Franchising Reproductive Health Services

Rob Stephenson[1*], Amy Ong Tsui[1], Sara Sulzbach[3], Phil Bardsley[2], Getachew Bekele[4]
Tilahun Giday[5], Rehana Ahmed[6], Gopi Gopalkrishnan[7], and Bamikale Feyesitan[8]

[1] Bill and Melinda Gates Institute for Population and Reproductive Health, Department of Population and Family Health Sciences, Johns Hopkins Bloomberg School of Public Health, 615 N.Wolfe Street, W4503, Baltimore, MD 21205-2179

[2] Carolina Population Center, University of North Carolina at Chapel Hill, 123 W. Franklin Street, Chapel Hill, North Carolina 27516-2524

[3] Commercial Market Strategies Project, Abt Associates, 1001 G Street NW, Suite 400W, Washington DC, 20001-4545

[4] Marie Stopes International-Ethiopia, P.O Box 5775, Addis Ababa, Ethiopia

[5] Pathfinder International-Ethiopia, P.O Box 12655, Addis Ababa, Ethiopia

[6] Green Star Program, Social Marketing Pakistan, D-29 Block 2, KDA Scheme 5, Clifton, Karachi, Pakistan

[7] Janani, Rashmi Complex, P&T Colony, Kidwaipuri, Patna, 800 001, Bihar, India

[8] The David and Lucile Packard Foundation, 300 Second Street, Suite 200, Los Altos, CA, 94022, USA

* Author for correspondence / request for reprints

Franchising Reproductive Health Services

Acknowledgments

The authors gratefully acknowledge support from grant number 2000-3003 from the David and Lucile Packard Foundation to conduct this research and thank Selene Oslak for assistance with a literature review that informed this paper.

Word Count:

Abstract:	126
Text:	6132
References:	21
Figures/ Tables:	4

Abstract

Objectives. Networks of franchised health establishments, providing a standardized set of services, are been implemented in developing countries. This paper evaluates the impact of franchising for both the member provider and the client.

Methods. Regression models are fitted examining the impact of franchising on family planning and reproductive health outcomes at the service provider and client levels.

Results. Franchising positively influences family planning and reproductive health client volume, staffing levels, and the number of family planning brands and reproductive health services available. Client satisfaction is higher at franchised than other types of health establishments. Franchised health establishments are successful in attracting reproductive health clients.

Conclusions. Franchise membership has benefits for both the provider and the client, providing an opportunity to expand access to reproductive health services.

Introduction

Clinic franchising occurs when service delivery points contribute equity and resources of their own in exchange for the right to offer a defined set of health services of a franchiser for a perceived market advantage or to pursue a common social mission (1:2). Clinic franchising is being implemented in a number of developing countries, as a mechanism for improving access to reproductive health services. Franchises exist in a variety of forms involving different franchising organizations, types of providers, and variations in contracts or other ownership arrangements. While there is evidence of a growing market share for private sector suppliers of primarily non-clinical contraceptives, there has been less systematic evaluation of the effects of clinic franchising programs in developing countries. This paper examines the effects of clinic franchising programs operating in Pakistan, Ethiopia and India at both the health establishment and client levels. An evaluation of clinic franchising programs can provide information about their effectiveness and efficiency within given resource, market and consumer demand environments, and inform the future development of clinic franchising programs.

Background

Contraceptive social marketing (CSM) programs have lead the application of concepts of clinic franchising (3). The objectives of CSM programs include increased awareness of family planning, improved availability and accessibility of contraceptive supplies and services, and cost recovery from retailers and fee-paying clients (4). The effort to defray the costs of service delivery through pricing strategies for distributors and consumers sets

CSM programs apart from other provider networks by integrating financing and profit-making incentives common to commercial franchising models.

While generations of social marketing programs have centered on contraceptive products (such as the pill and condom), clinic franchising extends these principles to services, i.e., *service marketing* (5). Clinical services support long-term contraceptive methods and broader reproductive health care and require the participation of trained health providers. Networks of providers, or *franchisees*, are service producers in the clinic franchise system; they create standardized services under a franchise name (6). The result is a network of service providers offering a uniform set of services at pre-defined costs and quality of care. This standardization and identification of services, rather than just products, with the franchise name or logo, combined with contractual arrangements between providers and the franchising organization, distinguish clinic franchising from other social marketing programs that include provider training. At the same time, the social marketing version of franchising differs from commercial franchising in that franchisers and donors, instead of franchisees, bear the financial risk involved in setting up a site or establishing services (7).

Franchisees join a network with a range of objectives and social commitment levels. They may be motivated by opportunities for training, expectations of increased clientele, potential revenue, the opportunity to open, sustain, or expand a practice, the opportunity to provide needed services, or some combination of these factors. The sustainability of providers' motivations to remain franchisees no doubt invokes a clear cost-benefit calculation on their part. To the extent that the costs of participation, in the form of franchise fees, compliance with franchise standards and outlays for service delivery, remain lower than franchise-derived benefits, such as increased client volume and fee income, improved technical skills, and free advertising, franchisees are likely to continue to participate. Joining a franchise can give providers access to new expertise and capital and allow them to replicate a successful model of service provision quickly. As participants in a clinic franchising program, they may add franchise services to their existing practice, in a *fractional* model, or provide only franchise-supported services in a *stand-alone* model (7). Franchise efforts may be targeted by sponsoring agencies to address health needs of poor or low-income populations. Some organizations will limit their operations to urban areas, while others attempt to reach remote rural areas. Cost-containment and income-generation for the latter however becomes more difficult (8).

Clinic franchising programs in low-income countries tend for the most part to be donor funded. In countries with low contraceptive prevalence and nominal private sector involvement in family planning care franchising organizations are quite sensitive to the affordability of their services and the fragility of private providers' participation in contraceptive service delivery. Contraceptives are priced low such that, unlike other pharmaceutical products, they usually do not generate a substantial share of a health practitioner's income. Responses to price increases are more significant among the poor, and those in less-developed countries are thought to be willing to pay only about one percent of their annual disposable income for family planning (9:10). Monitoring client income levels is essential for cost-recovery efforts of donor subsidized franchisers that are discouraged from providing services to middle or upper class clients (3). At the same time, however, mandated franchise fees or equity-sharing in a low-demand setting can compromise a franchising organization's efforts to establish a large network of service delivery points or providers. On the other hand, such fees and other contributed equity, such as land and building space, will encourage franchisees to identify with and sustain commitment to the franchise.

