

**Improving Quality and Access in Private Sector  
Primary Health Care—The Role of Business Models**

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**August 30, 2002**

**SECOND DRAFT**

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## **Acknowledgements**

The generous support of the World Bank is gratefully acknowledged. The author would like to thank Amy Tsui and Dominic Montagu for helpful comments. All opinions expressed in this paper are solely those of the author and do not reflect the position of the World Bank. All errors are my own.

## Abstract

This paper discusses the economic rationale for alternative business models in private sector health care delivery. “Social franchising” and other business models of health care delivery secure cooperation between providers, and coordinating agencies in order to improve quality, access, and efficiency of primary health care (PHC) in the private sector.

The paper develops a simple economic theory of health care production and demand that is illustrated through application to the simple cases of independent private health providers and government operated clinics. The economic theory highlights the need for supervisory inputs above and beyond the provider-patient level to guard the quality of care. The theory is then enlarged to show how alternative business models of health care can be arranged to deliver supervision and coordination of provider quality. Theoretical predictions are compared to the experience accrued in several experiments using alternative business models to improve primary health care services.

What emerges from the theory are the following predictions: 1) The missing ingredient in both public and private PHC are incentives and financing for the proper functioning of coordinating agencies above the level of the provider; 2) The key to success in Alternative Business Models is their promise in eliciting and sustaining diligent effort by the coordinating agencies; 3) The efforts of coordinating agencies offer positive social benefits on par with the outputs of government health regulators.

Experience to date shows that although the private providers can sustain themselves with normal profits, the coordinating agencies seldom create enough value for providers to sustain themselves on levies and royalties—yet the coordinators do create great value for society. This financial problem is the primary obstacle to the success of social franchises. Several suggestions are forwarded to improve the financial position of the coordinators.

## **Introduction**

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The goal of this paper is to examine the ways in which alternative business models can be used to improve the quality and accessibility of primary health care (PHC) in developing countries. The term “alternative business models” is used to describe a variety of contractual arrangements between networks of private providers and coordinating agencies. The term “coordinating agencies” refers to administrative bodies that are able to offer in-service training, monitoring, access to subsidized inputs, and promotion of a trademark or brand name. The strategies used by the coordinating agencies and the contractual arrangements they use are analogous to those used in the business world. Nevertheless, it is important to establish what is similar and what is different between commercial enterprises and health care. Health care is similar to commerce in that it requires cooperative behavior between several parties, each with individual goals and incentives. In business, each agent pursues financial gain. Health care is different because financial gain is not and should not be the primary goal of providers, patients, or the coordinating agencies.

The promise of alternative business models lies in their ability to accomplish several important functions in PHC. Business-style contracting can organize small providers into units that are large enough to yield returns to scale in investments in physical capital, supply chains, and in worker training and supervision.

Furthermore, under outside regulation, business models can potentially arrange for cross subsidies to help improve access to care. In order to see the problems that

business models can help to solve, this paper will set up a simple economic theory of health care. Health care will be seen as “a scarce input into the household’s production of health”. The theory identifies the two key social interests in health care markets as quality and access to care by disenfranchised groups. These particular aspects of health care delivery are merit goods, meaning that society has explicit goals to achieve in ensuring quality and access by the poor<sup>\*</sup>. A third component of the health system which will not be considered explicitly here is the risk spreading or “insurance” function that needs to be carried out in society so that the unpredictably heavy consequences of illness and injury are borne equitably. The alternative business models that will be considered here will be models of primary health care provision, not models of health insurance.

Section 1 of the paper sets up the theory and reviews how quality and access may falter in a laissez faire market for private health care. Section 2 of the paper applies the same theory to show the potential weaknesses of a health system that is 100% government owned and operated. Section 3 uses the theory to yield predictions about the performance of several alternative business models of health care provision and Section 4 tests the theory using evidence from alternative business models currently operating in Pakistan, Kenya, and Uganda. The concluding section discusses future ways to improve the implementation of alternative business models in PHC.

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<sup>\*</sup> Not all health care utilization events count as merit goods. If a highly privileged person goes abroad to receive elective surgery, paid for out of pocket, this would be a relatively unimportant issue for

## Section 1: A Simple System of Private Health Care

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Many policy makers in public health and health care systems see a link between their professional activities and the health of large groups of people. But health itself cannot simply be allocated to people. The household is the key ingredient in the health of each individual and collectively household decisions are what determines the health of any nation (Mokyr 1993). Most of the benefits of better health are enjoyed by household members themselves, secondary benefits of health to employers, friends, colleagues, and beleaguered health care providers have lesser magnitude. Consequently, most of the incentives to improve and produce individual health fall on the household.

The economic theory of firms and production processes offers useful insights into the behavioral strategies familiar in the business world, and has been used for over 30 years to describe the behavior of patients, providers, and health systems. In this theory, the household is taken to be like a firm that produces a product—health—out of inputs such as food, shelter, rest, and medical care. Using mathematical notation, a production function<sup>†</sup> is used to summarize that there is a current technological recipe for how the inputs for a product are related to the output. A production function for the health  $H_i$  of individual “i” can be specified as

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policy. The important issues are ensuring that people are informed about the quality of services and ensuring that there are few barriers to care for the disenfranchised.

<sup>†</sup> For instance the production function for a peanut butter sandwich could be sketched generally as Peanut Butter Sandwich =(Peanut Butter, Jelly, Bread, Labor). This production function is shorthand for what may be a more detailed mathematical depiction of the process: 1 PB sandwich=1 x TBSP PB + 1 x tsp Jelly + 2 x bread slices + 3 x minutes of chef time. With this technology mastered the household can determine first how much of the output it desires, and second how much of the inputs to acquire.

$$[1] H_i = H(\text{Food, Shelter, } Q_j \cdot M_j, \text{ Environment})$$

where  $Q_j$  is the quality of medical inputs and  $M_j$  is the amount of medical inputs of the “j-th” type used by this individual. These medical inputs may take the form of medical advice, medical procedures, or drugs and may be acquired from one or multiple locations during the course of the year. In the model, each medical input is “quality-adjusted” –multiplied by its quality. It is assumed that health increases with each of these inputs, but that the rate of increase gets smaller with each increment of the input.<sup>‡</sup> As will be discussed below, medical providers have better knowledge than patients about the quality of services they are providing. There is an “asymmetry” in the possession of information about quality. Information asymmetry is what makes health care markets different from markets for food and shelter (Arrow 1963).

