# PROVIDERS AND CONSUMERS OF COMMERCIAL FAMILY PLANNING SERVICES IN DEVELOPING COUNTRIES

Ву

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#### **Abstract**

Efforts to increase the involvement of the commercial sector in providing family planning services are fueled by the realization that donor and public sector funds cannot fully address the growing need for family planning services and by an increasing appreciation of the strengths and advantages of commercial sector health providers. The commercial sector currently plays a significant role, providing contraceptives to about 20 percent of women who use modern methods. Pharmacies are the leading commercial providers of family planning services. Commercial providers are more likely than public sector providers to offer supply methods (i.e., condoms, pills, and vaginals) and less likely to offer clinical methods (i.e., male and female sterilization). They tend to serve people of higher socioeconomic status, although their client base includes people from all socioeconomic groups. Consumers who use commercial providers do so because of the quality, convenience, and privacy of services. Those who prefer public providers do so because of lower prices, although many may be willing to pay more for higher-quality services.

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## Acronyms

BKKBN Indonesian National Family Planning Coordinating Board (Badan Koordinasi

Keluarga Berencana Nasional)

CPR Contraceptive prevalence rate

DHS Demographic and Health Survey

GP General practitioner

IUD Intrauterine device

MCH Maternal and child health

MWRA Married women of reproductive age (15–49 years)

OB/GYN Obstetrician/gynecologist

POPTECH Population Technical Assistance Project

PROFIT Promoting Financial Investments and Transfers Project

SEATS Family Planning Service Expansion and Technical Support II Project

USAID U.S. Agency for International Development

WRA Women of reproductive age (15–49 years)

ZNFPC Zimbabwe National Family Planning Council

## Executive Summary

For over a decade, international donors and government leaders in developing countries have attempted to increase the involvement of the commercial sector in providing family planning services. This effort has been fueled by the realization that funds from donors and the public sector cannot fully address the growing need for family planning services and by an increasing appreciation of the strengths and advantages of commercial sector health providers.

This report provides a profile of who provides commercial family planning services in developing countries, who uses the services of those commercial providers, and the motivations that influence both providers and consumers. The authors reviewed more than fifty recent Demographic and Health Surveys (DHSs) and a range of qualitative and quantitative studies.

The commercial sector services about 20 percent of women who use modern methods of contraception in developing countries. This translates into 7 percent of the total number of married women of reproductive age (15–49 years) — more than served by the nonprofit sector (5 percent) but considerably less than the public sector (23 percent).

Supply-based methods dominate the mix of contraceptive methods provided by commercial providers. Pills and condoms comprise 69 percent of the methods obtained from the commercial sector; injectables and IUDs, 25 percent; sterilization, 5 percent, and other methods, 2 percent.

Pharmacies are the leading commercial provider of contraceptive methods in developing countries, reaching 4 percent of married women of reproductive age. Commercial doctors serve 1.4 percent, midwives reach 0.7 percent, and shops or markets serve 0.6 percent.

Commercial family planning clients have a higher socioeconomic status than those who use public sector family planning services. However, some people in even the lowest socioeconomic groups use commercial providers. Urban residents are more likely to use commercial sources of family planning services than rural residents. Women with more children and/or more children than they would prefer are less likely to use private or commercial sources for family planning services.

The key motivation for health care providers who offer commercial family planning services is the revenue potential. The nonmonetary motivations include independence, flexibility, lighter workloads, opportunities for growth (i.e., experience and training), concern for their patients, and concern over rapid population growth.

Providers' interest in and ability to offer commercial family planning services are constrained by a lack of training and by the policy and regulatory environment. Providers cite governmental restrictions on services, distribution of contraceptives, and advertising, as well as taxes, price controls, and import/export restrictions. The profitability of commercial family planning services is constrained by:

the availability of subsidized family planning services and methods

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- # limited access to capital and cash flow problems
- # weak commercial distribution channels.

Consumers choose commercial providers primarily because of their perceptions about:

- # competence and friendliness of staff
- # quality and extent of the consultation
- # quality of the waiting conditions
- # trustworthiness of the service provider
- # shorter waiting times
- # longer hours of operation
- # privacy of services.

Those who choose public providers cite lower prices for services, the availability of other services at the same location, and a lack of knowledge of alternative sources. There is evidence that many consumers in developing countries may be willing to pay more for family planning services in order to receive higher quality services.

#### **Conclusions**

- # The commercial sector currently plays a significant role in the provision of family planning in developing countries, serving approximately 20 percent of all women in developing countries who use modern contraceptive methods.
- # Pharmacies are the leading commercial providers of family planning services, although doctors, midwives, and other shops or markets also play a meaningful role.
- # Commercial providers are more likely than public providers to offer supply methods
  (i.e., condoms, pills, and vaginals) and less likely to offer clinical methods (i.e., male and female sterilization).
- # The clients of commercial providers are more likely to be in higher socioeconomic groups, although people from all socioeconomic categories use commercial providers when they are able.
- # Providers are motivated to provide family planning services in the commercial sector by a range of factors, including profit potential, independence, flexibility of practice, and a desire to have a positive social impact. They are constrained by government regulations, fiscal constraints and concerns about profitability, and lack of training.

For over a decade, there has been an effort by international donors and government leaders in developing countries to increase the involvement of the commercial sector in providing family planning services. This effort has been fueled by the realization that donor and public funds cannot fully address the growing need for family planning services, and also by an increasing appreciation of the strengths and advantages of commercial sector health providers.

The purpose of this report is to describe the involvement of the commercial sector in the provision of family planning services in developing countries. There have been a number of research studies and summary papers which have addressed this topic, but the research base is rapidly expanding. As a result, this report is designed to summarize the most recent information about who provides commercial family planning services, who uses commercial family planning providers, and the motivations influencing both providers and consumers.

#### 1.1 Research Questions

This report is intended to address the following questions concerning the involvement of the commercial sector in developing countries:

- # What proportion of married women of reproductive age get their contraceptive methods from the commercial sector?
- # What types of providers provide contraceptive methods in the commercial sector?
- What types of contraceptive methods are obtained from commercial providers?
- # What are the characteristics of consumers of commercial sector family planning services?
- # What motivates health care providers to offer family planning services in the commercial sector?
- # What constrains health care providers from offering family planning services in the commercial sector?
- # What factors affect the choice of commercial providers of family planning services?

#### 1.2 Defining the Commercial Sector

Given the focus of this report, it is important to clearly define the commercial sector as distinct from the nonprofit and public sectors. Historically, the for-profit commercial and the nonprofit private sectors have been combined under the broader label of private sector because both commercial and nonprofit organizations are funded by non-governmental entities (e.g., corporations, nonprofit organizations, or individuals). However, in order to clearly understand the involvement of the commercial sector in developing countries, it is important to define the commercial, nonprofit, and public sectors. This is best accomplished by considering where each gets its funding.

Commercial sector entities are both motivated by and reliant on making a profit in order to viably provide family planning services. Therefore, the commercial sector is primarily accountable to the financial success of the entity and, depending on the mandate of the organization, may also be motivated by broader social objectives.

In contrast, the nonprofit sector receives its funding from external sources including donors, governments, and charities. While non-profits may be motivated to generate income in order to foster sustainability, they are generally accountable to the diverse interests of their funding sources, which usually include social objectives.

The public sector generally receives its funding from the government or government agents (e.g., government-owned companies). It is therefore accountable to the social and political objectives articulated by the government which often include providing subsidized services to those who would otherwise be unable to afford them. In some cases, public agencies also receive funding from external donors.

#### 1.3 Data Sources

This report is based on a review of current research on the perspectives of both consumers and providers regarding commercial sector family planning services. The report highlights research conducted in developing countries by the PROFIT Project, United States Agency for International Development (USAID) cooperating agencies, and other nonprofit organizations.

To answer questions concerning how many women use commercial family planning services, what methods are provided, and who provides them, data from 55 Demographic and Health Surveys (DHS) conducted between 1986 and 1996 by Macro International were analyzed. Specifically, the data examined include modern contraceptive prevalence rates<sup>1</sup> and the most recent sources from which users of modern methods last obtained their methods. These data were then combined across countries

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<sup>&</sup>lt;sup>1</sup>among currently married women and women of union of reproductive age (15–49 years).

to develop estimates for developing countries in general.<sup>2</sup> The sectoral categories in which provider types were analyzed for this report are shown in *Table I-1*.

TABLE I-1 Provider Types by Sector					
Sector:	Provider Types:				
Commercial	C pharmacies C doctors (private doctors, doctors offices, private medical offices) C nurses/midwives C shops/markets including gas stations and black markets C traditional birth attendants and traditional providers C workplace (employee benefits office or place of work)				
Nonprofit	C private clinics and family planning clinics C private, missionary, and lay hospitals C other medical clinics where private doctors were not specifically mentioned C non-governmental organizations C community-based distribution workers C churches				
Public	C public and government providers and institutions C government-sponsored field workers C schools				
Other	C friends and acquaintances C relatives C spouses C other C don't know/missing				

To answer the subsequent questions posed in this report, data from qualitative and quantitative studies were compiled. These studies, which included surveys, focus group discussions, and personal interviews, addressed these questions from the perspective of family planning providers and users. Additionally, DHS data from seven countries were used to examine why users selected different sources of family planning services.

<sup>&</sup>lt;sup>2</sup>To account for differences in population sizes, a weight of the total number of women of reproductive age (15–49 years) in each country was applied.

This section addresses the following four questions:

- # What proportion of married women of reproductive age (MWRA) get their contraceptive methods from the commercial sector?
- # What types of providers provide contraceptive methods in the commercial sector?
- # What types of contraceptive methods are obtained from commercial providers?
- # What are the characteristics of consumers of commercial sector family planning services?

