Reproductive Health in Today's World

Franchising Reproductive Health Services

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Objectives. Networks of franchised health establishments, providing a standardized set of services, are being implemented in developing countries. This article examines associations between franchise membership and family planning and reproductive health outcomes for both the member provider and the client.

Methods. Regression models are fitted examining associations between franchise membership and family planning and reproductive health outcomes at the service provider and client levels in three settings.

Results. Franchising has a positive association with both general and family planning client volumes, and the number of family planning brands available. Similar associations with franchise membership are not found for reproductive health service outcomes. In some settings, client satisfaction is higher at franchised than other types of health establishments, although the association between franchise membership and client outcomes varies across the settings.

Conclusions. Franchise membership has apparent benefits for both the provider and the client, providing an opportunity to expand access to reproductive health services, although greater attention is needed to shift the focus from family planning to a broader reproductive health context.

Key Words. Franchising, service delivery, reproductive health

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 (Commercial Marketing Strategies 2002; Marie Stopes International 2002). 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 nonclinical contraceptives, there

has been a less systematic evaluation of the effects of clinic franchising programs in developing countries. This article examines the associations between franchise membership in Pakistan, Ethiopia, and India and both health establishment and client-level outcomes. An understanding 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

The concept of applying commercial franchise procedures to health services has its roots in contraceptive social marketing programs, which aimed to increase awareness of family planning, improve availability and accessibility of contraceptive supplies and services, and promote cost recovery from retailers and fee-paying clients through the application of commercial strategies to the promotion of contraceptive methods (Harvey 1991; Population Services International 2002). Clinic franchising, however, extends the principles of social marketing programs to services, that is, *service marketing*. Franchised 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 (Foreit 1998). The result is a network of service providers offering a uniform set of services at predefined 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

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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 (Smith 1997). Two forms of clinic franchising currently exist; the *fractional model* in which franchise services are added to an existing practice, and the *stand-alone model* in which in a practice is established to provide exclusively franchised supported services (Smith 1997). Franchising organizations in developing countries have different levels of business and management expertise, and donors may or may not invest in these capacities (Dmytraczenko 1997). Additionally, the management styles involved in franchising range from active monitoring and control, that is, *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, that is, *first generation franchising* (Smith 1997). Considerable variation also exists in the requirements franchising organizations establish for providers entering their networks; 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 (Smith 1997; Arangho 1989).

Joining a franchise can give providers access to new expertise and capital and allow them to replicate a successful model of service provision quickly. Franchisees join a network with a range of objectives and social commitment levels. Potential benefits to a franchise member include opportunities for training, increased clientele and revenue, the opportunity to open, sustain, or expand a practice, and the opportunity to expand the range of services offered. In return, franchise members must pay a franchise fee and maintain certain standards of quality determined by the franchise agency. The continued participation in a franchise network is thus determined by the extent to which the benefits of membership outweigh the costs of membership. The presence of a franchise fee and the potential for improvements in health service provision should act to sustain commitment to the franchise network. At the same time, however, mandated franchise fees in a low-demand setting may compromise a franchising organization's ability to establish a large network of service delivery points; in very low-demand settings it may be possible that the cost-recovery from franchised family planning services would not outweigh the cost of franchise membership.

Clinic franchising programs in low-income countries tend for the most part to be donor funded and are often targeted to specifically address the

health needs of poor or low-income populations, or have a particular geographic focus, limiting their operations to urban areas or remote rural areas (Dmytraczenko 1997). In countries with low contraceptive prevalence and nominal private sector involvement in family planning, provision franchising organizations are quite sensitive to the affordability of their services and, as such, contraceptives are priced low and, 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 (Jensen et at. 1994; Schearer 1983). Monitoring client income levels is therefore essential both for ensuring affordability and for cost-recovery efforts among donor subsidized franchisers (Harvey 1991).

Franchising organizations commonly brand providers in their networks with their name, logo, and products and services, which often includes a uniform clinic appearance (Cisek 1993). One potential benefit of franchise membership may be access to increased promotional opportunities. Promotion, particularly mass media advertising, is generally too costly for an individual provider; when conducted by franchising organizations, pooled resources can enable providers to reach wider audiences using multiple forms of media (Anderson 1985; Janowitz, Measham, and West 1999; Jato et al. 1999; Field Briefings 1992). Clinic franchising programs may encourage providers to form ties with their communities and promote family planning among existing clients (Turner 1992). Other potential benefits of franchise membership include opportunities for 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 (Suyono 1989). 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 (Stewart, Stecklov, and Adewuyi 1999), although care must be taken not to neglect the less lucrative family planning services in favor of the more profitable medical services (Dmytraczenko 1997).

To date little is known of the impact of clinic franchise membership on the service provider or the client. A 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, ongoing support from U.S.-based agencies and donor-subsidized contraceptive supplies (Marie Stopes International 2002). The review of these franchises was unable to establish the sustainability of the franchise approach. A review of the Green Star franchise network, Pakistan, an urban-based network franchising family planning and reproductive health services through the private sector, found that franchise membership significantly increased family planning client volumes in member health establishments, and widened access to family planning services among poorer subgroups (McBride and Ahmed 2001). 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 (2002) notes limited variation in prices for family planning services between franchised and nonfranchised 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.

These limited evaluations of clinic franchise programs suggest both advantages and disadvantages of franchise membership, with evidence of expanded access to and choice of family planning methods and increased targeting of services towards poorer subgroups. These benefits, however, vary across franchises and among their members. This article presents an assessment of four different franchise networks operating in three countries, examining associations between franchise membership and service provider and client outcomes.

