.84	338.82	295.46	252.75	211.30
As a proportion of LGU Health Budget (perce nt)								
Base Scenario	4.5	3.4	3.6	3.7	3.8	4.0	4.1	4.2
Non-poor clients shifted to private sector	4.5	3.4	3.6	3.1	2.7	2.2	1.8	1.4
Scenario 1	4.5	3.4	3.1	1.2	1.1	1.0	0.9	0.9
Scenario 2	4.5	3.4	3.1	2.7	2.4	2.0	1.7	1.4
As a proportion of DOH FP Budget (percent)								
Base Scenario	676.2	203.5	211.3	219.3	227.0	234.7	242.2	250.4
Non-poor clients shifted to private sector	676.2	203.5	211.3	183.6	157.0	131.8	107.7	85.5
Scenario 1	676.2	203.5	184.0	72.3	66.4	60.9	55.6	50.8
Scenario 2	676.2	203.5	184.0	161.5	140.2	119.8	100.5	82.4

Implications of Dependence on Donor-driven Commodity Support

Finally, these financing/shifting scenarios are related to the public sector’s current supply of FP commodities, majority of which comes from the USAID. The succeeding figures show the projected demand for condoms and pills for 2003 to 2008 and how a complete withdrawal of USAID donations for pills and condoms would impact on the supply of these commodities, particularly in terms of meeting public sector demand for various shifting/financing scenarios.

Figure 16: Commodity Demand and Supply for Condoms, 1998, 2002-2008

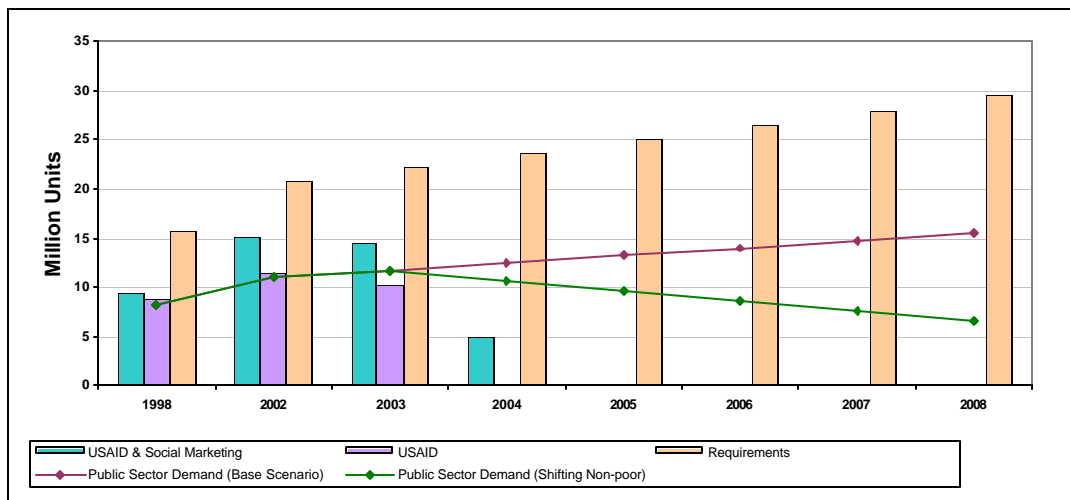
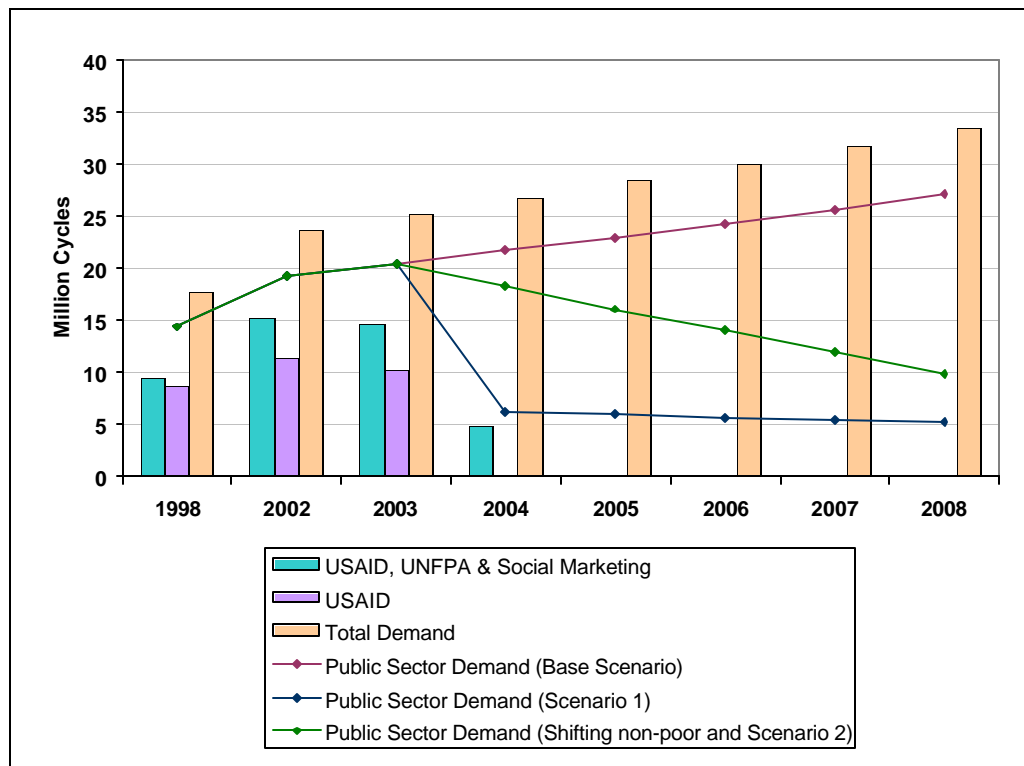


Figure 16 shows the commodity support provided by USAID for condoms to be sufficient to meet the public demand in 1998 and 2002. By 2003, condoms supplied by USAID would fall short of the public demand. This is when USAID would officially stop their donor support for condoms. Thus, for the succeeding years the DOH or the local government would have to find alternative sources of funds to meet the public sector demand. The two demand curves indicated in the figure represent the public sector demand for condoms. The red line shows the public sector demand to increase from 2003 to 2008, this represents condom demand should the prevailing public –private share of the condom market continue. Thus, the DOH and LGUs would have to provide 15.6 million condoms to meet the public demand in 2008. This translates to 338 million pesos. On the other hand, should non-poor clients be shifted to the private sector, the public demand for condoms decreases to 6.6 million units, costing 124 million pesos. The shifting strategy therefore decreases the public burden by 42.9 million pesos in 2004 and 214 million pesos by 2008.

Figure 17: Commodity Demand and Supply for Pills, 1998, 2002-2003



Pills supplied by the USAID to the PFPP for 1998 and 2002 covered only half of the demand for pills for these years. When UNFPA-donated pills and socially-marketed pills are accounted together with pill support from USAID, pill supply for these two years still do not meet the public demand. By 2003, the gap between supply and demand represents 10.6 million cycles, at a cost of 132 million pesos. In the succeeding years, demand for pills will continue to increase, as indicated by the yellow bars. The increasing public demand for pills, as indicated by the red line, shows public demand for pills at 27.1 million cycles and 338 million pesos in 2008. With the shifting strategy in place by 2004, public demand would decrease by 3.4 million cycles and 16 million pesos. In 2008, when all non-poor clients in the public sector have been shifted to the private sector, pill demand decreases to 17.2 million cycles and 214 million pesos. With the inclusion of pills in PhilHealth’s FP benefit package,

public demand for pills would further decrease to 6.3 million cycles in 2004 and 5.3 million cycles in 2008. PhilHealth financing of pills would decrease the public burden by 192 million pesos in 2004 and 272 million pesos from the base scenario in 2008.

CHAPTER 5: NEXT STEPS

The implementation activities necessarily follow from the shifting/financing strategy discussed. They fall into the two broad categories of national level activities that would be favorable to the growth of the private sector and provide alternative sources of financing, and LGU level activities that operationalize the appropriate shifting/ financing scenarios.

National Level: Department of Health

At the national level, the DOH has to restate its FP policy especially with respect to its continued provision of services for the poor. This is very much in keeping with the pro-poor stance of the present administration. This is a critical policy decision. As it focuses its services on the poor, the DOH should develop a withdrawal scheme, geographically phased in such a manner so as to ensure that the necessary alternative sources of supplies and services for those who will be denied free services are first in place and are easily accessible. Such a phased withdrawal would help ensure the continuity of services and minimize the risk of dropouts. Although such a policy recommendation had been brought before the DOH in the past without a positive response, the real threat of a significant decline in donor support should serve as a strong incentive for a more serious look this time around.

Other less critical but nevertheless important policy decisions at the national level involve issues that would make contraceptives and the correct information about them more accessible to the public, particularly the potential users. These policy decisions would come in the form of amendments to the Pharmacy Law that would allow the sale of oral contraceptives over the counter without prescription and allow their advertisement.

