

When Donor Support Ends: The Fate of Social Marketing Products and the Markets They Help Create

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Acronyms

CMS	Commercial Market Strategies project
DHS	Demographic and Health Survey
GNI	Gross National Income
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
IPPF	International Planned Parenthood Federation
IUD	Intrauterine device
NGO	Non-governmental Organization
OC	Oral contraceptives
PSP-<i>One</i>	Private Sector Partnerships- <i>One</i> project (USAID-funded; 2005-2009)
SOMARC	Social Marketing for Change project (USAID-funded; 1984-1998)
STDs	Sexually transmitted diseases
TFHPF	Turkish Family Health and Planning Foundation
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development

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Executive Summary

Objectives: To assess the performance of social marketing interventions under the manufacturer's model, a model that has the potential to achieve sustainability (defined as continuing contraceptive availability after the withdrawal of donor support), in four middle-income countries.

Methods: Fifteen rounds of data from nationally representative surveys implemented in Morocco, the Dominican Republic, Peru, and Turkey between 1986 and 2003 are analyzed to determine changes in the commercial sector's share of oral contraceptives and condoms before and after the withdrawal of donor support. Attention is paid to changes in lower- and middle-income groups. Wealth quintiles are used as a proxy for economic status. Retail sales data on oral contraceptives (OCs) from 1994 to 2004 were available in Morocco and the Dominican Republic and are examined to determine sales volumes and prices of social marketing and other commercial brands.

Results: In Morocco, the commercial sector's market share of OCs was increasing rapidly prior to the initiation of social marketing activities (which included advertising and promoting a lower priced commercial OC brand) but the increase was concentrated among upper income women. Following the introduction of social marketing, commercial sector share started increasing among lower- and middle-income women. The commercial sector share of OCs among lower- and middle-income women continued to increase after partial withdrawal of donor support. Retail sales of both social marketing and commercial brands increased during the period that social marketing activities were implemented, as well as after donor support was partially withdrawn.

In the Dominican Republic, social marketing influenced public sector OC users to switch to commercial-sector sources. Retail sales of the social marketing brand fluctuated for a decade after graduation before they declined. The United Nations Population Fund's provision of donated contraceptives to the public sector may have influenced these fluctuations. Sales of other commercial brands were steadier and increased slowly after donor support was withdrawn. The commercial-sector share of OCs increased among lower- and middle-income women during the period that social marketing activities were conducted, but fluctuated following withdrawal of donor support.

In Peru, prior to the implementation of social marketing, the commercial-sector share of condoms increased dramatically; the growth was greater among higher-income women. During the period that advertising and promotion activities were conducted, the same trend continued. After the withdrawal of donor support, the commercial-sector share of condoms declined in all wealth quintiles. A change in government policy mandating the provision of free family planning may have had an impact on the commercial sector share.

In Turkey, data are only available for the period following withdrawal of donor support. By the time donor support was withdrawn, the commercial-market share of condoms among lower- and middle-income women was substantial. Following graduation, there was a slight decline in this proportion, although more than half of lower- and middle-income women continued to obtain condoms from the commercial sector.

Conclusions: Contraceptive social marketing interventions implemented under the manufacturer's model can contribute to a higher commercial-sector share of a method among lower- and middle-income women. Furthermore, this share may remain after donor support is withdrawn. The ability of social

marketing to effect such a change, however, is predicated on several conditions, including the absence of competition from other sources (such as the public sector); a substantial level of acceptance and use of the method, commercial-sector involvement in contraceptive provision prior to the introduction of social marketing; and commercial partners' commitment to continue funding promotional activities after donor support is withdrawn.

1. Introduction

Most social marketing of contraceptives in developing countries falls into one of two main service delivery models: the manufacturer's model and the non-governmental organization (NGO) model. The manufacturer's model has sustainability built into it: commercial contraceptive brands are selected with the expectation that they will remain commercially available after donor funding has ended (Armand, 2003a). This model emphasizes self-sufficiency through cost recovery by partnering with a manufacturer or distributor willing to market a contraceptive at a price that, while lower than the prices of other commercial brands, makes it profitable for the commercial partner to continue distributing and marketing the contraceptive. By contrast, the NGO model focuses on population groups that cannot afford to pay commercially viable prices: they market low-priced contraceptives to the poor through a continuing donor subsidy. NGO model social marketing programs focus on health impact by targeting population groups that cannot afford commercial prices. Hence, they remain donor dependent (Armand, 2003a). The different models are predicated upon the assumption that contraceptive prices become more inelastic as fertility declines and that the willingness to pay for contraceptives is higher in middle-income countries that have lower levels of fertility (Behrman, 1989).

The two models have been implemented in different economic contexts. The manufacturer's model is assumed to be more suitable to middle-income countries with a well developed commercial infrastructure – those with gross national income (GNI) per capita greater than \$825 and less than \$10,065. The NGO model is assumed to be better suited to low-income countries with less-developed commercial infrastructure (Armand, 2003b). There is a near absence of studies on the impact of projects implemented under the manufacturer's model. Although one recent study did examine the extent to which social marketing models have been used in different socio-economic contexts, it did not directly compare their impact (Meekers and Rahaim, 2005).

The present study assesses experiences with implementing the manufacturer's model in four middle-income countries where donor support was fully or partially withdrawn (the withdrawal of donor support is also referred to as "graduation"). This model was developed and implemented by the United States Agency for International Development (USAID) - funded Social Marketing for Change (SOMARC) project. SOMARC partnered with commercial manufacturers to market and distribute contraceptive brands priced at commercially profitable levels but affordable to lower- and middle-income consumers. Initial support by SOMARC was expected to lead to a sustainable supply of contraceptives that would remain reasonably priced to lower- and middle-income users after the donor's exit. While it was anticipated that these partnerships would lead to the development of commercial markets of sufficient size to motivate manufacturers to invest in advertising, promotion, detailing, and public relations beyond the project period, a minimum expectation was the increased commercial availability of contraceptives to lower- and middle-income consumers (Ravenholt, 1998).

This study investigates the effects of SOMARC's activities in the four countries. We look at the effects of four social marketing projects on the affordability and sustainability of commercially supplied contraceptives and on the overall use of the methods marketed. The study asks the following main questions: Did commercial market share increase after the initiation of social marketing? To what extent did the commercial market share increase among lower- and middle-income women? Were these changes sustained after donor support was withdrawn?

2. Background

Under a variety of regulatory environments and market circumstances, SOMARC implemented partnerships with manufacturers in countries where contraceptive demand was considered sufficient to make lower-priced, mass-market contraceptive brands commercially profitable (Ravenholt, 1998). These brands were either already available on the local market at higher commercial prices or were introduced at lower prices than what the commercial market would have sustained. Partnerships were developed with manufacturers with the understanding that donor funds would support advertising and promoting contraceptive methods or brands that would be supplied by manufacturers at prices affordable to lower- and middle-income consumers. Both the donor and the manufacturer were expected to gain from this relationship - donors would save on the cost of purchasing contraceptives; manufacturers would create commercial markets without needing to make risky investments.

The success of these partnerships hinged on several elements: SOMARC and the manufacturers' agreeing on prices that were affordable to low and middle income consumers, yet would provide sufficient profits to the manufacturer; SOMARC's marketing support being sufficient to grow the commercial contraceptive market, thereby creating incentives for manufacturers to introduce new brands or lower the prices of existing ones; a regulatory environment (including taxes on imported contraceptives, governmental price controls, and restrictions on brand advertising) that was conducive to commercial sector growth.

Although the process through which agreements were reached was documented for several countries (Ravenholt, 1998), there has been relatively little systematic, empirical analysis of these partnerships' impact on consumer behavior. One study, which examined sales and market research data in five countries for three to five years after condoms were graduated, suggests that there was an increase in the commercial condom market in all five countries and that lower- and middle-income consumers were offered commercially supplied contraceptives after graduation (Kincaid et al., 1996). As survey data collected under SOMARC did not comprise a representative sample of each country's population (Handyside et al., 1996), a careful analysis of representative consumer-level data is needed. In addition, it is important to assess the sustainability and affordability of commercially supplied contraceptives over a longer time frame and to examine social marketing experiences with both oral contraceptives (OCs) and condoms.

3. Data and Methods

3.1 Data

The Demographic and Health Surveys (DHS) were the primary data source for this study. DHS surveys are a useful source for a number of reasons: they are nationally representative; multiple rounds of DHS data are available for a number of developing countries; they use standardized questionnaires across countries, which makes them well-suited for multi-country studies; the quality of DHS data are generally considered to be high; and they are conducted among respondents of childbearing ages (15-49). A limitation of DHS data relevant to this study, however, is that surveys among males of childbearing age are relatively rare. Thus, it is not possible to examine trends for males using DHS data, which would be useful to study trends in the commercial market share for condoms. Data from a nationally representative survey conducted in 2000 by the Commercial Market Strategies (CMS) Project in Morocco is also used. Annex A gives the year and sample size for each survey used in this study.

Another data source for this study was retail sales data collected by IMS HEALTH, a supplier of market research data for the global pharmaceutical industry. IMS collects data about pharmaceutical products in over 80 countries. Retail pharmacies, wholesalers, and manufacturers are sampled. This enables both direct (from manufacturers to retail pharmacies) and indirect sales (from wholesalers to retail pharmacies) to be taken into account. Data on all brands in a particular category are collected regularly and projected to estimate sales for the total number of retail pharmacies in a country. IMS does not audit sales by manufacturers to other channels, such as government institutions (IMS HEALTH, 2004). Contraceptive retail sales data are available from IMS HEALTH from 1994 to 2004.

Contraceptive retail sales data are considered a more reliable proxy measure of contraceptive use than social marketing national sales data because sales at the retail level are proximal to consumer behavior. By contrast, national sales of social marketing brands (available from social marketing projects) represent sales of social marketing brands to the trade (namely to wholesalers and distributors) and may reflect not just contraceptives used, but also contraceptives in the distribution pipeline. A recent study shows that national sales provide a poor estimate of the actual number of condoms used by consumers (Meekers and Van Rossem, 2005). As a result, national sales of social marketing brands were not used in this analysis.