STUDY SETTINGS AND CLINIC FRANCHISE PROGRAMS

The study examines associations between clinic franchise membership and outcomes for the service provider and client in three settings: urban Pakistan,

Bihar state in India, and three regions of Ethiopia (Addis Ababa, Oromia, and Amhara). Each of these settings is different in terms of contraceptive prevalence (Pakistan national CPR 28 percent, Ethiopia national CPR 8 percent, and Bihar CPR 18 percent) (World Population Data Sheet 2003; International Institute for Population Sciences and ORC Macro 2000) and hence the demand for family planning services varies across the three settings. Each of the three settings also has a different policy environment and history of family planning service provision, and has varying degrees of involvement of the private sector in health service provision. Additionally, the form of the franchise networks varies across the three settings, as detailed below. Thus this study essentially examines the influence of three different franchise networks in three very different socioeconomic, cultural, and health service environments. The aim is to identify the range of associations between franchise membership and service and provider outcomes that exist across settings and networks forms, rather than a single set of influences of franchise membership.

In Pakistan two franchise networks are examined: Green Star and Green Key. The private sector in Pakistan provides over 70 percent of all health care, but has limited involvement in family planning provision. Green Star was launched in 1997 under Social Marketing Pakistan (SMP) and is focused on urban areas, providing capacity-building for existing doctors and midwives in the private sector who provide services to low-income populations. Through the addition of family planning services Green Star aims to improve quality of care, and increase client volume and sustainability among its franchise members. Franchisees must agree to provide high-quality services and offer prices affordable to low-income clients, and in return 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 percent coverage of total couple years of protection. The Green Key network is implemented by the Futures Group and was launched after Green Star. Green Key offers training in birthspacing counseling and access to hormonal contraceptive products (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, Green Key has developed a referral network of hospitals that includes private hospitals and clinics, and franchise members can refer clients to these hospitals for more extensive counseling and service support (Key Social Marketing 2002). Health care providers can participate in both Green Star and

Key networks if motivated to expand the number of contraceptive methods and brands offered.

In India the Janani franchise network is examined. The private market in Bihar has largely ignored the rural sector (90 percent of the population), and delivery channels for contraceptives have lagged behind those of other consumer goods. Janani aims to expand contraceptive supply networks and increase their sustainability, with an emphasis on high volume, not high price. The organization established subsidized contraceptive shops in 1996, and started working with existing private providers and expanding into rural areas in early 1997, and as a result there are currently more than 11,000 health providers participating in the Janani network. The franchise supports sexually transmitted infections (STI) treatment and abortion care as well as family planning services.

In Ethiopia the Biruh Tesfa, or "Ray of Hope," franchise network is examined. Implemented by Pathfinder International, Biruh Tesfa is a private sector franchise for family planning and reproductive health services that began in January 2000 with funding from the Packard Foundation, operating in three regions: Addis Ababa, Oromia, and Amhara. Franchise members are existing clinical community-based health care providers and at the time of the study, 92 clinics, 150 community health agents, 100 trained birth attendants, 48 marketplace providers, and 120 workplace providers have joined the network. Franchise members receive training in the delivery of contraceptives, sexually transmitted disease (STD) prevention, HIV/AIDS counseling, and postabortion care, as well as referral procedures. According to their clinical capacity franchise members may also receive training in financial management, procurement support for supplies and equipment, and supervision.

DATA

This study uses data collected independently from each of the three study settings, using standardized questionnaires to allow comparability of the data. Between January and September 2001, multistage 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 each setting the health facility was sampled first, then staff and clients sampled within health facilities. In Pakistan, the sample of health establishments was drawn for the urban areas, where the franchise networks are located. Cities were stratified into 3 population size groups and a total of 11 cities were selected with

probability proportional to size (PPS). Within cities wards the low- to middle-income areas were sampled using PPS and all health facilities within these wards mapped and listed. A systematic sample of facilities was then selected with a target size of 1,000 and actual sample of 993 health facilities from the governmental, nongovernmental nonprofit, pharmacy/other, and private sectors. The private health facilities were then divided into franchised and nonfranchised health facilities. Within each selected ward all franchised health facilities were sampled. Across all types of health facility, all health staff in the facility were enumerated and those authorized to provide family planning services were interviewed if present; the achieved sample size was 1,113 staff. Clients presenting at the sampled health facilities on the day of the facility survey were listed; and with the estimated daily volume and after a random start, 8 clients were selected systematically for exit interviews at each site. The total client sample size was 7,431 in 993 health establishments. Table 1 shows the distribution of the sample sizes by private sector and franchise status for each of the three study regions.

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 region. 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, producing a final sample of 1,305 health facilities: government, nongovernmental nonprofit, pharmacy/other, and private. Private health facilities were then divided into franchised and nonfranchised health facilities. Family planning staff and clients were selected using the same procedures followed in Pakistan, although only 4, rather than 8, clients per facility were selected for sample sizes of 1,944 staff and 4,905 clients across 1,305 health facilities.

The Ethiopia survey focused on the three regions where the Biruh Tesfa franchise operated, one of which (Addis Ababa) was predominantly urban. Within Addis Ababa, 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

Table 1:   Distribution of Samples by Private Sector and Franchise Status

	Urban Pakistan				Bihar, India				Three Regions of Ethiopia			
	Private Franchise	Private Nonfranchise	Total Private Sector	Total Sample	Private Franchise	Private Nonfranchise	Total Private Sector	Total Sample	Franchise	Private Nonfranchise	Total Private Sector	Total Sample
Number of health facilities	387	213	600	993	410	540	950	1,305	31	85	116	369
Number of health staff	448	238	686	113	811	770	1,581	1,944	39	272	311	525
Number of clients	2,883	1,002	3,885	7,431	1,362	1,609	2,971	4,905	165	356	521	1,537

(government or private) identified. A stratified random sample of 92 health facilities was selected for interview. In the other two regions (Oromia and Amhara) 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). The total sample size of health facilities for the three regions was 369 from the government, nongovernmental nonprofit, pharmacy/other and private sectors. Private health facilities were then divided into franchised and nonfranchised health facilities. 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, that is, a health facility, staff, and client exit questionnaire, and these were standardized across the three study settings. At the health facility level, the questionnaire aimed to measure service activity and features, as well as 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.