National Level: Philippine Health Insurance Corporation

The decision of PhilHealth to include additional FP benefits – oral contraceptives, injectables, and IUDs in particular – in its basic benefit package has tremendous financial implications. A critical input to the decision is a cost-benefit study. The study should consider the full costs and benefits of providing such services to PhilHealth members. FP, particularly the most effective methods have been found to be extremely cost-effective as a public health intervention. The study should therefore be able to show the health impact of contraception on PhilHealth members. This health impact should translate into economic benefits to PhilHealth as reduced morbidity among its members should result in reduced claims.

The result of the cost-benefit exercise should be used to advocate at both technical and political levels. The technical arguments could be derived directly from the study. The political arguments, on the other hand, should build on the government's objective to focus public resources on the poor. Scenario 1 shows that shifting the financing burden on to PhilHealth would accomplish such an objective as the non-poor clients would be shifted out of the public sector. This would allow public facilities to provide more free services and supplies to the poor and underserved sectors of the population. Such a strategy should also sit well with the oppositors of the FP program who have been advocating for a diminished role by government and a more dominant role by the private sector. The strategy would shift much of the service delivery burden to the private sector, aside from shifting the financial responsibility to individuals and their employers.

LGU as the Coordinator of Services

The strategy to shift non-poor public sector clients to the use of commercial supplies and to private providers would necessarily have to be carried out at the LGU level in order to be able to take account of the various political, cultural, and economic environments. One can only initiate the LGU effort after the policy decisions at the national level described above would have been implemented, as these national policy decisions are necessary not only to set the stage for the shifting strategy but also to allow its effective implementation.

For instance, a decision by the DOH to restrict the provision of free FP supplies and services to poor clients could possibly provide LGU executives the political cover they need to carry out the shifting strategy and in the process, strengthen their political resolve to see it through.

It also leaves the financially-challenged LGUs no choice but to follow suit if DOH reduces their supply of contraceptive as a result of such a policy. Similarly, a decision by PhilHealth to include FP benefits in its outpatient package would provide the added financing needed for an effective shift. Allowing the advertisement of contraceptives and the sale of oral contraceptives over the counter would further encourage the use of commercial products.

The shifting strategies serve to recast the role of the LGU from just a provider of public health services to a coordinator of public and private health services as well. Effective implementation of the strategy requires that stakeholders in the community assume ownership over it. One way to ensure this would be to convene a multi-sectoral body consisting of stakeholder representatives for a planning exercise to formulate ways of operationalizing the shift. Having the LGU executives act as convenor would serve to introduce them to their role as coordinator of health services and they shall begin to be seen as such by other stakeholders.

The shifting strategies should therefore have the LGU playing a central role. However, such a strategic approach is not without its challenges. Despite the fact that it has been ten years since the devolution of health services mandated by the Local Government Code (LGC) of 1991, local governments have not yet been fully autonomous, self-sufficient, nor independent in promoting FP use and in delivering FP services. LGUs remain dependent on central guidance and support, primarily from the DOH, in terms of operational standards in service delivery, generating demand for services, expanding capacity to meet the needs of the growing population, and meeting financing requirements of service provision and use. The DOH, in turn, has not always provided coherent, reliable, effective, and responsive material support and technical direction to LGUs delivering FP services.

Furthermore, LGUs are facing severe budgetary constraints because of reductions in their Internal Revenue Allotment shares and reductions in local revenues because of the unfavorable economic conditions. Resource constraints in both the public and private sectors pose a significant challenge, particularly in poor LGUs. On the other hand, LGUs have a

corporate character that makes them more fiscally flexible than a national government agency, such as the DOH or POPCOM. They are better able to attempt innovative financing schemes, such as user fees in public outlets, localized community insurance schemes covering health services, and other modes of public-private partnerships. It is therefore important for the approach to be sufficiently flexible as to allow strategies to be tailored to various LGU situations. This would imply a need to account for the possible effect of cultural differences. It also is equally important that the LGUs have a sense of ownership over whatever implementing measures are crafted at the operational level. The effort, therefore, will have to be highly collaborative.

The planning exercise, to be most useful should be knowledge-driven. It should therefore be supported by background studies which would give a sense of the contraceptive supply and demand situation and the state of the contraceptive service delivery system, with a focus on existing delivery gaps.

The shift should be carried out with a mind to minimizing the risk of dropouts from the program and ensuring that services and supplies to the poor remain uninterrupted. To help achieve this multi-faceted objective, the following need to be put in place:

- An effective means testing scheme. Experience has shown that such a scheme, to be effective, has to have the support of the political leadership and its constituents. Public sector clients have come to view free public health services as their right, no matter what their economic situation in life. The decision, therefore, to deny access to free goods and services to clients deemed capable of paying, carries with it some political risk. This means that the means testing mechanism should not only be politically sound, it should be well-packaged as well.
- A system of referring public sector clients to the most accessible private clinics. The shift could be eased if low-priced goods and services are made easily accessible. Studies have shown that proximity of supply and service sources encourages contraceptive use.
- A procurement and delivery scheme that would make low-priced supplies available at the LGU facilities. This would avoid having to direct shifted clients elsewhere for their supplies. To implement this, the LGU should explore the feasibility of resource pooling as well as the use of existing parallel importation mechanisms.
- Identification of sustainable financing sources for FP ranging from PhilHealth, LGU budget, and community financing schemes to LGU bond float.

These next steps are presented in terms of a proposed operational policy matrix and an LGU implementation plan, details of which are presented in Annex 4. Operational policies are proposed for the policy arenas of the LGU and PhilHealth. For the former, policies focus on a comprehensive understanding of the FP market, in particular, its market segments and the present as well as proposed financing sources for their FP requirements; for the latter, on the expansion of FP benefits in the basic PhilHealth packaged, additional IEC on the existing FP benefits, as well as a more aggressive enrollment program.

On the more hand, the proposed LGU implementation plan details the tasks within a one year timeframe. The implementation plan is set at the levels of inter-local health zones (ILHZs) and city health offices. It is premised on the creation of a multisectoral task force with representatives from government, the private sector, and civil society; and enjoys the support of the highest local chief executive/s. This task force is expected to drive the contraceptive self-reliance efforts of the LGU, from strategic and operational planning to implementation and monitoring and evaluation.

REFERENCES

- Alano, B., C. Raymundo, and E. de Guzman. 1997. Market segmentation study: Philippines.
- Herrin, A., R. Racelis., M. Manalo. 2000. National Family Planning Expenditures in the Philippines: 1994 and 1998 Estimates
- Laguna, E.P., A. Po, A.. Perez, and A. Kantner. 2000. Contraceptive use dynamics in the Philippines: Determinants of contraceptive method choice and discontinuation. Calverton, Maryland: ORC Macro.
- Lambarte, E., R., A. Kantner, et.al. 2000. Family Planning Service Utilization and Market Segmentation in the Philippines. Calverton, Maryland: ORC Macro
- Lambarte, E., R. Brooks, and M. Sherman. 1999. Understanding provider choice of family planning clients: Consumer intercept study. Manila: The Futures Group International.
- Mallari, E.B. M. Sherman, and W. Winfrey. 1999. Commercial Contraceptive Marketing in the Philippines. Washington, D.C.: The Futures Group International.
- Manasan, R. G. 2001. Budget Allocation for Human Development Expenditures: Measuring Progress on the 20:20 Initiative of Provinces and Cities in 1995-1998. (unpublished report submitted to UNICEF)
- National Statistical Coordination Board (NSCB). 2000. Philippine Poverty Statistics. Makati City: NSCB.
- National Statistical Coordination Board (NSCB). 2000. Poverty Assessment in the Philippines. NSCB Technical Paper.
- National Statistics Office (NSO) and Macro International Inc. (MI). National Demographic and Health Survey. 1994. Manila: National Statistics Office and Macro International.
- National Statistics Office (NSO), Department of Health (DOH), and Macro International Inc. (MI). 1999. National Demographic and Health Survey. Manila: National Statistics Office, Department of Health, and Macro International.
- Raymundo, C.M., Xenos, P., and Domingo, L.J.(eds.). 1999. Adolescent Sexuality in the Philippines. Quezon City: UP Office of the Vice Chancellor for Research and Development, c1999.

- Ravenholt, B.B. 1996. Potential for Increased Involvement of the Commercial Sector in Family Planning Service Delivery in the Philippines: Assessment and Initial Strategies.
- Roberto, E. 2000. Making Sense of the Major Systems for the Socio-economic Classification of Philippine Households. Asian Institute of Management (unpublished report).
- Viola, R. A., V. Ganac, G. Amoranto. 2001. Development, Institutionalization and Improvement of the Philippine National Health Accounts. National Statistical Coordination Board (NSCB).

ANNEX 1: Relating Low, Middle, and High Income Classes to ABCDE Socioeconomic Classification

This study utilized 15 income groups, with a class size of P2,500 to assign proxy income variables to the 1998 NDS data based on household and socio-economic characteristics of survey respondents. A regression model, derived from the 1997 Family Income and Expenditure Survey (FIES) was used to predict household per capita income of respondents in the 1998 NDS. (Annex 3 provides a detailed description of the proxy income methodology) The 15 income groups were further grouped and categorized as follows:

	Annual HH per capita income (Philippine Peso)
Low	15,000 and below
Middle	15,001 to 25,000
High	25,001 and above

In order to relate the study findings particularly the market's capability to pay for FP services, this section attempts to relate the resulting income segmentation into the more standard ABCDE socioeconomic classification.