### **Access as a Public Good**

Households, like firms decide how much health to produce by weighing the rewards from better health against the rewards from other pursuits. Let us assume that households vary in income such that 5% of people can be considered extremely poor. Because each household must devote its own income to health production these extremely poor households will not be able to afford substantial inputs to health and could acquire and spread contagious disease. Contagion is an externality—a byproduct of private endeavors—that motivates public interest by

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<sup>‡</sup> Although the quality of food, shelter, and environment matter as well this is not depicted above. Millions of years of evolution have culled human beings who lacked skill in recognizing the quality of various offerings of food and shelter. The historical novelty of effective and potentially dangerous

society in the ability of each household to acquire the inputs to health. There are other potential justifications for a social concern for the accessibility of all citizens to health care—simple altruism, a fear of terrorist acts by the downtrodden poor, or a belief in social solidarity. These justifications differ from contagion in that they would motivate a general interest in alleviating poverty, and in addressing poor health merely as one of the features that exacerbates poverty. The contagion externality would motivate a concern specifically for social efforts to break the link between extreme poverty and poor health.

### **Quality Improvement as a Public Good**

Let us imagine what would happen in an unregulated private market for PHC. In response to households' demand for health inputs,  $M_j$  and  $Q_j$ , firms will arise to profit by selling medical inputs to households. In markets for goods whose quality can be evaluated by customers, prices are generally proportional to the quality of the items. Information asymmetry would make a *laissez faire* market for medical care operate differently. Let us first assume that there is a way to separately measure both the volume,  $M_j$ , and quality,  $Q_j$  of medical care produced. For instance one might count the numbers of visits, the numbers of tablets, the numbers of procedures to measure  $M_j$ . One might form rating scales for each of these types of medical care to measure  $Q_j$ . For more simplicity, let us imagine that medical providers can partially separate the decisions about how much volume and how

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medical care makes it vital for individuals to somehow overcome their ignorance of the quality of medical inputs to their health.

much quality to supply. The production technology for medical care would be of the form:

$$[2] \quad Q_j = Q_j(E_p, K_p, M_j) \quad \text{and} \quad M_j = M_j(E_p, K_p, Q_j)$$

where  $E_p$ ,  $K_p$  are respectively the levels of effort and capital used by the private provider. Note well that this model of individual private practice does NOT include inputs of effort from any other agencies that might assist private providers in producing quality and volume of services.

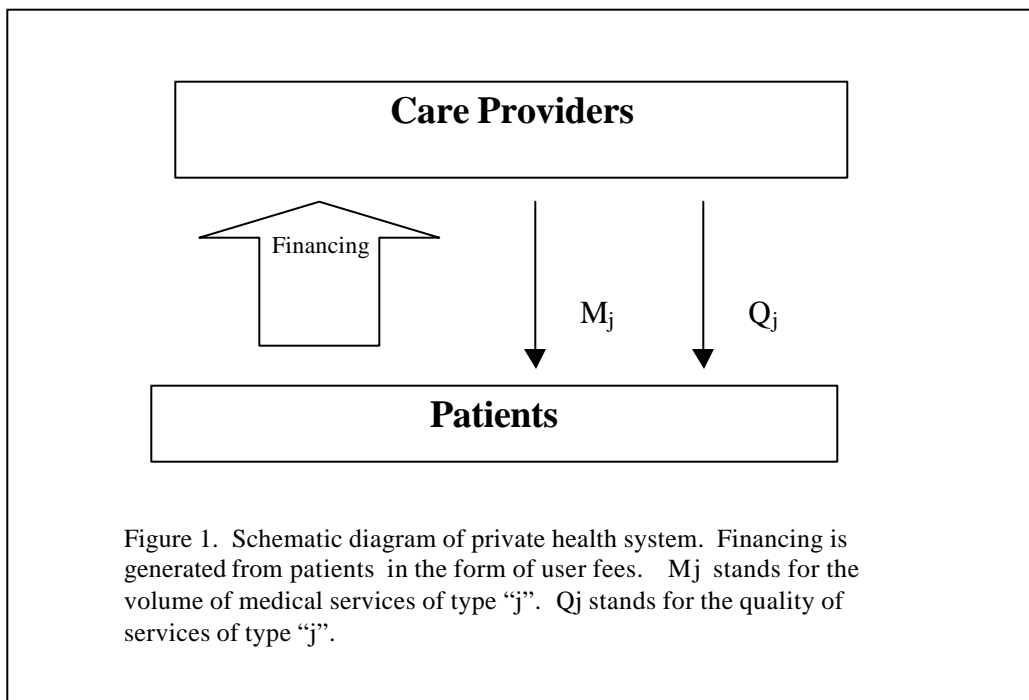
Quality,  $Q$ , increases with effort and capital, but decreases with the volume of service. Medical care volume,  $M$ , also increases with effort and capital, but decreases with the level of quality. Because patients can easily measure the volume of care, but cannot easily measure the quality of care, the payment agreement between patients and providers will generally be based on fee for service, not fee for quality. Assuming the providers maximize profits, their profit function can be written as:

$$[3] \quad \pi_j = P_{M_j} M_j(Y_I, P_{M_j}, Q_j) - E_p - P_k K_p$$

where  $P_{M_j}$  is the price of the  $j$ -th type of medical care, and  $M_j(\cdot)$  is a demand function which depends on the local household income distribution,  $Y_I$  as well as price and quality. Importantly, the dependence of demand on quality may be weak if

consumers have an impaired ability to observe quality. For convenience, the model sets the price of effort<sup>§</sup>,  $P_E$  equal to 1, and the price of capital is depicted as  $P_k$ .