Franchising organizations commonly brand providers in their networks with their name, logo, products and services. This marketing image often includes clinic appearance, color schemes and staff uniforms (11). Promotion, particularly mass media advertising, is generally too costly for an individual provider; and when conducted by franchising organizations pooled resources can enable reaching reach wider audiences (12). Franchise programs may also be able to avoid advertising restrictions that limit individual providers (13). Franchisers using multiple forms of media may be more effective, as messages can reinforce one another (14). Service marketing findings thus far indicate that word-of-mouth promotions may be even more important than media outreach; and clinic franchising programs that encourage providers to form ties with their communities and promote family planning among existing clients may have better outcomes (6:13-15).

Clinic proprietors may be recruited into a franchise network on promises of state-of-the-art training or higher client volume for other services, in exchange for providing contraceptive products and services at low cost. Expanding the range of services and choice of contraceptive methods and introducing methods previously unavailable in an area are means by which to increase contraceptive use and recover a share of service costs (16). Some franchise programs support broader reproductive health services, both for their direct health benefits and for their potential to increase client volume and sustainability of provider participation. Integration with other valuable and often more profitable services helps to draw in medical providers and improve credibility in the community (17). Franchisers supporting integrated services also encounter the need to keep member providers from neglecting their less lucrative family planning role (8).

Franchising organizations in developing countries have different levels of business and management expertise, and donors may or may not invest in these capacities (8). Management styles range from active monitoring and control, i.e., *second generation franchising*, to a more hands-off approach where franchisers merely offer providers a territory and permit them to use the franchise name within their guidelines, i.e., *first generation franchising* (7). Ideally, franchisers will have determined parameters of market segmentation, target client populations, service needs and preferences, pricing and culturally appropriate brand design and communications at the outset (2).

Considerable variation also exists in the requirements franchising organizations establish for providers entering their networks. Though franchisers generally recruit those with some prior medical training, reproductive health franchise providers can range from unlicensed rural practitioners and midwives to physicians and their private clinics. Some franchisers have established preferred criteria for franchisee selection based on motivation, business skill, past business success, ties to the community and personal characteristics, all in order to improve retention and increase franchisees' chances of success (7:18).

While there has been little evaluation of the impact of clinic franchise program membership on outcomes for the service provider or the client, one review of clinic franchising programs in Mexico and the Philippines found that clients at franchised health establishments benefited from consistent standards of care at affordable prices and that franchisees benefited from subsidies and support in running their business. However, both franchise networks were dependent on significant start-up funds, on-going support from US-based agencies and donor-subsidized contraceptive supplies (2). The review of these franchises was unable to establish the sustainability of the franchise approach. A review of the Green Star franchise network, Pakistan, found that franchise membership significantly increased family planning client volumes in member health establishments, and widened access to family planning services among poorer sub-groups (19). While franchise membership also resulted in greater choice in family planning methods in Green Star health establishments, the review found variations in quality of care standards and the pricing of some family planning methods among participating establishments.

In a review of client choices among private providers in Kenya, Pakistan and Bihar, India, Montagu (20) notes limited variation in prices for services between franchised and non-franchised providers, suggesting that cost was not a factor in the choice between these two types of provider. Service quality instead was seen as an important factor for choice, and an association was identified between high estimation of quality and the use of franchised services. The opportunity therefore exists for franchised networks to increase their client volumes through an investment in the provision of quality reproductive health services.

Limited evaluations of franchising suggest both advantages and disadvantages of franchise membership, with evidence of expanded access to and choice in family planning methods and improvements in quality of care. These benefits, however, vary across franchises and among their members. This paper presents an assessment of franchise networks operating in three countries and examines the association between franchise membership and service provider and client outcomes.

Clinic franchise Programs

The clinic franchising networks operating in the three study countries are:

Green Star, Pakistan: This program was launched in 1997 and targets low-income urban couples in Pakistan. The private sector in Pakistan provides over 70% of all health care, but has limited involvement in family planning. Social Marketing Pakistan (SMP)'s objectives as a franchiser include capacity-building for private providers who are already delivering services and products to low-income populations, the addition of family planning services, quality of care, increased client volume and sustainability. SMP contracts with doctors and midwives who have existing practices. Franchisees must agree to provide high-quality services and offer prices affordable to low-income clients. SMP agrees to deliver quality contraceptives to Green Star clinics and pharmacies at wholesale prices, including condoms, oral contraceptives, injectables and IUDs. The Green Star network currently includes 11,000 health care providers, with an estimated 20% coverage of total couple years of protection in Pakistan.

Key Social Marketing, Pakistan: This project implemented by The Futures Group in Pakistan was launched after Green Star. It promotes access to information, quality services and products to lower income couples to improve the reproductive health status of women through birthspacing. KSM offers training in birthspacing counseling and access to hormonal contraceptive products, specifically Famila-28 and Nordette-28 oral contraceptives and Depo-Provera injectables, to physicians, paramedics and pharmacists interested in expanding their family planning services. To reinforce trained service providers, KSM has developed a referral network of hospitals that includes private hospitals and clinics. Key network providers can refer clients to these hospitals for more extensive counseling and service support (21). Health care providers can participate in both Green Star and Key networks if motivated to expand the number of contraceptive methods and brands offered.

Janani, India: Janani's franchising program targets couples in Bihar, India. The organization established subsidized contraceptive shops in 1996, and started working with providers and expanding into rural areas in early 1997. The private market has largely ignored the rural sector (90% of the population), and delivery channels for contraceptives have lagged behind those of other consumer goods. As a franchiser, Janani's objectives include the expansion and sustainability of contraceptive supply networks, with an emphasis on high volume, not high price. The franchise supports STI treatment and abortion care as well as family planning services. There are currently more than 11,000 health providers participating in the Janani network.

BiruhTesfa, Ethiopia: Biruh Tesfa or "Ray of Hope" is a private sector franchise for family planning and reproductive health services, implemented by Pathfinder International in Ethiopia. The franchise began in January 2000 with funding from the Packard Foundation and is the only one of its kind in the country. Service providers are clinical and community-based; those recruited to participate in the franchise network include 92 clinics, 150 community health agents, 100 trained birth attendants, 48 market place providers and 120 workplace providers in three regions (Addis Ababa, Oromia and Amhara). Network providers receive training in service delivery of contraceptives, STD prevention, HIV/AIDS counseling and post-abortion care, as well as referral procedures, according to their clinical capacity; training in financial management; procurement support for supplies and equipment; and supervision. Biruh Tesfa is the newest of the franchise arrangements reviewed in this assessment and when it reaches full strength in its first phase, will have 510 participating providers.