At present, the market research community in the country is initiating moves to develop a standard socioeconomic classification. In the absence of a standard classification, this study's findings are related to the ABCDE market segments utilized by several advertising and market research institutions. The categories and indicative income range for each of the five market segments are indicated, thus:

	Monthly HH income (Philippine Peso)
E	8,000 and below
D	8,001 – 15,000
C	15,001 – 50,000
B	50,001 – 100,000
A	100,000 and above

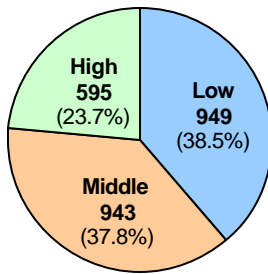
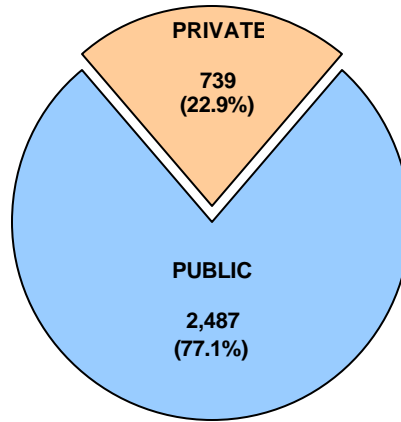
The succeeding table presents the 15 income groups used in the study and compares the resulting groupings for the following classification:

- (a) Low-middle-high income classification, utilized in this study;
- (b) ABCDE classification, wherein only the D and E markets are represented by the NDS sample;
- (c) Hybrid ABCDE classification, wherein the 1997 poverty threshold was used to determine the E class, while a portion of the D market was assigned to the C market; and
- (d) Hybrid ABCDE classification, with submarkets for class D

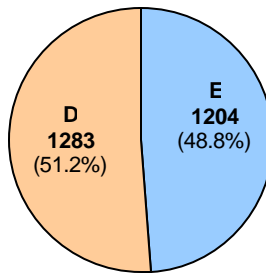
Income Groups	Annual HH per Capita Income (Philippine Peso)	Monthly HH Income (Philippine Peso)	Income Classification of 2002 FP Market Segmentation Study (a)	Monthly/ Annual HH per capita income (b)	Monthly/ Annual HH per capita income (c)
1	2,500 and below	1,042 and below	Low	E	E
2	2,501- 5,000	1,043 – 2,083	Low	E	E
3	5,001- 7,500	2,084 – 3,124	Low	E	E
4	7,501 - 10,000	3,125 – 4,166	Low	E	E
5	10,001- 12,500	4,167 – 5,208	Low	E	E
6	12,501-15,000	5,209 – 6,249	Low	E	D1
7	15,001- 17,500	6,250 – 7,291	Middle	E	D1
8	17,501 – 20,000	7,292 – 8,333	Middle	D	D2
9	20,001- 22,500	8,334 – 9,374	Middle	D	D2
10	22,501 – 25,000	9,375 – 10,416	Middle	D	C
11	25,001 – 27,500	10,417 – 11,458	High	D	C
12	27,501- 30,000	11,459 – 12,499	High	D	C
13	30,001- 32,500	12,500 – 13,541	High	D	C
14	32,501- 35,000	13,542 – 14,583	High	D	C
15	35,001 and above	14,584 and above			

The table also shows the basic income groups in terms of the indicative annual household per capita income and monthly household income. It is necessary to convert the latter to the former in order to relate the study's income classification in terms of ABCDE market segments. To do this, the annual household per capita income pertaining to each income group was multiplied by 12 (months) and divided by 5 (average family/household size).

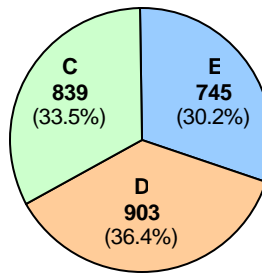
**(1) Size and Shares of Income Segments: Public Sector Market for Modern FP
(Thousand WRA)**



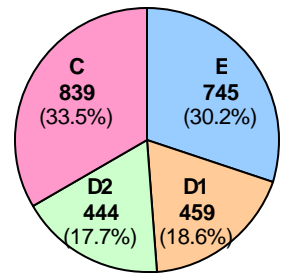
**Low-Middle-High
Income
Classification***