One limitation of retail sales is that they do not provide information on users' income segments or whether they live in urban or rural areas. Nor do retail sales provide any information about the total market, that is, public/NGO outlets and switching between the public and commercial sectors. Finally, retail sales figures are not available for condoms since IMS HEALTH only collects data on prescription drugs. Hence, the evidence base for the analysis is weaker for condoms (it is based only on DHS surveys) than for OCs (which is based on DHS surveys and retail sales).

3.2 Measures and Analysis

3.2.1 Dependent Variables

The primary outcome variables of interest for this study were the level of current method use and sources of supply. Current use represents the total market for a method, whereas sources of supply provide information on market share. Information on current method use is obtained from two questions asked in the DHS. Currently married women who are not pregnant are first asked “Are you currently doing something or using any method to delay or avoid getting pregnant?” Those who respond in the affirmative are asked “Which method are you using?”

Information on sources of supply is obtained by asking “Where did you obtain [method] the last time?” The DHS groups responses in the following main categories: private hospitals/clinics, private doctors, pharmacies, shops/stores, friends/relatives, NGO, government hospitals/clinics, and government health centers. We combined these sources into three main categories: commercial, public, and NGO/other.

3.2.2 Independent Variables

Economic status was the primary independent variable of interest for this study. As income data are not collected in the DHS, household asset data collected in the surveys were used as a proxy for wealth. Principal components analysis was used to develop wealth quintiles from household asset data (Filmer and Pritchett, 1999). Wealth quintiles based on household assets are often used as a proxy for economic status (Rutstein and Johnson, 2004) and have performed well in explaining differences in educational attainment and school attendance (Filmer and Pritchett, 2001). Consumption proxies based on assets have also provided reliable guidance in the study of fertility (Montgomery et al., 1999). Urban or rural residence is a second variable of interest. Data on residence in urban or rural areas are available in the DHS.

Lower- and middle-income economic status categories are of special interest to this study. Although there was no specific definition of lower- and middle-income groups in the SOMARC project, C and D income categories (out of a full range from A to E, with A being the richest and E representing the poorest) were analytically considered to represent lower- and middle-income groups. In each country, C and D category users were determined based on market research that indicated purchasing power (Foreit, 2005). For this paper, the third, fourth, and fifth quintiles represent lower- and middle-income groups. It is important to remember, however, that wealth quintiles represent relative, not absolute wealth. Furthermore, within each country, household asset questions may vary across DHS rounds. Wealth quintiles were constructed specific to each DHS round to better represent relative economic status categories at the time of the survey.

3.2.3 Analysis

The analysis assesses the contribution of the commercial, public, and NGO/other sectors to the total market for a contraceptive method over time. A total market approach is appropriate for this study because advertising and promotion of a social marketing brand may lead to the cannibalization of existing commercial brands without contributing to the development of the commercial market for that method. Hence, an exclusive focus on the use (or sales) of a specific brand may be misleading.

Data on current use of a method and the contribution of each sector to the total market (that is, the proportion of total use of a method that is due to consumers obtaining the method from commercial, public, or NGO/other sources) are presented. The commercial sector share refers to the proportion of total method use that is due to women obtaining the method from the commercial sector. It enables changes to be determined in the commercial sector share of the total market over time. We assume that the commercial sector share of the market is more responsive than overall method use to social marketing interventions. Overall use of a method may be influenced by a number of other factors in addition to the social marketing intervention, including the demand for and the availability of other contraceptive methods.

Changes in the profile of commercial and public sector users are also examined to determine whether there were any shifts of users from the public to commercial sector due to the introduction of lower priced commercial sector products through social marketing. Finally, retail sales and prices of OCs are presented to determine whether social marketing products remained on the market following graduation and whether these products remained affordable.

3.3 Countries selected for this study

Social marketing contraceptives were graduated in 10 countries^{1,2} between 1984 and 1996. SOMARC defined “graduation of a contraceptive” in terms of it becoming self-sufficient, with all costs related to the product’s initial purchase, promotion, distribution, and ongoing administration being recovered through its sales (Heilig, 1998). The primary criteria for the selection of countries for this study were that a social marketing contraceptive brand was successfully graduated, or partial graduation occurred because a follow-on project continued to provide some support to the product, and data were available to conduct this analysis.

Multiple rounds of nationally representative DHS surveys were available in seven of the eleven countries (including Morocco) in which products were graduated. All seven of these countries were initially considered for inclusion in this study, although three were later deemed not suitable: in Indonesia, the existence of a second social marketing program that sold subsidized condoms made it difficult to interpret the results; in Zimbabwe, the graduated condom was absorbed within a new social marketing project; in Haiti, political disturbances made procurement of contraceptives and, thus, interpretation of the impact of partnerships with the commercial sector, difficult. Countries included in this analysis were Morocco, the Dominican Republic, Peru, and Turkey.

Not all products that were graduated in these four countries are included in this study. A condom social marketing intervention implemented in Morocco was not included: although *Protex* condoms were graduated in 1993, the level of condom use was so low that it was not possible to examine the effects of the intervention using survey data. An OC intervention in Turkey, in which five OC brands were graduated in 1994, was also not included because data were not available for the period prior to graduation. Hence, the social marketing interventions included in this study represent a convenience sample of interventions implemented by SOMARC using the manufacturer’s model: their selection for their study was contingent upon the complete or partial graduation of products, the availability of DHS data, and changes in method use that would be discernable in a population-based survey.

¹ Barbados, Jamaica, Mexico, Papua New Guinea, Haiti, Indonesia, Zimbabwe, the Dominican Republic, Peru, and Turkey.

² In a number of countries, social marketing brands could not be graduated during the period that donor support was provided. In a few countries, like Morocco, partial graduation occurred as the Commercial Market Strategies continued to provide some support to the project after SOMARC.

4. Social Marketing Programs and Results

4.1 Morocco

4.1.1 The Social Marketing Program

Morocco is a middle-income³ country with GNI per capita of \$1,300 and a population of 30 million in 2003. From 1987 to 2003, fertility dropped from 7 to 3.1 children per woman while modern contraceptive use increased from 29 to 55 percent. OCs were the primary modern method of contraception, with 23 percent of currently married women using them in 1987 and 41 percent using them in 2003.

Social marketing activities began in Morocco in 1992. SOMARC negotiated with Wyeth to lower the price of *Minidril* and with Schering to offer *Microgynon* at the same price as *Minidril*. Both brands were then introduced under the SOMARC umbrella brand *Kinat Al Hilal* (Crescent Moon Pill). Wyeth and Schering lowered their prices in return for promotional support from SOMARC. Although Moroccan law usually prohibits advertising for branded pharmaceuticals, the Ministry of Health authorized SOMARC to promote *Kinat Al Hilal* directly to consumers. In addition, the Ministry negotiated discounted commercial airtime for advertising *Kinat Al Hilal* on national television and radio stations (Bonardi et al., 2004). Extensive mass media advertising, public relations activities, and pharmacist training in contraceptive technology were conducted between 1993 and 1995. Financial sustainability plans were developed in 1995 and a return-to-project fund was established. This fund enabled part of the revenues from sales to be invested in advertising and promotion of *Kinat Al Hilal*. By 1996, 50 percent of advertising support for *Kinat Al Hilal* was provided by the return-to-project fund. *Kinat Al Hilal* was partially graduated in December 1996 (SOMARC, 1998). Partial graduation in Morocco meant that the follow-on project to SOMARC, CMS, continued to provide salary support for a marketing specialist whose function was to develop and manage social marketing campaigns in collaboration with the commercial partners. No funding was provided for advertising and promotion activities after 1996.

4.1.2 Results

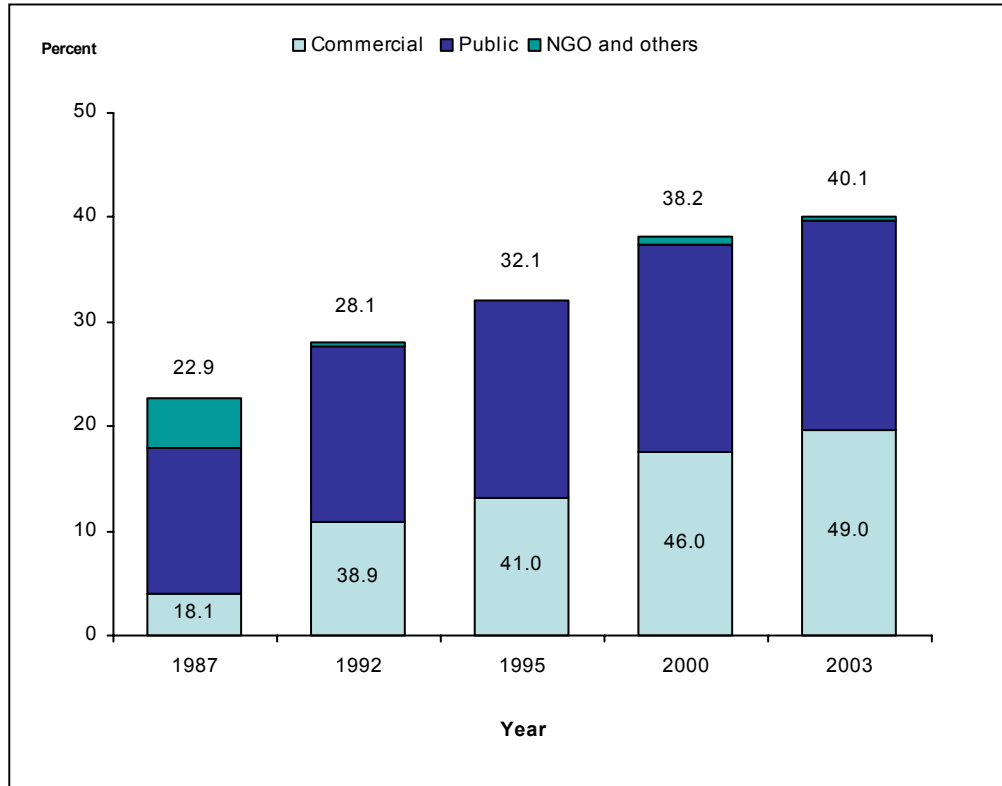
4.1.2.1 Overall OC use and commercial sector share

The availability of DHS data preceding the start of social marketing activities helps illustrate the changes that occurred in the commercial and public sectors prior to the introduction of social marketing activities. Figure 1 shows current pill use among married Moroccan women and the commercial, public, and NGO/other sector shares between 1987 and 2003. In 1987, five years before the initiation of SOMARC activities, OCs were the most widely used family planning method in Morocco: 23 percent of

³ The World Bank defines a middle-income country as one that has an annual GNI per capita that is more than \$825 and less than \$10,065 (<http://www.worldbank.org/data/countryclass/countryclass.html>).

married women used them. On average, OC use increased by 1.1 percentage points annually from 1987 to 2003, or by 17 percentage points in 16 years.