Data

Between January and September 2001, multi-stage cluster sample surveys of health facilities, their health staff, and clients were conducted in each of the three countries by three private research organizations. In Pakistan, the sample of health establishments was drawn for the urban areas, where Green Star providers are located. Cities were stratified into three population size groups and a total of eleven cities were selected probability proportional to size (PPS). Within cities wards in the low to middle income areas were sampled using PPS and all health facilities mapped and listed. A systematic sample of facilities was then selected with a target size of 1000 and actual sample of 993 facilities from the governmental, non-governmental and non-profit, and private sectors. The latter group was divided further into franchise and non-franchise participants. All health staff in the facilities were enumerated and all authorized to provide family planning services were interviewed if present; the achieved sample size was 1,113 staff. Clients presenting at the sample health facilities on the day of the facility survey were listed; and with the estimated daily volume and after a random start, eight clients were selected systematically for exit interviews at each site. The total client sample size was 7,431.

The multistage cluster sample design was applied to the entire state of Bihar except for some southwest districts that were politically unsafe for fieldwork and also had relatively little franchise activity. Districts within the state's six regions were listed and two were selected PPS for each. The district was then divided into urban and rural strata and within the rural strata, into villages. Villages were selected with PPS, and all contiguous villages surrounding the index (selected village) were identified. All health facilities in the cluster of villages were selected into the sample. In the urban stratum, the ward containing the district capital was selected with unity and two other wards were randomly selected. Ward clusters were formed with the selected ward and the surrounding contiguous ones. Again all health facilities within the ward clusters were selected. The final sample interviewed was 1,317 facilities. Family planning staff and clients were selected using the same procedures followed in Pakistan, although only four, rather than eight, clients per facility were selected for sample sizes of 1,944 staff and 4,905 clients. The Ethiopia survey focused on the three regions where the Biruh Tesfa franchise operated, one of which (Addis Ababa) was predominantly urban. Within Addis, a list of all authorized health facilities (including pharmacies) was obtained from the zonal health bureaus, stratified into hospital, health center, clinic, and pharmacies and their operating authority (government or private) identified. A stratified random sample of 92 health facilities was selected for interview. In the other two regions, lists of authorized facilities were again obtained from the zonal health bureaus and stratified similarly. Hospitals in the main zonal towns were selected with unity. Two other major towns within proximity of the main zonal town were selected and all health facilities within were listed and interviewed to reach a target sample size of 300. When the number of facilities within the three towns fell short of the required sample, the field team proceeded along the main road through the towns in both directions identifying and interviewing health facilities along the way until the sample size was reached (136 in Amhara and 157 in Oromia). Staff and clients were interviewed with similar selection procedures as those in Bihar, including the target 4 clients per facility. The total sample sizes for the three regions are 369 facilities, 525 staff and 1,537 clients. The sample design applied in Ethiopia was not strictly a probability one and thus findings should be interpreted accordingly.

For each unit of analysis, a separate questionnaire was administered, i.e., a health facility, staff and client exit questionnaire. At the health facility level, the questionnaire aimed to measure service activity and features, as well as asked about franchise participation when relevant. The staff questionnaire focused on provider training experience, training quality, and referral behaviors. The client questionnaire sought information on purpose for visit, service preferences, satisfaction with services, and awareness of franchise participation. The data used for analysis here combine the measures from the health facility and client surveys in all three countries.

Method

Seven health establishment and five client outcomes are modeled. The health establishment outcomes measure monthly client volume (total, family planning, and other reproductive health), infrastructure capacity (total staff size, presence of a doctor) and family planning/reproductive health service range (number of contraceptive method brands and number of reproductive health services offered). The distributions of the three client volume outcomes are skewed so the logs of the volumes are modeled. The selected client outcomes assess likelihood of clients using a franchise outlet, client service preferences (perceived affordability of service, comparative quality of services, willingness to return to site for future services) and purpose of visit (family planning/reproductive health versus other reasons). Table 1 provides the range and means of the 12 outcome variables modeled. The three-country sample sizes are 2,612 health facilities (1,856 if reproductive health-serving units only) and 13,873 clients.

TABLE 1 ABOUT HERE

Separate models are fitted for each of the 12 outcomes. Logistic regression models are fitted to the following five binary outcomes: whether the health establishment has a doctor employed, whether the client is attending a franchise health establishment, whether the client cites affordability as the preferred feature of the health establishment, whether the client reports that the services are better than those offered at other health establishments, and whether the clients reports that they will return to the same health establishment for their next visit. Linear regression models are fitted for six continuously measured outcomes: total client volume (log), family planning client volume (log), reproductive health client volume (log), number of staff, number of family planning brands available, and number of reproductive health services available. A multinomial model is fitted for the reason the client is attending the health establishment, using general health as the reference category.

The key covariate of interest in each of the models is the type of health establishment, categorized as private non-franchise, franchise, nongovernmental organization, government, and other (where other includes pharmacies/medical shops and traditional healers). The separation of private services into franchised and non-franchised allows the identification of franchise participation's influence. The models additionally control for other features of the health establishment (years of operation and years of family planning service provision) and for the client level outcomes, the socioeconomic and demographic characteristics of clients. A variable indicating country is also included to control for environment differences among sites. Clients' monthly household incomes have been converted to US dollars to standardize comparisons.

The primary sampling unit (PSU) is included as a covariate in the health establishment models to control for the complex sample design. In the client level models both the PSU and the selected facility are included to control for sample design effects. Interactions between the establishment type and the other independent variables were tested, but none were statistically significant.

Results

Health Establishment Outcomes

Table 2 shows the results of modeling the health establishment outcomes.[1] Relative to private non-franchised services, franchising is not significantly associated with total client volume. Franchising, however, is associated with a significantly greater volume of family planning clients (coeff=0.652, se=0.006) and reproductive health clients (coeff=0.244, se=0.082). Membership in a franchise network results in an additional 1.92 family planning clients and 1.28 reproductive health clients per month. Membership in a franchise network adds 2.62 family planning and 1.53 reproductive health clients in Pakistan and 2.35 family planning and 1.90 reproductive health clients in the three regions of Ethiopia. Franchise membership has the greatest effect on client volumes in the state of Bihar, where 2.92 family planning clients and 2.28 reproductive health clients are added to monthly client volumes.