METHOD

To recognize the variation in the study settings and the forms of franchise networks involved, the data for each study setting is analyzed separately. The reasons for health establishments joining franchise networks include the potential to expand services, income generation through increased client volume, and increased service quality and client satisfaction. Each of these potential areas of service improvement is examined in the analysis. Six aspects of the health establishment are modeled. To examine associations between franchise membership and client volumes three measures of monthly client volume are modeled (total, family planning, and other reproductive health).

To examine associations between franchise membership and service expansion two service measures are modeled (number of contraceptive method brands and number of reproductive health services offered), and to measure the association between franchise membership and service capacity we model the total number of staff working at the health establishment. The distributions of the three client volume measures are skewed; hence the logs of the volumes are modeled. At the client level we examine the association between franchise membership and three measures of client satisfaction (perceived affordability of service, comparative quality of services, and willingness to return to site for future services). We also model attendance at a franchised health establishment, in order to determine the characteristics of clients using franchised health services to examine whether franchised health services achieve their goal of serving the poorer sectors of the population. Table 2 provides definitions of the variables modeled. The sample sizes in the three settings are for health establishments, Pakistan 993, Bihar 1,305, Ethiopia 369, and for clients, Pakistan 7,431, Bihar 4,905, and Ethiopia 1,537.

Separate models are fitted for each of the 10 variables modeled in each of the three settings. Logistic regression models are fitted for the following: whether the client is receiving services from a franchise member 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 to; 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.

The key covariate of interest in each of the models is the type of health establishment, categorized as private nonfranchise, franchise, nongovernmental organization, government, and other (where other includes pharmacies/medical shops and traditional healers). The separation of private services into franchised and nonfranchised allows the identification of associations between each of the dependent variables and franchise membership. For Pakistan, Green Star and Green Key franchise members are grouped together. The models additionally control for other features of the health establishment (years of operation and years of family planning service provision) and at the client level, the socioeconomic and demographic characteristics of clients. Clients' monthly household incomes have been converted to U.S. dollars to ease interpretation.

Table 2:   Health Establishment and Client-Level Measures

Independent Variable	Operational Definition
Total client volume	Number of clients attending the health establishment in the month prior to the survey (logged)
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)
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, postpartum care, STI diagnosis/ management, HIV information, or infertility management (logged)
Total number of staff	Total number of medical and nonmedical staff currently employed at the health establishment
Number of family planning brands	Number of family planning brands available at the health establishment, including pill, IUD, condom, injectable, spermicides, and implant
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, postpartum care, STI diagnosis/management, HIV information, and infertility management
Franchise attendance	Whether the client is attending a franchised health establishment
Services are affordable	Whether the client reports affordability as the preferred feature of the health establishment
Service quality	Whether the client reports that the services at the health establishment are better than services available at other health establishments
Client's 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

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 Level

Table 3 shows the results of modeling the client volume measures.[1] Relative to private nonfranchised services, franchise membership is associated with a

Table 3:   Determinants of Client Volume Measures

	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		
	Pakistan	*Bihar*	*Ethiopia*	*Pakistan*	*Bihar*	*Ethiopia*	*Pakistan*	*Bihar*	*Ethiopia*
Operating Authority									
Private (nonfranchise)	ref	ref	ref	ref	ref	ref	ref	ref	ref
NGO	0.385 (0.250)	0.050 (0.232)	*1.819 (0.378)*	*0.896 (0.266)*	0.121 (0.282)	*2.745 (0.284)*	0.323 (0.310)	0.274 (0.327)	*1.581 (0.333)*
Other	−0.068 (0.119)	*0.156 (0.063)*	0.210 (0.362)	*0.336 (0.128)*	*0.897 (0.072)*	0.378 (0.296)	*0.550 (0.143)*	0.109 (0.091)	−0.102 (0.300)
Government	*−0.455 (0.139)*	0.150 (0.090)	*1.257 (0.271)*	*1.500 (0.143)*	*0.777 (0.103)*	*1.933 (0.211)*	*0.751 (0.164)*	0.195 (0.128)	*2.639 (0.231)*
Franchise	*0.317 (0.112)*	*0.939 (0.077)*	*0.935 (0.224)*	*0.895 (0.121)*	*0.758 (0.088)*	*0.999 (0.181)*	*0.799 (0.173)*	0.434 (0.321)	0.012 (0.023)
Years in operation	*0.018 (0.005)*	0.009 (0.003)	0.001 (0.001)	0.009 (0.005)	0.002 (0.003)	0.004 (0.006)	−0.003 (0.007)	0.003 (0.006)	0.009 (0.010)
Years family planning has been provided at service	−0.006 (0.006)	*0.010 (0.004)*	0.003 (0.003)	0.007 (0.007)	*0.017 (0.004)*	0.005 (0.009)	*0.022 (0.008)*	*0.013 (0.006)*	0.008 (0.012)
Total client volume in past month	—	—	—	—	—	—	—	—	—
Total number of staff	*0.041 (0.007)*	*0.112 (0.011)*	*0.018 (0.007)*	0.008 (0.009)	*0.085 (0.012)*	*0.011 (0.005)*	*0.047 (0.009)*	*0.119 (0.015)*	*0.010 (0.006)*

Standard error estimates are adjusted for complex sample design. Italicized coefficients and standard errors are statistically significant at the $p < .05$ level or better.