Figure 1⁴. Current pill use among married women, Morocco, 1987-2003



During this period, there was a dramatic increase in the commercial sector's share of the total market, from 18 percent in 1987 to 49 percent in 2003. The increase came largely at the expense of the NGO/other sector share, which declined from 22% to 1%. The decline in the public sector was relatively small and the public sector continued to provide half of OCs in 2003. It is noteworthy that the largest increase in the commercial sector share was prior to the initiation of social marketing activities: between 1987 and 1992, the commercial sector share more than doubled from 18 to 39 percent. This point will be further elaborated in the next section.

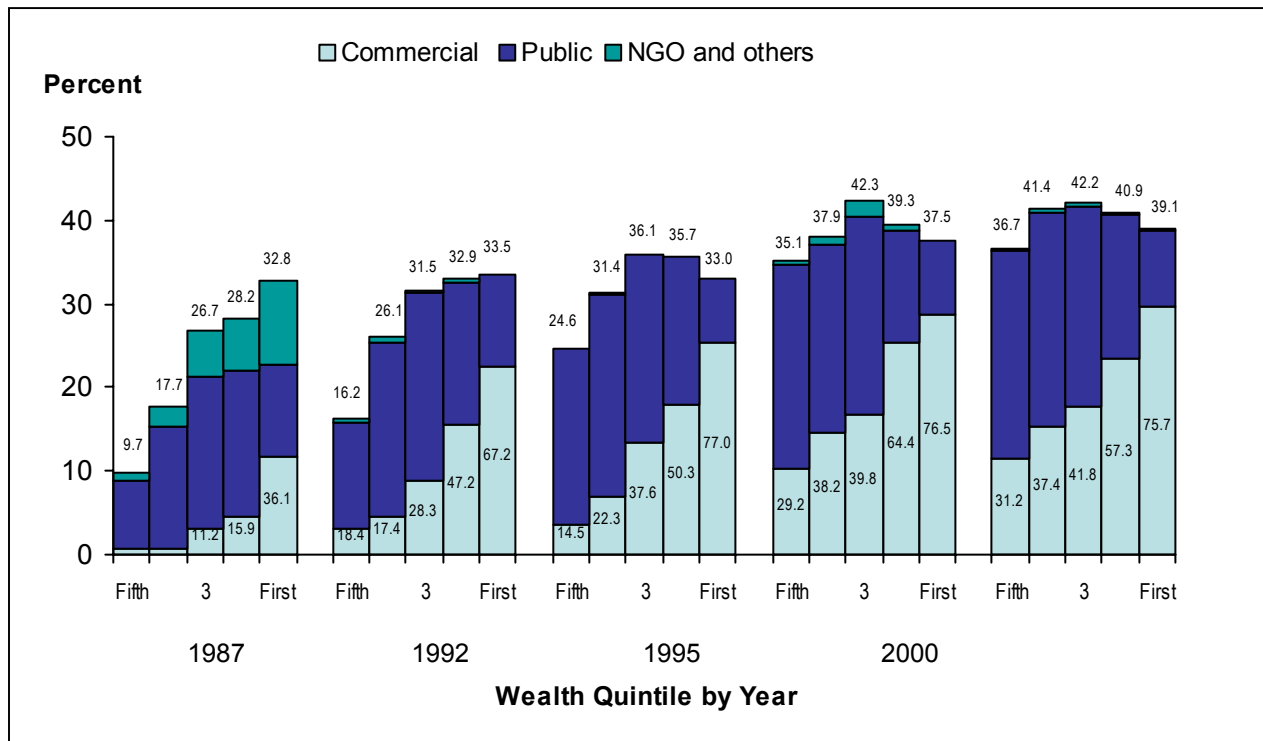
4.1.2.2 Commercial sector share among lower- and middle-income women

This section focuses on women in lower- and middle-income groups (that is, those in the third, fourth, and fifth wealth quintiles). Specifically, the following questions are addressed: Did the commercial sector share increase among lower- and middle-income consumers after the initiation of SOMARC activities? If it did increase, did that trend continue after partial graduation?

⁴ In the figures, numbers on top of bar are method prevalence, and numbers inside bars are the commercial sector share.

Figure 2 shows use of OCs by wealth quintiles and commercial, public, and NGO/other sector share. Between 1992 and 1995, when SOMARC advertising and promotion occurred, commercial sector share increased from 28 to 38 percent among women in the third quintile and from 17 to 22 percent among women in the fourth quintile. But it declined from 18 to 14 percent among women in the fifth quintile. Thus, commercial sector share increased among two of the three lowest quintiles after the initiation of SOMARC activities.

Figure 2⁵. Current pill use among married women by wealth quintile, Morocco, 1987-2003



Between 1995 and 2000, the period following partial graduation, the commercial sector share among women in the fourth quintile increased sharply, from 22 to 38 percent. Women in the fifth quintile experienced an increase in the commercial sector share of a similar magnitude, from 14 to 29 percent. Thus, the commercial sector share continued to grow among lower- and middle-income women after partial graduation.

Two other factors are noteworthy. First, a trend of rising OC use had been established among lower- and middle-income women prior to the initiation of social marketing activities: OC use increased among all three of the lowest quintiles between 1987 and 1992. Second, Figure 2 illustrates that the aforementioned, substantial overall increase in commercial sector share between 1987 and 1992 was concentrated among wealthier women: commercial sector share increased from 36 to 67 percent among women in the first quintile and from 16 to 47 percent among women in the second quintile. Hence, prior to the initiation of social marketing activities, increases in the commercial sector share were

⁵In this and other similar figures, the first quintile is the richest and the fifth quintile is the poorest. In addition, the commercial sector share is not shown when it is too low.

concentrated among upper income women. Following the introduction of social marketing, however, increases in commercial sector share were concentrated among lower- and middle-income women.

4.1.2.3 Residential and wealth profile of users

In this section, profiles of commercial and public sector OC users are examined to determine the extent to which those sectors served lower- and middle-income women and whether this changed after partial graduation. Profiles of users who obtained OCs from the commercial and public sectors are shown in Table 1. There was no change in the residential profile of public sector OC users between 1987 and 2003: about 47 percent of public sector OC users were urban residents. As OC use expanded and lower-income women started using this method, the public sector attracted many of these lower-income users: the proportion of public sector users in the three lowest quintiles increased from 59 percent in 1987 to 74 percent in 2003.

Table 1. Socio-demographic profile of oral contraceptive users, among women currently in union, who obtained the method from commercial and public sector sources, Morocco, 1987-2003.

Socio-demographic characteristics	Public sector users					Commercial sector users				
	(%)					(%)				
	1987	1992	1995	2000	2003	1987	1992	1995	2000	2003
Residence										
Urban	47.2	39.6	34.3	48.2	47.5	74.8	71.8	72.3	67.2	68.6
Rural	52.8	60.4	65.7	51.8	52.5	25.2	28.2	27.7	32.8	31.5
Wealth quintile										
1st (richest)	16.1	13.5	7.5	5.7	9.7	57.5	42.5	36.0	20.8	31.5
2nd	24.3	19.3	18.1	11.9	16.6	20.8	27.1	26.2	25.3	23.1
3rd	26.3	27.2	24.1	21.9	24.5	14.2	16.6	20.9	17.6	18.3
4th	21.1	25.1	27.4	30.6	25.5	4.0	8.4	11.4	22.2	15.8
5th (poorest)	12.1	15.1	22.8	29.9	23.8	3.5	5.4	5.5	14.2	11.3
N	744	862	470	210	1,795	226	560	325	187	1,724

Note: Total may not be 100% because of rounding.

Sources: Morocco 1987, 1992, 1995, and 2003 DHS, and CMS 2000.

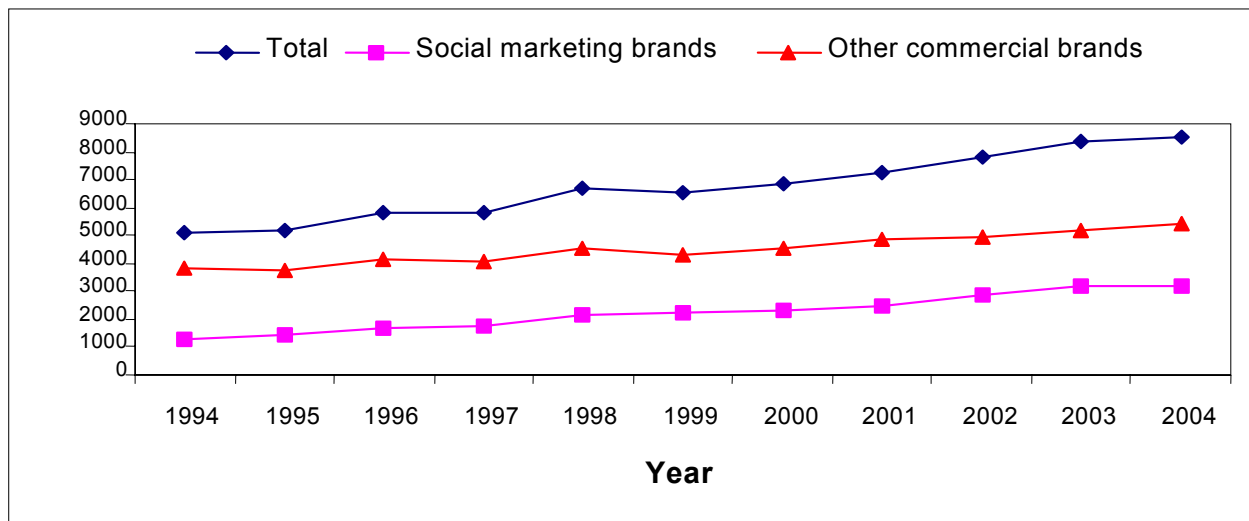
Once social marketing activities were initiated in 1992, the residential profile of commercial sector OC users changed slightly: the proportion of OC users from rural areas increased from 28 percent in 1992 to 31 percent in 2003. However, the change in the wealth profile of commercial sector OC users was more dramatic: the proportion of commercial sector OC users in the third, fourth, and fifth quintiles increased from 30 to 45 percent. Hence the commercial sector successfully attracted a significant proportion of new lower-income users of OCs. These findings suggest that as more lower- and middle-income women started using OCs, many of them could afford to purchase them from the commercial sector.