TABLE 2 ABOUT HERE

NGO operated and "other" health establishments have significantly greater total client volumes than private non-franchised health establishments (other coeff=0.404, se=0.074, NGO coeff=0.728, se=0.191). Other types of health establishments also have

[1] The study design to evaluate franchise models calls for a repeat survey with a panel of the original facilities; in this analysis with cross-sectional data, we can only draw upon observed associations.

significantly higher volumes of family planning clients than non-franchised private ones (government coeff=1.092, se=0.079, NGO coeff=1.208, se=0.185, other coeff=0.367, se=0.071). Government-operated establishments also have significantly higher volumes of reproductive health clients than private non-franchised ones (1.65 more reproductive health clients per month).

Relative to being non-franchised, franchising shows a significant positive influence on the total number of staff working in a private health establishment (coeff=0.541, se=0.105), although there was a reduced odds of having a doctor present in the health establishment (OR=0.47, 95%CI=0.36, 0.61, p=0.031). Franchised health establishments also have significantly greater numbers of contraceptive method brands available (coeff=0.795, se=0.121) and offer a significantly greater number of reproductive health services (coeff=0.289, se=0.061). In urban Pakistan, franchise membership adds 2.71 staff members, 2.13 family planning method brands and 1.12 reproductive health services. In the three regions of Ethiopia it adds 2.87 staff, 1.61 family planning brands and 0.54 reproductive health services. In Bihar, franchise membership results in the addition of 1.54 staff, 1.79 family planning method brands and 1.28 reproductive health services to a health establishment.

Relative to private non-franchised services, government and NGO health establishments have significantly greater numbers of staff (government coeff=2.935, se=0.364, NGO coeff=2.609, se=0.842), while other health establishments have significantly lower numbers of staff (coeff=-0.886, se=0.329). Government and other health establishments have lower odds of having a doctor present than private non-franchised health establishments (government OR=0.55, 95%CI=0.40, 0.70, p=0.01 other OR=0.14, 95%CI=0.06, 0.29, p=0.014). Relative to private non-franchised health establishments, all other health establishments have significantly greater numbers of family planning brands available. Government-operated establishments offer a greater range of reproductive health services than private non-franchised health establishments (coeff=0.131, se=0.051), while other health establishments offer significantly fewer reproductive health services (coeff=-0.995, se=0.228).

Other factors were also important determinants of the health establishment outcomes. The total number of staff at the health establishment is significantly associated with client volume, with each additional staff member adding about 1 client (overall, family planning or reproductive health) per month. The number of years the health establishment has been in operation is also significant associated with total client volume while the number of years that family planning has been available at the health establishment is positively related to all three measures of client volume, again each year adding on average about one such client per month. Although the "age" of the establishment is positively associated with the total number of staff, it is negatively and nominally related to the number of family planning brands available (coeff=-0.006, se=0.003). The number of years that family planning has been available at the health establishment is positively and significantly related to the number of family planning brands (coeff=0.025, se=0.006) and reproductive health services (coeff=0.021, se=0.008) that are available at the health establishment.

Relative to sampled health establishments in Bihar, India, health establishments in Ethiopia average monthly -0.806 fewer total clients, -0.835 fewer family planning client and -0.380 fewer reproductive health clients. Health establishments in urban Pakistan also on average have significantly fewer monthly family planning (-0.351) and reproductive health (-1.393) clients. However, one should keep in mind that the Bihar health facility sample is statewide, while that in Pakistan is urban and in Ethiopia restricted to three regions, with the urban one inclusive of the national capital. Health establishments in both Pakistan and Ethiopia have significantly fewer total staff numbers than those in Bihar (Ethiopia coeff=-2.336, se=0.375, Pakistan coeff=-2.149, se=0.881), although health establishments in urban Pakistan are significantly more likely to have a doctor present (OR 9.90, 95%CI=7.06, 13.8, p=0.001). Health establishments in Pakistan have a greater number of family planning brands available than those in Bihar (coeff=1.329, se=0.140), although they have significantly fewer reproductive health services (-0.826). Establishments in Ethiopia have significantly fewer family planning brands (-0.813) available than those in Bihar.

Client Level Outcomes

Clients attending franchise establishments have significantly greater odds than those in non-franchised sites of reporting they would return to the establishment for their next visit (OR=1.75, 95%CI=1.55, 1.99, p=0.023) and a lower odds of citing affordability as the reason for choosing the health establishment (OR=0.80, 95%CI=0.70, 0.92, p=0.001) than clients attending private non-franchise health establishments, as seen in Table 3. Clients attending a franchise establishment had greater odds of attending for family planning and reproductive health (see Table 4), with a relative risk ratio (RRR) of 2.09 (95%CI=1.71, 2.57, p=0.001), and for maternal and child health (RRR=1.13, 95%CI=1.71, 2.57, p=0.021 and to buy medicines (RRR=2.04, 95%CI=1.75, 2.37, p=0.024) than for general health care, relative to clients attending a private non-franchised health establishment.

TABLES 3 AND 4 ABOUT HERE

Clients attending other health establishments had significantly lower odds of citing affordability as the preferred feature of the health establishment (OR=0.47, 95%CI=0.39, 0.57, p=0.001), than those attending private non-franchised health establishments. Clients at government-operated health establishments had significantly lower odds of reporting that they felt the service was better than others available (OR=0.83, 95%CI=0.70, 0.99, p=0.002) than clients at private non-franchise health establishments. Relative to clients at private non-franchise health establishments, clients attending health establishments under all other operating authorities had significantly greater odds of reporting that they would return to the same health establishment (government OR=3.75, NGO OR=2.21 and other OR=1.47).

Client socioeconomic and demographic characteristics were important determinants of the client preference outcomes. Compared to females, male clients had significantly lower odds, about 10%, of attending a franchised health establishment (OR=0.91, 95%CI=0.82, 0.99, p=0.012), of reporting the services are better than others available

(OR= 0.81, 95%CI=0.71, 0.92, p=0.024), and of reporting that they would return to the same service (OR=0.88, 95%CI=0.79, 0.88, p=0.013), and greater odds of citing affordability as the preferred feature of the service (OR=1.30, 95%CI=1.16, 1.47, p=0.034). Males had a significantly lower likelihood, than females, of attending the establishment for family planning and reproductive health (RRR=0.19, 95%CI=0.16, 0.23, p=0.012) or maternal and child health (RRR=0.32, 95%CI=0.28, 0.36, p=0.017) than for general health.