According to the classical economic paradigm, the providers choose to supply an optimal  $M_j^*$  and  $Q_j^*$  that will maximize the profit function shown in Equation [3]. The model suggests that providers will supply medical care volume, in proportion to the quantity demanded,  $M_j(Y_1, P_j, Q_j)$  at any given price. In other



words, supply will meet demand. If there is a shortage of health care workers, price,  $P_j$ , will be high enough to attract further entry of workers and then

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<sup>§</sup> Effort is more than time spent on care for patients. The Resource Based Relative Value Scale used to price medical services in the U.S. suggests that the complexity of the medical decisions being made

price will fall as the supply grows. Price will continue to fall until it meets a natural technological floor where price is exactly equal to the cost of producing the next or “marginal” unit of service. At this point price equals the cost of producing one more unit of service. In equilibrium price will also equal the benefit to patients of one more unit of service.

The theory states that the provision of health care is perfectly efficient at this equilibrium and matters cannot be improved without an improvement in the basic technology of health care. Although this scenario may be “perfectly efficient” in a technical sense, of every unit of production having no better alternative use, but efficiency need not guarantee socially desired levels of access or intangible outputs such as quality.

Because demand for medical care is well known to increase with income (Newhouse 1981), providers will locate themselves more densely in areas with higher income. The private market can achieve an equilibrium between demand and supply of the volume of medical services, but without regulation, the equilibrium is unlikely to achieve society’s desired outcome regarding the accessibility of services for the poor. Furthermore, without regulatory mechanisms or the participation of coordinating agencies above the provider to address information asymmetry about the quality of each medical care the market equilibrium will suffer from a sub-optimal supply of quality. If the demand for  $M_j$  is unresponsive to the aspects of quality that matter most for health, profit seeking providers will have no incentive to

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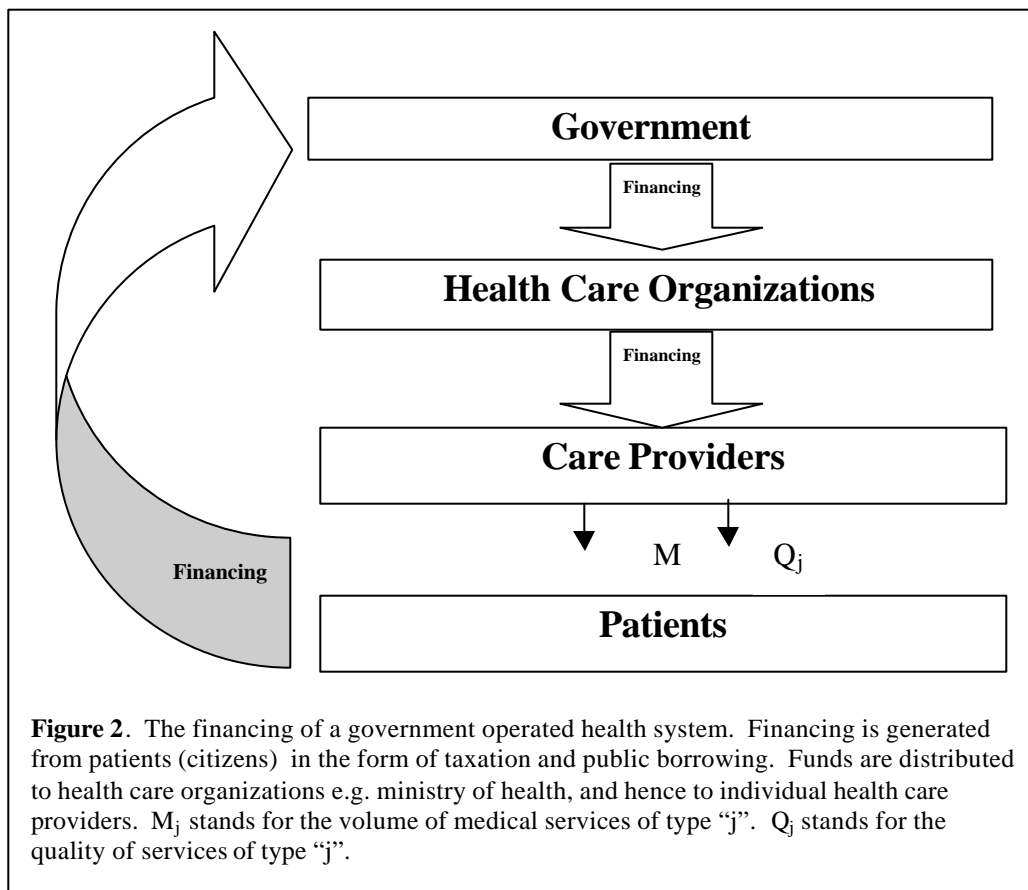
be used in addition to the time spent to set prices for services American Academy of Pediatrics. 1999.

provide quality. The medical profession addresses the medical quality problem informally by fostering professional standards among providers, by evaluating medical trainee applications for signals that the applicant is committed to putting patient welfare before private gain, and by socializing medical providers to disapprove of peers who seek to profit by undersupplying quality. Governments regulate the medical sector primarily by licensing individuals who have passed examinations and completed training in accredited institutions where they have presumably been socialized to the appropriate professional norms. Despite these mechanisms there is abundant evidence that more could be done to improve the quality of care in the private sector of developing countries (Kumaranayake, Lake, Mujinja, Hongoro, and Mpembeni 2000). Saying that “more could be done” is also saying that the model shown in Equation [2] has left out some inputs in providers’ production process for service quality. In section 3 we will describe in more detail the coordinating activity that could be added to the production process for service quality.