4.1.2.4 Retail sales of social marketing and other commercial brands

Figure 3 shows retail sales of OCs in Morocco. From 1994 to 1996, when advertising and promotion of *Kinat Al Hilal* occurred, retail sales increased from 5.1 to 5.8 million cycles. Sales of both social marketing and other commercial brands increased during this period, although social marketing sales increased more rapidly - from 1.3 to 1.7 million cycles (or by approximately 32%); sales of other commercial brands increased from 3.8 to 4.1 million cycles (or by 7%). Although it is difficult to state with certainty from the available data, it is possible that social marketing advertising and promotion from 1994 to 1996 may have inhibited the growth of other commercial brands (the commercial sector grew slowly during this period). Even if this speculation is correct, the data do show that sales of social marketing and other commercial brands picked up after 1996. From 1997 to 2004, sales of social marketing brands increased by about 90 percent (from 1.7 to 3.2 million cycles) and of other commercial brands by just over 30 percent (from 4.1 to 5.4 million cycles). Thus, markets for social marketing and other commercial brands increased during the period that social marketing activities were implemented, as well as the period following partial graduation.

Retail sales data show that social marketing brands comprised only 25 percent of the commercial market in 1994. This proportion increased to 28% in 1996 and to 37% in 2004. Hence, the lower priced social marketing brand became a more important part of the commercial supply of oral contraceptives, even as the sale of higher priced commercial brands grew. This result was probably due to social marketing attracting lower- and middle-income women (a group larger in size than upper-income women) as they became adopters of OCs.

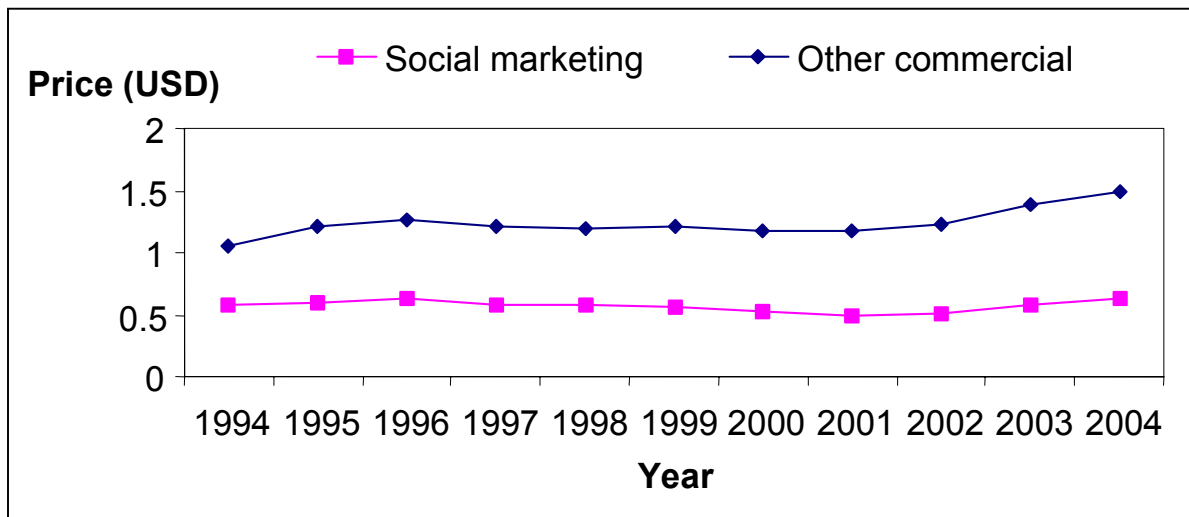
Figure 3. Retail sales of OCs in 000s of cycles, Morocco, 1994-2004



4.1.2.5 Retail prices of social marketing and other commercial brands

Figure 4 shows the average retail price per unit of social marketing brands and other commercial brands. The average retail price of social marketing brands remained at just over \$0.50 per unit between 1994 and 2004. The average price of other commercial brands was about \$1.25 until 2002 and increased to \$1.50 in 2004. These findings show that manufacturers did not raise prices of social marketing OCs after partial graduation and that social marketing brands remained less than half the price of other commercial brands.

Figure 4. Average price per cycle of oral contraceptives, Morocco, 1994-2004



4.2 Dominican Republic

4.2.1 The Social Marketing Program

The Dominican Republic is a middle-income country with a GNI per capita of \$2,100 and a population of 8.7 million in 2003. By 1986, modern contraceptive use had reached 46% percent and the fertility rate had declined to 3.7 children per woman. From 1986 to 2002, fertility declined to 2.7 children per woman, as modern contraceptive use rose to 66%. Female sterilization was the most commonly used family planning method in 1986 and remained so until 2002: 33% of women married or in cohabiting union in 1986 and 46% in 2002 were sterilized. OCs were the second most widely used method: 9% of women in union in 1986 and 13% in 2002 used them.

Being an affiliate of the International Planned Parenthood Federation (IPPF), PROFAMILIA could purchase *Microgynon* OCs from Schering at the IPPF discount price of \$0.34 per cycle. In August 1985, PROFAMILIA reached an agreement with Schering's local subsidiary, Schering Dominicana, to sell *Microgynon* to Schering Dominicana at \$1 per cycle for resale to pharmacies. PROFAMILIA's profit from this transaction enabled it to pay for advertising of *Microgynon*. This arrangement also enabled Schering Dominicana to purchase *Microgynon* at a lower price than it would have been able to if it purchased *Microgynon* directly from Schering. Moreover, Schering Dominicana did not have to invest in building the brand. In return, Schering Dominicana was responsible for distributing the product

throughout the country. Pharmacies could sell the OCs to consumers at \$1.56 per cycle, which was about half of their normal commercial price of oral contraceptives in the Dominican Republic (Green, 1988).

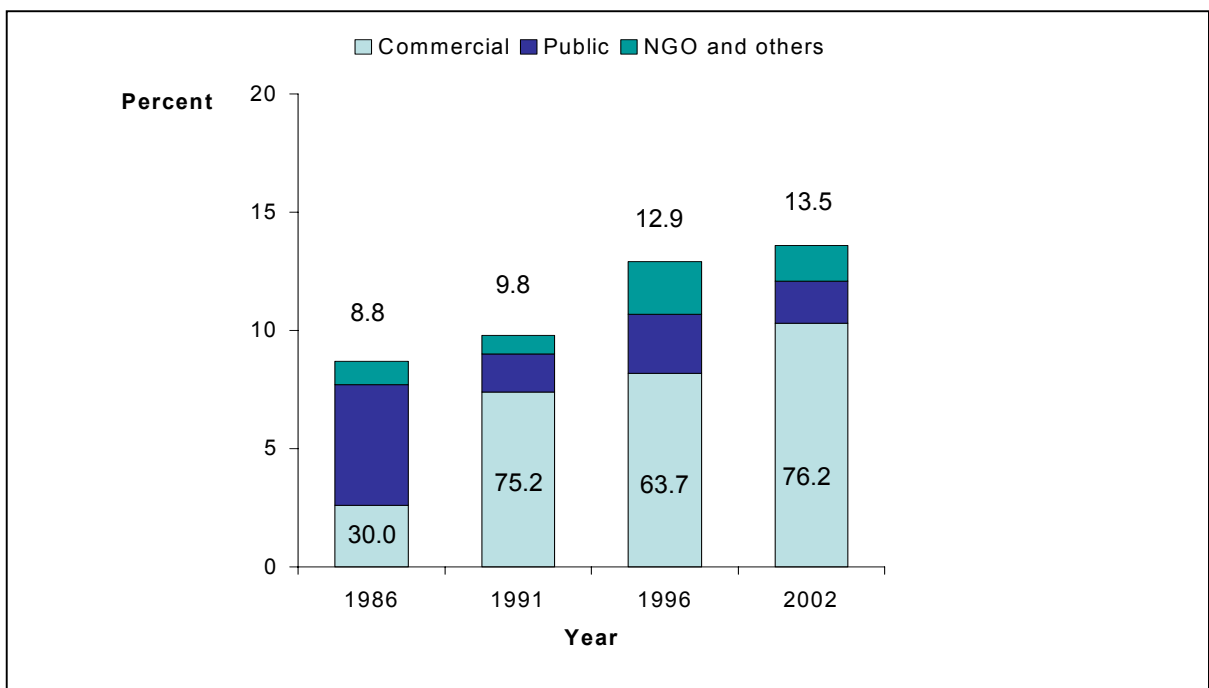
SOMARC provided technical assistance in marketing and research to PROFAMILIA. In addition, SOMARC underwrote some of the costs associated with product detailing to physicians and promotional seminars for pharmacists and pharmaceutical sales clerks. Although *Microgynon* had been available in the country prior to this agreement, no mass media advertising had been conducted for it or for any other OC in the past. *Microgynon* was graduated from donor support in 1990.

4.2.2 Results

4.2.2.1 Overall OC use and commercial sector share

DHS data for the Dominican Republic are available starting around the time that social marketing activities were initiated. Hence, it is not possible to determine trends prior to the launch of social marketing activities. Figure 5 shows current pill use among women in union and commercial, public, and NGO/other sector shares between 1986 and 2002. Oral contraceptive use increased slowly during this period, by about 5 percentage points in 16 years. By contrast, the use of sterilization, which was the most widely used method, increased by 13 percentage points in the same period (not shown).