Figure 1:   Additional Number of Clients Associated with Franchise Membership (*Not significant at 5% level)
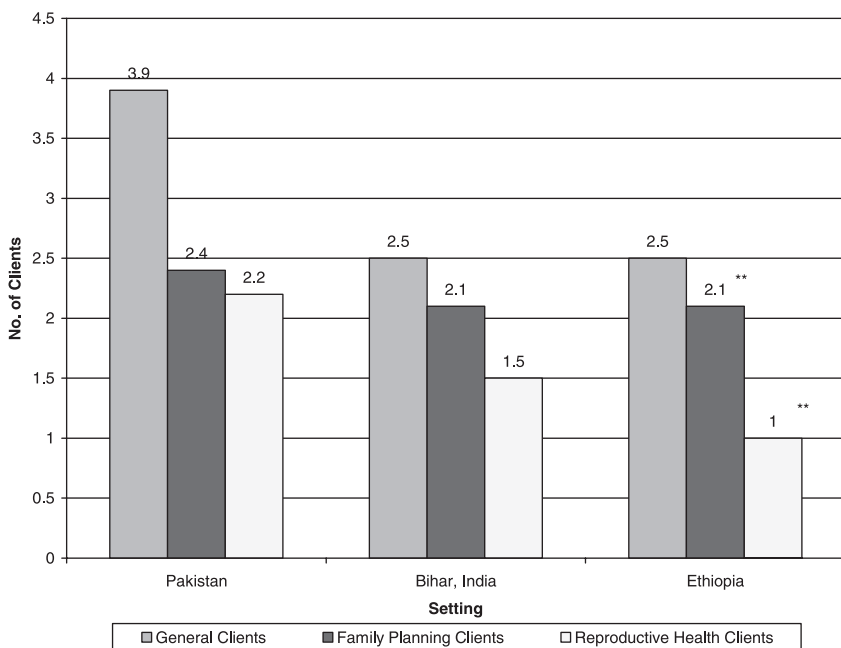
significantly greater total client volume and a significantly greater family planning client volume in each of the three study settings (total client volume: Pakistan coeff = 0.317, s.e = 0.112, Bihar coeff = 0.939, s.e = 0.077, Ethiopia coeff = 0.935, s.e = 0.224; family planning client volume: Pakistan co-eff = 0.895, s.e = 0.121, Bihar coeff = 0.758, s.e = 0.088, Ethiopia coeff = 0.999, s.e = 0.181). Only in Pakistan is franchise membership significantly associated with a greater volume of reproductive health clients (coeff = 0.799, s.e = 0.173). Family planning clients make up only a small percentage of the total clients surveyed in each country; Pakistan 13.0 percent, Ethiopia 14 percent, and Bihar 3.5 percent. Figure 1 shows the additional number of clients that are associated with franchise membership, calculated as the antilogs of the coefficients of the logged outcomes, and after controlling for the other independent variables in the models. Membership in a franchise network is associated with an additional 2.4 family planning clients in Pakistan, 2.1 in Bihar, and 2.7 in Ethiopia. In Pakistan, membership in a franchise network is associated with 2.2 additional reproductive health clients.

Franchise membership is also associated with an additional 3.9 general clients in Pakistan and 2.5 in both Bihar and Ethiopia.

Relative to private nonfranchised health establishments, nongovernmental organization (NGO) and government-operated health establishments in Ethiopia show a significant positive association with total client volumes (NGO coeff = 1.819, s.e = 0.378, government coeff = 1.251, s.e = 0.271), while in Bihar "other" health establishments show a significant positive association with total client volumes (coeff = 0.156, s.e = 0.063). In Pakistan, government health establishments are associated with significantly lower total client volumes than private nonfranchised health establishments (coeff = −0.455, s.e = 0.139). In terms of family planning client volume, "other" health establishments have a significant positive association with family planning client volumes in Pakistan and Bihar (Pakistan coeff = 0.336, s.e = 0.128, Bihar coeff = 0.897, s.e = 0.072) while in all three study settings government health establishments are associated with significantly greater family planning client volumes (Pakistan coeff = 1.500, s.e = 0.143, Bihar coeff = 0.777, s.e = 0.103, Ethiopia coeff = 1.933, s.e = 0.211). Nongovernmental organization operated health establishments in Pakistan and Ethiopia show a significant positive association with the volume of family planning clients (Pakistan coeff = 0.896, s.e = 0.266, Ethiopia coeff = 2.754, s.e = 0.284). In Pakistan "other" and government health establishments show significant positive associations with the volume of reproductive health clients (other coeff = 0.550, s.e = 0.143, government coeff = 0.751, s.e = 0.164), while in Ethiopia NGO and government health establishments are associated with significantly greater volumes of reproductive health clients (NGO coeff = 1.581, s.e = 0.333, government coeff = 2.639, s.e = 0.231).

Franchised health establishments show a significant negative association with the total number of staff working in a private health establishment (Pakistan coeff = −1.460, se = 0.481, Bihar coeff = −1.156, s.e = 0.195, Ethiopia coeff = −3.464, s.e = 0.234) (Table 4). Franchised health establishments also have a significant positive association with the number of contraceptive method brands available (Pakistan coeff = 3.568, s.e = 0.234, Bihar coeff = 2.430, s.e = 0.128, Ethiopia coeff = 1.675, s.e = 0.206), however they are associated with a significantly lower number of reproductive health services (Pakistan coeff = −0.847, s.e = 0.195, Bihar coeff = −4.262, s.e = 0.186, Ethiopia coeff = −3.412, s.e = 0.231). In contrast, "other" health establishments in all three countries showed significant positive associations with the number of staff, number of contraceptive brands and reproductive health services available. Nongovernmental organization operated health