## **Section 2: PHC in Government and NGO facilities**

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Led by the World Health Organization and other international institutions, many countries have become substantially involved in providing PHC in hierarchical systems



of community health workers, dispensaries, clinics, and a tiered system of referral hospitals. In most countries, the public system operates in parallel to a semi-regulated private system. Household data from several countries suggests that the majority of PHC service episodes involve private facilities (Hanson and Berman 1998). Often the providers at the private facilities are the same individuals moonlighting after their workday at the public facilities.

Higher perceived quality in the private facilities may be one reason why households appear to prefer private sector PHC. This may seem paradoxical in light

of the last section in which the model of profit seeking private providers predicted an undersupply of quality. However, public sector quality may be low for reasons that parallel the problems in the private sector. Public sector employees are paid a salary in most systems, although occasionally they may receive a “top off” drawn from locally generated user fees. Assuming they are also profit maximizing, their profit function is of the form:

$$[4] \quad \pi_G = S - E_G$$

Where  $S$  represents salary and  $E_G$  represents effort of government health workers multiplied by a price set equal to one.

Since effort is costly for the public health care providers, they will not supply effort unless they are closely supervised or unless they derive professional satisfaction from the supply of high quality medical care. The high degree of concern exercised in admitting and socializing applicants to the health care professions makes it quite possible that providers will exert themselves for the sheer satisfaction of helping other people.

The supply of government  $M_j$  and  $Q_j$  is determined by a **command and control** process heavily influenced by political forces and guesswork. The aspiration to equilibrate the supply of health services to demand is seldom realized during the process of allocating government budgets. Lacking the ability to tune the

supply of services to price-borne signals of demand, governments typically under-provide capital, supplies, and labor and consequently under-produce medical services and medical quality.

$$[5] \quad Q_j = Q_j(E_G, K_G, M_j) \quad \text{and} \quad M_j = M_j(E_G, K_G, Q_j)$$

It is difficult to specify an objective function for government decision makers that is analogous to the private profit function [4]. The normative theory of the government decision maker holds that they are ideally supposed to produce the amounts of  $M_j$  and  $Q_j$  that enable each household to optimize health<sup>\*\*</sup>. We lack a credible descriptive theory of what government workers actually seek to do, although some combination of achieving personal job security, getting promoted, and improving public health seems plausible. It is a fact that government bureaucracies often give greater job security to those who focus on internal politics rather than the organizational mission.

Although command and control decision-making can seldom achieve efficient supplies of  $M_j$  and  $Q_j$ , it can frequently surpass the private market in achieving access to services, and with adequate resources could surpass private market levels of quality. With command and control allocation of health care resources, one can deploy clinics and staff to remote or poverty stricken areas where there are social benefits of service provision that, due to poverty, do not result in private market demand that would attract the private sector. Indeed by severely

underpaying government workers and tacitly expecting them to moonlight (or resell government drug supplies) to make up the difference, government health ministries can leverage limited budgets to achieve even more access than would be possible by paying government workers their market wage. Although the government clinics in these remote areas are shunned for their lack of drugs and quality, patients who would otherwise have no modern health provision, now have a moonlighting health provider who will charge them service fees and make bootlegged drugs available for purchase.

Similar to individual patients, elected legislators are better able to judge service volume than service quality. Elected legislative officials find it more expedient to press for more government health clinics in their home precincts than to insist that adequate salaries and quality are maintained in the current health system.

A key advantage of the government system is the potential to exploit returns to scale. The providers in the government network, can potentially benefit from centrally organized training, supervision, and coordination. Although the health ministries possess management plans and technical know-how that would enable them to improve quality through in-service training the political pressure to extend access first has been hard to resist. In-service training and supervision does occur in government networks, but has not achieved its potential.

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\*\* Readers should have little difficulty rejecting the normative theory as a depiction of the way things really are.

## **Section 3: PHC under Alternative Business Models for Improving Quality and Access**

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In the business world there are several service industries that succeed through coordinating the activities of individual service units through an overarching administrative structure. Many NGOs have sought to emulate parts of business models in working with private health care providers. The franchise model has been singled out as one that is of particular interest to health care (Montagu 2002b). The term “social franchise” can be applied to any activity directed towards a social goal that maintains an independent coordinating network to support the individual activities of network members. Thus many business relationships that would scarcely be recognizable as strict “franchises” can fall under the rubric “social franchise” as long as they use a coordinating network and work towards improving social welfare. This section will discuss the varieties of business franchising and describe the relevant issues for health care delivery.

### **What Franchising Is**

The International Franchise Association defines a franchise as “...a system by which a company (the franchisor) grants to others (the franchisees) the right and license (the franchise) to sell a product or a service within a specified area and to use the business system developed by the company” (Lagman 2000)

The core of any franchise arrangement is a contract between two specialized business partners. Franchise agreements can be used by wholesalers and retailers (as in auto dealerships), by manufacturers and wholesalers (as in soft drink bottling arrangements), or as in the fast food industry, by business format originators and independent retail shops. The primary alternative to franchising is integration of the two business partners into a single firm.

The McDonalds Corporation is perhaps the most widely known franchise in the world. The corporation's success is due to a number of factors not the least of which is its perfection of contractual systems between itself, its suppliers, and thousands of independent owner/operators of its restaurants.

### **BOX A. The McDonald's Story**

In 1954, milkshake machine salesman, Ray Kroc paid a visit to an unusual hamburger stand in San Bernardino, CA owned by brothers Dick and Mac McDonald. The brothers had become one of Kroc's biggest clients, and it did not take Kroc long to see from the long lines of customers that this restaurant had a winning business format. Within a month the McDonalds brothers granted Kroc exclusive rights to sell franchises for their restaurant format. Kroc returned to Chicago where he began to enlist owner operators who would pay the McDonald's Corporation a \$950 start up fee, and 1.9% of annual sales. The McDonald's brothers received 0.5% of sales as their royalty.