Figure 5. Current pill use among women in union, the Dominican Republic, 1986-2002

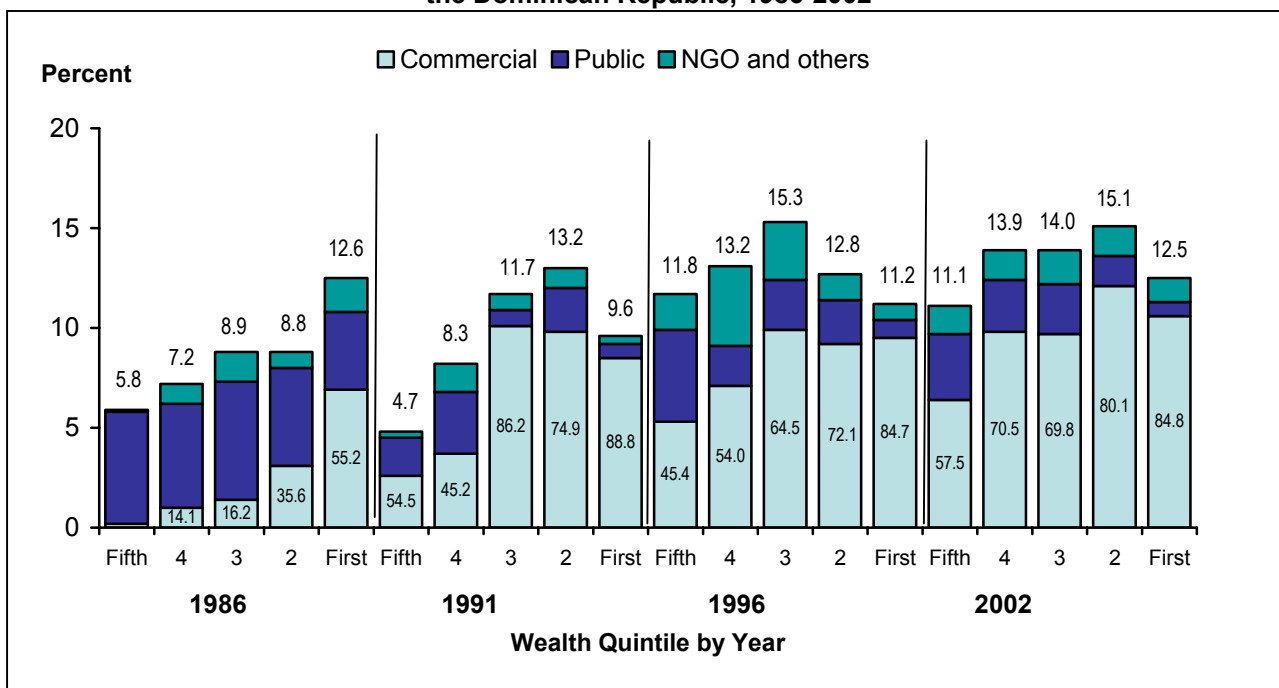


There was a dramatic increase in the commercial sector share of OCs between 1986 and 1991, from 30% to 75%, largely due to a number of public sector users switching to the commercial sector. This period was the one in which social marketing advertising and promotion were conducted. Between 1991 and 1996, the period immediately following graduation, the commercial sector share declined from 75% to 64%. This decline may be explained by UNFPA’s provision of donated contraceptives to the public sector between 1991 and 1997 (Mamlouk et al., 2004). After 1997, UNFPA targeted its provision of contraceptives to the poorest regions in the Dominican Republic, which may explain why the commercial sector share increased again, from 64 to 76 percent.

4.2.2.2 Commercial sector share among lower- and middle-income women

Whether commercial sector share increased among lower- and middle-income women after the initiation of SOMARC advertising and promotion, and whether this trend continued after partial graduation, is examined in this section. Figure 6 shows the use of OCs by wealth quintiles and sector share.

Figure 6. Current pill use among women in union by wealth quintile, the Dominican Republic, 1986-2002



Commercial sector share increased substantially among lower- and middle-income women between 1986 and 1991, during the period that social marketing advertising and promotion were conducted. Commercial sector share increased from 16% to 86% among women in the third quintile, from 14% to 45% among women in the fourth quintile, and from 3% to 54% among women in the fifth quintile. There was no consistent pattern of change in the commercial sector share after 1991, a period during which there was an increase in the supply of donated products to the public sector by UNFPA followed by a more targeted distribution of donated contraceptives.

4.2.2.3 Residential and wealth profile of users

The profiles of commercial and public sector OC users are shown in Table 2. There was some change in the residential profile of public sector OC users between 1986 and 2002: the proportion of public sector users living in rural areas increased from 42 to 49 percent. There was no change, however, in the wealth profile of public sector OC users: about two-thirds of public sector OC users were lower- and middle-income women in 1986 and 2002. In general, the profile of public sector OC users remained about the same, even though the public sector share declined dramatically over the 16-year period.

Table 2. Socio-demographic profile of oral contraceptive users, among women currently in union, who obtained the method from commercial and public sector sources, the Dominican Republic, 1986-2002.

Socio-demographic characteristics	Public sector users				Commercial sector users			
	(%)				(%)			
	1986	1991	1996	2002	1986	1991	1996	2002
Residence								
Urban	57.5	46.6	52.9	50.5	81.5	76.8	68.7	72.4
Rural	42.5	53.4	47.1	49.5	18.5	23.2	31.3	27.6
Wealth quintile								
1st (richest)	16.2	11.2	7.2	12.3	55.6	31.4	21.8	32.8
2nd	19.5	28.4	18.4	20.8	23.9	27.5	22.8	28.7
3rd	24.8	9.6	20.9	27.1	11.6	26.8	24.9	18.3
4th	19.9	33.8	16.4	23.0	7.6	9.1	17.6	14.7
5th (poorest)	20.0	17.0	37.2	16.9	1.4	5.3	12.9	5.6
N	211	66	123	247	109	300	409	1,443

Note: Total may not be 100% because of rounding.
Sources: Dominican Republic 1986, 1991, 1996, and 2002 DHS.

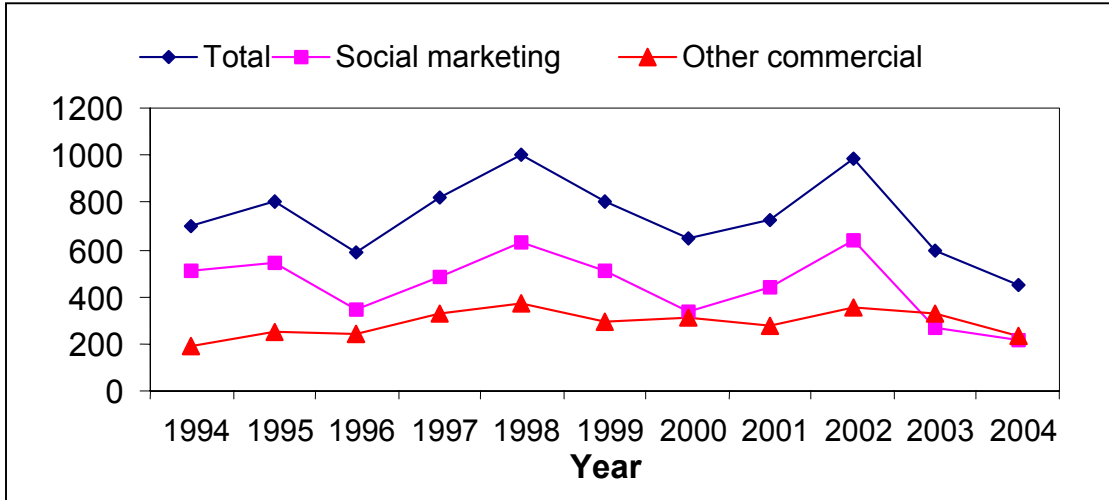
Changes occurred both in the residential and wealth profiles of commercial sector users during this period. There was an increase in the proportion of rural commercial sector users, from 18 to 28 percent. In addition, over time, a larger proportion of commercial sector users comprised of lower- and middle-income women. Between 1986 and 2002, the proportion of commercial sector users in the three bottom quintiles increased from 20 to 39 percent. These changes are consistent with the expansion of the commercial sector, as OC users who had previously used the public sector switched to the commercial sources.

4.2.2.4 Retail sales of social marketing and other commercial brands

Figure 7 shows retail sales of OCs in the Dominican Republic. Sales data are available from 1994 (which is four years after graduation) to 2004. There were substantial fluctuations in sales during this period. Total sales fluctuated between 0.6 million and 1 million until 2002, before falling to 0.45 million in 2004. Changes in total sales were driven by changes in social marketing sales, which increased from 0.51 million in 1994 to a high of 0.64 million in 2002, before declining substantially to 0.22 million in 2004. Sales of other commercial brands were steadier, almost doubling from 0.19 million in 1994 to 0.35 million in 2002, before declining to 0.23 million in 2004. Even after this decline, sales of other

commercial brands were 22 percent higher in 2004 than in 1994. The proportion of total sales comprised by the social marketing brand declined from 73 percent in 1994 to 49 percent in 2004 (not shown).