Table 4:   Determinants of Reproductive Health Service Measures

	Total Number of Staff			Number of Family Planning Brands Available			Number of Reproductive Health Service Available		
	Pakistan	*Bihar*	*Ethiopia*	*Pakistan*	*Bihar*	*Ethiopia*	*Pakistan*	*Bihar*	*Ethiopia*
Operating Authority									
Private (nonfranchise)	ref	ref	ref	ref	ref	ref	ref	ref	ref
Government	0.246 (0.175)	0.440 (0.563)	3.393 (2.545)	0.503 (0.520)	− 0.382 (0.366)	2.709 (0.351)	0.349 (0.434)	0.060 (0.532)	1.168 (0.394)
NGO	0.509 (0.513)	0.493 (0.152)	0.367 (0.339)	1.987 (0.248)	1.498 (0.099)	0.919 (0.326)	0.963 (0.207)	1.446 (0.144)	0.483 (0.365)
Other	1.683 (0.600)	1.640 (0.214)	5.433 (1.803)	2.482 (0.291)	1.448 (0.142)	1.585 (0.251)	0.960 (0.243)	0.286 (0.207)	2.485 (0.281)
Franchise	− 1.460 (0.481)	− 1.156 (0.195)	− 3.464 (1.489)	3.568 (0.234)	2.430 (0.128)	1.675 (0.206)	− 0.847 (0.195)	− 4.262 (0.186)	− 3.412 (0.231)
Years in operation	0.030 (0.023)	0.020 (0.008)	0.307 (0.061)	− 0.025 (0.011)	− 0.003 (0.005)	− 0.014 (0.008)	− 0.020 (0.009)	0.004 (0.007)	0.003 (0.009)
Years family planning has been provided at service	− 0.001 (0.002)	0.004 (0.010)	− 0.251 (0.085)	0.074 (0.013)	0.002 (0.006)	0.032 (0.011)	0.063 (0.011)	− 0.001 (0.009)	0.007 (0.013)
Total client volume in past month	0.769 (0.140)	0.660 (0.065)	0.793 (0.341)	0.240 (0.069)	0.367 (0.044)	0.090 (0.047)	− 0.377 (0.057)	0.595 (0.063)	− 0.058 (0.053)
Total number of staff	—	—	—	0.046 (0.016)	0.048 (0.018)	0.016 (0.007)	0.077 (0.013)	0.193 (0.026)	0.007 (0.008)

Standard error estimates are adjusted for complex sample design. Italicized coefficients and standard errors are statistically significant at the $p < .05$ level or better.

establishments in all three study settings showed significant positive associations with the number of contraceptive brands available, and positive associations with the number of reproductive health services in Pakistan and Bihar.

Other factors were also significantly associated with the health establishment measures (Table 4). There was a significant positive associations between the total number of staff at the health establishment and the total client volume in each of the three study settings, with family planning client volume in Bihar and Ethiopia, and reproductive health client volume in Pakistan and Bihar. The number of years the health establishment has been in operation is also significantly associated with total client volume in Pakistan and Bihar, but not with family planning or reproductive health client volumes. The number of years that family planning has been available at the health establishment shows significant positive associations with all three measures of client volume in Bihar and with reproductive health client volume in Pakistan. In Pakistan the age of the health establishments has a significant negative association with the number of contraceptive brands available, while in Bihar and Ethiopia the age of the facility showed a significant positive association with the number of staff present. The age of the family services showed a significant negative association with staff size in Ethiopia, a significant positive association with the number of contraceptive brands available in Pakistan and Ethiopia, and a significant positive association with the number of reproductive health services in Pakistan.

Client Level

The odds of a client citing affordability as the reason for choosing the health establishment, or of reporting that they felt the services offered were better than those at other health establishments, were not significantly different between clients at franchised and nonfranchised health establishments as seen in Tables 5 and 6. However, clients attending franchised health establishments in Pakistan have significantly greater odds of reporting that they would return to the service for their next visit (OR = 1.61, 95 percent CI = 1.38, 1.88) than clients at nonfranchised health services, and clients at franchised health establishments in Ethiopia have significantly lower odds of reporting an intention to return to the same service (OR = 0.47, 95 percent CI = 0.24, 0.89) than clients at nonfranchised health establishments.

Clients at "other" health establishments in Pakistan and government health establishments in Bihar had significantly lower odds of citing affordability as the preferred feature of the health establishment than clients at

Table 5: Determinants of Client-Level Measures
(Figures Are Odds Ratios and 95 Percent Confidence Intervals)