Kroc's genius lay in seeking to control the quality of each and every unit in the chain. He avoided the common practice at the time of signing away a whole territory in a franchise which would then be doled out to individual operators beyond his control. He carefully screened each restaurant owner. Unlike other chains which sought to profit by requiring franchisees to buy marked up raw materials and supplies, the focus of the fledgling company was to increase the sales at each individual restaurant. Despite superb attention to quality, and comfortable profits at each individual restaurant, for most of its first decade the McDonald's Corporation was teetering on bankruptcy.

The solution came when an early CEO named Harry Sonneborn developed, a McDonalds subsidiary called, "The Franchise Realty Corporation". The purpose of this subsidiary was to locate and lease restaurant sites from landowners who were willing to build McDonalds buildings on their property and then lease them back to the corporation in 20 year leases. The McDonalds corporation then charged its franchisees a markup of 40% over their own lease and insisted that each new franchisee sublease their restaurant from the corporation. Because of the growing popularity of their brand name, McDonalds could ask each franchisee to pay either the marked up rent or 5% of sales. This improved profits immediately. A few years later, Sonneborn would successfully approach the conservative financiers of Wall Street with this description of his company,

"I think you misunderstand the real nature of McDonald's, we are not basically in the food business. We are in the real estate business. The only reason we sell fifteen-cent hamburgers is because they are the greatest producer of revenue from which our tenants [McDonald's franchisees] can pay us our rent. There is nothing else that will produce the volume that food sales will, and all of our leases are based on a percentage of food sales. You can see the sales results of our units. That's the proof of what I'm telling you." **Source:** (Love 1995)

The business format franchise has the capacity to transform motivated and hard-working people who know next to nothing about a particular industry into financially successful independent entrepreneurs. Without the training and business support they receive most McDonald's restaurant owners would not be able to succeed in running an independent "No Name" hamburger stand. This is quite unlike the health care industry where the potential franchisees are highly trained professionals who are usually quite capable of surviving on their own. Franchises in health care may not make or break a private practice, but they have the potential to add value to the health care operation by improving quality, maintaining it, and signaling it to patients through the use of trademarks and brand names.

The improvements realized in franchised health care could potentially be achieved with contractual structures other than franchising that could integrate the function of the independent health provider with a highly pro-active organization coordinating and monitoring the quality and access to care. . It may very well be that both integrated (with salaried providers) and franchised organizational systems can succeed in activating the quality enhancing functions of a corporate system. Both business models could form the template for improving health care delivery.

### **A Model of Franchising**

Social franchises do not necessarily have to adhere to the strict contractual terms used by business franchises. Nevertheless, it is instructive to examine how the economic model of health care supply would depict the standard franchise contract. Whereas in Equation [2] the model of the supply of medical services involved Effort, Capital and Quality, let us now focus on the contribution of effort by the

coordinating body  $E_G$ , and effort by the franchisee  $E_P$  in producing medical services. The model below closely follows that of Maness (Maness 1996).

$$[7] \text{ Local Outlet Revenue: } R = P_{M_j} M_j (Y_I, P_{M_j}, Q_j(E_G, E_P))$$

where

$M_j()$  is demand which depends on income, price and quality

$Q_j()$  is quality which depends on effort contributions

$E_G$  is effort by coordinating body

$E_P$  is effort by franchisee

Assume that  $M_j$  and  $Q_j$  increase with effort by each party

$$[8] \text{ Local Outlet Cost: } C = C(E_G, E_P)$$

Assume that costs decrease, the more effort is supplied by either party.

Equations [7] and [8] indicate the crux of the matter, both the coordinating body and the franchisee are mutually linked to the revenue and costs of the enterprise. They can't ignore each other. Franchisees need coordinating bodies to supply effort and vice versa. The problem for each party is that the true effort of each cannot be observed. Since it cannot be observed, it is impossible to write an enforceable contract about how much effort each partner should supply. To motivate each other to supply effort, the provider and the coordinating body will share revenue. To model this with a linear contract one can assume that the coordinating body retains a

share, “s” with  $0 < s < 1$  of the revenue as royalty and commands a starting franchise fee, F. Thus the coordinating body’s share of revenue is  $sR + F - E_G$ . In writing the contract to the franchisee the coordinating body will choose s and F to maximize

$$[9] \text{ Coordinating Body's Profit With Franchising} = sR(E_G, E_P) + F - E_G$$

where  $R(\cdot)$  is shorthand for the revenue function of equation [7]

The coordinating body will make their offer of s and F so that any franchisee is exactly indifferent between signing the contract and earning zero profits. The no profit condition can be depicted as:

$$[10] \text{ Provider Profit With Franchising} = (1-s)R(E_G, E_P) - C(E_G, E_P) - F - E_P = 0$$

The derivative of [10] with respect to  $E_P$  yields the providers’ first order condition to determine the optimal supply of effort under the contract. This is a constraint for the coordinating body in selecting optimal s and F.

$$[11] (1-s) \left( \frac{dR}{dE_P} - \frac{dC}{dE_P} \right) - 1 = 0$$

The coordinating body’s own optimal supply of effort equation differentiating [9] is another constraint.

$$[12] s \frac{dR}{dE_G} - 1 = 0$$

In studying contracts very similar to this one Maness notes that the coordinating body can always ensure that equation [10] is exactly true (Maness 1996). If the provider is earning positive profits, the coordinating body will pick a larger franchise

fee,  $F$ , or a larger royalty,  $s$  to make the constraint bind--even though  $s$  and  $F$  may not be profit maximizing for the provider.