**ABCDE Income
Classification**

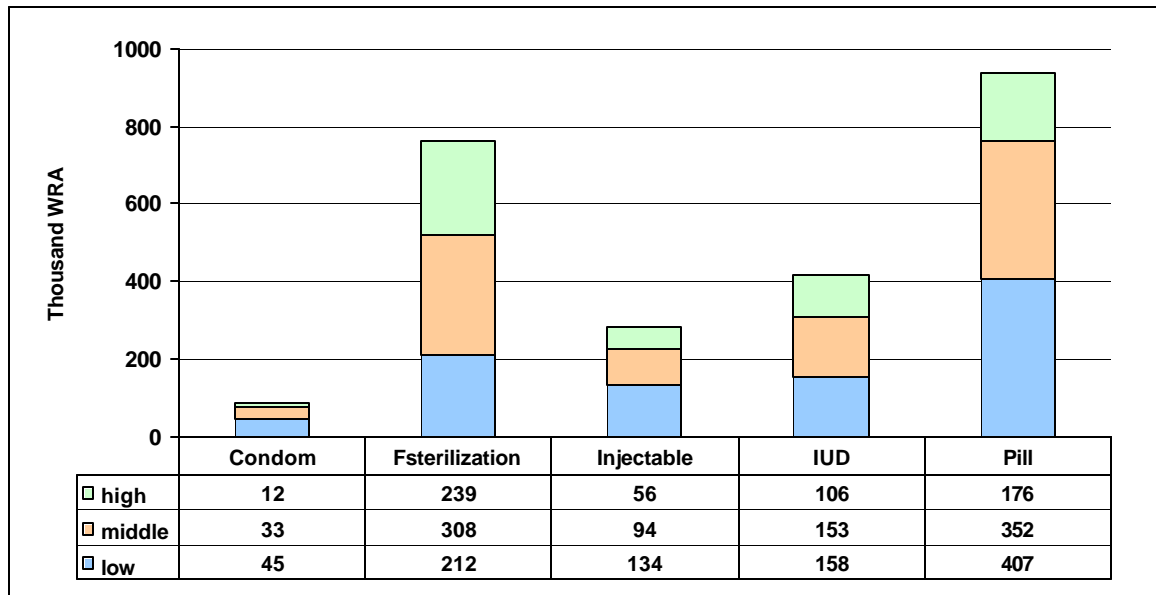


**Hybrid of ABCDE
Income
Classification and
Poverty Threshold**

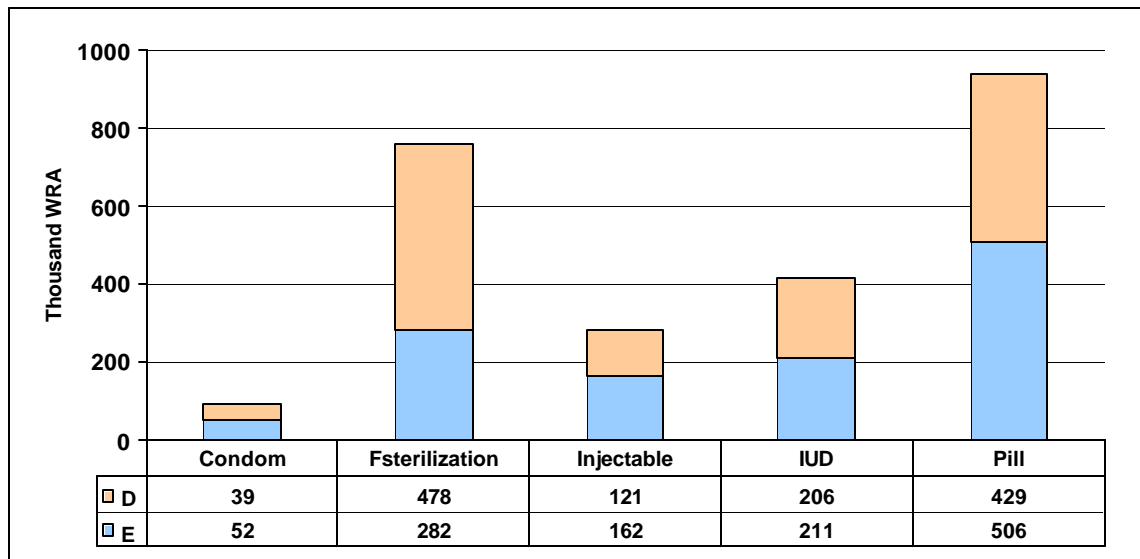


**Hybrid of ABCDE
Income
Classification and
Poverty Threshold
(D1 and D2
Submarkets
Defined)**

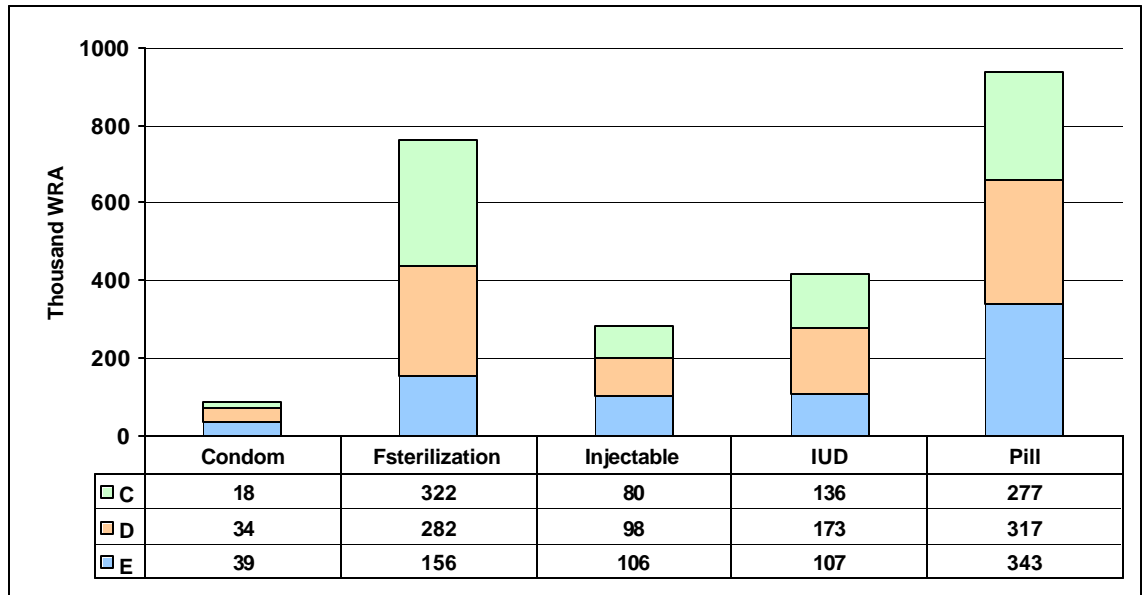
(2) Market Size of Specific Modern FP methods and Income Segments: Public Sector Market for Modern FP (Thousand WRA)



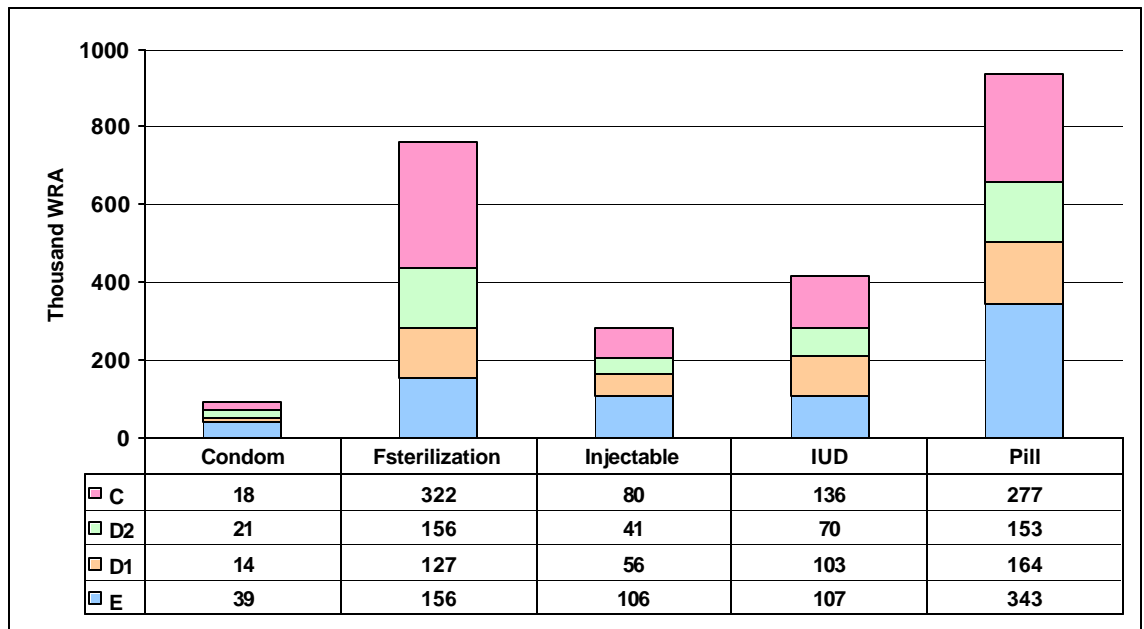
(a) Low-Middle-High Income Classification



(b) ABCDE Income Classification



(c) Hybrid of ABCDE Income Classification and Poverty Threshold



(d) Hybrid of ABCDE Income Classification and Poverty Threshold (D1 and D2 Submarkets Defined)

ANNEX 2: Technical Notes on Projecting Family Planning Requirements

The Spectrum System

Spectrum is an integrated system of population policy models developed by the POLICY Project and its predecessor projects. This Windows-based computer system is composed of the following components:

- Demography (DemProj) – A program for projecting population based on (1) current population, and (2) fertility, mortality, and migration rates for a country or region.
- Family Planning (FamPlan) – A program to project family planning requirements in order for consumers and/or nations to reach their goals of contraceptive practice or desired fertility.
- Benefit-Cost – A program for comparing the costs of implementing family planning programs, along with the benefits generated by those programs.
- AIDS (AIDS Impact Model-AIM) - A program to project the consequences of the AIDS epidemic.
- Socioeconomic Impacts of High Fertility and Population Growth (RAPID) – A program to project the social and economic consequences of high fertility and rapid population growth for sectors such as labor, education, health, urbanization, and agriculture.

Spectrum's Family Planning (FamPlan) module was utilized in this study to project modern family planning requirements for the years 2003 to 2008. The following data and assumptions were used in the projections:

1. Data Input
 - a. Base year is set at 1998
 - b. Utilized 1998 Medium Series Population Projections from 1995 Census-based National and Regional Population Projection, National Statistics Office
 - c. Adopted assumptions (on sex ratio, life expectancy, and migration) used in 1998 Medium Series Population Projections
 - d. Utilized age-specific fertility rates (ASFR) from 1998 National Demographic Survey
2. Assumptions
 - a. TFR goal of 2.7 in 2004 and 2.02 in 2008
 - b. Proximate determinants of fertility
 - Proportion of WRA in union = 60.7% (MWRA+10% of FMW+2% of singles)
 - Postpartum insusceptibility of 6.2 %
 - Total abortion rate of 0.7
 - Sterility of 2.6%
 - c. 1998 NDS method mix
 - Condom – 3.4 %
 - Female sterilization – 22.4 %
 - Injection - 5.2 %
 - IUD – 8.0 %
 - Pill – 21.3 %
 - Traditional – 39.8 %
 - d. Effectiveness rates per method based on Engender Health study
 - Condom – 86%
 - Female sterilization – 99%

- Injection - 98%
- IUD – 99%
- Pill – 95%

e. Public-private shares of FP provision by method (1998 NDS)

FP Method	Public	Private
Condom	52.8	47.2
Female sterilization	68.7	31.3
Injection	93.2	6.8
IUD	85.4	14.6
Pill	81.0	19.0

f. Basis for estimating cost of specific contraceptive method

- Supply cost of specific contraceptive method is assumed to be the same for public and private provision
- For the base scenario, the source mix observed in 1998 is assumed to remain the same until 2008.
- Foreign exchange rate: \$1/P47.06
- Cost of condom/user/year = Php 308.00
 $(\$0.0657 * 1.04 * 1.05 * 91.2 * 47.06)$, where 1.04 and 1.05 are multipliers to cover distribution and freight costs and 91.2 condoms = 1 couple year of protection (CYP)
- Cost of female sterilization = Php 800.00 (DOH estimate)
- Cost of Injectable = Php 226.82 $(\$0.97 * 1.04 * 1.05 * 4.55 * 47.06)$, where 4.55 vials = 1 CYP
- Cost of oral contraceptives (pill) = Php 192.18
 $(\$0.243 * 1.04 * 1.05 * 15.39 * 47.06)$, where 15.39 cycles = 1 CYP
- Cost of IUD = P20.93 $(\$1.4505 * 1.04 * 1.05 * 1/3.56 * 47.06)$, where 1/3.56 = 1 CYP

ANNEX 3: Highlights and Methodology of Market Segmentation Studies

A. Highlights of Market Segmentation Studies

The partitioning of the FP market into currently married, ever married, and never married women as well as the subsequent groupings into FP users and non-FP users provide insights into the socioeconomic and demographic characteristics of the FP market in the Philippines. But the analysis of the market can be taken further using a market segmentation approach.

Earlier Studies

Two major studies on FP market segmentation in the Philippines have been conducted since 1997. These are the “Family Planning Use in the Philippines: Market Segmentation Study” by Alano et.al. (1997) and the more recent ‘Family Planning Service Utilization and Market Segmentation in the Philippines’ (Lamberte et.al, 2000). Both rely on national secondary survey data.

Utilizing the 1993 National Demographic Survey (NDS) and the 1994 Family Income and Expenditure Survey, the first study pioneered in segmenting actual and potential FP consumers on the basis of cluster analysis. Cluster analysis identifies statistically coherent, i.e., homogeneous groups within a population based on predetermined criteria. It is a methodology that involves tinkering with the variables included in the analysis, the weights attached to these variables, and the number of clusters created. In the cluster analysis conducted, age and income were considered key parameters. Age was considered important because it determines the demand for FP services throughout the life cycle. Income was also considered important because of its influence on consumer behavior. Other socio-demographic variables were correlated with age and income as well. The study also used a logistic regression model to determine the influence of the women’s background characteristics on their choice of FP provider.