Relative to illiterate clients, those with any level of educational attainment had about 25% lower odds of attending a franchise establishment (with ORs ranging from 0.78 for primary to 0.73 for higher schooling levels). Clients with secondary education had higher odds of attending the health establishment for family planning and reproductive health (RRR=1.46, 95%CI=1.14, 1.87, p=0.034) or maternal and child health (RRR=1.32, 95%CI=1.09, 1.59, p=0.015) than illiterate clients. Clients with monthly household incomes of $61-100 and $101-250 were about 25% less likely than those with incomes of less than $60 per month to attend a franchise establishment. Relative to clients with monthly household incomes of less than $60, clients of all other income levels had significantly lower odds of citing affordability as the preferred feature of the establishment ($61-100 OR=0.78, $101-250 OR=0.83, >$251 OR=0.58 and unknown income OR=0.72). Clients with household incomes of $101-250 had lower odds of reporting that the services were better than others available (OR=0.76, 95%CI=0.66, 0.89, p=0.025) than clients with household incomes of less than $60 per month.

Relative to clients with no children, clients with more than seven children had lower odds of attending a franchise establishment (OR=0.73, 95%CI=0.56, 0.94, p=0.028). As seen in Table 4, the likelihood of attending the health establishment for family planning or reproductive health increased with parity with relative risk ratios ranging from 1.81 at parity 1-2, to 1.68 for parity 3-4, to 1.86 for parity 5-6 and to 2.01 for parity 7 or higher.

Clients who have heard of the franchise network were 2.75 times more likely than those who have not heard, to attend a franchise facility (95%CI=2.42, 3.13, p=0.014) and 1.44 times more likely to report they would return to the same establishment for their next visit (95%CI=1.27, 1.63, p=0.035). They are 19% more likely than those have not heard to report that the services are better than others available (95%CI=1.04, 1.36, p=0.027) and 1.67 times more likely than those attending for general health care to obtain family planning and reproductive health services (95%CI=1.37, 2.04, p=0.014).

Relative to sampled clients in Bihar, clients in Pakistan and Ethiopia have lower odds of attending a franchise establishment (Pakistan OR=0.47, Ethiopia OR=0.08). Clients in Pakistan and Ethiopia have significantly greater odds of citing affordability as the preferred feature of the establishment than clients at establishments in Bihar (Pakistan OR=1.76, Ethiopia OR=2.16). Clients in Ethiopia have lower odds of reporting that the services are better than others available (OR=0.52, 95%CI=0.41, 0.65, p=0.017) while clients in Pakistan are 2.25 times more likely than those in Bihar to report services as better than others available (95%CI=1.75, 2.90, p=0.001). Clients in Pakistan and Ethiopia have a greater likelihood of attending the health establishment for family planning and reproductive health (Pakistan RRR=1.39, Ethiopia RRR=3.48) or to buy medicines (Pakistan RRR=7.47, Ethiopia RRR=21.80) than clients in Bihar, while clients in Pakistan are 1.42 times significantly more likely to attend the health establishment for maternal and child health care (95%CI=1.12, 1.79, p=0.021).

Discussion

Influence of franchising on health establishment outcomes

The modeling of the seven health establishment outcomes has identified associations between franchise status and several dimensions of service provision. Membership in a franchise is associated with significantly greater volumes of family planning and reproductive health clients, greater numbers of staff and greater ranges of both contraceptive method brands and reproductive health services. Relative to non-franchised private health establishments, franchise membership thus offers the opportunity to expand the range of family planning and reproductive health services provided and the potential for increased revenue through raised client volume.

Service providers may be motivated to join a franchise network for their perceived operating advantages (e.g., increased revenue, training opportunities, or expanded service capabilities), as well as social value (e.g., expanded access to family planning and reproductive health care or subsidizing health care for the less privileged). The study results support the ability of franchises to meet these needs of service providers, although a more in-depth analysis of provider data should be carried out.

In all three settings, the net number of additional reproductive health clients associated with franchise membership was observed to be lower than the net number of family planning clients, highlighting the family planning focus of the networks studied. Franchise networks can therefore capitalize further on their service marketing potential by promoting the range of reproductive health services available through their franchisees, thereby generating higher reproductive health client volumes and preventing franchised services from becoming associated with family planning services only.

Significant differences emerged between the three countries in the numbers of additional family planning and reproductive clients and services that were enabled by franchise membership. Franchised health establishments in Bihar had the highest number of additional family planning and reproductive health clients. Health establishments in the three regions of Ethiopia had the highest additional numbers of family planning brands, reflecting the generally low provision of family planning services presently.

Influence of franchising on client outcomes

In terms of client satisfaction, the modeling of client level outcomes showed that clients attending franchised health establishments had significantly greater odds of reporting an intention to return to the same health establishment. Clients attending health establishments under all other operating authorities, however, also had greater odds of reporting an intention to return to the same health establishment than clients at private non-franchised health establishments. The results thus demonstrate that although there are differences in client satisfaction between clients attending franchised health establishments and those attending private non-franchised health establishments, franchised health establishments are not unique in the higher levels of client satisfaction they offer relative to other health establishments. The odds of a client reporting that the services available at the health establishment were better than others available were not significantly different between clients attending franchised and private non-franchised health establishments. Hence, in terms of service provision, clients view franchised and non-franchised services similarly, despite the demonstrated greater range of reproductive health services and family planning brands available at franchised health establishments.

One aim of clinic franchising programs is to improve access to quality reproductive health services among lower socioeconomic sub-groups. Relative to illiterate clients, clients with all other education levels had significantly lower odds of attending a franchised health establishment. Franchised health establishments appear successful in attracting illiterate subgroups, which traditionally have low levels of health service utilization and greater unmet need for family planning services. The association between attending a franchised health establishment and monthly household income was less clear. Clients with monthly incomes of $61-250 were less likely to be attending a franchised health establishment than those with incomes of less than $60. Franchised health establishments thus appear to be serving both the poorest and richest sub-groups. Imperfect reporting of income by client, however, may be acting to influence the results found here.

Relative to nulliparous clients, women with seven or more children had lower odds of attending a franchised health establishment. As all clients were interviewed at health establishments, this result does not reflect the lower utilization of health services by higher parity couples. This finding may reflect an association between choice of service provider and age, with younger clients choosing franchised health establishments. Since franchise providers tend to dispense temporary contraceptive methods (pills, condoms, injectables and spermicides), their attractiveness to this group is reasonable. It may be, however, that clinic franchising programs' objectives to improve access to reproductive health services are missing an opportunity to address the needs of couples at higher parities who may also have a greater need for family planning services. In addition, the lower odds for men to attend a franchised health establishment point to the need to promote the services of clinic franchising programs among the male population.

Clients attending franchised health establishments had a greater likelihood of attending for family planning or reproductive health than for general health, highlighting a successful effect of clinic franchising programs in promoting their family planning and reproductive health services. Clients at health establishments under all other operating authorities also had a greater likelihood of attending for family planning and reproductive health services than clients at private non-franchised health establishments. Hence, private health establishments are in general less successful than health establishments under other operating authorities in attracting family planning and reproductive health clients, and franchise membership improves their ability to attract family planning and reproductive health clients.