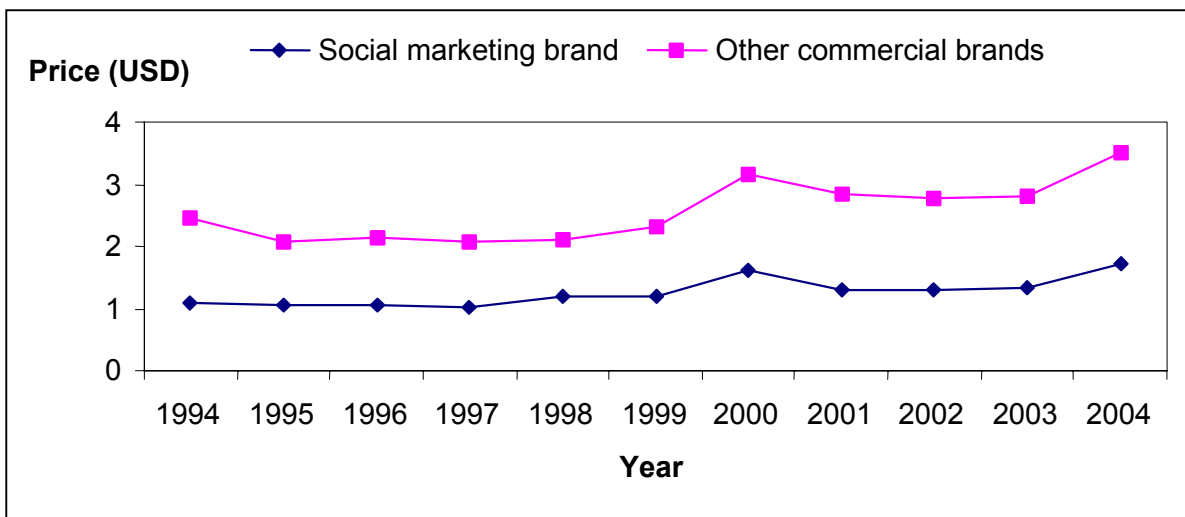
Figure 7. Retail sales of OCs in 000s of cycles, the Dominican Republic, 1994-2004



4.2.2.5 Retail prices of social marketing and other commercial brands

Figure 8 shows the average retail price per unit of the social marketing brand and other commercial brands. The retail price of the social marketing brand remained at around \$1 until 1997 and then rose gradually to \$1.75 by 2004. The average retail price of other commercial brands, meanwhile, stayed at just over \$2 until 1998, rose to \$3 in 2000, and then went up again to \$3.5 in 2004. The social marketing brand remained half as expensive as other commercial brands throughout the period examined.

Figure 8. Average price per cycle of oral contraceptives, the Dominican Republic, 1994-2004



4.3 Peru

4.3.1 The Social Marketing Program

Peru had a GNI per capita of \$2,100 and a population of 27 million in 2003. Between 1986 and 2000, fertility declined from 4.1 to 2.8 children per woman and modern contraceptive use increased from 23% to 50%. Intrauterine devices (IUDs) (7%), OCs (7%), and sterilization (6%) were the most commonly used methods in 1986. By 2000, however, injection (15%), sterilization (12%), and the IUD (9%) were the most frequently used methods, followed by OCs (7%) and condoms (6%).

A policy change in 1995 had important implications for social marketing: the Peruvian Ministry of Health mandated free family planning for all users in 1995 and public provision of contraception became even stronger during the late 1990s (Bulatao, 2002; Sharma et al., 2005). The commercial sector supplied 33% of modern contraceptives in 1986. While overall modern contraceptive use increased between 1986 and 2000, the commercial sector share declined to 15% in 2000 (not shown).

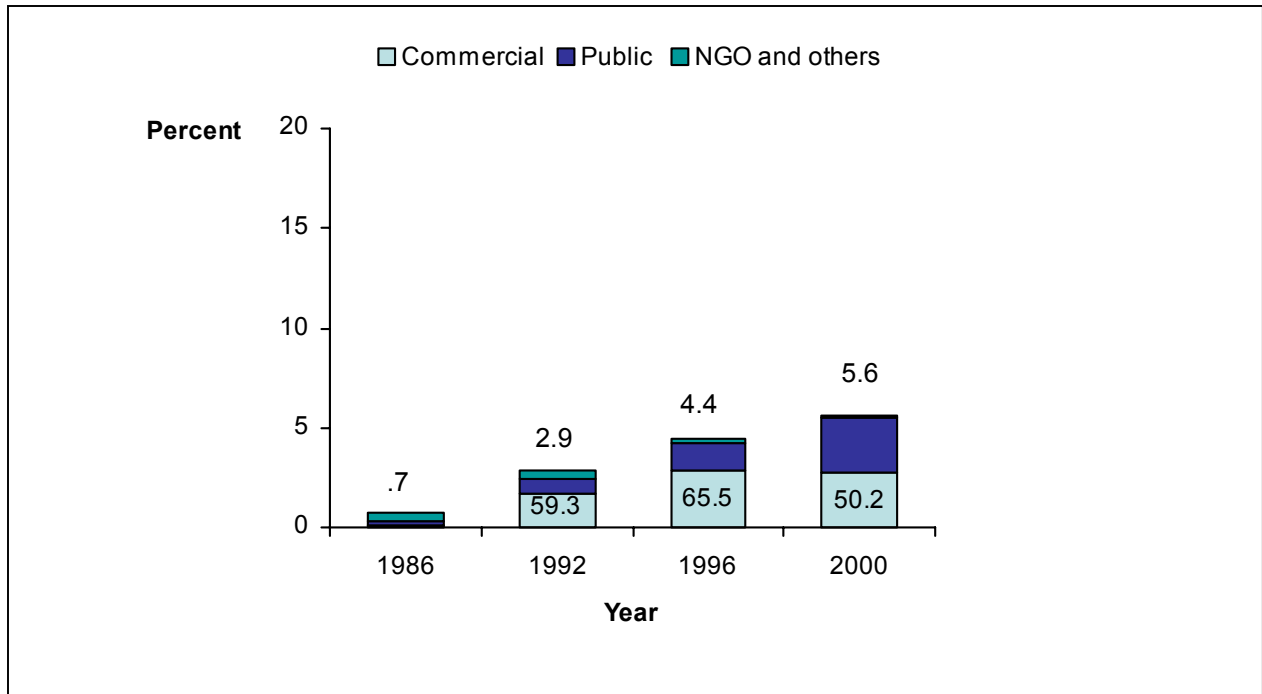
Until 1988-91, delays and the sporadic availability of condoms were major barriers to the commercial sector's provision of condoms. In 1992 a Peruvian distributor initiated an aggressive plan to sell condoms through pharmacies and drug stores. In early 1993, SOMARC began working with APROPO, an NGO, to introduce a social marketing condom to the Peruvian market. *PIEL* ("skin") condoms were launched in June 1994 and were marketed to sexually active couples as a safe, temporary contraceptive method, which would also protect against HIV/AIDS and STDs. The market launch was accompanied by a strong television advertising campaign that coincided with the broadcast of the 1994 World Cup soccer matches. Television advertisements were complemented by information booths in popular locations, such as parks and markets, with the purpose of increasing awareness about *PIEL* condoms and providing promotional giveaways. *PIEL* condoms were graduated in early 1996 (SOMARC, 1998).

4.3.2 Results

4.3.2.1 Overall condom use and commercial market share

The availability of DHS data prior to the launch of *PIEL* condoms in 1994 permits an examination of changes taking place in the commercial condom market prior to the initiation of social marketing activities. Figure 9 shows current condom use among Peruvian women in union and commercial, public, and NGO/other sector shares between 1986 and 2000. Condom use increased by about 5 percentage points during this period. The use of two other modern methods increased during this period: sterilization use increased from 6 to 12 percent and injectable use increased from 1 to 15 percent (not shown).

Prior to the introduction of social marketing, between 1986 and 1992, there was a dramatic increase in the commercial sector share of condoms, from 14 to 59 percent. The commercial sector share also increased from 1992 to 1996, the period during which that social marketing advertising and promotion were conducted, from 59 to 65 percent. The latter increase in the share, although smaller than the increase in the preceding period, is noteworthy because the commercial sector share of all modern contraceptives declined from 38 to 23 percent between 1992 and 1996 (not shown). Indeed, condoms were the only modern method for which the commercial sector share increased from 1992 to 1996. This suggests that social marketing advertising and promotion may have ensured the continued growth of the commercial condom market in spite of an increasingly strong, free public sector distribution system.

Figure 9⁶. Current condom use among women in union, Peru, 1986-2000

Between 1996 and 2000, however, the commercial sector share of condoms fell from 66 to 50 percent, while the commercial sector share of all modern methods fell from 23 to 15 percent (not shown). Hence the initial impetus for commercial sector growth, from 1986 to 1992, and the support provided for this growth by social marketing activities, could not be sustained in the period following graduation.

4.3.2.2 Commercial sector share among lower- and middle-income women

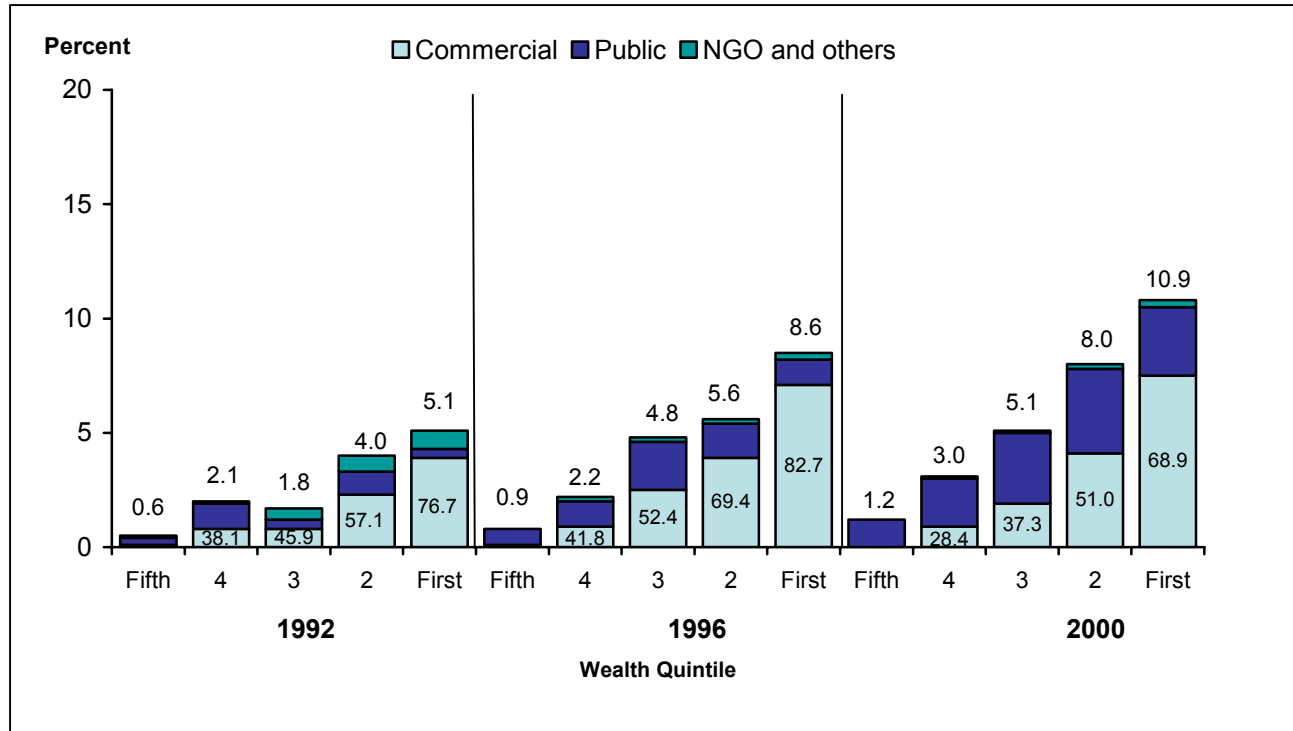
This section examines whether the commercial sector share of condoms increased among lower- and middle-income women during the implementation of social marketing advertising and promotion and whether this increase continued after graduation. Figure 10 shows use of condoms by wealth quintiles and commercial, public, and NGO/other sectors.