# 2.1 What Proportion of Married Women of Reproductive Age Get Their Contraceptive Methods from the Commercial Sector?

Based on data from 55 Demographic and Health Surveys conducted between 1986 and 1996 in developing countries, 35 percent of married women of reproductive age (MWRA) were currently using a modern method of contraception. Nearly 7 percent of MWRA obtained their contraceptive methods from a commercial sector source. In comparison to other sectors, the commercial sector served more MWRA than the nonprofit sector (5 percent) but considerably fewer MWRA than the public sector (23 percent) (*Figure II-1*). As shown in *Table II-1*, the commercial sector served more than 10 percent of MWRA in 10 of the 55 countries examined, while in 28 of the countries, 2 percent or fewer MWRA were served by the commercial sector. (See Appendix 2 for country level detail of this data.)

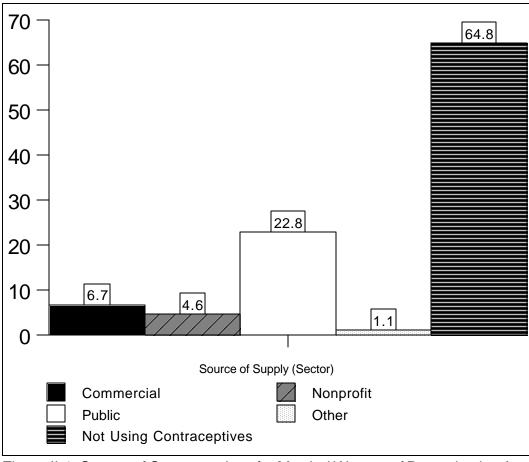


Figure II-1. Source of Contraceptives for Married Women of Reproductive Age

TABLE II-1
Percentage of MWRA Obtaining Contraception from Commercial Sector

		Country (Year of DHS)	Commercial
Dominican Republic (1991)	27.3%	Pakistan (1990/1)	2.0%
Brazil (1996)	26.0	Yemen (1991/2)	2.0
Egypt (1995)	21.8	Cote d'Ivoire (1994)	2.0
Colombia (1995)	21.7	Sudan (1989/90)	1.8
Trinidad & Tobago (1987)	18.0	Tanzania (1996)	1.8
Paraguay (1990)	17.3	Cameroon (1991)	1.6
Morocco (1995)	14.5	Botswana (1988)	1.5
Ecuador (1987)	14.3	Namibia (1992)	1.5
Turkey (1993)	13.9	Nepal (1996)	1.4
Indonesia (1994)	12.2	Kenya (1993)	1.1
Jordan (1990)	9.4	Mali (1995/6)	1.1
Tunesia (1988)	9.1	Madagascar (1992)	1.0
Mexico (1987)	8.9	Benin (1996)	1.0
Romania (1993)	8.2	Togo (1988)	1.0
Peru (1996)	7.7	Liberia (1986)	1.0
Bolivia (1994)	7.5	Uganda (1995)	0.9
El Salvador (1993)	6.6	Comoros (1996)	0.9
Bangladesh (1993/4)	5.6	Central Africa (1994/5)	0.8
Ghana (1993)	4.9	Senegal (1992)	0.8
Thailand (1987)	4.7	Kazakstan (1995)	0.7
Haiti (1994/5)	3.8	Nigeria (1990)	0.6
Guatemala (1995)	3.6	Malawi (1992)	0.5
Sri Lanka (1987)	3.1	Burkina Faso (1993)	0.4
Zimbabwe (1994)	3.0	Guinea (1992)	0.3
India (1992/3)	2.7	Rwanda (1992)	0.2
Philippines (1993)	2.5	Uzbekistan (1996)	0.1
Zambia (1996)	2.3	Niger (1992)	0.1
		Burundi (1987)	0.0

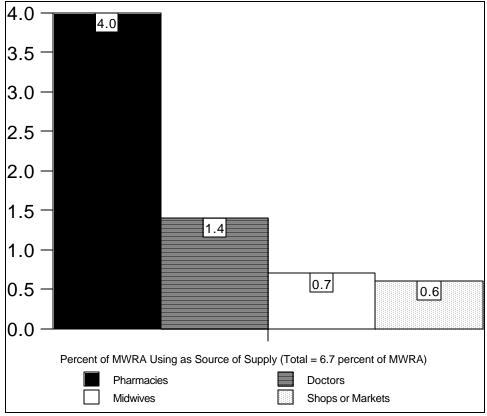


Figure II-2. Commercial Sources for Contraceptive Supplies

#### 2.2 What Types of Providers Provide Contraceptive Methods in the Commercial Sector?

As shown in *Figure II-2*, pharmacies were the leading commercial provider of contraceptive methods in developing countries, reaching 4 percent of MWRA. Commercial doctors served 1.4 percent of MWRA, followed by midwives (0.7 percent), and shops or markets (0.6 percent). Since traditional practitioners and work place outlets served less than 0.01 percent of MWRA, they are not displayed in the figure.

#### 2.3 What Types of Contraceptive Methods Are Obtained from Commercial Providers?

Findings from an analysis of the DHS data indicated that supply-based methods dominated commercial sector method use in developing countries. As *Table II-2* shows, pills and condoms comprised nearly 69 percent of the methods obtained from the commercial sector. Injectables and

IUDs made up 25 percent of the method use, followed by sterilization (5 percent) and other methods (2 percent).

A comparison of the methods obtained from the commercial sector to methods obtained from all sectors reveals that supply methods, including pills, condoms, and injectables made up a greater proportion of commercial sector method use than for all sectors combined. This pattern may reflect the ease of adding these methods to a commercial provider's method mix, given the low levels of training and technical skills required to provide them. Surgical methods made up a much smaller proportion of commercial sector method use than of overall method use. This may reflect the fact that these services are easily obtained at heavily subsidized prices from public providers. These data support findings from a 1989 study conducted by Kenney and Lewis that found that clinical methods were obtained more often from the commercial sector.

TABLE II-2 Comparison of Commercial Sector and Overall Method Use for MWRA (percent)									
	Pill	Condo m	Inject- able	IUD	Femal e Steril- ization	Male Steril- ization	Vaginal	Implant	Total
Percentage of Commercial Method Use	48.3	20.4	13.0	12.3	4.4	0.7	1.1	0.5	100
Percentage of Overall Method Use	19.4	6.2	6.8	13.8	45.9	5.1	6.8	1.1	100
Difference	28.9	14.2	6.2	-1.5	-41.5	-4.4	-5.7	-0.6	

Analysis of the different methods obtained from each commercial provider type revealed a pattern that reflects the technical skills required of the provider and the setting in which the methods should be delivered (*Table II-3*). Not surprisingly, non-clinical, supply methods (i.e., condoms, pills, and vaginals) were predominantly obtained through pharmacies and shops/markets. On the other hand, methods requiring a high degree of medical training and a clinical setting (i.e., male and female sterilization) were obtained exclusively from doctors. The remaining methods, requiring some technical training and sterile equipment (i.e., IUDs, implants, and injectables), were obtained from both doctors and midwives. As will be discussed in more detail later, methods offered by different providers often reflect the legal requirements placed on these providers.

TABLE II-3 Contraceptive Methods Obtained by Commercial Provider Type for MWRA (percent)					
	Pharmacy	Doctor	Midwife	Shop or Market	Total
All Methods	59.0	21.3	10.6	9.4	100.0
Pill	85.0	4.1	4.1	6.5	100.0
Condom	63.1	2.4	0.0	34.2	100.0
Injectables	17.7	21.5	60.8	0.0	100.0
IUD	1.4	86.5	12.2	0.0	100.0
Female Sterilization	0.0	100.0	0.0	0.0	100.0
Male Sterilization	0.0	100.0	0.0	0.0	100.0
Vaginal	85.7	14.3	0.0	0.0	100.0
Implant	0.0	50.0	50.0	0.0	100.0

# 2.4 What Are the Characteristics of Consumers of Commercial Sector Family Planning Services?

This section presents data on the characteristics of users of commercial sector family planning services. The characteristics that have been examined include (1) socio-economic indicators, (2) urban or rural residence, (3) number of children, and (4) age.

#### 2.4.1 Socio-economic Indicators

A number of studies found that clients who use commercial and private family planning services have greater socio-economic resources than users of public sector family planning services. This is logical in that individuals who have greater economic resources are more capable to pay for these services. Many of these studies also show, however, that some consumers with very limited economic resources are willing and motivated to select and pay for commercial family planning services. The socio-economic indicators examined include standard of living or class, monthly household expenditures, occupation, and level of education.

#### 2.4.1.1 Standard of Living and Socio-economic Class

An analysis of 1992 Egyptian DHS data (Khalifa, 1995) found that a higher percentage of women (47 percent) among those with the highest standard of living obtained their IUDs from private sources than did women with the lowest standard of living (28 percent). Similarly, among users of family planning in the 1987 Indonesian DHS, Samijo et al. (1991) found a significant correlation between greater wealth, as measured by a wealth index, and greater use of private sector sources of family planning. Among those with the highest wealth index, 38 percent reported using private sources of family planning as compared to 13 percent among those with the lowest wealth index.

Among males and females aged 15-49 in the Philippines (PULSE, 1996), 71 percent of respondents in the highest socio-economic class expressed a preference for a private source of family planning as compared to 13 percent of those within the lowest socio-economic class. Similarly, only 7 percent of respondents from the highest class reported a preference for public sources compared to 68 percent of those from the lowest class.

#### 2.4.1.2 Monthly Household Expenditures

Three studies which examined the relationship between monthly household expenditures and choice of a family planning provider found greater use of commercial and private sector family planning services by members of households with higher monthly expenditures.