The key findings of the first market segmentation study that relate to the present study are that:

- High and middle-income women, regardless of age, are more likely than low-income women to use the private sector. However, more than 40 percent of middle and high income users continue to use the public sector, and
- By shifting middle and high-income public sector users to the private sector, the burden on the public sector can be decreased by more than 40 percent.

Lamberte et al’s 2000 FP market segmentation study compared 1993 and 1998 NDS data on the contraceptive behavior of currently married women. Following earlier behavioral models of health service utilization, the Lamberte study looked at how women’s use of FP services can be explained in terms of individual and household characteristics of women, community-level factors, and the health service delivery system. Using bivariate differentials and multivariate logistic regression, it came up with findings under three major topics: contraceptive use, choice of service delivery point, and FP client’s willingness and capability to pay.

Since the second market segmentation study included 1998 NDS data, it is interesting to look at points of difference between the 1993 and 1998 data sets, especially with respect to provider choice.

Whereas the first market segmentation study had pointed out to the potential of shifting FP users from the public to the private sector on the basis of 1993 data, findings of the second

market segmentation study using 1998 data showed that this potential was never realized. In fact, the use of private sector facilities did not increase between the two points in time of the NDS surveys, a period of 5 years. Moreover, the proportion of clients sourcing pills from the private sector dropped while clients who sourced pills from the public sector increased. All these in spite of Lamberte's observations that most (90 percent) contraceptive users are willing to pay for FP services and, except for sterilization, at a price higher than the amount they actually pay.

On the basis of these observations, this present study is well-poised to look into additional nuances of the 1998 NDS data that can address the financial sustainability of contraceptive security from various perspectives: shifting FP users out of the public into the private sector, charging user fees, looking at the largely unexplored potential of insurance, and defining the market to be served by the public sector at the national and LGU levels.

Market Segmentation Methodology

Logistic regression to estimate the likelihood of going to the private sector for family planning services was conducted. The results indicate that five variables (age, household per capita income, urban-rural residence, CEB, and education) are significant in increasing the likelihood of women going to the private sector. The odds ratios resulting from the logistic regression are summarized below.

Logistic Regression Results: Odds of going to the Private Sector

Socio-economic and Demographic Factors	Odds Ratio
Age	1.054
Household per capita income	1.174
Residence	
Rural	Reference
Urban	1.586
Children ever born	0.879
Education	
Not College	Reference
College	1.6

The above table indicates that with a one-year increase in age, there is a corresponding 5.4 percent increase in the odds of going to the private sector. Household per capita income has a bigger effect: for every P2,500⁹ increase in income, there is a 17.4 percent increase in the odds of seeking private sector services.

The place of residence also has a major effect on the likelihood of going to the private sector: an urban resident is 1.6 times as likely to go to the private sector than a rural resident.

Education has a positive effect on choosing the private sector, but only if the woman has reached the college level. A woman with some college education is 1.6 times as likely to go to the private sector than a woman who has not reached college.

The effect of CEB on the odds of going to the private sector is negative: with every child born, the likelihood of going to private sector decreases by 12 percent.

⁹ For this study, one unit of income is P2,500

Like the first market segmentation study, the present study used cluster analysis to search for relatively homogeneous groups. It began with the segmenting variables used for the first study: age, income, marital status, employment status, education, adult-child ratio, place of residence, children ever born, desired family size, ever-use of FP, and desire for more children.

The final cluster analysis run utilized variables identified in the logistic regression as factors that influenced the likelihood of going to the private sector. Utilizing the following main segmenting variables: age (old, young), education (low education, high education), and residence (urban, rural) resulted in eight market segments, namely:

- Segment 1: Urban-dwelling, highly educated, older women
- Segment 2: Urban-dwelling, highly educated, younger women
- Segment 3: Urban-dwelling, low educated, older women
- Segment 4: Urban-dwelling, low educated, younger women
- Segment 5: Rural-dwelling, highly educated, older women
- Segment 6: Rural-dwelling, highly educated, younger women
- Segment 7: Rural-dwelling, low educated, older women
- Segment 8: Rural-dwelling, low educated, younger women

Analysis of Market Segmentation Results

The discussion of market segmentation results for the study is limited to the market segments that are most relevant to contraceptive security through financial sustainability. As a result, only two summary tables are highlighted: one of current users and another of immediate potential users that belong to the three partitions of currently married, never married, and ever married women. Also, only commodity-driven modern contraceptive methods are accounted for since these methods have significant financial implications on the public sector burden. Thus, pills, condoms, IUDs, injectables, and bilateral tubal ligation are included while traditional method users, LAM, NFP, and male sterilization are not. Very few users of LAM and male sterilization have been encountered; at the same time the last three methods do not involve marketable commercial commodities.

Modern Contraceptive Current Users

This section describes the characteristics of family planning users, using the results of the cluster analysis mentioned above. Each segment identifies a particular group of women defined by their age, education, and residence in urban or rural areas.

Specific focus is given to users of commodity-driven modern contraceptive methods (which includes pills, condom, injection, IUD, and female sterilization) since their demand for FP has financial implications on the public burden.

Segment # 1: This group of women is generally old (aged 32 – 49), highly educated, and urban dwelling. They comprise 12.6 percent of all women currently using modern contraceptive methods. They commonly use modern non-permanent methods (42.1 percent) and modern permanent methods (57.9 percent). Most of them belong to high-income households (81.2 percent), and want no more children (77.2 percent). However, only half of them (50.0 percent) prefer to go to the private sector as their provider of FP methods while most of them (91.1percent) are insured.

Segment # 2: This group of women is young (15-31), highly educated, and urban dwelling. They comprise only 6.4 percent of all contracepting women. A large majority (91.0 percent)

prefer modern non-permanent methods. About two-thirds of the women belong to high-income households. Likewise, about two-thirds (67.2 percent) want to have more children, but only 39.4 percent prefer going to private FP providers. Of the total, 92.3 percent are insured.

Segment # 3: These women are generally low educated (high school graduate and below), urban dwelling, and 32- 49 years old. They comprise 17.3 percent of all contracepting women. Like the first group of women (segment #1), they have a preference for modern permanent methods (58 percent). About 49.5 percent belong to middle-income households, while 35.7 percent belong to high-income households. Almost all of them (91.9 percent) want no more children. Only 28.1 percent of them seek private sector FP services while 87.3 percent are insured.

Segment # 4: These women are low educated, urban dwelling, and 15-31 years old. They comprise 12.6 percent of all current FP users. Like the second group of women, they are also users of modern non-permanent methods (58.0 percent). They are middle-income class women (49.5 percent) who prefer going to the public sector (81.2 percent) and who are mostly insured (87.8 percent).

Segment # 5: This group of women is the rural counterpart of segment # 1. They comprise 5.7 percent of all women who are currently using contraception. Like segment # 1, most of them want no more children (74.7 percent). Over half (54.3 percent) prefer using modern non-permanent methods. Although rural, half of these women (49.6 percent) belong to high-income households. Less than a quarter (23.9 percent) go to the private sector for FP methods while 73.2 percent are insured.

Segment # 6: These women are the rural counterparts of women in segment # 2. They comprise only 4.1 percent of all contraceptive users. Like women in segment #2, these women have a high preference for modern temporary methods (92.0 percent). Unlike women in segment # 2, only 24.5 percent of them belong to high-income households while majority of them (60.2 percent) belong to middle income households. In spite of their middle-income status, only 21 percent of them seek private sector FP providers. Three-fourths of them are insured.

Segment # 7: This segment is the rural counterpart of segment # 3. It is the largest among all the segments, comprising 24.8 percent of all contraceptive users. Like segments 1, 3, and 5, most of these women want no more children. However, their current FP method is mainly non-permanent (55.8 percent). Most of them belong to the low and middle-income households, and they prefer to use the public sector (85 percent) for their FP provision. More than half (57.3 percent) are insured.

Segment # 8: This segment is the rural counterpart of segment # 4. They comprise 16.4 percent of all contraceptive users. These young women prefer using modern temporary methods (89.9 percent). Seventy percent belong to low-income families, and almost all of them prefer the public sector (93.2 percent) as their FP provider. A little over half (51.8 percent) are insured.