### **A Model of Vertical Integration**

In an integrated model, the linked coordinating body and franchisee solve their mutual need to elicit effort from each other by having the coordinating body retain a larger portion of revenue but pay an annual bonus to the provider. Now the coordinating body chooses “ $s$ ” and  $W$  to maximize:

$$[13] \text{ Coordinator Profit With Vertical Integration} = sR(E_G, E_P) - C(E_G, E_P) - W - E_G$$

subject to the no profit condition for the provider

$$[14] \text{ Private Provider Profit With Vertical Integration} = (1-s) R(E_G, E_P) + W - E_P = 0$$

and the optimal provider effort condition

$$[15] (1-s) \frac{dR}{dE_P} - 1 = 0$$

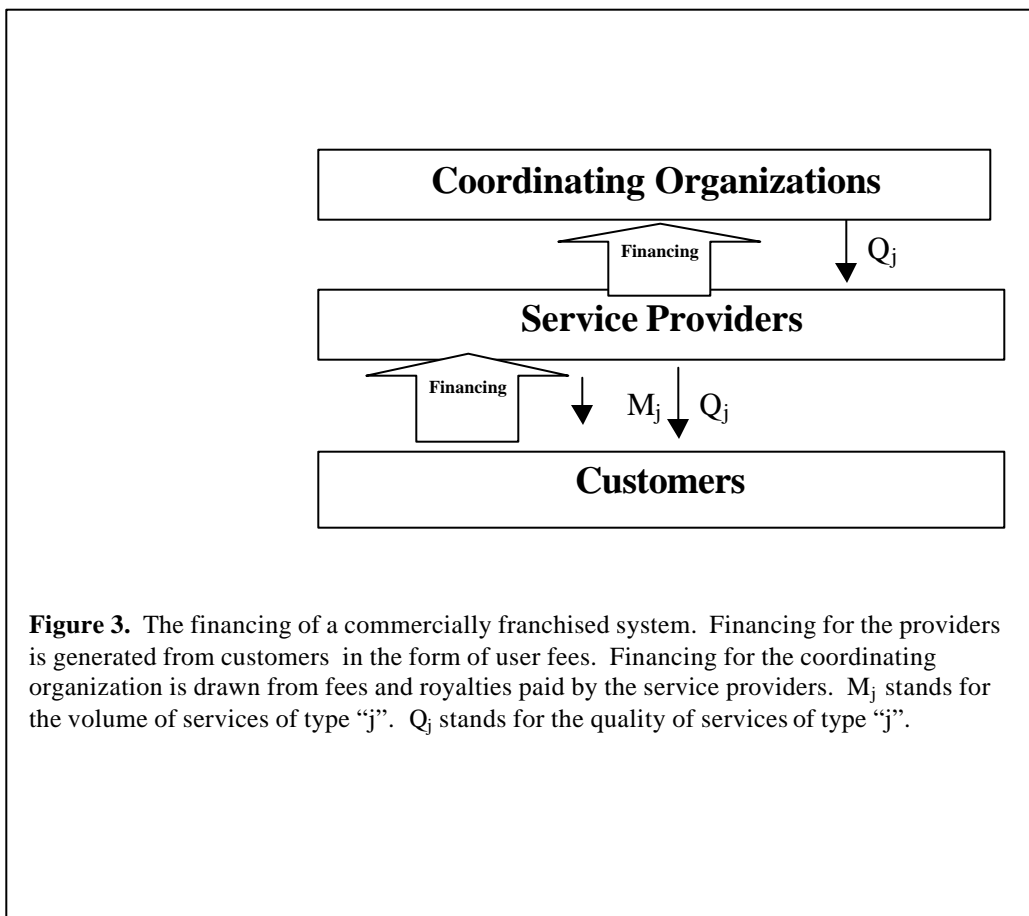
and the optimal coordinators effort condition

$$[16] s \frac{dR}{dE_G} - \frac{dC}{dE_G} - 1 = 0$$

Neither party receives the full return to effort or to capital investment because of the bonus payment

Neither the franchised contract nor the integrated contract is fully optimal because neither contract leads both parties to suffer the full penalty from withholding effort. The tendency to withhold effort is greatest for the one getting the lower share

of revenue. In integrated models the provider would be more likely to withhold effort. In franchised models the coordinating body would be more likely to withhold effort.



As industries choose which organizational form either through rational choice, or natural selection one would expect that integrated forms would be more

common where the effort of the coordinating body is more crucial in determining revenue. Franchised forms would be more common where the effort of the individual providers is more crucial. As Maness (1996) points out some firms never franchise (e.g. retail chains like Sears and Walmart) and that would be expected if the effort by the coordinating body is more crucial in holding down costs through strategic purchases. It is quite common to see firms integrate part of their units and franchise the other part—for instance roughly 30% of McDonalds restaurants are corporate owned and operated.

### **Another Business Model: Purchasing Cooperatives**

Whether they integrate or franchise to handle their essential functions all businesses must transact exchanges with other businesses. Both integrated and franchised firms can take advantage of returns to scale in purchasing inputs and supplies. One possible hazard for franchised firms is that the coordinating body in a franchised system has an incentive to retain some of the advantages of bulk purchasing. Some franchise systems depend heavily for financial support on partially marking up the prices of some of the supplies instead of passing along all of the discounts to its members. Such a practice does not necessarily disadvantage the success of the individual units and may serve to secure stable financing for the coordinating body.

A more insidious practice is for the coordinators to insist that providers purchase “key ingredients” for which it is the sole supplier. For example many years ago the Howard Johnson’s franchisors insisted that franchisees buy the company’s

line of special Howard Johnson's ice cream at prices that exceeded wholesale. Many franchisees secretly substituted local brands of ice cream for the company line.

### **Motivating Good Discipline in Integrated Systems or Franchises**

Preserving the quality of the brand name is one of the most important functions of the coordinating body. The franchising contract terms examined in equations [7]-[10] offer little contractual recourse for coordinating bodies to discipline units whose quality is substandard. The coordinating body is beholden to the providers to pass along the royalties and franchise fees, but the providers are not financially dependent on the coordinating unit. If a provider was observed to have low quality, the coordinator can cajole and encourage, but the simple contracts offer very little recourse. Legal actions launched on the basis of "poor quality operation" are very difficult to litigate as judges are reluctant to take a position on the definition of quality.