Conclusion

The study's findings provide empirical support to the benefits of franchise membership for both service provider and client outcomes. For the provider, franchise membership is associated with in increased volumes of family planning and reproductive health clients, a greater range of reproductive health services, a larger number of family planning method brands, and higher numbers of staff. These benefits are not uniform across the three countries studied, with franchise networks in Bihar registering higher client volumes than networks in Pakistan and Ethiopia. The difference, however, partially reflects variations in network maturity, types of provider establishments, and operating contexts (urban, regional versus statewide), features of which are not fully captured in the model specifications.

For the client, attendance at a franchised health establishment results in greater client satisfaction relative to private non-franchised health establishments. Franchised health services are successful in attracting clients for family planning and reproductive health services, clients with no education, low parity clients, female and the poorest clients. However, for franchised health establishments to meet their aim of improving service access to all clients of low income, somewhat more focus is needed on targeting this subgroup, in addition to clients of higher parities, and of the male gender.

The persistent differences between private franchise and non-franchise establishments in all three settings point to the benefits of network membership for both the provider and their clients. At the same time, the disparities among networks in all the three countries highlight the differential success that can be achieved by clinic franchising programs with variable objectives operating in different resource and demand environments. Alternative financing mechanisms to engage the private health sector in expanding quality and affordable health care to rural and impoverished communities in developing countries warrant further design, experimentation and support.

Table 1. Health Establishment and Client Level Outcomes

Outcome	Operational Definition	Range	Mean	N
Health Establishment-Level				
Total client volume	Number of clients attending the health establishment in the month prior to the survey (logged)	0.50-10.81 (0-50,000)*	5.65 (7001)*	2612
Family planning client volume	Number of clients in the month prior to the survey coming for family planning methods (pill, injectable, condom, IUD, implant, male/female sterilization) and/or counseling (logged)	0.40-7.60 (0-2007)*	3.78 (91)*	2442**
Other reproductive health client volume	Number of clients attending in the month prior to the survey for pregnancy testing, prenatal care, tetanus immunization during pregnancy, delivery, post-partum care, STI diagnosis/management, HIV information or infertility management (logged)	0.41-9.27 (0-10,714)*	4.38 (140)	1770***
Total number of staff	Total number of medical and non-medical staff currently employed at the health establishment	0-169	3.25	2581
Doctor employed in health establishment	Whether there is a doctor currently employed in the health establishment	0-1	0.45	2581
Number of family planning brands	Number of family planning brands available at the health establishment, including pill, IUD, condom, injectable, spermicides and implant	0-13	2.90	2006**
Number of reproductive health services	The number of reproductive health services available at the health establishment, including pregnancy testing, prenatal care, tetanus immunization during pregnancy, delivery, post-partum care, STI diagnosis/management, HIV information and infertility management	0-11	2.80	1401***
Client-Level				
Franchise attendance	Whether the client is attending a franchised health establishment	0-1	0.31	13,873
Services are affordable	Whether the client reports affordability as the preferred feature of the health establishment	0-1	0.13	13,873
Service quality	Whether the client reports that the services at the health establishment are better than services available at other health establishments	0-1	0.88	13,873
Clients future service use intentions	Whether the client reports that they would return to the same health establishment for their next visit. Clients who have no need to return are excluded.	0-1	0.61	11,481
Reason for visit	The reason the client is attending the health establishment categorized as general health (41%), family planning/ reproductive health (11%), maternal / child health (20%) and to buy medicines (28%).	0-4	1.86	13,873

* Unlogged values are given in parenthesis.
** Health establishments not offering family planning are excluded.
***Health establishments not offering reproductive health services are excluded.

Table 2. Determinants of Health Establishment Outcomes

	Log of Total Client Volume in Previous Month		Log of Family Planning Client Volume in Previous Month		Log of Other Reproductive Health Client Volume in Previous Month		Total Number of Staff	Number of Family Planning Brands Available	Number of Reproductive Health Services Available	Health Establishment has a Doctor Present
	Coeff/SE	*Exp**	*Coeff/SE*	*Exp.*	*Coeff/SE*	*Exp*	*Coeff/SE*	*Coeff/SE*	*Coeff/SE*	*OR/95%CI*
Operating Authority										
Private (non-franchise)	ref		ref		ref		ref	*ref*	ref	1.00
Government	0.125 (0.083)	1.13	*1.092 (0.079)*	*2.98*	*0.503 (0.098)*	*1.65*	*2.935 (0.364)*	*0.320 (0.139)*	*0.131 (0.051)*	*0.55 (0.40, 0.70)*
NGO	*0.728 (0.191)*	*2.07*	*1.208 (0.185)*	*2.79*	0.102 (0.247)	1.10	*2.609 (0.842)*	*0.757(0.326)*	0.444 (0.428)	1.51 (0.74,3.04)
Other	*0.404 (0.074)*	*1.49*	*0.367 (0.071)*	*1.44*	-0.102 (0.104)	0.90	*-0.886 (0.329)*	*1.128 (0.133)*	*-0.995 (0.228)*	*0.14 (0.06, 0.29)*
Franchise	0.131 (0.069)	1.14	*0.652 (0.066)*	*1.92*	*0.244 (0.082)*	*1.28*	*0.541 (0.105)*	*0.795 (0.121)*	*0.289 (0.061)*	*0.47 (0.36, 0.61)*
Country										
Bihar, India	ref		ref		ref		ref	*ref*	ref	*1.00*
Pakistan	0.033 (0.086)	1.03	*-0.351 (0.084)*	*0.70*	*-1.393 (0.127)*	*0.25*	*-2.149 (0.881)*	*1.329 (0.140)*	*-0.826 (0.219)*	*9.90 (7.06, 13.8)*
Ethiopia	*-0.806 (0.084)*	*0.44*	*-0.835 (0.081)*	*0.43*	*-0.380 (0.120)*	*0.68*	*-2.336 (0.375)*	*-0.813 (0.135)*	0.260 (0.205)	*1.00 (0.70, 1.41)*
Years in operation	*0.011 (0.003)*	*1.01*	0.005 (0.003)	1.00	0.005 (0.003)	1.00	*0.090 (0.013)*	*-0.006 (0.003)*	0.005 (0.007)	*1.01 (1.00, 1.02)*
Years family planning has been provided at service	*0.006 (0.003)*	*1.00*	*0.011 (0.003)*	*1.01*	*0.015 (0.004)*	*1.02*	*-0.049 (0.017)*	*0.025 (0.006)*	*0.021(0.008)*	0.98 (0.97, 1.00)
Total client volume in past month	----	---	----	---	---	---	*0.003 (0.001)*	*0.004 (0.001)*	0.001 (0.001)	*1.00 (1.00, 1.02)*
Total number of staff	*0.035 (0.004)*	*1.04*	*0.017 (0.004)*	*1.02*	*0.032 (0.005)*	*1.03*	----	*0.021 (0.006)*	*0.035 (0.007)*	----

* Anti-logs of the metric regression coefficients are presented for the models of logged outcomes.
Standard error estimates are adjusted for complex sample design. Italicized coefficients and standard errors are statistically significant at the p<.05 level or better.