Identified Market Segments of Family Planning Users and their Characteristics

	N of Cases	Per cent	Income Group N=2351			Type of Modern FP Method ¹ N=2410		Children- Ever Born N=2410			% Want More Children N=1515		FP Source N=2410			Social Health Insurance N=2410		
			Low	Middle	High	Non-permanent	Permanent	Mean	0-2	3-5	6 and up	Yes	No	Public		Private	Non-insured	Insured
														G. Hospital	LGU			
Urban:																		
Highly Educated, Older Women	304	12.6	2.4	16.4	81.2	42.1	57.9	3.48	22.4	69.4	8.2	22.8	77.2	25.7	24.3	50.0	8.9	91.1
Highly Educated, Younger Women	155	6.4	3.9	27.5	68.6	91.0	9.0	1.98	73.5	26.5		67.2	32.8	9.0	51.6	39.4	7.7	92.3
Low Educated, Older Women	417	17.3	14.8	49.5	35.7	42.0	58.0	4.42	11.8	65.2	23.0	8.1	91.9	36.2	35.7	28.1	12.7	87.3
Low Educated, Younger Women	303	12.6	21.5	53.4	25.2	91.1	8.9	2.65	50.5	45.2	4.3	48.3	51.7	7.3	73.9	18.8	12.2	87.8
Rural																		
Highly Educated, Older Women	138	5.7	14.3	36.1	49.6	54.3	45.7	3.59	26.1	63.0	10.9	25.3	74.7	29.7	46.4	23.9	26.8	73.2
Highly Educated, Younger Women	100	4.1	15.3	60.2	24.5	92.0	8.0	2.01	78.0	22.0		57.1	43.0	8.0	71.0	21.0	25.0	75.0
Low Educated, Older Women	597	24.8	55.7	34.6	9.7	55.8	44.2	4.87	10.6	55.4	34.0	11.1	88.9	31.7	53.3	15.1	42.7	57.3
Low Educated, Younger Women	397	16.4	70.0	23.0	7.0	89.9	10.1	2.89	41.2	55.3	3.5	46.0	54.0	10.6	82.6	6.8	48.2	51.8
Total	2410	100.0	32.6	36.1	31.3	65.4	34.6	3.64	30.0	54.8	15.2	31.7	68.3	22.6	54.2	23.2	26.4	73.6

Source: 1998 National Demographic Survey, 1997 Family Income and Expenditure Survey

¹excludes male sterilization, LAM, NFP

Modern Contraceptive Immediate Potential Users: Unmet Need

This section provides a similar segmentation for the unmet need population. Instead of providing a different segmentation for the unmet need population, the segmenting variables and market segments identified for current FP users were applied to the unmet need population. This was done by cross-tabulating the segmenting variables and resulting eight market segments derived for current FP users to the unmet need population.

Table 10 provides a summary of the characteristics of the market segments of the unmet need population. A description of their profile is given below:

Segment #1: This group of women is old (aged 32-49), highly educated, and urban dwelling. They comprise 5.2 percent of women with unmet need for FP. Most (82.4 percent) of them belong to high-income households. Their mean parity is quite low at 3.41 and less than a quarter (22.6 percent) want more children. Should they use FP, many prefer temporary modern methods (82.4 percent). Most of them (88.2 percent) are willing to pay for family planning services from private providers. Almost all of them (97.1 percent) are insured.

Segment #2: This group of women is young (aged 15-31), highly educated, and urban dwelling. They comprise 7.9 percent of the unmet need group. More than two-thirds of the women have high incomes. Their mean parity is low at 1.73, with 54 percent wanting more children. Most of these women would use temporary modern (90.4 percent) methods of family planning. Almost all (94.2 percent) expressed willingness to pay for family planning services from private providers; 92.3 percent are insured.

Segment # 3: These women are generally low educated (high school graduate and below), urban dwelling, and 32- 49 years old. They comprise 8.7 percent of women with unmet need. About 50.9 percent belong to middle-income households, while 18.2 percent belong to high-income households. With a mean CEB of 4.88, majority (92.7 percent) of them want no more children. About 86 percent are willing to pay for FP services. About the same percentage would use modern temporary methods. A slightly lower percentage (82.5 percent) are insured.

Segment # 4: These women are low educated, urban dwelling, and 15-31 years old. They comprise 14.2 percent of the unmet group. They are middle-income class women (39.3 percent). Their mean CEB is 2.32, with more than half (58.6 percent) wanting more children. Should they use FP, they choose to use temporary modern methods (88.2 percent). Less than 5 percent are not willing to pay for family planning services and would seek these from public providers. Of the total, 82.8 percent are insured.

Segment # 5: This group of women is the rural counterpart of segment # 1. They comprise about 3.3 percent of all women with an unmet need for FP. They belong mostly to the high (47.6 percent) and middle (38.1 percent) income classes. Their mean parity (3.82) is similar to that of segment # 1. Only 4.8 percent want more children. Should they use FP, majority expressed their willingness to pay for family planning services. The same percentage is insured.

Segment # 6: These women are the rural counterparts of women in segment # 2. They comprise only 6.4 percent of the unmet group. About 80 percent of these women belong to the low (37.5 percent) and middle-income (40 percent) classes. Their mean parity is 1.36, with 43.9 percent not wanting to have any more children. Should they use FP, they prefer modern temporary methods (92.9 percent). About 95 percent are willing to pay for FP. A little over three- fourths of the group are insured.

Identified Market Segments of Women with Unmet FP Need and their Characteristics

	N of Cases	Per cent	Income Group N=625			FP Method Intend to Use N=653		Children- Ever Born N=653				% Want More Children N=631		Social Health Insurance N=653		Willingness-to-pay N=653	
			Low	Mid	High	Temp	Perm	Mean	0-2	3-5	6 and up	Yes	No	Non-insured	insured	Public	Private
Urban:																	
Highly Educated, Older Women	34	5.2	1.2	17.6	82.4	82.4	17.6	3.41	26.5	61.8	11.8	22.6	77.4	2.9	97.1	11.8	88.2
Highly Educated, Younger Women	52	7.9	6.3	27.1	66.7	90.4	9.6	1.75	78.8	21.2		46.0	54.0	7.7	92.3	5.8	94.2
Low Educated, Older Women	57	8.7	30.9	50.9	18.2	87.7	12.3	4.88	17.5	45.6	36.8	7.3	92.7	17.5	82.5	14.0	86.0
Low Educated, Younger Women	93	14.2	33.7	39.3	27.0	88.2	11.8	2.32	60.2	34.4	5.4	41.4	58.6	17.2	82.8	4.3	95.7
Rural																	
Highly Educated, Older Women	22	3.3	14.3	38.1	47.6	63.6	36.4	3.82	27.3	50.0	22.7	4.8	95.2	18.2	81.8	18.2	81.8
Highly Educated, Younger Women	42	6.4	37.5	40.0	22.5	92.9	7.1	1.36	90.5	9.5		56.1	43.9	23.8	76.2	4.8	95.2
Low Educated, Older Women	118	18.1	82.5	14.0	3.5	90.7	9.3	6.81	3.4	26.3	70.3	2.6	97.4	58.5	41.5	23.7	76.3
Low Educated, Younger Women	235	36.0	79.5	20.1	0.4	94.9	5.1	2.72	54.0	37.9	8.1	43.7	56.3	45.5	54.5	12.8	87.2
Total	653	100	54.4	26.7	18.9	90.4	9.6	3.50	44.6	34.5	21.0	31.2	68.8	33.8	66.2	12.7	87.3

Source: 1998 National Demographic Survey, 1997 Family Income and Expenditure Survey

Segment # 7: These women are the rural counterparts of women in segment # 3. They comprise the second biggest (18.1 percent) group of women with unmet need. About 82 percent of these women belong to the low-income class, while 14 percent belong to the middle-income class. At 6.81, their mean parity is highest among the unmet need group. Despite their age and family size, majority would still prefer to use modern temporary methods (90.7 percent). Despite their low income, a big proportion (76.3 percent) expressed their willingness to pay for family planning services. Less than half or 41.5 percent are insured.

Segment # 8: These women are the rural counterparts of women in segment # 4. They comprise the biggest (36 percent) group of women with unmet need for family planning. About 80 percent of these women belong to the low-income classes, whereas 20.1 percent belong to the middle-income class. Their mean parity is 2.72, with 56.3 percent not wanting to have any more children. These women intend to use mostly modern temporary (94.9 percent) methods. Despite their low income, many (87.2 percent) are willing to pay for family planning services. A little over half or 54.5 percent are insured.

Overall Results

Some interesting variations emerge when the findings of the two groups (current users and immediate potential users) are compared. Whereas current users are divided almost equally among the three income groups, 54.4 percent of the unmet need group is low income. Ninety percent of the unmet group prefers temporary modern methods, compared to 65.4 percent of current users. There are very minimal differences in terms of CEB (3.64 for current users, 3.50 for unmet need group) and percentage who want more children (68.3 percent and 68.8 percent respectively). More current users (73.6 percent) compared to unmet need group members (68.8 percent) are insured. And while only 23.3 percent of current users use the private sector, 87.3 percent of the unmet group indicated their willingness to pay for FP services.

B. Creation of a Proxy Income Variable

One of the segmenting variables deemed important in the market segmentation study is the income of the household where the woman belongs. It is deemed important because income is an influential variable in determining the demands for private sector services in Family Planning.

Unfortunately, information on income was not collected in the 1998 National Demographic Survey (NDS). The NDS collected only the variables pertaining to the socio-economic characteristics of the households. It is however a common observation that these socio-economic characteristics can be manifestations or indicators of the income of the household. Thus, one can actually create a proxy income variable using these socio-economic indicators.

To do this, data from the 1997 Family Income and Expenditure Survey (FIES) was used for the estimation, like what was done in the previous segmentation study. The FIES not only has a sampling design and a set of questions eliciting socio-economic information similar to those of the 1998 NDS, but it is also one of the most reliable sources of income data. Thus, it is possible to construct a regression model of income, with the relevant socio-economic variables as the predictive variables, and applying the result of the regression to the NDS.