The McDonald's Corporation's use of a real estate contract between the franchisee and the corporation provides a solution to this issue by essentially making the franchisee a tenant of McDonald's. Repeated misconduct by a franchisee of McDonalds can be used as grounds for eviction or termination of the franchise. Even if a franchisee is not legally evicted, the distinctive "branded" architecture of the buildings used in the fast food industry mean that a franchisee who loses a franchise will have difficulty using the premises for other activities. Adherence to quality standards is more likely when franchisees are tied to capital outlays that can be used to ensure compliance (Wimmer and Garen 1997).

As much as the coordinators seek to maintain quality performance by the providers, so too do the providers wish to elicit quality policing by the coordinators. If the standards are laxly enforced the value of the brand name may suffer. Low financing or weak administration at corporate headquarters can erode the value of the franchise (Rubin 1978).

## **Section 4: Real World Experience**

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NGOs and charitable institutions have been operating integrated systems of private care for dozens of years throughout the developing world. In these systems the medical providers are salaried employees of the NGO. The NGO coordinates and monitors the quality of care and is incentivized to maintain high standards of quality and access to services primarily because of professional and ideological commitments to these principles. These systems offer tremendous services to humanity but because they rely heavily on donor support for every unit of service provided they have limited growth potential.

Several primary health care systems have implemented “socially” franchised systems of care. In these systems the providers support themselves through user fees, but they receive training, supplies, coordination, and use of heavily promoted brand name from a coordinating body. The providers pay a nominal fee to the coordinating body.

Most of the evidence to date reveals the encouraging news that the individual providers are able to maintain support for their own operations through the user fees they charge. This is not too surprising—private practices are sustainable in developing countries—network membership should not make them less sustainable.

More surprising is the evidence that the franchise membership and brand name rarely adds so much value to the practices that the providers are able to transfer sufficient royalties and franchise fees to the coordinating body to sustain the whole system. The coordinating bodies do not sustain themselves without outside support, although the providers can.

While the improvements in quality and access generated in social franchises are not privately valued enough to financial sustain the whole system, one could argue that quality and access in these systems are public goods that deserve to be publicly supported.

### **Box B. Examples of Socially Franchised Health Care**

#### **KIMET**

The Kisumu Medical Education Trust (KIMET) is a health franchise started for the purpose of reducing maternal mortality in Kenya. The project recruits obstetricians-gynecologists, general practitioners, clinical officers, nurse midwives and CHWs and offers them

- A 5 day training in reproductive health
- A supply of government issued contraceptives
- A monthly visit by a KIMET staff supervisor
- Advertising
- Access to a revolving fund which offers \$1000 loans to providers at low interest

The project started in 1996 and has since grown to include over 160 professional health providers and 300 CHWs. Focus group and interviews conducted among providers and clients indicate that KIMET clients can detect the improved quality of care.

Clients interviewed, cited reputation for quality as most important reason for visiting a KIMET member. Providers value their membership, for financial reasons, but more importantly for the professional satisfaction of learning to improve their services. (SOURCE: (Montagu, Bradbury, and Rogo 2002))

#### **GREEN STAR**

Green Star is a joint venture partnership between Population Services International (PSI) and Social Marketing Pakistan (SMP) a USAID spinoff. SMP has managerial autonomy. Like KIMET Green Star members who are recruited receive training, use of the heavily promoted Green Star logo, below cost contraceptive supplies, and monthly visits by Green Star's coordinating staff.

According to PSI, its mission is to improve the health of low-income and vulnerable people through social marketing. Given this objective, PSI defines sustainability in terms of *enduring health impact* as opposed to financial sustainability, which focusses on fiscal issues such as cost recovery. From 1995-2000 Green Star grew to 11,000 providers in 40 cities. Green Star generates 10 million client visits per year, the majority of its clients are from low income groups earning less than 6000 Rupees per month. Over the same period total Pakistan oral contraceptive sales went from 1.9 million (1994) to 4.5 million in (2000). It is quite The NGOs are still responsible for financing the coordinating network of Green Star and paying for the advertising. The providers support themselves. (Source: (McBride and Ahmed 2001)).

### **JANANI**

Janani program operates in Bihar State and was started in 1996. It includes a primary network of 8756 rural medical providers (Titli Centres) staffed by 2 rural medical providers from each village. These rural providers receive a three day training at one of 6 regional training centers. Janani also includes a smaller network of MD and MBBS doctors staffing ‘Surya’ clinics. The doctors receive referrals for IUDs, sterilization, and abortion from the rural providers in exchange for a commission. Each doctor receives 3-5 days of training at a Janani clinic near headquarters. Interviews with the providers indicate that they join the network for professional prestige. Two thirds of rural providers report an overall increase in clients. One third report an increase in community esteem for their practices. (Source: (Montagu 2002a))

## **Section 5: Policy Proposals for Future Consideration**

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One may argue that the quality and access provided by franchised networks of private providers can and should partially offset government efforts to provide access and quality. In other words, governments could potentially redirect funds away from their own efforts to achieve access and quality in government dispensaries and reroute these funds to support the coordinating bodies (but not the direct service provision) in socially franchised systems. The advantage of this is that the coordinating bodies of a social franchise could have as their primary outputs