Table 3. Determinants of Client Level Outcomes

Figures are Odds Ratios and 95% Confidence Intervals

	Client is attending a franchised service	**Client cites affordability as preferred feature of service**	**Client thinks the services are better than others available**	**Client would return to the services next time**
SERVICE FEATURES				
Operating Authority				
Private (Non-franchised)	----	1.00	1.00	1.00
Government	----	1.06 (0.91, 1.23)	*0.83 (0.70, 0.99)*	*3.75 (3.25, 4.32)*
NGO	----	1.26 (0.95, 1.65)	1.24 (0.84, 1.81)	*2.21 (1.68, 2.91)*
Other	----	*0.47 (0.39, 0.57)*	0.84 (0.70, 1.00)	*1.47 (1.25, 1.73)*
Franchise	----	*0.80 (0.70, 0.92)*	1.09 (0.93, 1.28)	*1.75 (1.55, 1.99)*
Country				
Bihar, India	1.00	1.00	1.00	1.00
Pakistan	*0.47 (0.37, 0.59)*	*1.76 (1.40, 2.20)*	*2.25 (1.75, 2.90)*	0.98 (0.80, 1.19)
Ethiopia	*0.08 (0.06, 0.11)*	*2.16 (1.72, 2.72)*	*0.52 (0.41, 0.65)*	0.98 (0.79, 1.22)
CLIENT FEATURES				
Reason for attending service				
General Health	1.00	1.00	1.00	1.00
Family Planning / RH	*1.61 (1.32, 1.97)*	*1.42 (1.20, 1.68)*	0.87 (0.71, 1.07)	6.55 (5.57, 7.71)
Maternal / Child Health	1.05 (0.92, 1.19)	1.05 (0.92, 1.21)	0.90 (0.77, 1.05)	*1.26 (1.12, 1.42)*
Buy medicines / other	*2.29 (1.96, 2.67)*	*0.66 (0.58, 0.77)*	*0.76 (0.66, 0.89)*	*0.77 (0.67, 0.87)*
Monthly Household Income				
Less than $60	1.00	1.00	1.00	1.00
$61-100	*0.86 (0.75, 0.94)*	*0.78 (0.67, 0.91)*	0.92 (0.79, 1.09)	1.02 (0.90, 1.16)
$101-250	*0.75 (0.62, 0.90)*	*0.83 (0.67, 0.99)*	*0.76 (0.66, 0.89)*	1.11 (0.93, 1.32)
Greater than $251	1.19 (0.97, 1.46)	*0.58 (0.45, 0.75)*	0.92 (0.79, 1.09)	*0.81 (0.67, 0.99)*
Don't know	0.82 (0.58, 1.16)	*0.72 (0.50, 0.94)*	1.08 (0.88, 1.33)	0.95 (0.82, 1.16)
Educational Attainment				
Illiterate	1.00	1.00	1.00	1.00
Primary	*0.78 (0.65, 0.94)*	1.14 (0.95, 1.37)	1.02 (0.84, 1.23)	0.97 (0.82, 1.16)
Middle	*0.71 (0.61, 0.83)*	1.04 (0.89, 1.21)	1.10 (0.93, 1.29)	1.02 (0.89, 1.17)
High School complete	*0.69 (0.60, 0.80)*	0.92 (0.78, 1.07)	1.07 (0.91, 1.26)	1.04 (0.91, 1.19)
Higher education	*0.73 (0.62, 0.87)*	0.97 (0.81, 1.17)	1.01 (0.82, 1.23)	1.00 (0.85, 1.17)
Gender				
Female	1.00	1.00	1.00	1.00
Male	*0.91 (0.82, 0.99)*	*1.30 (1.16, 1.47)*	*0.81 (0.71,0.92)*	*0.88 (0.79, 0.88)*
Number of living children				
None	1.00	1.00	1.00	1.00
1/2	0.84 (0.71, 1.01)	0.89 (0.74, 1.06)	1.22 (1.02, 1.45)	1.11 (0.95, 1.30)
3/4	0.87 (0.72, 1.04)	0.88 (0.73, 1.06)	1.23 (1.03, 1.48)	1.07 (0.90, 1.26)
5/6	0.85 (0.69, 1.04)	*0.80 (0.65, 0.99)*	1.16 (0.94, 1.63)	1.17 (0.97, 1.42)
>7	*0.73 (0.56, 0.94)*	1.00 (0.78, 1.30)	1.11 (0.85, 1.45)	1.19 (0.93, 1.52)
Heard of franchise				
No	1.00	1.00	1.00	1.00
Yes	*2.75 (2.42, 3.13)*	1.04 (0.91, 1.19)	*1.19 (1.04, 1.36)*	*1.44 (1.27, 1.63)*

Figures in italics are statistically significant at 5% level or better. Models also control for waiting time at service, travel time to service, whether respondent discussed family planning with their partner, and sample design.