To explain further, the model is specified as $Y = f(X_1, X_2, \dots, X_n)$, where Y is income in the equation that is seen to be associated with X_1, X_2, \dots, X_n , the socio-economic variables common to both the FIES and the NDS. If the FIES could generate such a model with a reasonably good statistical fit, then one could then extract the values of X_1, X_2, \dots, X_n to the NDS, and make estimates of the income.

To be comparable with that of the 1998 NDS, this study intentionally excludes households with no women aged 15-49 years old and households without adults in the 1997 FIES.

To arrive at the best fit, several models were tested using the stepwise method of regression. The regression that displayed having the highest or displayed the "best fit" (or r^2) is considered the best estimate for the proxy income variable.

The following variables are used in the regression and its derivation:

1. PER CAPITA INCOME- represented by the variable HHINCOME. It refers to the annual household per capita income. It is classified into groups as follows:

Group 1	P 2,500 or less
Group 2	P 2,501- 5,000
Group 3	P 5,001- 7,500
Group 4	P 7,501- 10,000
Group 5	P10,001-12,500
Group 6	P12,501-15,000
Group 7	P15,001-17,500
Group 8	P17,501-20,000
Group 9	P20,001-22,500
Group 10	P22,501-25,000
Group 11	P25,001, 27,500
Group 12	P27,501-30,000
Group 13	P30,001-32,500
Group 14	P32,501-35,000
Group 15	more than 35,000

2. APPLIANCES- represented by the variable APLIANCE. It is the composite index of household ownership of the following appliances: television, refrigerator, and car, motorcycle or jeep (1997 FIES) or car motorcycle or bicycle (1998 NDS). This ranges from 0 to 3 depending on how many appliances they own.
3. ELECTRICITY- this refers to the presence of electricity in the building or house. The value of 1 indicates presence while the value of 0 indicates absence. It is represented by the variable ELEC.
4. HUSBAND AND WIFE EMPLOYMENT- in the data analysis, it is named as HWEMP1. Unlike the previous segmentation study, categories are composed only of two, that is: 1 if both of them (husband and wife) are working; and 0, if only one is working or both of them are not working.
5. EDUCATION OF THE HOUSEHOLD HEAD- represented by the variable HHEDUC and broken down into 3 categories, namely: low, if the household head has graduated at most an elementary education; medium, if he/she has graduated at most a high school education; and high if he/she has obtained at least a college education.
6. PLACE OF RESIDENCE - represented by the variable URBAN. It is coded 1 if the respondent is living in urban, and 0 if living in the rural area.
7. ADULT- CHILD RATIO- this refers to the ratio of number of adult members (15 years old and over) to the number of children (less than 15 years old). This is computed using the formula

$$\text{RATIO2} = \frac{\text{ADULTS} + 0.5}{\text{CHILDREN} + 0.5}$$

(Note: 0.5 is added to avoid infinite values)

8. PROVINCIAL CLASSIFICATION- this refers to the classification of province of residence according to the annual provincial income. It is named as PROVCLAS.
9. TOILET FACILITY - this refers to the type of toilet facility used in the household and is represented by the variable SEALED CR. The value of 1 indicates that it is water sealed and 0 if otherwise.
10. SOURCE OF WATER- this refers to the main source of drinking water in the household and it is broken down into 3 variables as illustrated below:

Variable	Value	1997 FIES	1993 NDS
H201	1	Own use, faucet, community water system or own use tubed/piped well	Community water system piped to residence/yard/plot or private tubed/piped well/improved dugwell
	0	Otherwise	Otherwise
H202	1	Shared, faucet water, community system or shared, tubed/piped well	Community system (public tap or public tubed/ piped well/ improved dugwell
	0	Otherwise	Otherwise
H203	1	Dug well or spring, river, stream, etc. or rain or peddler	Open dug well or developed spring or rain water or others
	0	Otherwise	Otherwise

The following are the regression coefficients of independent variables (listed above) with income as the dependent variable. The procedure includes a stepwise method.

Variables	β	Std. Error	T values
APLIANCE	1.583	.020	77.765
HEDUC3	2.223	.049	45.268
URB	0.975	.038	25.517
H201	0.868	.039	22.101
RATIO	0.010	.004	25.348
ELEC	0.744	.050	14.896
SEALED CR	0.629	.041	15.165
HEDUC2	0.601	.040	14.975
HWEMP	0.313	.035	8.945
PROVCLAS	-0.123	.018	-6.876

Adjusted r^2 =0.560

C. Logistic Regression: Odds of Going to the Private Sector

One of the significant findings in this study is that there are important variables that influence the woman's choice of FP provider. However, there still remains a question such as: Given certain characteristics of a particular woman, what is the probability that she goes to a private sector provider for her FP methods? To answer this question, one should therefore take a deeper understanding of how each factor mentioned earlier in the chapter, affect provider choice when the influences or effects of other variables are controlled. To do this, regression analysis, specifically logistic regression, is used in this study.

This study hypothesized only six variables influencing user's choice of FP provider. These variables are age, income, employment status of the respondent and her spouse, residence, children ever born, education of the household head, and education of the respondent. Like the usual regression analysis, correlation test was conducted to ascertain that variables are independent from each other.

Method enter selection was used in this study, wherein all hypothesized variables were entered simultaneously to come up with a full model. To arrive with a parsimonious model, and to get an exact value of coefficients in the model, all insignificant variables were omitted. Two separate sets runs were conducted: One for having continuous and categorical variables as independent variables; and the other for all categorical variables (i.e., for the purpose of comparison, all continuous variables were converted to categorical ones) as explanatory variables. For all the categorical variables, the first category is always the reference category.

The model specified in the logistic regression run consisted of the following variables:

A. DEPENDENT VARIABLE

FPSOURCE - this means the respondent's choice for her FP method. It can be a private or a public sector.

B. INDEPENDENT VARIABLES:

Age- this refers to the completed age of the respondent at the time of the interview. The categories entered for age are as follows: 'very young', for ages 21 years and below; 'young', for ages 22 to 31 years; 'middle', for ages 32 to 39 years old; and 'old', for ages 40 years and over.

HHINCOME- this refers to the annual household per capita income as presented in Section B of this Annex. The categories entered for income are as follows: 'low', for annual household income pertaining to P15,000 and below; 'middle', for households with annual income ranging from P15,001 to P25,000; and 'high' for annual household income exceeding P25,000.

HWEMP1- refers to whether or not both the respondent and her husband is currently working (value of 1) or one or both of them has/have no work (value of 0).

HHEDUC- this refers to the educational attainment of the head of the household where the respondent belongs. The categories used are: 'low', wherein the household head have obtained at most an elementary education; 'medium', wherein the education obtained is at most a high school education; and 'high' if the household head have reached at least college education.

EDUC- this refers to the educational attainment of the respondent. As in HHEDUC, the following categories are used: 'low' (had at most an elementary education), 'medium' (had at most a high school education), and 'high' (had obtained at least college education).

URBAN- this refers to the place of residence of the respondent. It is either urban or rural.

D. Cluster Analysis

Market segmentation entails the grouping of consumers into relatively homogeneous groups in terms of personal and background characteristics. One statistical procedure used to search for relatively homogeneous groups is cluster analysis. Cluster analysis is a technique that helps researchers see patterns in data by grouping observations according to similarity measures. It is a technique that rewards persistent trial and error. It does not supply definitive answers, only indications of where the answers may be found. In this light, the investigators for this study performed repeated cluster analysis runs until an appropriate clustering was found.¹⁰

1. Identification of Consumers

Not all women are considered potential market for FP. Thus, this study purposely excludes the following groups of women because they are not considered market (or potential market) for FP.

- Non- current users of FP with no desire to space or limit pregnancy
- Pregnant women whose pregnancy is wanted
- Women who cannot get pregnant (menopausal/ infecund/ amenorrheic/ had hysterectomy, etc.), but are not ligated.

2. Selection of Variables

¹⁰ Alano, Beinvenido P. et al (1997). Family Planning Use in the Philippines: Market Segmentation Study.

After identifying the potential consumers of FP, the next step was the selection of variables that would be useful in classifying women into homogeneous groups. Since a group of segmenting variables had already been identified in the first market segmentation study, this automatically becomes the segmenting variables for this study. These variables are the following:

1. age
2. income
3. marital status
4. employment status
5. education
6. adult- child ratio
7. place of residence
8. children ever born
9. desired family size
10. ever- use of FP
11. desire for more children

In this study, region is no longer included as segmenting variable because it appeared that there is no significant differences among regions in terms of contraceptive prevalence rates. Also, the codes used in region are nominal in nature, which may not apply to cluster analysis, which accepts only dichotomous categories.

A correlation test was also conducted to eliminate variables that are highly correlated with each other. Since it was found out that these variables are independent from each other, these variables become the final list of segmenting variables for the cluster analysis.