	Client Is Attending a Franchised Service			Client Cites Affordability as Preferred Feature of Service		
	Pakistan	Bihar	Ethiopia	Pakistan	Bihar	Ethiopia
SERVICE FEATURES						
Operating Authority						
Private (Nonfranchised)	—	—	—	ref	ref	ref
NGO	—	—	—	1.43 (1.01, 2.01)	0.70 (0.29, 1.67)	2.14 (1.19, 3.86)
Franchise	—	—	—	0.93 (0.77, 1.12)	0.94 (0.70, 1.27)	0.66 (0.32, 1.34)
Government	—	—	—	1.22 (0.99, 1.48)	0.56 (0.38, 0.84)	2.44 (1.52, 3.92)
Other	—	—	—	0.26 (0.20, 0.36)	0.77 (0.56, 1.05)	1.99 (1.13, 3.51)
CLIENT FEATURES						
Reason for Attending Service						
General Health	ref	ref	ref	ref	ref	ref
Family Planning/RH	0.65 (0.55, 0.77)	1.78 (1.29, 2.45)	0.78 (0.49, 1.24)	1.22 (0.99, 1.51)	1.76 (1.16, 2.66)	1.22 (0.76, 1.97)
Maternal/Child Health	0.99 (0.87, 1.13)	0.74 (0.61, 0.89)	0.35 (0.19, 0.62)	1.01 (0.85, 1.21)	1.33 (1.03, 1.71)	0.67 (0.40, 1.11)
Buy Medicines/Other	0.86 (0.75, 0.97)	0.14 (0.12, 0.18)	0.07 (0.03, 0.14)	0.89 (0.71, 1.12)	0.34 (0.23, 0.50)	0.81 (0.47, 1.39)
Monthly Household Income						
Less than $60	ref	ref	ref	ref	ref	ref
$61–100	1.06 (0.94, 1.20)	0.94 (0.72, 1.22)	0.64 (0.32, 1.24)	0.89 (0.67, 0.95)	0.70 (0.47, 1.04)	0.86 (0.52, 1.41)
$101–250	1.29 (1.04, 1.61)	1.02 (0.81, 1.29)	0.26 (0.08, 0.80)	0.62 (0.43, 0.89)	0.92 (0.67, 1.26)	1.12 (0.68, 1.83)
Greater Than $251	1.42 (1.20, 1.67)	0.87 (0.51, 1.48)	0.93 (0.61, 1.43)	0.52 (0.40, 0.69)	0.82 (0.37, 1.80)	1.09 (0.51, 2.17)
Educational Attainment						
Illiterate	ref	ref	ref	ref	ref	ref
Primary	0.99 (0.80, 1.21)	0.52 (0.41, 0.67)	1.98 (1.09, 3.06)	1.11 (0.86, 1.44)	1.15 (0.82, 1.60)	1.57 (0.98, 2.51)
Middle	1.01 (0.87, 1.17)	0.54 (0.44, 0.67)	0.91 (0.50, 1.68)	0.90 (0.74, 1.10)	1.28 (0.95, 1.72)	1.81 (1.18, 2.17)
High School and Higher	1.15 (1.00, 1.33)	0.34 (0.27, 0.43)	1.54 (0.84, 2.40)	0.72 (0.59, 0.88)	1.28 (0.95, 1.74)	1.39 (0.88, 2.19)

Gender						
Female	ref	ref	ref	ref	ref	ref
Male	*0.85 (0.76, 0.95)*	1.04 (0.80, 1.36)	0.69 (0.44, 1.07)	*1.47 (1.23, 1.74)*	*1.51 (1.19, 1.92)*	1.34 (0.98, 1.84)
Number of Living Children						
None	ref	ref	ref	ref	ref	ref
1–2	*0.72 (0.59, 0.88)*	1.04 (0.80, 1.36)	0.79 (0.50, 1.22)	1.04 (0.76, 1.38)	1.16 (0.80, 1.69)	0.77 (0.55, 1.07)
3–4	*0.72 (0.59, 0.87)*	0.84 (0.64, 1.10)	1.01 (0.57, 1.76)	1.02 (0.76, 1.38)	1.19 (0.81, 1.73)	0.79 (0.52, 1.19)
5+	*0.66 (0.53, 0.81)*	0.92 (0.68, 1.25)	0.51 (0.21, 1.22)	0.97 (0.70, 1.34)	1.17 (0.76, 1.80)	*0.39 (0.20, 0.75)*
Heard of Franchise						
No	ref	ref	ref	ref	ref	ref
Yes	*1.70 (1.45, 1.99)*	*5.43 (4.61, 6.39)*	*3.38 (2.20, 5.18)*	0.87 (0.71, 1.07)	1.16 (0.92, 1.46)	0.97 (0.71, 1.32)

Figures in italics are statistically significant at the 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 6:   Determinants of Client Satisfaction Measures (Figures Are Odds Ratios and 95 Percent Confidence Intervals)

	Client Thinks the Services Are Better Than Others Available			Client Would Return to the Services Next Time		
	Pakistan	Bihar	Ethiopia	Pakistan	Bihar	Ethiopia
SERVICE FEATURES						
Operating Authority						
Private (Nonfranchised)	ref	ref	ref	ref	ref	ref
NGO	0.72 (0.45, 1.18)	0.59 (0.28, 1.20)	2.59 (1.28, 5.22)	2.01 (1.48, 2.74)	1.21 (0.71, 2.06)	4.23 (2.45, 7.31)
Franchise	1.01 (0.78, 1.30)	1.13 (0.82, 1.54)	0.88 (0.53, 1.48)	1.61 (1.38, 1.88)	1.12 (0.91, 1.36)	0.47 (0.24, 0.89)
Government	1.03 (0.78, 1.36)	0.49 (0.35, 0.67)	1.12 (0.71, 1.74)	3.58 (3.04, 4.22)	1.58 (1.25, 2.00)	5.59 (3.72, 8.41)
Other	0.76 (0.55, 1.04)	0.77 (0.57, 1.04)	1.07 (0.65, 1.76)	1.08 (0.88, 1.31)	1.02 (0.83, 1.25)	1.16 (0.70, 1.91)
CLIENT FEATURES						
Reason for Attending Service						
General Health	ref	ref	ref	ref	ref	ref
Family Planning/RH	0.80 (0.59, 1.08)	0.77 (0.49, 1.22)	0.98 (0.61, 1.59)	5.28 (4.29, 6.51)	2.22 (1.61, 3.07)	5.12 (3.20, 8.17)
Maternal/Child Health	0.88 (0.69, 1.11)	0.78 (0.62, 1.00)	1.58 (0.98, 2.54)	1.01 (0.88, 1.31)	0.80 (0.68, 0.94)	1.73 (1.15, 2.62)
Buy Medicines/Other	1.00 (0.76, 1.31)	0.68 (0.53, 0.87)	0.70 (0.43, 1.15)	1.04 (0.89, 1.23)	0.91 (0.75, 1.09)	1.03 (0.63, 1.68)
Monthly Household Income						
Less than $60	ref	ref	ref	ref	ref	ref
$61–100	0.99 (0.80, 1.23)	0.81 (0.60, 1.01)	0.65 (0.41, 1.05)	1.11 (0.97, 1.27)	1.05 (0.84, 1.30)	1.28 (0.80, 2.05)
$101–250	1.36 (0.87, 2.12)	1.22 (0.92, 1.63)	0.57 (0.32, 0.81)	1.37 (1.08, 1.74)	1.33 (1.09, 1.62)	1.92 (1.17, 3.13)
Greater Than $251	0.91 (0.69, 1.21)	2.32 (1.01, 5.38)	0.91 (0.44, 1.86)	0.91 (0.76, 1.10)	1.39 (0.90, 2.15)	0.57 (0.27, 1.18)
Educational Attainment						
Illiterate	ref	ref	ref	ref	ref	ref
Primary	0.74 (0.53, 1.02)	1.43 (1.04, 1.95)	1.05 (0.69, 1.59)	0.91 (0.73, 1.13)	1.12 (0.91, 1.38)	0.40 (0.25, 0.62)
Middle	1.07 (0.82, 1.39)	0.99 (0.77, 1.28)	1.65 (1.22, 2.44)	1.15 (0.98, 1.35)	1.15 (0.95, 1.39)	0.43 (0.29, 0.65)
High School and Higher	0.95 (0.74, 1.23)	1.09 (0.84, 1.42)	1.79 (1.18, 2.70)	1.18 (1.01, 1.37)	1.25 (1.03, 1.51)	0.43 (0.28, 0.65)