By 1992, prior to the initiation of social marketing, the commercial sector share had reached 46 percent for Peruvian women in the third quintile and 38 percent for women in the fourth quintile. However, the commercial sector share was much larger for women in the first and second quintiles: by 1992, 77 percent of women in the first quintile and 57 percent in the second quintile used a commercial sector condom source. After the initiation of social marketing, commercial sector share increased from 46 to 52 percent among women in the third quintile and from 38 to 42 percent in the fourth quintile. The commercial sector's share remained negligible among women in the fifth quintile. Increases in the commercial sector share between 1992 and 1996 were larger among women in the first and second quintiles. These findings indicate that social marketing made little impact on the commercial sector condom share among lower- and middle-income women. Moreover, between 1996 and 2000, because of

⁶ The commercial sector share in 1986 was not shown as method prevalence was too low.

changes in government policy in 1995, there was a reversal in the earlier trend and the commercial sector share fell for all quintiles. At the same time, the public sector share increased from 13 to 28 percent for the first quintile and from 27 to 46 percent for the second.

Figure 10⁷. Current condom use among women in union by wealth quintile, Peru, 1986-2000



4.3.2.3 Residential and wealth profile of users

Table 3 shows the profile of users who obtained condoms from the commercial and public sectors. In 1986, the use of condoms was too low to develop a profile of users. The residential profile of public sector condom users changed over time, with an increasing proportion of public sector condoms being used by urban residents: 63 percent of public sector condom users lived in urban areas in 1992; this proportion increased to 75 percent by 1996. This change reflects how condom users living in urban areas started using donated condoms once they became widely available through the public sector. The wealth profile of public sector users remained about the same, with approximately 50 percent of public sector condom users being lower- or middle-income. In 1992, commercial sector condoms were used almost exclusively by urban dwellers: 96 percent of them lived in urban areas. The residential profile of commercial sector condom users did not change, suggesting that there was little access to commercial sector condoms in rural areas. The wealth profile of commercial sector condom users also stayed about the same and approximately 21 percent of commercial sector condom users were from lower- and middle-income groups in 2000.

⁷ Data were not shown for 1986 as method prevalence was too low

Table 3. Socio-demographic profile of condom users, among women currently in union, who obtained the method from commercial and public sector sources, Peru, 1986-2000.

Socio-demographic characteristics	Public sector users				Commercial sector users			
	(%)				(%)			
	1986	1992	1996	2000	1986	1992	1996	2000
Residence								
Urban	–	63.5	74.6	73.8	–	96.5	97.8	96.6
Rural		36.5	25.4	26.2		3.5	2.2	3.4
Wealth quintile								
1st (richest)	–	11.5	15.0	21.0	–	48.2	45.6	48.5
2nd		36.2	24.5	29.0		32.7	28.0	30.3
3rd		12.4	34.1	25.8		9.3	19.0	14.8
4th		31.3	16.1	16.1		8.6	6.4	6.2
5th (poorest)		8.5	10.3	8.1		1.2	1.0	.3
N	18	60	221	413	3	148	487	441

– Distribution not shown because of small number of condom users

Note: Total may not be 100% because of rounding.

Sources: Peru 1986, 1992, 1996, and 2000 DHS.

4.4 Turkey

4.4.1 The Social Marketing Program

Turkey is a middle-income country with a GNI per capita of \$2,800 and a population of 71 million in 2003. Turkey has experienced a fertility decline from 4.3 children per woman in 1978 to 2.6 children per woman in 1998. While overall contraceptive prevalence increased sharply from 38% in 1978 to 63% in 1988, it leveled off for the next ten years and was measured at 64% in 1998. In 1998, modern method prevalence was 38% and traditional method prevalence was substantial at 26%.

An initial assessment by SOMARC suggested that, while a condom market existed and had potential for growth, numerous constraints existed, such as a lack of visible merchandizing, negative perceptions about condoms and their quality, and their availability being limited to pharmacies (Ravenholt, 1998). Indeed use of condoms among women in union declined slightly from 7.2 percent in 1988 to 6.6 percent in 1993 (Armand and Cisek, 2002). A local distributor, Eczacibisi, was selected as the distribution company because of its size and effective distribution reach. Eczacibisi imported a quality condom, produced a high quality package, and marketed it under the brand name *OK*. The condom was priced within the lower third of prices for condoms in the Turkish marketplace. The Turkish Family Health and Planning Foundation (TFHPPF) was the local partner that was expected to take on a leadership role following graduation. A substantial mass media advertising campaign and a promotional budget was provided by USAID to promote condom sales. This brand-specific advertising for a condom was the first to appear on Turkish television. This was possible, in large part, because of the TFHPPF's lobbying. *OK* condoms were launched in June 1991. Eczacibisi's distribution strategy focused on expanding condom availability beyond pharmacies, to supermarkets (Ravenholt, 1998) and

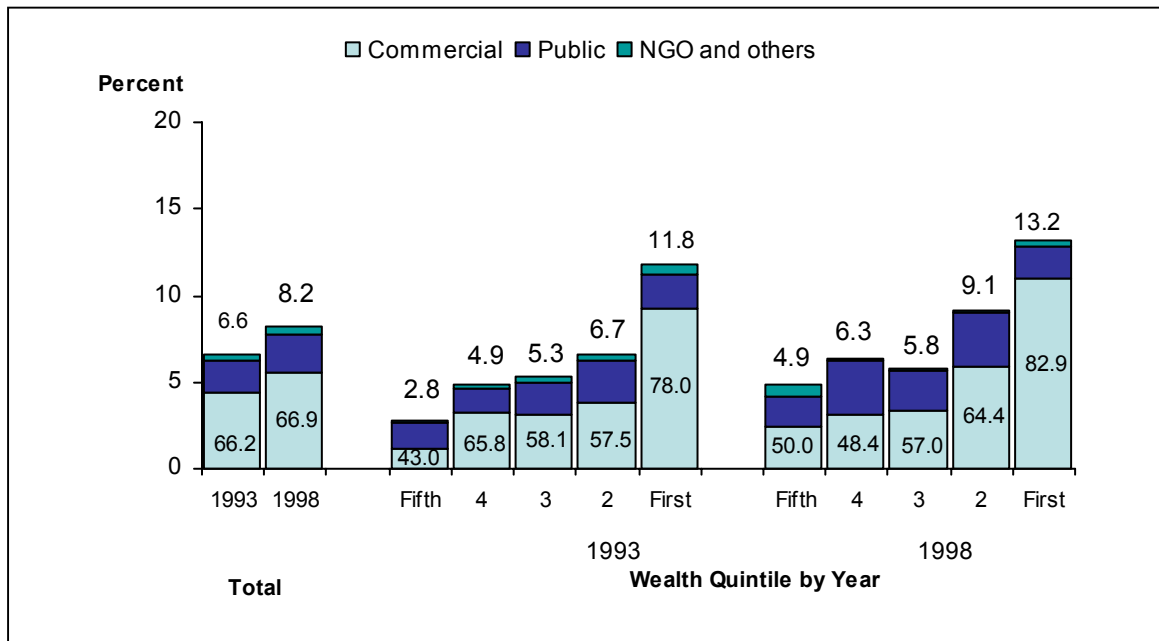
convenience stores (Armand and Cisek, 2002). Although the price of *OK* condoms increased several times during the first two-and-a-half years, it remained midway between the least and most expensive competing condom brands by the time of graduation. Profit from *OK* sales was sufficient to graduate the product within two and a half years. A return-to-project fund consisting of 10 percent of sales revenue was established to support future social marketing activities after product graduation.

4.4.2 Results

4.4.2.1 Overall condom use and commercial market share

DHS data from Turkey is only available for two years: 1993, the year *OK* condoms were graduated, and 1998. Hence, it is only possible to examine changes that took place in the period following graduation. The first set of bars in Figure 11 show current use of condoms among married women by source.

Figure 11. Current condom use among married women by wealth quintile, Turkey, 1993-1998



Between 1993 and 1998, condom use increased from 7 to 8 percent. The commercial sector share did not change during this period, remaining at around two-thirds.

4.4.2.2 Commercial sector share among lower- and middle-income women:

This section examines what the commercial sector share of condoms was at graduation and whether there was any change in this share subsequently. The second and third sets of bars in Figure 11 show use of condoms by wealth quintiles and source. In 1993, 58 percent of users in the third quintile, 66 percent in the fourth quintile, and 43 percent in the fifth quintile were using a commercial sector source of condoms. Hence, by the time graduation occurred, a substantial proportion of lower- and middle-income women were using condoms obtained from the commercial sector.

Following graduation, the commercial sector share of condoms among lower- and middle-income women remained about the same: 57 percent of women in the third quintile, 48 percent in the fourth, and 50 percent in the fifth obtained condoms from the commercial sector. These findings show that there was no decline in the commercial-sector share of condoms among lower- and middle-income women following graduation.