An analysis of 1992 Egyptian DHS data, which examined market segmentation of IUD, pill, and condom users among public, nonprofit, and commercial providers (Berg et al., 1995), found that median annual household expenditures were lower among users of low-cost public sources than among users of high-priced<sup>3</sup> private sources for both IUD and pill users. For example, IUD users who got their methods from public rural sources had median household expenditures of 200 Egyptian pounds compared to 400 pounds for users who got their IUDs from private sector sources. For pill users, median household expenditures ranged from 213 Egyptian pounds for those who obtained their methods from low-priced public sector sources to 239 Egyptian pounds for those who used high-priced private sector sources.

Another study in Egypt conducted by the Population Council (1994) examined the profiles of 4,710 family planning clients of different providers through exit interviews, including their average monthly household incomes and expenditures. The study found that when either the monthly income or monthly expenditures exceeded 300 Egyptian pounds, a greater than average proportion of women reported using private providers for family planning services and a lower than average proportion of women reported using public rural or maternal and child health (MCH) clinics. Below 300 Egyptian pounds, the inverse was true; a greater than average proportion of women reported using public sources.

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<sup>&</sup>lt;sup>3</sup>"Low-cost" and "high-priced" were categories defined by Berg et al.

An analysis of data from the 1994 Indonesian DHS (Winfrey and Heaton, 1996) found that the proportion of those using commercial sources was 33 percent among those in the highest annual expenditure quartile while it was 12 percent for those in the lowest quartile. Furthermore, the proportion of clients using high-priced private sources<sup>4</sup> was greater for those households with greater expenditures. However, this study also found that the use of public hospitals was more likely for households with greater expenditures.

#### 2.4.1.3 Occupation

In Egypt, exit interviews with family planning clients (Population Council, 1994) found that employed women who obtained their family planning services from private physicians were more than twice as likely to be working in professional or clerical/administrative jobs (84 percent) than those who sought services from public rural (38 percent) or MCH clinics (42 percent). Furthermore, employed clients of public rural or MCH clinics were more than four times as likely to be working in unskilled or agriculturally based jobs (39 percent) than users of private physicians (9 percent). Similarly, more white-collar workers in the Philippines reported going to a private sector source (59 percent) for family planning than to a public sector source (29 percent) while fewer blue collar workers reported going to a private sector source (19 percent) than to a public sector source (59 percent) (PULSE, 1996).

#### 2.4.1.4 Level of Education

A number of studies have found that clients with higher levels of education were more likely to use commercial or private family planning providers. For example, in a study which examined sources of contraceptive services in developing countries based on data from 25 DHS studies (Ayad et al., 1994), approximately 15 percent of contraceptive users with a secondary education or more reported using commercial pharmacies and 32 percent used private sources. In contrast, 9 percent of users with no education reported obtaining their methods from commercial pharmacies and 17 percent reported using private sources.

Similar findings were found in three studies in Egypt. The Population Council (1994) found that female clients of private providers were 7 to 8 times more likely to have an education beyond secondary school than clients of public sources. Likewise, clients of public service sites were more than twice as likely to be illiterate than clients of private facilities.

In an analysis of the 1992 Egyptian DHS data, Khalifa (1995) found that women who had completed secondary school or higher were more likely to get their IUDs from private medical sources (50 percent) than women who had no education (32 percent). This study also found that the greater the

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<sup>&</sup>lt;sup>4</sup>which included nonprofit providers

husband's level of education, the greater the woman's likelihood of getting an IUD from a private source (35 percent for those with no education versus 48 percent for those who had completed secondary school or more).

In another analysis of the 1992 Egyptian DHS data, Berg et al. (1995) found that the level of both the wife's and husband's education was highest among users of commercial or high-priced private sources. For example for IUD users, women's median years of education was 9 for those who got their method from high-priced private sources as compared to 4 for those choosing rural public sources. For pill users, women's median education was 7 years for those selecting high-priced private sources while it was 5 for women using rural public sources.

In the Philippines (PULSE, 1996), males and females who had higher levels of education expressed a greater preference for commercial sector family planning services. For example, 45 percent of the respondents with a college education reported a preference for commercial sources compared to 31 percent who reported a preference for public sources. On the other hand, those who did not complete an elementary school education reported a greater preference for public sources of family planning services (69 percent) than for private (13 percent).

Similarly, Adamchak's analysis (1996) of the 1994 Zimbabwe DHS data found that 63 percent of those who used private sector sources had a secondary degree or higher compared to 40 percent among users of the public sector.

#### 2.4.2 Residence in an Urban or Rural Location

Several studies have found that urban residents are more likely to use commercial sources of family planning services than rural residents. This probably reflects the facts that a greater proportion of commercial providers are located in urban areas and that a greater proportion of urban residents have a higher socio-economic status than rural residents. As Ravenholt (1996) pointed out, commercial "sector service delivery will naturally occur and thrive in more densely-populated areas where money is more accessible to potential consumers and where the costs of service delivery/distribution can be recovered profitably through fees/prices affordable to target markets."

In an analysis of DHS data from 25 countries, Ayad et al. (1994) found that more urban residents used private providers (30 percent) or commercial pharmacies (15 percent) for family planning services than did rural residents (20 percent and 12 percent, respectively). In Egypt, exit interviews revealed that women who obtained their services from private physicians were more likely to live in metropolitan and urban areas (75 percent), whereas women who obtained their family planning services from rural public providers were predominantly residents of villages (99 percent) (Population Council, 1994).

In Egypt, Khalifa (1995) found that although the majority of both urban (92 percent) and rural (79 percent) residents obtained their pills from private sources including commercial doctors and pharmacies, those who used public sources were three times more likely to be rural residents (17 percent rural, 6 percent urban). Among IUD users, those who obtained IUDs from private sources

were slightly more likely to be urban residents (41 percent) than rural (37 percent) while those getting IUDs from a public source were more likely to be rural residents (51 percent) than urban (44 percent).

Samijo et al. (1991) found that urban residents in Indonesia were significantly more likely to use a private provider (30 percent) for family planning services than were rural residents (16 percent). In the Philippines, commercial doctors reported that the majority of their clients lived in urban areas (69 percent) (PULSE, 1995), and in Zimbabwe, urban residents were also more likely to use private providers (61 percent) than rural residents (36 percent) (Adamchak, 1996).

#### 2.4.3 Number of Children

Research conducted on the relationship between the number of children and the use of commercial sources indicated that women with more children and greater numbers of excess births<sup>5</sup> are less likely to use a private or commercial source for family planning services. In the DHS analysis, Ayad et al. (1994) found that women with more children were less likely to report using commercial pharmacies. In Egypt, women who obtained IUDs or pills from public rural sources had an average of 5 children, while those using high-priced private sector sources had 3 to 4 children (Berg et al., 1995). This study also found that the number of excess births among women using public rural sources for IUDs (1.5) or low-priced sources for pills (2.1) were higher than the number among users of high-priced sources (0.4 and 1.4, respectively). Similarly, in Zimbabwe, users of private sector sources had fewer children (52 percent with 2 or fewer) than users of public sector sources (44 percent with 2 or fewer) (Adamchak, 1996).

#### 2.4.4 Age

Studies have generally suggested that age is a less powerful predictor of users' choice of a family planning source than the other characteristics described above. For example, Berg et al. (1995) found that Egyptian women who obtained their IUDs from public rural sources were on average younger (31) than those using high-priced private sector sources (33). On the other hand, users of lower-priced sources for pills in either the public or private sectors tended to be older (36 and 34, respectively) than those using high-priced private sector sources (31). Condom users who obtained their methods from commercial pharmacies had the highest median age (38).

In their comparative study, Ayad et. al (1994) found that more 15-24 year olds obtained their methods from commercial pharmacies (17 percent) than 35-49 year olds (10 percent). However, more

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<sup>&</sup>lt;sup>5</sup>The number of births exceeding the desired number of births.

35-49 year olds (25 percent) reported getting their family planning services from private sources<sup>6</sup> than did 15-24 year olds (18 percent).

Several studies found no relationship between age and choice of a family planning service provider. For example, in Egypt, the Population Council (1994) found no age differences between clients seeking services from public MCH clinics and rural delivery clinics or private physicians. Similarly, Khalifa (1995) found no relationship between age and use of public or commercial sources for pills or IUDs in his analysis of Egyptian DHS data. Also, among contraceptive users in both the Philippines (PULSE, 1996) and in Zimbabwe (Adamchak, 1996), age did not appear to affect choice of a family planning provider.

<sup>6</sup>Their definition of private sector includes both nonprofit and commercial sources.

This section summarizes the findings of studies that have explored the following question: What motivates health care providers to offer commercial family planning services and what constrains them from doing so?

Due to the nature of commercial family planning, the findings of studies that have examined why health care providers offer commercial family planning services reflect both their reasons for being involved in commercial health services in general and their reasons for offering family planning services in particular. The factors constraining commercial sector family planning service provision similarly reflect this mix of factors. Thus, the motivations and constraints that are described include factors that: (1) motivate and constrain family planning providers in public and nonprofit sectors to join the commercial sector; and (2) motivate and constrain commercial health providers to begin offering family planning services. All of these factors must be considered in efforts to expand commercial sector involvement in family planning service provision.

## 3.1 What Factors Motivate Health Care Providers to Offer Commercial Family Planning Services?

#### 3.1.1 Concern for Patients and Rapid Population Growth

Research that has explored why commercial health care providers offer family planning services suggests that many do so out of concern for their patients' health and the detrimental effects of rapid population growth.