Gender						
Female	ref	ref	ref	ref	ref	ref
Male	0.89 (0.71, 1.11)	0.59 (0.48, 0.73)	1.49 (1.12, 1.99)	0.88 (0.77, 0.99)	0.89 (0.76, 1.03)	0.75 (0.56, 1.01)
Number of Living Children						
None	ref	ref	ref	ref	ref	ref
1–2	1.33 (0.97, 1.84)	1.00 (0.73, 1.38)	1.40 (1.02, 1.93)	1.22 (0.98,1.53)	2.47 (1.92, 3.16)	1.36 (0.98, 1.89)
3–4	1.40 (1.01, 1.93)	0.95 (0.69, 1.31)	1.73 (1.16, 2.58)	1.37 (1.10, 1.72)	7.96 (6.19, 9.23)	1.71 (1.15, 2.55)
5+	1.49 (1.04, 2.13)	0.84 (0.59, 1.20)	1.61 (1.14, 1.84)	1.84 (1.45, 2.34)	7.90 (6.22, 9.46)	1.91 (1.15, 3.17)
Heard of Franchise						
No	ref	ref	ref	ref	ref	ref
Yes	1.39 (1.09, 1.76)	1.17 (0.96, 1.44)	1.07 (0.80, 1.44)	1.41 (1.19, 1.67)	1.48 (1.28, 1.71)	0.79 (0.58, 1.07)

Figures in italics are statistically significant at the 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.

private nonfranchised health establishments (Pakistan "other" OR = 0.26, 95 percent CI = 0.20, 0.36; Bihar governement OR = 0.56, 95 percent CI = 0.38, 0.84) than those attending private nonfranchised health establishments. Conversely, clients at other health establishments (OR = 1.99, 95 percent CI = 1.13, 3.51) and government health establishments (OR = 2.44, 95 percent CI = 1.53, 3.92) in Ethiopia had a significantly greater odds of reporting affordability as the preferred feature of the health establishment than clients at private nonfranchised services. Clients at government-operated health establishments in Bihar had significantly lower odds of reporting that they felt the service was better than others available (OR = 0.49, 95 percent CI = 0.35, 0.67) than clients at private nonfranchise health establishments. Relative to clients at private nonfranchise health establishments, clients attending government health establishments in all three study settings had significantly greater odds of reporting that they would return to the same health establishment (Pakistan OR = 3.58, 95 percent CI = 3.04, 4.22; Bihar OR = 1.58, 95 percent CI = 1.25, 2.00; Ethiopia OR = 5.59, 95 percent CI = 3.72, 8.41).

Significant associations were found between client socioeconomic and demographic characteristics and the client measures. Compared to females, male clients had significantly lower odds of attending a franchised health establishment in Pakistan (OR = 0.85, 95 percent CI = 0.76, 0.95), and greater odds of citing affordability as the preferred feature of the service in Pakistan (OR = 1.47, 95 percent CI = 1.23, 1.74) and Bihar (OR = 1.51, 95 percent CI = 1.19, 1.92). Males also had significantly lower odds of reporting the services to be better than others available in Bihar (OR = 0.59, 95 percent CI = 0.48, 0.73) and a greater odds in Ethiopia (OR = 1.49, 95 percent CI = 1.12, 1.99).

Relative to illiterate clients, those with any level of educational attainment had significantly lower odds of attending a franchise establishment in Bihar, although there was no clear association between education and attendance at a franchised health establishment in Pakistan or Ethiopia. In Pakistan clients in the higher monthly income groups had significantly greater odds of attending a franchised health establishment than those with incomes of less than $60 per month, and there was a significant negative association between citing affordability as the preferred feature of the health establishment with rising monthly income. However, there was no clear association between franchise attendance or citing affordability as the preferred feature of the health establishment and monthly income in Bihar or Ethiopia. In Pakistan the odds of attending a franchised health service declined significantly with parity (Table 5), although a similar pattern was not seen in Bihar or Ethiopia. Clients

who have heard of the franchise network had significantly greater odds of attending a franchise facility than those who had not heard of the franchise in all three study settings (Pakistan OR = 1.70, 95 percent CI = 1.45, 1.99; Bihar OR = 5.43, 95 percent CI = 4.61, 6.39; Ethiopia OR = 3.38, 95 percent CI = 2.20, 5.18). In Bihar, clients attending to receive family planning or reproductive health services were more likely to be at a franchised health service than clients attending for general health (OR = 1.78, 95 percent CI = 1.29, 2.45), while in Pakistan clients attending for family planning or reproductive health services were less likely to be at a franchised health establishment (OR = 0.65, 95 percent CI = 0.55, 0.77).