Table 4. Determinants of Reason for Attendance at Facility

Figures are Relative Risk Ratios and 95% Confidence Intervals

	FP / RH 'v' General Health	Maternal / Child Health 'v' General Health	Buy Medicines / Other 'v' General Health
SERVICE FEATURES			
Operating Authority			
Private (non-franchise)	1.00	1.00	1.00
Government	*5.80 (4.73, 7.12)*	*1.91 (1.64, 2.22)*	1.03 (0.82, 1.28)
NGO	*3.94 (2.81, 5.53)*	0.79 (0.55, 1.12)	*0.65 (0.43, 0.97)*
Other	*2.25 (1.58, 3.21)*	1.17 (0.95, 1.44)	*26.56 (21.87, 32.26)*
Franchise	*2.09 (1.71, 2.57)*	*1.13 (1.01, 1.27)*	*2.04 (1.75, 2.37)*
Country			
Bihar, India	1.00	1.00	1.00
Pakistan	*1.39 (1.01, 1.93)*	*1.42 (1.12, 1.79)*	*7.47 (5.74, 9.71)*
Ethiopia	*3.48 (2.53, 4.79)*	1.03 (0.80, 1.33)	*21.80 (16.66, 28.52)*
CLIENT FEATURES			
Monthly Household Income			
Less than $60	1.00	1.00	1.00
$61-100	0.82 (0.67, 1.01)	0.96 (0.83, 1.12)	1.06 (0.91, 1.24)
$101-250	1.03 (0.78, 1.37)	0.93 (0.75, 1.44)	1.06 (0.85, 1.31)
Greater than $251	*0.57 (0.42, 0.77)*	*0.70 (0.56, 0.88)*	0.98 (0.77, 1.23)
Don't know	*1.60 (1.13, 2.58)*	1.06 (0.77, 1.45)	1.26 (0.96, 1.64)
Educational Attainment			
Illiterate	1.00	1.00	1.00
Primary	1.04 (0.81, 1.34)	0.94 (0.78, 1.14)	0.83 (0.68, 1.03)
Middle	1.15 (0.94, 1.42)	1.09 (0.94, 1.27)	0.89 (0.75, 1.05)
High School complete	1.08 (0.88, 1.33)	1.00 (0.85, 1.17)	0.99 (0.84, 1.17)
Higher education	*1.46 (1.14, 1.87)*	*1.32 (1.09, 1.59)*	0.99 (0.82, 1.21)
Gender			
Female	1.00	1.00	1.00
Male	*0.19 (0.16, 0.23)*	*0.32 (0.28, 0.36)*	*2.02 (1.79, 2.27)*
Number of living children			
None	1.00	1.00	1.00
1/2	*1.81 (1.36, 2.42)*	*1.36 (1.14, 1.61)*	0.91 (0.76, 1.08)
3/4	*1.68 (1.25, 2.27)*	0.96 (0.80, 1.16)	0.84 (0.70, 1.01)
5/6	*1.86 (1.34, 2.59)*	0.83 (0.67, 1.04)	*0.79 (0.63, 0.98)*
>7	*2.01 (1.39, 2.98)*	*0.73 (0.54, 0.97)*	0.77 (0.58. 1.20)
Heard of franchise			
No`	1.00	1.00	1.00
Yes	*1.67 (1.37, 2.04)*	1.05 (0.91, 1.20)	*1.04 (0.90, 1.20)*

Figures in italics are statistically significant at 5% level or better. Model also controls for waiting time at service, travel time to service, whether respondent discussed family planning with their partner, and sample design.

References

1. Commercial Marketing Strategies 2002: Provider Networks - Improving Health Services. Commercial Marketing Strategies. http://cmsproject.com/technical/provider.cfm.

2. Marie Stopes International 2002: Social Franchising Reproductive Health Services: Can it work? A Review of the Experience. Research in Focus, No 5. Marie Stopes International, London, UK.

3. Harvey, P. 1991: In Poor Countries, "Self-Sufficiency" Can Be Dangerous For Your Health. Studies in Family Planning, vol. 22, pp. 52-54.

4. Population Services International. 2002. http://psiwash.org/

5. Futures Group Europe. 2002. http://fgeurope.com/site/fgesocmk.asp

6. Foreit, K. 1998: The Role of the Provider in Family Planning and Reproductive Health Services Marketing: Lessons Learned from SOMARC III. SOMARC Special Study #5. Washington, DC: The Futures Group International.

7. Smith, E. 1997: Social Franchising for EU Member States Experts Meeting on HIV/AIDS. Options / Department for International Development (summary), London, UK.

8. Dmytraczenko, T. 1997: Trade-off Between Rural Expansion and Financial Self-Sufficiency in the Delivery of Family Planning Services: The Case of Honduras, The Futures Group International, Washington, DC. http:www.tgfi.com/hond_pub.asp

9. Jensen, E. R., Kak, N., Satawinata, K., Wirawan, D. D., & Nangoy, N. 1994: Contraceptive Pricing and Prevalence: Family Planning Self-Sufficiency in Indonesia. International Journal of Health Planning and Management, vol. 9, pp. 349-359.

10. Schearer, B. S. 1983: Monetary and Health Costs of Contraception. In *Determinants of Fertility in Developing Countries: Volume 2: Fertility Regulation and Institutional Influences*, R. A. Bulatao & R. D. Lee, Eds. Academic Press, pp. 89-150.

11. Cisek, C. R. 1993: Using a Market Approach to Improve the Demand and use of Family Planning Services: MEXFAM case study. SOMARC Occasional Paper #18.

12. Anderson, H. J. 1985: Convenience Clinic Franchise Gives Not-for-Profit a Tool to Draw Patients. Modern Health Care, 9/13/1985.

13. Janowitz, B., Measham, D., & West, C. 1999: Issues in the Financing of Family Planning Services in Sub-Saharan Africa. Family Health International, Research Triangle Park, NC.

14. Jato, M. N., Simbakalia, C., Tarasevich, J. M., Awasum, D. N., Kihinga, C. N. M., & Ngirwamungu, E. 1999: The Impact of Multimedia Family Planning Promotion on the Contraceptive Behavior of Women in Tanzania. International Family Planning Perspectives, vol. 25, no. 2, pp. 60-67.

15. Field Briefings 1992: Ghanaian midwives have new family planning role. International Family Planning Perspectives, vol. 18, pp. 71-72.

16. Suyono, H. 1989: BKKBN and the Expanding Role of Private Sector Family Planning Services and Commercial Contraceptive Sales in Indonesia. Integration, vol. 20, pp. 19-23.

17. Stewart, J. F., Stecklov, G., & Adewuyi, A. 1999: Family Planning Program Structure and Performance in West Africa. International Family Planning Perspectives, vol. 25, (Supplement).

18. Arangho, H. 1989: The MEXFAM Community Doctors Project: An innovative service delivery. International Family Planning Perspectives, vol. 15, no. 3, pp. 96-99.

19. McBride, J. & Ahmed, R. 2001, *Social Franchising as a Strategy for Expanding Access to Reproductive Health Services: A case study of the Green Star service delivery network in Pakistan*, Commercial Marketing Strategies, New Directives in Reproductive Health. Technical Paper Series. Washington, D.C.

20. Montagu, D. 2002: Clients of Social Franchises: Behavior and Beliefs. Paper presented at: Population Association of America Annual Conference, Atlanta, 9-11 May, 2002.

21. Key Social Marketing, 2002: http://key.org.pk/aboutus.php