For example, nurse-midwives who participated in focus groups in Zimbabwe reported that they were motivated to provide commercial sector family planning because they felt they could provide higher quality family planning services for their patients (e.g., more personalized care and more time to meet patients' needs) than they could working in the public sector (SEATS, 1996). A survey of private pharmacists in Romania indicated that the pharmacists considered themselves first and foremost health care providers, which motivated them to advise their clients on the use of the family planning products (Sherpick and Hopstock, 1996).

When physicians in San Salvador were asked why they provided family planning services in their private practices, 18 percent reported that they were motivated to do so because of their concern with El Salvador's rapid population growth (Minervini, 1997).

#### 3.1.2 Revenue Potential

Research findings also suggest that health care providers who offer commercial family planning services are motivated to do so by its revenue potential. For example, research with obstetricians/gynecologists (OB/GYNs), general practitioners (GPs) and midwives who offered commercial family planning services in the Philippines revealed that greater earnings potential motivated them to work in the private sector (PULSE, 1995). For example, 58 percent of the OB/GYNs, 38 percent of GPs, and 24 percent of the midwives reported that they were motivated by the higher income and revenues possible in the commercial sector as compared to the public sector. When these providers were asked if they considered family planning services profitable, 69 percent responded affirmatively, with 33 percent characterizing commercial family planning services as "very profitable." Interestingly, although fewer midwives reported being motivated by the higher income/revenues of the commercial sector, more midwives (54 percent) characterized commercial family planning as very profitable than did OB/GYNs (21 percent) or GPs (25 percent).

Doctors in the Philippines who participated in in-depth interviews reported that in some cases doctors who provided commercial family planning services could earn two to three times the fixed salary of doctors who worked in public hospitals (PSRC, 1994). In Indonesia, a World Bank study (1990) found that income earned from part-time private family planning practice exceeded that of full-time employment in the public sector.

#### 3.1.3 Independence, Flexibility, and Lighter Workloads

Research findings also suggest that health care providers who offer commercial family planning services are attracted by the independence, flexibility, and the lighter workloads of private practices. In the Philippines, for example, doctors who offered private family planning services cited the freedom of having one's own practice (20 percent) which for many meant not having to answer to a superior. In addition to freedom, 18 percent of the doctors reported that they were motivated by the flexible working hours associated with private practices (PULSE, 1995). In in-depth interviews, doctors who offered commercial family planning services cited the flexible schedules and the absence of bureaucracy, which is common in government hospitals, as important motivations for providing health and family planning services in the private sector (PSRC, 1994).

Fourteen percent of the nurses who participated in the survey in the Philippines reported that they were motivated to provide commercial family planning services due to the lighter workloads associated with private practice as compared to public sector practice (PULSE, 1995). Similarly, Philippine midwives who participated in focus groups reported that they were attracted by the flexible schedules associated with private practice (PSRC, 1994).

Research on nurse-midwives who provide commercial family planning services in Zimbabwe also indicates that nurse-midwives are motivated by the independence offered by commercial practice. Unlike public sector nurse-midwives, who are often posted far from their families, those who worked in

the commercial sector reported that private practice allowed them control over their practice location (SEATS, 1996).

#### 3.1.4 Experience and Training

Studies also show that health providers who offer commercial family planning services are motivated by the experience and training that they can acquire in the commercial sector. In the Philippines, for example, midwives rated higher economic returns as only slightly more motivating than the experience and training associated with working with in a commercial setting (PULSE, 1995). Similarly, in focus groups, Romanian pharmacists said that they had been able to learn much more about pharmacy management in commercial pharmacies than they had in state-owned pharmacies. Additionally, participants reported that government privatization of the pharmacies had opened up important opportunities for women in the area of pharmacy management (Sherpick and Hopstock, 1996).

# 3.2 What Factors Constrain Health Care Providers from Offering Commercial Family Planning Services?

A number of studies have attempted to identify constraints to the delivery of commercial family planning services. The findings of these studies are described under the following three sections: (1) policy and regulatory environment; (2) limited revenue potential; and (3) lack of training.

#### 3.2.1 Policy and Regulatory Environment

Although the governments of a number of developing countries have expressed an interest in increasing the involvement of the commercial sector in the provision of family planning services, findings of research in certain countries indicate that there are a range of government policies and regulations that constrain these efforts. These include restrictions on the ability to have a commercial family planning practice, to distribute contraceptives, and to advertise services.

In Zimbabwe, a study found that health care providers who offered commercial family planning services perceived government policies and regulations related to commercial family planning practice as both confusing and contradictory (Adamchak, 1996). For example, nurse-midwives who operate in the private sector are not allowed to advertise their services. They are only allowed to publicize the name of their business, its location and hours of operation. Experts interviewed by Adamchak believed that the government restricts the commercial services of nurse-midwives due to its fear that large numbers would leave the public sector to pursue commercial sector activities if they considered commercial practice a viable option.

Findings from focus group research with 26 nurse-midwives in Zimbabwe (Reed, 1995a) reinforced these findings. Many of the nurse-midwives had inaccurate perceptions about legal and regulatory requirements related to commercial sector practice. Although there was no ban on commercial practice by nurse-midwives, almost half of the aspiring nurse-midwives were unaware that commercial practice was legally possible. When aspiring nurse-midwives were asked why they had not established their own commercial practices, almost all of them cited lack of knowledge of the requisite legal procedures. Nurse-midwives also reported that they were limited by the government requirement that they be supervised by a doctor, through which they can refer patients to hospitals, dispense drugs, and receive payments for their services from insurance companies. Furthermore, many of the participants pointed out that the various governing bodies, including the Health Department, the Department of Works, and the MOH, had contradictory policies and regulations regarding nurse-midwives and commercial family planning practice. Even a representative of the Midwifery Association was unable to explain the procedures required to become a private family planning provider.

There are also government-imposed restrictions in Zimbabwe on the distribution of contraceptives. Adamchak's research in Zimbabwe (1996) indicated that doctors and nurse-midwives were limited by restrictions on the methods they could distribute. A number of professional sources reported that the regulation requiring doctors to have a license to distribute oral contraceptives acted as an obstacle to commercial sector family planning practice. Although non-physician, public sector health care providers were not subject to restrictions on the distribution of contraceptives, Adamchak found that the Drug Control Council required private doctors to pass an exam proving they are familiar with procedures for safe handling and dispensing of contraceptive products to obtain a license to distribute oral contraceptives. Furthermore, Adamchak found that private doctors who operated within five kilometers of a pharmacy were not allowed to distribute contraceptives and that commercial providers (doctors and private pharmacists) who offered oral contraceptives were not allowed to advertise in the mass media.

Research in Romania indicates that government controls on location of commercial pharmacies, advertising, and profits have limited their growth. According to Romanian pharmacists who participated in focus groups, pharmacy locations were designated by the government according to the size of the population in the area (Sherpick and Hopstock, 1996). The focus group participants asserted that government controls on the location of pharmacies had led to an undersupply of pharmacists in the rural areas. They also indicated that their business was limited by the restriction that prohibited advertising of contraceptive products.

A survey of Romanian pharmacists and subsequent discussions with the National Pharmacists Association indicated that government-imposed price controls on pharmacy products limit the sale of contraceptives. Markups between 6 and 25 percent are allowed, with smaller markups on higher-priced items. This limits profit margins, which acts as a disencentive for the stock and sale of commercial contraceptives (PROFIT/Romania, 1997).

Similarly, research in Jamaica indicated that although advertising of contraceptive products was permitted, the Ministry of Health had to approve any advertisements for name brand products (Futures, 1992).

#### 3.2.2 Limited Revenue Potential

As discussed above, profitability was identified as one of the principal factors that motivates health care providers to offer commercial family planning services. Research also indicates that actual or perceived threats to profitability can limit interest and involvement in the commercial sector family planning sector. The research suggests that the profitability of commercial family planning services can be affected by: (a) the availability of subsidized family planning services and contraceptive products; (b) limited access to capital; (c) cash flow problems; and (d) lack of access to commercial distribution channels. Each of these factors is described below.

#### 3.2.2.1 Competition with Subsidized Family Planning Services and Products

Studies indicate that the revenue potential of commercial family planning providers is limited by the availability of subsidized services. Even in countries with a sufficient number of consumers capable of paying for their services, research has shown that commercial family planning providers find it difficult to compete with subsidized services and commodities provided by the government.

For example, findings from research in India indicated that the government's provision of free services and the public's perception that the government was the main or only source of family planning services limited the demand for services from private rural doctors (Futures, 1994). Private rural doctors who were surveyed said that they saw few opportunities for financial gain in expanding their practice to include family planning clients (Sri, Marg, and Mode, 1992). In addition, a study by the Center for Reproductive Law and Policy (1995) found that the government also manufactured and distributed contraceptives at highly subsidized prices.

In Zimbabwe, although there are a substantial number of contraceptors who are capable of paying for commercially-priced services, Huber et al. (1994) found that the government's successful provision of low-cost or free family planning services to the majority of the population through the Zimbabwe National Family Planning Council (ZNFPC) has limited both the market for commercial services and products and the incentive for greater public/private collaboration. Huber et al. also found that the widespread availability of free or subsidized contraceptive methods constrained what reasonably priced methods commercial providers could offer.

Adamchak (1996) also found that commercial providers in Zimbabwe are challenged by the government's sale of donated or highly-subsidized commodities to the commercial sector. In order to cross-subsidize its programs, the ZNFPC sells donated or highly-subsidized products at prices that would be impossible to match within the normal importing system. The presence of widely available subsidized public sector goods decreased or eliminated the market for, and therefore the revenue potential of, commercially-priced services and products offered by commercial providers.