Since cluster analysis has no definitive answer, particularly in terms of the number of clusters, this study made several runs to come up with more meaningful patterns among clusters. The initial basis in identifying the number of clusters was the result from the first market segmentation study wherein, it came up with 12 market segments. In the initial run however, it was found out that two clusters tend to have almost the same characteristics when crosstabulated with the segmenting variables. Thus, it was decided that another run would be made specifying only six clusters. Simultaneously, cluster analysis was conducted along with the following modifications in the methodology:

1. Standardization of all segmenting variables- all variables were standardized from the scale of zero to one (6 and 12 clusters)
2. Standardization of all segmenting variables except age and income- age and income were entered as their actual values, i.e., 1 to 15 and 15 to 49 (6 and 12 cluster)
3. Standardization of all segmenting variables except age and income, with income multiplied further by 10, i.e., income has a scale of 10 to 150 (6 and 12 clusters)

Of all these runs, modification number 2 with only 6 clusters produced a very meaningful pattern. This proves the hypothesis that age and income are the most important variables for segmenting the FP market. Thus, it is always necessary that in FP market segmentation study, age and income should always be given extra- weight.

BRIEF DESCRIPTION OF THE SEGMENTING VARIABLES

1. EDUC- this refers to the respondent's highest educational attainment categorized into:
 - a. no schooling (value of 0)
 - b. part primary (value of 1)
 - c. completed primary (value of 2)

- d. high school graduate and undergraduate and vocational (value of 3)
 - e. college undergraduate (value of 4)
 - f. college graduate (value of 5)
2. HWEMP1- refers to whether the respondent and her husband/spouse are employed (value of 1) or only is employed or both are unemployed (value of 0) at the time of the interview.
 3. HHINCOME- this refers to the annual household income group derived from the regression analysis of the 1997 FIES (refer to the appendix 1 for the categories).
 4. Age- refers to the respondent's completed age as of interview date, ranges form 15 to 49 years.
 5. Ratio- this means the ratio of the number of adult household members (15 years old and above) t the number of children (less than 15 years old). It is computed using the formula:

$$\text{Ratio2} = \frac{\text{Adults} + 0.5}{\text{FP Use-Children} + 0.5}$$

Where FP Use, refers to whether the respondent had ever used any family planning method
 6. Urban- refers to whether the place of residence is urban (value of 1) or rural (value of 0).
 7. CEB- refers to the total number of children ever born by the respondent. (value of 1) or otherwise (value of 0).
 8. DFS- it is the response to the question: "If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?"
 9. WantMor3- for currently married respondents, response to the question whether the respondent would like to have a child/ another child or would prefer not to have any (more) children.

Response	Value
Yes, Have a (another) child	1
No More/ None	2
Undecided or Don't Know	3

For not currently married respondents, the following algorithm was followed:

DFS > CEB	1
DFS <= CEB	2
Undecided DFS	3

ANNEX 4: Proposed Policy Matrix and LGU Implementation Plan

Matrix of Recommendations for LGU and PhilHealth

SET ONE: For both scenarios/options						
POLICY ARENA	TASKS	ACTIVITIES	QUARTERS			
			1	2	3	4
LGU	Segment the population and ensure the availability of commodities for all segments through direct subsidy, health insurance, socialized pricing and/or commercial procurement	<p>Get to know supply and demand situation for FP, including financing sources:</p> <ul style="list-style-type: none"> ▪ Survey and map public and private facilities to identify delivery gaps ▪ Design and implement a public-private referral system ▪ Conduct a market segmentation study of FP clients ▪ Identify financing sources for market segments that emerge 	X			
PhilHealth	Assess expansion of FP methods in basic benefit package	<p>Review current PhilHealth FP benefits and corresponding utilization rates and accredited providers</p> <p>Conduct cost-benefit analysis for expansion of FP in PhilHealth benefit package</p> <p>Advocate for expansion with all stakeholders</p>	X			
	Expand enrollment	<p>Engage more LGUs in Indigent Program</p> <p>Work on enrollment of IPP</p>	X	X	X	X
			X	X	X	X
SET TWO: Scenario/Option 1: PhilHealth expands current FP benefits						
LGU	Ensure financing sources for all market segments	<p>Shift non-poor clients to private sector</p> <ul style="list-style-type: none"> ▪ Design and implement schemes for means-testing and collecting user fees in public facilities ▪ Withdraw the provision of free public goods to non-poor clients 		X	X	X

		<p>Provide socialized pricing for poor clients</p> <ul style="list-style-type: none"> ▪ Make socially marketed and low priced commercial contraceptives available in public facilities by <ul style="list-style-type: none"> ▪ Implementing a pooled procurement system for both public and private providers (including NGOs) to achieve the necessary volume for price leveraging and economies of scale ▪ Undertaking parallel importations ▪ Allow public sector facilities to sell socially-marketed and commercial supplies alongside free public goods to avoid dropouts <p>Enroll the poor in PhilHealth Indigent Program</p> <p>Support PhilHealth enrollment and accreditation of facilities</p>		X	X	X
PhilHealth	Expand FP methods in benefit package	<p>Develop IEC strategies on expanded FP benefits</p> <p>Accredit providers for expanded FP benefits</p> <p>Develop focused strategies on IEC and accreditation for Indigent Program</p>		X	X	X
SET TWO: Scenario/Option 2: PhilHealth does not expand current FP benefits						
LGU	Ensure financing sources for all market segments	<p>Shift non-poor clients to private sector</p> <ul style="list-style-type: none"> ▪ Design and implement schemes for means-testing and collecting user fees in public facilities ▪ Withdraw the provision of free public goods to non-poor clients <p>Provide socialized pricing for low income clients</p> <ul style="list-style-type: none"> ▪ Make socially marketed and low priced commercial contraceptives available in public facilities by <ul style="list-style-type: none"> ▪ Implementing a pooled 		X	X	X
				X	X	X

		<p>procurement system for both public and private providers (including NGOs) to achieve the necessary volume for price leveraging and economies of scale</p> <ul style="list-style-type: none"> ▪ Undertaking parallel importations ▪ Allow public sector facilities to sell socially-marketed and commercial supplies alongside free public goods to avoid drop-outs <p>Provide free services for the poor</p> <p>Assist LGUs in developing guidelines for service delivery personnel on screening clients re PhilHealth membership to identify possible sterilization clients</p>		X	X	X
	Generate additional resources for FP service provision					
	Generate additional resources for provision of FP	Study feasibility of an LGU bond float to generate seed money for commercial activities related to FP, e.g., procurement of contraceptive supplies			X	X
PhilHealth	Increase utilization rates of existing FP methods in benefit package	Assist LGUs in developing guidelines for service delivery personnel on screening clients re PhilHealth membership to identify possible sterilization clients		X	X	X

Proposed LGU¹¹ Implementation Plan

TASKS	Year One											
	MONTHS											
	1	2	3	4	5	6	7	8	9	10	11	12
Select LGUs (1 city and 1 ILHZ each in 3 provinces)	X											
Conduct high-level policy dialogue	X											
Hold consultative workshops with DOH, LGU, private sector, and PhilHealth reps to present and finalize proposed approach, to form multisectoral task force ¹² , and to develop monitoring and evaluation plan with performance indicators, (process and outcome)	X											
Through survey and key informant interviews, conduct FP market investigation, including: <ul style="list-style-type: none"> - Survey of FP facilities and providers - Market segmentation of FP current and potential users - Financing sources for FP - Operational policy barrier analysis 	X	X	X	X								
Hold series of strategic/operational planning workshop for task force, using results of FP market investigation as planning inputs, to address strategic/operational issues on: <p>Shifting</p> <ul style="list-style-type: none"> - Means testing - User fees - Referral system - Low-priced commodities through pooled procurement and parallel imports <p>Financing</p> <ul style="list-style-type: none"> - Alternative financing sources (e.g. bond issues) - Increased PhilHealth enrollment - PhilHealth accreditation of facilities and providers - Development of guidelines for service delivery personnel on 				X								

¹¹ The proposed LGU implementation plan is set at the levels of the inter-local health zones (ILHZ) and city health office (CHO). ILHZs are composed of contiguous municipalities and/or cities, with an integrated network of health facilities that provide inter-facility client referral and pooled procurement for drugs and supplies. The bigger geographic coverage and the existing health facility network in the ILHZ/ CHO makes it a viable arena for the conduct of market segmentation and facility mapping studies. In addressing operational issues on service delivery, such as means testing, user fees, role of the private sector the ILHZO/ CHO setting is deemed appropriate as well.

¹² The multi-sectoral task force will include local chief executives (LCEs), Sangguniang Bayan Representatives, City Health officers (CHOs), Municipal Health Officers (MHOs), public health providers, private health providers, NGOs, women's groups, civic societies

TASKS	Year One											
	MONTHS											
	1	2	3	4	5	6	7	8	9	10	11	12
screening clients for PhilHealth membership Advocacy and IEC in support of contraceptive self-reliance				X	X							
Provide TA support for the development of models addressed to: - LGU: means testing, user fees, pooled procurement, alternative financing sources (with appropriate how-to manuals) - Private sector: parallel imports, pooled procurement, provision of services - PhilHealth: enrollment, accreditation, guidelines for service providers			X	X	X	X						
Provide TA support for institutional capacity building for planning and forecasting of commodity requirements					X	X						
Test models							X	X	X	X	X	X
Conduct monitoring of process and if possible, outcome indicators of project vis-a-vis baseline						X			X			X
Do process documentation on best practices and lessons learned	X	X	X	X	X	X	X	X	X	X	X	X