4.4.2.3 Residential and wealth profile of users

The profiles of users of commercial and public sector condoms is examined in this section to determine the extent to which these sectors served lower- and middle-income women and whether this changed following graduation. Table 4 shows the profile of commercial and public sector condom users. Between 1993 and 1998, there was an increase in the proportion of public sector users who were from rural areas: 27 percent in 1993 and 36 percent in 1998. Consistent with this change, there was also a change in the proportion of public sector condom users who were lower and middle income: 46 percent in 1993 and 59 percent in 1998. The residential profile of commercial sector users showed an increase in the proportion of users who were urban residents: 76 percent were urban residents in 1993, compared to 82 percent in 1998. The data also suggests that there was a slight decline in the proportion of commercial sector condom users who were lower and middle income. Hence, segmentation occurred between the commercial and public sectors, with the commercial sector catering more to wealthier urban residents and the public sector catering more to poorer rural residents.

Table 4. Socio-demographic profile of condom users, among women currently married, who obtained the method from commercial and public sector sources, Turkey, 1993-1998.

Socio-demographic characteristics	Public sector users (%)		Commercial sector users (%)	
	1993	1998	1993	1998
Residence				
Urban	73.3	63.7	76.1	81.8
Rural	26.7	36.4	23.9	18.2
Wealth quintile				
1st (richest)	24.3	12.4	48.4	48.3
2nd	29.4	28.5	19.4	22.4
3rd	20.4	20.0	14.2	11.5
4th	13.6	25.4	13.7	10.1
5th (poorest)	12.4	13.6	4.4	7.7
N	119	135	275	326

Note: Total may not be 100% due to rounding.
Sources: Turkey 1993 and 1998 DHS.

5. Discussion

Generalizations about the impact of the manufacturer's model on the basis of four programs implemented in different contexts should be made carefully. All four programs relied heavily on mass media campaigns; the results of these interventions were predicated on the quality, reach, and duration of these campaigns. These programs, however, were also influenced by a common set of factors, such as the presence of competing brands, methods, and supply sources. A comparison of these interventions will help identify the degree to which different factors influenced program outcomes, as well as help determine optimal conditions for the implementation of the manufacturer's model.

5.1 Commercial sector share

With the exception of Turkey, for which data are not available prior to graduation, there is evidence that the implementation of the other three programs (in Morocco, the Dominican Republic, and Peru) coincided with increased commercial sector share. These findings suggest that the manufacturer's model contributed towards increasing the sustainability of product supply by encouraging the use of commercial sector contraceptive sources. The commercial sector share grew among lower- and middle-income women in Morocco, the Dominican Republic, and, to a smaller extent, Peru.

5.2 Serving lower- and middle-income women

This study suggests that under the right circumstances the commercial sector can attract users from lower- and middle-income groups and from rural areas. In Morocco, the use of commercially supplied OCs among lower- and middle-income women increased both during the program and after partial graduation. The SOMARC strategy - which allowed the use of mass media advertising to reach potential users - may have helped recruit users from previously under-served areas. It is important to note that Morocco has a well-developed commercial infrastructure in rural areas, a necessary prerequisite for improving access to commercial brands. Data for the Dominican Republic also suggest that the commercial sector was able to attract rural users and users with a lower-income profile. In the Dominican Republic, however, this trend was because of the substitution from the public to commercial sectors, rather than new users being attracted to the commercial sector.

5.3 Long-term impact

Post-graduation impact is always a concern when donor-funded projects are implemented in partnership with commercial suppliers that can modify their strategies at will. The case of Morocco, however, offers interesting insight into commercial partners' post-graduation behavior. A partial graduation occurred there in 1996 - when USAID stopped supporting brand advertising - but funding was still available for a marketing specialist until 2004. USAID's continued funding of a non-profit implementation organization provided a vehicle for sustaining social marketing activities. The two commercial partners, Wyeth and Schering, continued to support advertising campaigns after the partial graduation. Consequently, the private sector share increased steadily until 2003. In Turkey, the social marketing program was short-lived (three years); therefore it could not have had a lasting impact on method use unless the commercial partner sustained those efforts after graduation. There is evidence

from the available literature that the commercial partner continued promotional investments after graduation (Armand and Cisek, 2002).

5.4 Factors that influence program outcomes

5.4.1 Preexisting conditions

The Morocco case suggests a convergence of favorable conditions and effective social marketing strategies for the manufacturer's model to graduate. The rapidly increasing use of commercial sector sources prior to implementation, together with a high method prevalence rate, is important to note. Moreover, starting in 1989, USAID began to work closely with the Ministry of Health to address "growing concerns of sustainability" and "increasing private sector involvement" (Cromer et al., 2004). Finally, pharmacists are likely to have played an important role in the success of the Morocco program. A CMS study conducted in 2002 found Moroccan pharmacists—especially in rural areas—to be well disposed to the goals of the family planning program, with over three quarters of them willing to counsel their clients to use OCs (Abdelhadi et al., 2002).

By contrast, Peru offered a different context for commercial sector programming. Method prevalence was low and the SOMARC program did not coincide with a strategy to reduce donor support. In Turkey, the phasing out of commodity donations did not start until 1995 and was followed by increased procurement by the Ministry of Health. A strategy to segment the market through cost sharing and better targeting by the public sector was not adopted until 2001 (Cromer et al., 2004).

5.4.2 Public sector policies

In the Dominican Republic and Peru, commercial market share fell post-graduation. In these two countries, the phasing out of donor support for SOMARC brands most likely coincided with the increased availability of free and subsidized products in the public and/or commercial sector. For example, in the Dominican Republic, UNFPA reportedly provided donated contraceptives to the public sector between 1991 and 1997 (Mamlouk et al., 2004), which coincided with a decrease in the public sector share. After 1997, UNFPA reduced its contraceptive donations to targeted regions with the lowest social indicators, which may explain why the private sector share increased between 1996 and 2002. In addition, PROFAMILIA marketed a USAID-donated product (*Duofem*) alongside the SOMARC brand in similar outlets. Such direct competition (both brands had the same formulation) would have been felt more acutely after donor support was phased out for the SOMARC brand.

In the presence of strong competition from other sources of products, such as from the public sector and NGOs, the commercial sector would be expected to lose users in the lower-income quintiles, as they are most likely to be price sensitive. This is apparently what happened in Peru between 1995 and 2000, when the proportion of users in the low- and middle-income quintiles who obtained their supplies from the commercial sector fell in favor of the public sector and NGOs. The graduation of the SOMARC program coincided with the Peruvian Ministry of Health mandating free family planning for all. According to an earlier study, gains in commercial outlet utilization by contraceptive users in Peru came to a halt and were partly reversed as free public provision became more aggressive in the late 1990s (Bulatao, 2002).

Even more problematic is a situation when users in the higher-income quintiles shift from the commercial to the public sector. Figure 10 shows a loss of condom users from the first and second

quintiles between 1996 and 2000 in Peru. Sharma et al. (2005) suggest that the decision by the Ministry of Health to provide free access to contraception to all users in Peru resulted in inappropriate market segmentation. An increasing proportion of urban users - who are most likely to have access to commercial outlets - availed themselves of public sector services after 1992.

5.4.3 Appropriate marketing model

Although Morocco offered a favorable context for a private sector intervention, commercial OC suppliers still faced some barriers. The prohibition on advertising for commercial pharmaceutical brands restricted suppliers' promotional efforts to the provider community. Commercial partners saw the social marketing program as a way to communicate directly with potential users, especially those unlikely to seek family planning counseling from a doctor. The SOMARC (and the CMS) project, which were authorized to advertise, offered a unique opportunity to inform women about modern family planning methods in both urban and rural areas. They also made brand advertising possible under the project's umbrella logo.

6. Conclusions

The findings of this study suggest broad guidelines for donors and implementing organizations. The manufacturer's model is based on the leveraging of commercial sector efforts and the eventual phasing out of donor support. Therefore, its potential contribution to sustainability objectives is considerable, provided that it is used in the appropriate context and coincides with favorable commercial sector growth trends.

6.1 When to use the manufacturer's model

The country programs covered in this study suggest that the manufacturer's model is likely to increase the commercial sector share. A manufacturer's model may be adopted when a shift in market share is desirable in order to lessen the burden on the public sector and to improve the sustainability of product supply. In addition, findings from Morocco suggest that the manufacturer's model is appropriate when the principal barrier to commercial sector growth is the inability of commercial suppliers to communicate directly with potential users.

Conversely, weak commercial infrastructure, low demand for the method, and competition from the public sector and other subsidized programs may jeopardize or reverse program outcomes. Such a context would call for demand generation efforts and a gradual phase-out or re-targeting of public sector commodities distribution programs before the manufacturer's model can be considered.

6.2 When to graduate programs based on the manufacturer's model

The willingness of manufacturers to fund advertising campaigns in Morocco and Turkey after donor support ended indicates that commercial investment may be sustained after donor funding is phased-out. A distinction should be made between OC and condom programs, however, as they are subject to different regulatory schemes. Continued investment in OC advertising is typically hampered by restrictions on advertising for prescription brands. In the absence of a non-profit partner organization, such activities often cannot be sustained. This barrier, however, does not usually affect condoms, as evidenced by direct investments by SOMARC's commercial partner in Turkey following graduation (Armand and Cisek, 2002).

Finally, the factors that influence the outcome of a social marketing program can also be expected to affect post-graduation and long-term impact. From the above examples it appears that a social marketing program based on the manufacturer's model might be graduated when the following conditions are in place:

- ❖ the method has reached a satisfactory level of acceptability,
- ❖ commercial sector contraceptive use is substantial and is unlikely to be reversed,
- ❖ commercial partners are committed to continue funding promotional activities, and
- ❖ there is no ongoing or pending program in the public sector that might compete for existing commercial sector users.

Annex A: Number of women currently in union, by country and year of Demographic and Health Survey.

Country and Year of Survey	Women in Union
Morocco	
1987	5,447
1992	5,118
1995	2,470
2000*	1,060
2003	8,782
Dominican Republic	
1986	4,133
1991	4,083
1996	4,983
2002	13,996
Peru	
1986	2,900
1992	8,740
1996	16,885
2000	15,628
Turkey	
1993	6,271
1998	5,921

* Commercial Market Strategies project survey.

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