A lack of access to appropriately priced contraceptives constrains private providers in a number of ways. For example, private doctors had to refer their clients to pharmacies to purchase IUDs, who then returned to have them inserted (Adamchak, 1996). In focus groups discussions with private doctors, however, the doctors reported that in some cases clients were not able to purchase methods due to the exorbitant prices (Lunga and Musarurwa, 1996). Many reported having to send clients who came to them for family planning services directly to ZNFPC to avoid the frustration of not having access to appropriately priced contraceptives.

In Indonesia, Ravenholt (1996) found that midwives who offered commercial family planning services used publicly-procured contraceptives due to the high cost of commercial methods. Her study concluded that, due to the widespread availability of free or low cost public sector methods, midwives were constrained from establishing truly commercial practices due to their continued reliance on subsidized products. This continued reliance on publicly-procured contraceptives limits the demand for commercial products, which, in turn influences their availability over time.

In the Philippines, when private doctors and midwives were asked why they thought consumers use public sector family planning services, the majority of the respondents cited the lower fees charged for public sector services and contraceptive methods (PULSE, 1995). A majority of the doctors and a substantial minority of the midwives said that contraceptives offered by the public sector are either free of charge or less expensive than those available from private providers.

#### 3.2.2.2 Limited Access to Capital

Health care providers who offer commercial family planning services require capital to start or expand a commercial practice. Depending on the type of commercial practice and the services offered, the capital necessary to initiate or expand family planning services will vary, yet in most cases the minimum requirements include an adequate locale, basic equipment and medical supplies, and contraceptive methods. However, research in a number of countries indicates that lack of access to capital prevents many health care providers from being able to offer commercial family planning services.

For example, nurse-midwives in Zimbabwe indicated that they were constrained from starting their own commercial practices due to a lack of access to the capital required to equip a practice site that met the regulations of the health professional governing bodies (SEATS, 1996). Similarly, nurses in the Philippines were confronted by economic constraints in establishing their own commercial family planning practices, since few had the collateral necessary to secure a commercial loan, and therefore could not afford to refurbish facilities or purchase needed equipment (PSRC, 1994).

#### 3.2.2.3 Cash Flow Problems

Slow reimbursement from the government or insurance companies has been found to be an important financial constraint to commercial providers. When asked to describe the problems they had in running their pharmacies, 59 percent of the Romanian commercial pharmacists surveyed reported cash flow problems (Sherpick and Hopstock, 1996). Although the government required pharmacies to sell discounted contraceptives to clients who were unable to pay full price, 41 percent of the pharmacists reported that slow government reimbursement for discounted prescriptions was a major constraint to efficient cash flow management. As a result of delays in government reimbursements, private pharmacists had to borrow from banks or friends to pay for supplies or purchase from suppliers who would extend them credit.

Similarly, in Zimbabwe, one third of the doctors participating in in-depth interviews cited cash flow problems, which were due to insurance companies not reimbursing them for certain contraceptive methods (Reed, 1995b). Nurse-midwives also experienced difficulties charging insurance companies for their services.

A focus group study of 25 private doctors in Zimbabwe also indicated that, in some cases, the insurance companies did not reimburse them for certain family planning services or that reimbursements were delayed (Lunga and Musarurwa, 1996). Some of the doctors did not know that they could be reimbursed for family planning services, while others did not know how to submit family planning-related claims.

#### 3.2.2.4 Limited Access to Commercial Distribution Channels

Studies have shown that the lack of access to commercial distribution channels also has an important impact on the profitability of family planning services. Because of the limited revenue potential of commercial services in rural areas, there has been little incentive to expand distribution channels for commercial products (including contraceptives) in those areas.

Research conducted by Adamchak (1996) indicated that there were very few commercial outlets in Zimbabwe, which, in turn, limited the expansion of commercial providers. Although commercial pharmaceutical vendors had attempted to import commercial products, these efforts had not proven to be profitable because of government subsidized supplies. Huber et al. (1994) found that there are were only 130-160 pharmacies in the country that dispensed oral contraceptives and that new outlets were very expensive to develop.

According to Ravenholt's (1996) research In Indonesia, the ratio of commercial pharmacies to people was 1:44,000, a number which the representatives of the commercial pharmaceutical sector deemed as insufficient to meet the needs of Indonesian contraceptive users.

## 3.3 Lack of Training

Studies in a number of countries suggest that private providers are limited in providing family planning services due to their lack of training. In Zimbabwe, for example, nine of the fifteen private doctors who participated in in-depth interviews cited lack of training when asked about what discouraged them from offering family planning services (Reed, 1995b). Another focus group study (Lunga and Musarurwa, 1996) found that those doctors who did not offer family planning services beyond oral contraceptives were constrained by lack of training. Doctors reported that, due to a lack of specialized family planning skills, they became frustrated when they were unable to meet their clients' needs and had to refer clients to other providers. Doctors also reported that they had no way of keeping abreast of current practices in family planning due to limited amount of information available and the lack of continuing education. Nurse-midwives in Zimbabwe also cited their lack of training as an important obstacle to the provision of family planning services (Reed, 1995a).

Adamchak (1996) found similar constraints for private pharmacists in Zimbabwe. Although pharmacists are legally authorized to start women on oral contraceptives, due to insufficient training many pharmacists mainly used this authority to continue women on contraceptives once a doctor had prescribed them. Like private doctors, pharmacists interviewed in Zimbabwe also reported a lack of clear, up-to-date information that they could use to counsel family planning clientele.

In the Philippines, both doctors and midwives pointed to their own lack of training as constraints to offering more family planning services (PULSE, 1995). In Jamaica, among other constraints mentioned, many private doctors, including specialists, reported that they were not properly trained in family planning (Bailey et al., 1994). Survey research (Sri, Marg, and Mode, 1992) in India showed that rural private doctors, who practiced an unregulated blend of traditional and Western medicine, usually had little training, yet were distributing oral contraceptives and condoms with surprising frequency. The study concluded that there was a clear cut need for university level training in family planning.

There are a variety of factors which influence consumers to choose commercial and non-commercial providers for family planning services and products. This section examines the perceptions and experiences of consumers in terms of how the public, nonprofit, and commercial sectors vary on those factors, and the extent to which those perceptions and experiences influence the choice of providers. The purpose of the section is to define the perceived advantages and disadvantages of commercial family planning providers.

Research studies which have compared perceptions of the commercial, nonprofit, and public sectors have examined a wide range of factors. These are described below under six major headings: (1) the quality of services; (2) the timeliness of services; (3) the privacy of services; (4) the convenience of the location; (5) the price of services; and (6) knowledge of alternative sources.

# 4.1 Quality of Services

When research studies have asked consumers to indicate the reasons why they chose their current family planning service provider or to rate service providers on a range of issues, one of the topics frequently addressed has concerned the quality of the services. This topic has most frequently been addressed in terms of: (1) the competence and/or friendliness of staff; (2) the quality/extent of the consultation; (3) the cleanliness/quality of the facilities; and (4) ratings from others (reputation) and client trust in quality of services.

#### 4.1.1 Competence And/or Friendliness of Staff

Seven recent DHS studies have included a question on the primary reason why the current source of family planning was used (i.e., only one response was permitted). One of the coded response categories was competence and friendliness of staff. Table IV-1 compares the percentages of women using commercial, nonprofit, and public sources for family planning who cited this factor as most important.

The competence and friendliness of staff appears to be a factor in the choice of commercial versus public sources for family planning services. As shown in *Table IV-1*, in four of the seven countries commercial clients were more likely to mention the competence and/or friendliness of staff than were public clients. Within the commercial sector, private doctors were particularly likely to be selected based on this factor, while this factor was seldom mentioned by clients of pharmacies. For example in Indonesia, the competence/friendliness of staff was mentioned as the primary selection

factor by 25 percent of those using private doctors, but by only 3 percent of those using private pharmacies.

TABLE IV-1 Family Planning Clients Citing Competence/Friendliness of Staff as the Most Important Factor in Selecting Source of Services (percent)				
	Sou	rce of Family Planning Service	ces	
Country (Year)	Commercial	Nonprofit	Public	
Indonesia (1994)	12.6	3.3	3.9	
Egypt (1995)	9.7*	N/A*-	6.4	
Colombia (1995)	4.2	16.5	6.5	
Guatemala (1995)	11.0	18.7	7.9	
Zimbabwe (1994)	8.1	5.3	4.5	
Uganda (1995)	7.1	3.5	9.2	
Kazakstan (1995)	0.0	13.0	8.9	
* Commercial and	nonprofit sources are combin	ed. Most are from commerci	al sources.	

A survey of 5,000 family planning clients in Egypt also suggested the relevance of this factor (Population Council, 1994). When asked the main reasons why they selected their service delivery source, 84 percent of clients of private physicians mentioned the competency of service provision. In comparison, only 53 percent of clients of public maternal and child health centers and 37 percent of clients of public rural health centers mentioned this factor. In addition, 47 percent of clients of private physicians cited the care and respect offered by the provider, in comparison to 30 percent of clients of public maternal and child health centers and 31 percent of clients of public rural health centers.

Similarly, in a study of 1,627 men and women aged 15-49 in the Philippines (PULSE, 1996), 39 percent of respondents indicated that they would prefer a private doctor or clinic for family planning services rather than a public clinic. When these respondents were asked to provide reasons for their choice, the two most frequently mentioned reasons were the competence of the staff (39 percent) and that staff were more accommodating and attentive (15 percent). Among all respondents, 50 percent indicated that a client would be more likely to find courteous staff in a private office, 16 percent thought courteous staff would be more likely in a public clinic, and 34 percent thought that there would be no difference.

When the commercial provider is a pharmacy, however, ratings on competence and friendliness are less positive. A study of 1,226 young adults in Romania asked respondents the three main reasons why they chose their source of contraceptive methods (Mercury, 1997). Among users of pharmacies,

32 percent mentioned the competence of providers and 10 percent mentioned the friendliness of providers. In contrast, among users of public family planning clinics, 50 percent mentioned competent providers and 25 percent mentioned friendly providers.