DISCUSSION

The analysis has examined associations between franchise membership and health establishment and client-level measures across three very different franchise networks in three differing sociocultural and health care environments. The Janani network in Bihar is comprised predominantly of rural medical practitioners, while the franchise networks in Pakistan are urban-based clinical providers and Biruh Tesfa in Ethiopia recruits primarily private clinics. Thus, the variation in associations found in the analyses may reflect the different forms of networks examined, while the commonalities in associations suggests that the franchising feature in service provision can be successful in a range of settings and involve a variety of service providers and agents.

Franchising Membership and the Health Establishment

The modeling of the six health establishment outcomes has identified associations between franchise membership and several dimensions of service provision. Membership in a franchise network is associated with significantly greater volumes of general and family planning clients and a greater range of contraceptive method brands available at the health establishment across all three study settings. However, franchised health services are also smaller (in terms of staff size) and offer a narrower range of reproductive health services than private nonfranchised services, suggesting that franchise membership targets and attracts smaller, primary care providers. Relative to nonfranchised private health establishments, franchise membership is also associated with an expanded range of family planning brands and subsequently the potential for increased revenue through raised client volume. However, the client and

service gains associated with franchise membership are limited to family planning and membership does not appear to have a positive association with a health establishment's ability to offer wider reproductive health services or to attract clients into other reproductive health services. Franchise networks may therefore capitalize further on their service marketing potential by expanding 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 only.

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, as indicated by the associations with increased client volumes and range of family planning brands, although a more in-depth analysis of provider data should be carried out. Interestingly, franchised health establishments consistently had smaller numbers of staff than private nonfranchised health establishments, perhaps a product of the smaller nature of these types of health establishment. These lower staff numbers, however, did not translate into lower client volumes, implying possible greater efficiency of franchised health establishments, or the success of franchise advertising in generating client volumes.

Influence of Franchising on Client Outcomes

The modeling of client-level measures found mixed results for the association between client satisfaction and attendance at a franchised health establishment. Only in Pakistan was attendance at a franchised outlet significantly associated with reporting an intention to return to the same health establishment, and in Ethiopia clients at franchised outlets were less likely to report an intention to return to the service. There was no significant association between attendance at a franchised outlet and the client reporting that the services available at the health establishment were better than others available. Hence, in terms of measures of client satisfaction, there appear to be mixed associations with franchise membership, with no differences between clients at franchised and private nonfranchised health establishments in Bihar, a positive association between franchise membership and client satisfaction in Pakistan, and a negative association in Ethiopia. This variation in results may reflect the different levels of maturity of the three franchises, the different

measures taken to ensure quality of care across the three networks, or cultural variations in the use of services between the three study settings.

One aim of clinic franchising programs is to improve access to quality reproductive health services among lower socioeconomic subgroups. In Bihar, relative to illiterate clients, clients with all other education levels had significantly lower odds of attending a franchised health establishment. Hence, in one context franchised health establishments are associated with illiterate clientele, who traditionally have low levels of health service utilization and greater unmet need for family planning services. However, similar associations were not seen in Pakistan and Ethiopia. The association between attending a franchised health establishment and monthly household income was less clear. In Pakistan, the odds of attending a franchised outlet increased with monthly income, suggesting that franchised health establishments in this context are in fact associated with wealthier clientele. The wealthier and higher education clientele at franchised clinics in Pakistan may reflect the urban-based nature of the networks. The imperfect reporting of income by client, however, may be acting to influence the lack of associations found with income in Bihar and Ethiopia.

Relative to nulliparous clients, the odds of attending a franchised health establishment declined with parity in Pakistan. 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 in Pakistan to attend a franchised health establishment point to the need to promote the services of clinic franchising programs among the male population.

There are a number of limitations to this study. The cross-sectional nature of the study design means that we can only draw associations between franchise membership and the health establishment and client-level measures. The analysis also examines outcomes across three very different franchise networks, and the variations in associations may thus be an artifact of the forms and geographic focuses of the networks rather than differences in franchising implementation. Data were also collected from health care providers at each

health establishment; however, it is not possible to link the client to the servicing provider, thus limiting the extent to which we can examine the associations between provider characteristics and client satisfaction.

CONCLUSION

The study finds positive associations between franchise membership and both health establishment and client-level outcomes. For the provider, franchise membership is associated with increased volumes of general and family planning clients and a larger number of family planning method brands. These associations, however, may also reflect the selection of family-planning oriented providers into franchise membership, although the associations would still suggest that franchise membership may benefit clients through certification of quality family planning products. These associations are not uniform across the three study settings, reflecting 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.

Franchise membership shows a range of associations with the client-level measures across the three study settings. Significant positive associations between client satisfaction and franchise membership were observed in Pakistan, although the reverse was true in Ethiopia. The mixed associations between franchise membership and client satisfaction contradict the uniform positive associations between franchise membership and family planning client volume; hence, although gains in family planning client volume may be achieved, this may not necessarily lead to greater client satisfaction. This may suggest that greater family planning client volumes are driven by the advertising associated with franchise membership and not necessarily by improvements in service quality. In some settings, franchised health services were associated with clients who are female or who have no education, are low parity or low income. 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 franchise membership and private nonfranchised services in all three settings point to the benefits of network membership for both the provider and their clients. At the same time, the varying associations found across the three study settings 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.

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NOTE

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.

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