#### 4.1.2 Quality/Extent of Consultation

A second key aspect of the quality of family planning service provision is the extent and quality of the consultation, and the range and quality of methods which are available. Generally, commercial providers are rated as providing more detailed consultations, and this is a factor in why they are used.

Khalifa (1995) used data from the 1992 Egyptian DHS to compare the experiences of clients who had consulted a public or private medical provider before their current segment of use of oral contraceptives and IUDs. *Table IV-2* compares the consultations provided by public and private sources. In general, clients of private medical providers had consultations that included more quality elements than did clients of public providers. This study did not provide evidence, however, that the quality of the consultation influenced the choice of provider.

TABLE IV-2 Family Planning Clients Whose Consultation Included Specific Elements (percent)					
	Pill l	Jsers	IUD	Users	
Element of Service	Public	Private	Public	Private	
Had physical examination	84.9	96.1	98.7	99.6	
Shown how to use method	86.4	92.3	87.8	89.4	
Side effects described	55.9	58.7	59.5	70.5	
Told about other methods	41.9	51.8	45.2	57.1	
Source: Khalifa, 1995.					

A study of 4,710 women in Egypt (Population Council, 1994) also showed differences in the extensiveness of services provided. *Table IV-3* shows the percentages of women using private doctors, public maternal and child health centers, and rural health centers whose services included specific elements. As with the previous study, commercial providers included more quality elements in their services, though the study did not specifically relate quality elements to the choice of provider.

A study of women ages 15-49 years attending public clinics in Jamaica (Hope Enterprises, 1991) did provide evidence of the importance of this factor in selecting a commercial provider. When

asked to list the advantages of using a private doctor for family planning services, the most common response was that a private doctor provides a "better checkup" (30 percent of respondents).

TABLE IV-3 Family Planning Clients Whose Service Included Specific Elements (percent)								
	5	Source for Family Planning						
Element of Service	Public Maternal and Child Health Centers	Public Rural Health Centers	Private Physicians					
Had a chance to ask questions	59.1	45.2	82.7					
Received clear and adequate answers	97.5	97.4	99.6					
Were briefed on available contraceptives	44.1	63.4	59.6					
Got a clear idea on each contraceptive	87.8	89.2	92.5					
Received physical examination	81.4	55.1	96.9					
Had lab examination performed	8.1	15.3	14.4					
Method selected jointly by client and physician	12.9	11.0	19.6					
Were briefed on correct method of use	85.7	72.9	97.8					
Were briefed on possible side effects/complications	70.6	64.9	86.7					
Were told to change method if problem arose	46.5	52.2	63.1					
Were told what to do if side effect/complication occurred	93.2	90.2	94.4					
Consultation time considered adequate	84.5	55.7	99.2					
Revisit scheduled	36.9	25.7	50.7					
Source: Population Council, 1994.								

Similarly, a study of men and women ages 15 to 49 in the Philippines (PULSE, 1996) found that among those who were more likely to use a private doctor or clinic for family planning services, one of the reasons cited (by 7 percent of respondents) was that family planning methods were more

effective, safer, or more up-to-date. On the other hand among all of those surveyed, 47 percent of respondents believed that one was more likely to find a wide range of family planning methods available from public sources, 19 percent believed that a wide range was more likely from private sources, and 34 percent believed that there was no difference.

Commercial pharmacies, however, are not rated as highly as private physicians in terms of extensiveness of consultation. In a study of young adults in Romania (Mercury, 1997), among those who chose pharmacies for family planning, 27 percent cited the ability to ask questions and get answers as a main reason for using the source. In contrast, among users of public family planning clinics, 42 percent cited this factor.

# 4.1.3 Cleanliness and Quality of Facilities

A third aspect of the quality of services which has frequently been addressed is the cleanliness and quality of office facilities. The quality of facilities does not appear to be a major factor in the selection of commercial versus public providers, though the quality of waiting conditions is a factor in the choice of commercial providers.

In the recent DHS studies, for example, cleanliness of facilities was one of the coded response options for the question concerning the primary reason why family planning clients chose their current source of services. Cleanliness of facilities was not cited as the most important factor by a significant number of women, however. Across the seven countries, the percentage of women citing this factor as most important ranged from 0 percent (Zimbabwe) to 1 percent (Kazakstan), and there were no major differences based on the source of services.

Similarly, in a study of family planning clients in Egypt (Population Council, 1994), a well-equipped and clean facility was cited as a main reason for selecting a service source by only 13 percent of respondents. This factor was cited by 13 percent of clients of private doctors, 14 percent of clients of public maternal and child health centers, and 4 percent of clients of rural health centers. This study also asked about conditions in the waiting area, and found significant differences among providers. Among clients of private physicians, 98 percent waited in a separate waiting room or hall, in comparison to 78 percent of clients of public maternal and child health centers and 40 percent of clients of public rural health centers. While waiting, 99 percent of clients of private physicians sat on a chair to wait, in comparison to 83 percent of clients of public maternal and child health centers and 50 percent of clients of public rural health centers (the rest stood or sat on the floor).

In the Philippines, 11 percent of those using private doctors or clinics for family planning cited the available facilities as a reason for their choice (PULSE, 1996). Among all respondents, 59 percent indicated that a client would be more likely to find clean facilities in a private office, 9 percent thought clean facilities would be more likely in a public clinic, and 32 percent thought that there would be no difference.

#### 4.1.4 Ratings by Others, Reputation, and Trust

Another factor which has been examined in a number of studies is the general quality of services as perceived by the client and others trusted by the client. Commercial providers are generally positively rated on reputation and trust.

For example, in the study of men and women aged 15-49 in the Philippines (PULSE, 1996), 55 percent of respondents reported that one was more likely to get effective medical treatment from private doctors and clinics than from public sources. In contrast, 12 percent believed that effective medical treatment was more likely in the public sector, and 33 percent believed that there was no difference.

Similarly, in a study of family planning clients in Egypt (Population Council, 1994), trust in the provider was cited as a main reason for selecting their source by 56 percent of clients of private physicians, but by only 29 percent of clients of public maternal and child health centers and by 21 percent of clients of public rural health centers.

#### 4.2 Timeliness of Services

A second major category of factors which have been studied in relation to the choice of commercial versus other providers of family planning services is the timeliness of services. This category of factors has been addressed in two ways, in terms of: (1) the waiting time required to receive services; and (2) the number of hours of operation of the provider. Both a shorter waiting time for services and longer hours of operation appear to be significant factors in the selection of commercial family providers.

#### 4.2.1 Waiting Time

In recent DHS studies, respondents were asked to indicate the main reason why they selected their most recent source of family planning method, and a shorter waiting time was one of the coded responses. *Table IV-4* compares the percentages of women using commercial, nonprofit, and public sources for family planning who cited this factor as most important. In five of the seven countries, a shorter waiting time was more often cited as a selection factor for private providers than for other providers.

In a study of 700 current users in Jamaica (Hope, 1991), when asked about the advantages of private doctors, 26 percent of respondents cited a shorter waiting time. Similarly, in a study of men and women in the Philippines (PULSE, 1996), 69 percent of respondents believed that one was more likely to find long waiting times in public clinics, 14 percent thought that long waiting times were more likely in private offices or clinics, and 17 percent thought that there was no difference. Also, in a study of young

adults in Romania (Mercury, 1997), when asked about the three main reasons why they chose their most recent source of contraceptives, 32 percent of users of private pharmacies cited a minimal waiting time, and 37 percent commented on the fact that no special appointment was needed. For users of public family planning clinics, the comparable percentages were 0 percent (minimal waiting times) and 8 percent (no appointment needed).

TABLE IV-4 Family Planning Clients Citing Short Waiting Time as the Most Important Factor in Selecting Source of Services (percent)				
	Sou	rce of Family Planning Service	ces	
Country (Year)	Commercial	Nonprofit	Public	
Indonesia (1994)	3.5	0.6	0.5	
Egypt (1995)	0.4*	N/A*	0.2	
Colombia (1995)	1.8	1.6	0.3	
Guatemala (1995)	6.0	0.5	0.2	
Zimbabwe (1994)	27.9	3.3	1.0	
Uganda (1995)	0.0	2.6	1.2	
Kazakstan (1995)	0.0	0.0	0.3	
* Commercial and	nonprofit sources are combin	ed. Most are from commerci	al sources.	

The one study which asked for actual waiting times, however, did not support these perceptions. Among users of family planning services in Egypt (Population Council, 1994), the average reported waiting time for public maternal and child health centers was 24 minutes, for public rural health centers 15 minutes, and for private physicians 28 minutes.

# 4.2.2 Hours of Operation

A second key factor affecting the timeliness of services is the number of hours in which the service provider is in operation. In recent DHS studies, when respondents were asked about the main reason for using their current source of family planning, hours of operation was one of the coded responses. This factor was not commonly cited, but in four of the seven countries, longer hours of operation was more often cited as a selection factor for private providers than for other providers.

This factor was also examined in a study of men and women in the Philippines (PULSE, 1996). Among all respondents, 61 percent of respondents believed that one was more likely to find convenient office hours in private offices or clinics, 16 percent thought that convenient office hours were more likely in public clinics, and 23 percent thought that there was no difference.

#### 4.3 Privacy

A third major category of factors which have been related to the choice of commercial versus other providers of family planning services is the privacy associated with those services. This category of factors has been addressed in two ways, in terms of: (1) the privacy of the conditions; and (2) the anonymity of the services. Privacy of services appears to be a factor in the selection of commercial family planning sources, but anonymity of services does not appear to be a factor.

# 4.3.1 Privacy of Services

When respondents in recent DHS studies were asked about the major reason for choosing their most recent source of family planning services, one of the coded responses was the privacy of services. *Table IV-5* compares the percentages of women using various sources for family planning who cited privacy as most important. In four of the seven countries, privacy of services was more often cited as a selection factor for private providers than for other providers.

These data were supported by findings among men and women in the Philippines (PULSE, 1996). When users of private doctors or clinics were asked why they did so, 7 percent cited greater privacy than with other sources. Among all respondents, 71 percent believed that one was more likely to find privacy in private offices or clinics, 11 percent thought that privacy was more likely in public clinics, and 18 percent thought that there was no difference. In a study of family planning users in Jamaica (Hope, 1991), 5 percent of respondents thought that the main advantage of using a private doctor was privacy.

TABLE IV-5 Family Planning Clients Citing More Privacy as the Most Important Factor in Selecting Source of Services (percent)				
	Sou	rce of Family Planning Service	ces	
Country (Year)	Commercial	Nonprofit	Public	
Indonesia (1994)	8.4	2.0	1.5	
Egypt (1995)	0.9*	N/A*	0.8	
Colombia (1995)	1.6	1.3	0.1	
Guatemala (1995)	4.0	3.7	1.3	
Zimbabwe (1994)	3.4	4.7	0.9	
Uganda (1995)	0.0	0.4	1.0	
Kazakstan (1995)	0.0	0.0	1.8	

# 4.3.2 Anonymity of Services

A second aspect of privacy of services is the anonymity under which they are offered. In recent DHS studies, anonymity was also one of the coded responses to the question of the major reason why respondents chose their most recent source of family planning services. There was no clear pattern of differences on this factor.

Commercial and nonprofit sources are combined. Most are from commercial sources.

A study of young adults in Romania (Mercury, 1997) also did not show major differences on this factor. When asked the three main reasons why they chose their most recent source of contraceptives, 29 percent of clients of private pharmacies cited confidentiality, while 25 percent of clients of public family planning clinics cited this factor.

#### 4.4 Convenience of Location

A fourth major category of factors which have been studied in terms of the choice of family planning providers relate to the convenience of the location. This topic has been addressed in one of four ways, in terms of: (1) the rated proximity to the home or workplace and ease of access; (2) whether transportation was available to the location; (3) the travel time and cost; and (4) whether other

services were available at the same location. In general, convenience of source does not appear to be a consistent major factor in the selection of a family planning source.

## 4.4.1 Proximity to Home or Workplace and Ease of Access

In recent DHS studies, two of the coded responses to the question of why a source of family planning services were selected involved proximity to the home and workplace. Proximity to the home and workplace appeared to be related to the choice of commercial versus public sources. In six of the seven countries, users of commercial sources cited proximity to the home more frequently, though in three of those countries the difference was not large. In four of the seven countries, proximity to the workplace or market was more often cited by clients of commercial sources.

On the other hand, a number of research studies have examined accessibility of services as a factor without specifying whether the source was close to the home or workplace/market. These studies appear to indicate that commercial sources of family planning are perceived to be somewhat less accessible than public sources.

For example in a study of family planning clients in Egypt (Population Council, 1994), when respondents were asked to list the main reasons for selecting their source, 42 percent of clients of public maternal and child health centers and 91 percent of clients of public rural health centers cited accessibility as a reason. In contrast, only 21 percent of clients of private physicians listed this factor.

In a study of family planning users in Jamaica (Hope, 1991), 19 percent of respondents reported that a reason for not using a private doctor was that a public clinic was nearer. Similarly, in a study of men and women in the Philippines (PULSE, 1996), among those using public clinics for family planning, 10 percent cited accessibility as a reason. Among all respondents in the study, 40 percent believed that one was more likely to find an accessible location for a public clinic, 30 percent thought that an accessible location was more likely in a private clinic or office, and 30 percent thought that there was no difference.

#### 4.4.2 Travel Time and Cost

Two studies in Egypt examined the actual travel time and cost of getting to a source of family planning. Analysis of data from the 1992 Egypt DHS (Khalifa, 1995) suggested few differences in accessibility. Among pill users, the median reported time required to reach a public source was 15.6 minutes and the median reported time to reach a private source was 10.6 minutes. Among IUD users, the medians were 20.4 minutes for clients of public sources and 20.3 minutes for clients of private sources.

In a study of family planning users in Egypt (Population Council, 1994), the average travel time was 25.4 minutes for clients of public maternal and child health centers, 15.7 minutes for clients of public rural health centers, and 26.6 minutes for clients of private physicians. Reflecting their higher socio-economic status, clients of private physicians were more likely to use some form of transport (66

percent) than were clients of public maternal and child health centers (51 percent) and clients of public rural health centers (12 percent). They were also more likely to use a private taxi or private car as a means of transport. These differences also were resulted in costs of transport which were on average 2-3 times as great as for public clients.

## 4.4.3 Transportation Available

Another coded response from recent DHS studies on the major reason why a particular service source was used concerned the availability of transportation. The results indicated that availability of transportation did not appear to be a major factor determining the choice of commercial versus public sources.

#### 4.4.4 Other Services Used at Same Location

Another factor related to the accessibility of family planning services is whether the client is receiving other services at the same location. The DHS studies also included this as a response option relating to why clients chose their most recent source of services. Table IV-6 compares the percentages of women who cited the use of other services at the location as the most important factor. The use of other services appeared to be a factor influencing clients to use public or nonprofit rather than commercial sources. In six of the seven countries, the use of other services at the location was more frequently mentioned by public than by commercial clients.

TABLE IV-6 Family Planning Clients Citing Use of Other Services at the Location as the Most Important Factor in Selecting Source of Services (percent)				
	So	urce of Family Planning Servic	es	
Country (Year)	Commercial	Nonprofit	Public	
Indonesia (1994)	5.3	5.4	9.1	
Egypt (1995)	0.9*	N/A*	1.0	
Colombia (1995)	1.4	3.9	5.2	
Guatemala (1995)	1.0	2.9	12.3	
Zimbabwe (1994)	9.5	6.9	4.1	
Uganda (1995)	0.0	2.2	1.6	
Kazakstan (1995)	0.0	2.2	3.4	

Commercial and nonprofit sources are combined. Most are from commercial sources.

#### 4.5 Price of Services

A fifth major category of factors which has been examined in terms of the choice of providers of family planning services is the price of services. The research clearly indicates that price is a key factor in the choice of public rather than commercial providers, because public services are usually highly subsidized. The research also shows, however, that most clients of family planning services are willing to pay more than they are currently paying.

In recent DHS studies, low price is one of the coded responses to the question of why clients chose their most recent source of services. *Table IV-7* shows the percentages of women using commercial, nonprofit, and public sources for family planning who cited the price of services as the most important factor. The price of services was clearly a factor influencing clients to use public or nonprofit rather than commercial sources. In all seven of the countries, price of services was more frequently mentioned by public and nonprofit clients than by commercial clients.

Data from other studies also suggest the importance of price as a factor in the selection of public versus commercial family planning providers. In a study of family planning clients in Egypt (Population Council, 1994), 64 percent of clients of public maternal and child health centers and 62 percent of clients of public rural health centers cited "appropriateness of cost" as a main reason for selecting their source of services. In contrast, only 14 percent of clients of private physicians cited cost as a main reason for their selection.

TABLE IV-7 Family Planning Clients Citing Price of Services as the Most Important Factor in Selecting Source of Services (percent)				
es				
Public				
12.0				
7.6				
13.2				

17.1

4.7

0.6

15.2

14.9

5.1

4.7

1.8

Commercial and nonprofit sources are combined. Most are from commercial sources.

3.0

1.6

0.0

0.0

Guatemala (1995)

Zimbabwe (1994)

Kazakstan (1995)

Uganda (1995)

In a study in the Philippines (PULSE, 1996), among those more likely to use public family planning services, the reason most frequent given for that choice was price (70 percent of respondents). Among all respondents, 80 percent believed that one was more likely to find affordable prices at a public clinic, 12 percent thought that affordable prices were more likely in a private clinic or office, and 8 percent thought that there was no difference. Similarly, among women aged 15 to 49 in Jamaica (Hope, 1991), the primary reason given for not using a private doctor for family planning (51 percent of respondents) was the price of the visit.

While price is clearly an important factor in selection of a source, it is interesting to note that in DHS studies price was listed as the most important factor by 2 percent (Kazakstan) to 14 percent (Guatemala) of the respondents, depending on the country. Accessibility factors were mentioned more frequently in six of the seven countries, and quality factors were mentioned more frequently in five of the seven countries.

There is also evidence that clients are willing to pay more than they currently do for family planning services. Data from the 1992 Egypt DHS (Khalifa, 1995) indicated that 89 percent of pill users and 73 percent of IUD users were willing to pay more for their contraceptives. This was true across all levels of standard of living, where the percentage of pill users willing to pay more ranged from 87 percent to 91 percent across standard of living groups and for IUD users from 68 percent to 76 percent across groups. The median prices for a cycle of pills was .11 Egyptian pounds for those using the public sector and .36 pounds for those using the private sector. The median acceptable prices as reported were 1.6 and 2.4 pounds per cycle. The median prices for IUD insertions were 3.5 pounds

(public sources) and 7.5 pounds (private sources), but the median reported acceptable prices were 11.0 pounds and 25.3 pounds.

In a study of family planning clients in Egypt (Population Council, 1994), data were also collected on payments and perceptions of those payments. Those data are summarized in *Table IV-8*. Although only 10-16 percent of clients in this study reported being willing to pay more (in a previous item most had rated the price as "suitable"), those in the public sector who were willing to pay more suggested tripling the price and those in the commercial sector willing to pay more suggested doubling the price.

TABLE IV-8 Payments by Family Planning Clients For Services					
	Source of Family Planning				
Measure	Public Maternal and Child Health Centers	Public Rural Health Centers	Private Physicians		
Percentage of clients who did not pay	30.7	15.3	26.0		
Average payment (Egyptian pounds) for those who paid	1.68	0.78	12.0		
Percentage who paid who thought the price was "cheap"	23.6	38.0	12.0		
Percentage who paid who thought the price was "suitable"	75.2	59.7	76.4		
Percentage who paid who thought the price was "expensive"	1.2	2.2	11.5		
Percentage who paid who were willing to pay more	11.8	16.1	9.9		
Average suggested increase for payment (Egyptian pounds)	3.53	1.40	12.4		
Source: Population Council, 1994					

# 4.6 Lack of Knowledge of Other Sources

A final factor that has been examined relating to the selection of public versus commercial sources of family planning services is the lack of knowledge of any other sources. In recent DHS studies, lack of knowledge of alternatives is one of the coded responses to the question of why clients chose their most recent source of services. *Table IV-9* shows the percentages of women using various sources for family planning who cited lack of knowledge of an alternative as the most important factor. Results suggest that lack of knowledge is a factor influencing clients to use public rather than

commercial sources. In five of the seven countries, lack of knowledge of other sources was more frequently mentioned by public than by commercial clients.

TABLE IV-9 Family Planning Clients Citing Lack of Knowledge of Other Sources as the Most Important Factor in Selecting Source of Services (percent)							
	Sou	rce of Family Planning Service	ces				
Country (Year)	Commercial Nonprofit Public						
Indonesia (1994)	0.0	0.0	0.0				
Egypt (1995)	51.1*	N/A*	55.5				
Colombia (1995)	53.5	50.8	43.9				
Guatemala (1995)	34.2	43.0	41.7				
Zimbabwe (1994)	7.0	17.6	23.1				
Uganda (1995)	23.5	47.5	34.8				
Kazakstan (1995)	45.0	32.6	57.4				
* Commercial and	nonprofit sources are combin	ed. Most are from commerci	al sources.				

The findings presented in this report suggest a number of conclusions about the involvement of the commercial sector in the provision of family planning services in developing countries:

- # The commercial sector currently plays a significant role in the provision of family planning in developing countries. Approximately one-fifth of all women in developing countries who use modern contraceptive methods receive them from commercial sources.
- # Commercial pharmacies are the leading commercial providers of family planning services, though commercial doctors, midwives, and shops or markets also play a meaningful role.
- # Commercial providers are more likely to offer supply methods (i.e., condoms, pills, and vaginals) and less likely to offer clinical methods (i.e., male and female sterilization) than are public providers.
- # The clients of commercial providers are more likely than average to be in the in higher socio-economic status categories. Clients in all socio-economic categories use commercial providers, however, when they are available.
- Providers are motivated to provide family planning services in the commercial sector by a range of factors, including profit potential, independence and flexibility of practice, and desire to have a positive social impact. They are constrained from doing so by government regulations, concerns about profitability and fiscal constraints, and lack of training.
- # Consumers prefer commercial providers based on perceived quality of service, shorter waiting times and longer hours of operation, better waiting conditions, and privacy of services. Consumers prefer public providers based on lower prices. There is evidence, however, that many consumers in developing countries may be willing to pay more than they currently do in order to receive higher quality services.

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- 1990 Nigeria
- 1990 Jordan
- 1990 Paraguay
- 1991 Yemen
- 1991 Dominican Republic
- 1991 Cameroon
- 1992 Niger
- 1992 Namibia
- 1992 Madagascar
- 1992 India
- 1992 Guinea
- 1992 Malawi
- 1992 Senegal
- 1992 Rwanda
- 1993 Bangladesh
- 1993 Burkina Faso
- 1993 El Salvador
- 1993 Romania
- 1993 Ghana
- 1993 Kenya
- 1993 Turkey
- 1993 Philippines
- 1994 Côte d'Ivoire
- 1994 Indonesia
- 1994 Central Africa
- 1994 Haiti
- 1994 Bolivia
- 1994 Zimbabwe
- 1995 Mali
- 1995 Morocco
- 1995 Egypt
- 1995 Guatemala
- 1995 Kazakstan
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# Appendix 1: Formula for Computing Sectoral Contributions

In order to compute the proportion of all married women of reproductive age utilizing family planning services within each sector, the following formula was used:

# Sources of Contraceptives for Married Women of

Appendix 2:

# Reproductive Age

Table A-1 Sources of Contraceptives for Married Women of Reproductive Age by Sector (percent)							
Country (Year of DHS)	Commercial	Nonprofit	Public	Other	Not Using	Total	
All Countries	6.7%	4.6%	22.8%	1.1%	64.8%	100%	
Dominican Republic (1991)	27.3	6.2	16.8	1.5	48.2	100	
Brazil (1996)	26.0	11.5	30.0	2.8	29.7	100	
Egypt (1995)	21.8	6.7	16.2	.7	54.6	100	
Colombia (1995)	21.7	21.1	16.1	0.5	40.6	100	
Trinidad & Tobago (1987)	18.0	0.0	25.8	0.5	55.7	100	
Paraguay (1990)	17.3	6.6	10.0	1.3	64.8	100	
Morocco (1995)	14.5	1.2	26.5	0.1	57.7	100	
Ecuador (1987)	14.3	5.4	13.6	2.5	64.2	100	
Turkey (1993)	13.9	1.0	18.9	.7	65.5	100	
Indonesia (1994)	12.2	12.3	25.3	2.2	48.0	100	
Jordan (1990)	9.4	10.5	6.5	.4	73.2	100	
Tunesia (1988)	9.1	0.0	30.9	0.4	59.6	100	
Mexico (1987)	8.9	0.0	15.2	0.5	75.4	100	
Romania (1993)	8.2	0.2	4.3	1.2	86.1	100	
Peru (1996)	7.7	4.5	28.7	0.3	58.8	100	
Bolivia (1994)	7.5	3.8	5.9	0.6	82.2	100	
El Salvador (1993)	6.6	7.5	30.9	2.9	52.1	100	
Bangladesh (1993/4)	5.6	0.0	28.7	1.9	63.8	100	
Ghana (1993)	4.9	0.6	4.4	0.3	89.8	100	
Thailand (1987)	4.7	6.2	52.1	0.6	36.4	100	
Haiti (1994/5)	3.8	1.7	7.2	0.5	86.8	100	

Table A-1
Sources of Contraceptives for Married Women of Reproductive Age by Sector (percent)

Country (Year of DHS)	Commercial	Nonprofit	Public	Other	Not Using	Total
All Countries	6.7%	4.6%	22.8%	1.1%	64.8%	100%
Guatemala (1995)	3.6	15.6	7.3	0.5	73.0	100
Sri Lanka (1987)	3.1	1.3	34.7	1.5	59.4	100
Zimbabwe (1994)	3.0	2.4	35.9	0.9	57.8	100
India (1992/3)	2.7	4.0	28.8	0.9	63.6	100
Philippines (1993)	2.5	4.2	17.8	0.4	75.1	100
Zambia (1996)	2.3	2.5	8.5	1.0	85.7	100
Pakistan (1990/1)	2.0	0.7	5.0	1.3	91.0	100
Yemen (1991/2)	2.0	0.7	2.9	0.5	93.9	100
Cote d'Ivoire (1994)	2.0	1.0	1.1	0.3	95.6	100
Sudan (1989/90)	1.8	0.1	3.2	0.4	94.5	100
Tanzania (1996)	1.8	1.0	9.9	0.6	86.7	100
Cameroon (1991)	1.6	1.0	1.3	0.4	95.7	100
Botswana (1988)	1.5	0.0	29.9	0.3	68.3	100
Namibia (1992)	1.5	1.4	22.5	0.7	73.9	100
Nepal (1996)	1.4	2.6	20.9	1.1	74.0	100
Kenya (1993)	1.1	6.7	18.6	0.9	72.7	100
Mali (1995/6)	1.1	0.9	2.3	0.2	95.5	100
Madagascar (1992)	1.0	2.0	2.0	0.1	94.9	100
Benin (1996)	1.0	0.4	1.5	0.5	96.6	100
Togo (1988)	1.0	0.4	1.3	0.4	96.9	100
Liberia (1986)	1.0	0.7	3.8	0.0	94.5	100
Uganda (1995)	0.9	2.7	3.7	0.5	92.2	100
Comoros (1996)	0.9	0.2	8.8	1.5	88.6	100
Central Africa (1994/5)	0.8	0.5	1.6	0.3	96.8	100
Senegal (1992)	0.8	0.8	2.8	0.4	95.2	100
Kazakstan (1995)	0.7	0.0	42.9	2.5	53.9	100
Nigeria (1990)	0.6	1.3	1.4	0.2	96.5	100

Table A-1
Sources of Contraceptives for Married Women of Reproductive Age by Sector (percent)

Country (Year of DHS)	Commercial	Nonprofit	Public	Other	Not Using	Total
All Countries	6.7%	4.6%	22.8%	1.1%	64.8%	100%
Malawi (1992)	0.5	1.6	5.2	0.2	92.5	100
Burkina Faso (1993)	0.4	0.7	2.7	0.4	95.8	100
Guinea (1992)	0.3	0.0	0.6	0.1	99.0	100
Rwanda (1992)	0.2	0.0	12.4	0.3	87.1	100
Uzbekistan (1996)	0.1	0.1	50.4	0.7	48.7	100
Niger (1992)	0.1	0.0	2.2	0.0	97.6	100
Burundi (1987)	0.0	0.0	1.0	0.1	98.9	100