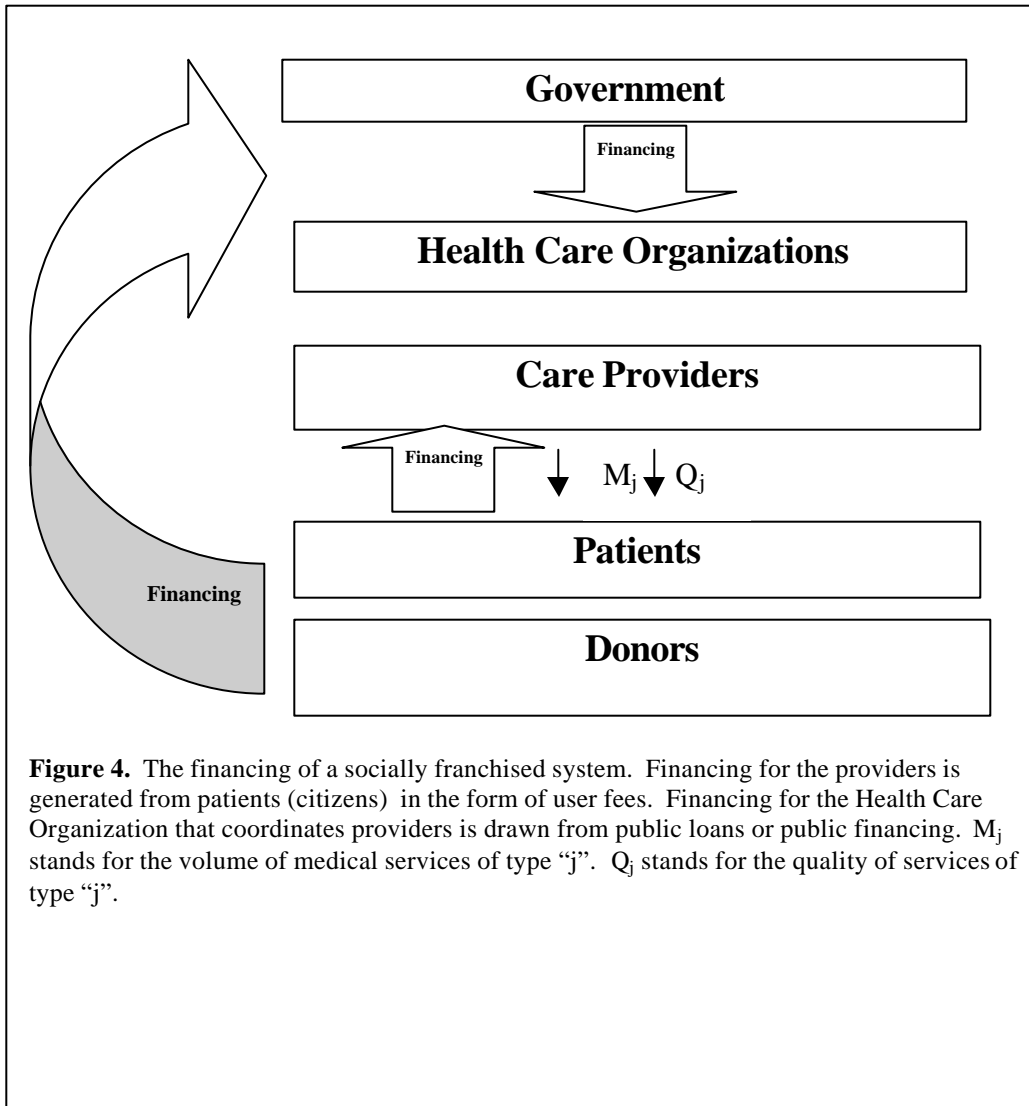
quality and accessibility of service. By comparison, government clinics devote much of their resources to producing the services themselves—services which are in large part private goods. Qualified medical staff are in short supply in most systems so this proposal would not mean that government health workers would be terminated. In practice, they would be redeployed to networked, coordinated private facilities instead of their government clinics where they receive very little coordination, training, and support. Instead of making their required appearance at the government clinic from 10:00 AM to 2:00 PM then disappearing to moonlight in a private practice where quality is unmonitored, they would be put into service in networks where they support officially themselves through user fees and at the same time receive support and training from a coordinating network. Most importantly the coordinating network could enforce the maintenance of socially beneficial sliding scales for the user fees to avoid social inequities.

Supporting the coordinating organizations through government revenue is only one option. A more creative approach to supporting the coordinating bodies would be to allow them to exploit their returns to scale in the market for capital. An individual medical provider is too small to apply for an IMF or foundation loan. By comparison, a network of 100 providers could potential secure capital on the world market at rates as low as 4%. The coordinating body could then partially mark up the price of capital and administer startup loans to private practices in the network e.g. at 10%. The network could even offer lower rates on capital for providers working in underserved areas. Combining the coordinating body's role in quality assurance with a role as creditor would mutually enhance both roles. The

coordinating body would be firmly committed to the success of each unit to avoid default—and would work hard to support the needs of its debtor--providers in order to qualify for future funding from the IMF. Furthermore the providers who owe money to the coordinating body would be very attentive to the advice and support it received. This model is sketched in Figure 4.

### **Conclusion**

Our discussion has centered on the two key problems in health service delivery in developing countries: access for the poor and assurance of quality services for all. After showing how a laissez faire private market for health care would fail to provide these public goods, we discussed how a public sector bureaucracy may similarly fail to adequately support these two goals. Finally we discussed alternative business models for providing access and quality. Vertically integrated business models would be most successful when the central level inputs in the form of purchasing, and marketing are most critical. Franchised models would be most successful when the peripheral inputs in the form of voluntary compliance with practice guidelines and responsiveness to patients are most critical. In the short run opportunities to implement more sustainable business models will require new ways to show donors how these models provide an efficient way to solve the most pressing problems in health care delivery.



**Figure 4.** The financing of a socially franchised system. Financing for the providers is generated from patients (citizens) in the form of user fees. Financing for the Health Care Organization that coordinates providers is drawn from public loans or public financing.  $M_j$  stands for the volume of medical services of type “j”.  $Q_j$  stands for the quality of services of type “j”.

## Bibliography

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- American Academy of Pediatrics. 1999. "RBRVS, What Is It And How Does It Affect Pediatrics?"
- Arrow, Kenneth J. 1963. "Uncertainty and the Welfare Economics of Medical Care." *American Economic Review* 53:941-969.
- Hanson, K and P Berman. 1998. "Private Health Care Provision in Developing Countries." *Health Policy and Planning* 12:195-211.
- Kumaranayake, I., S. Lake, P. Mujinja, C. Hongoro, and R. Mpembeni. 2000. "How do countries regulate the health sector? Evidence from Tanzania and Zimbabwe." *Health Policy and Planning* 15:357-367.
- Lagman, Oscar P. 2000. "Report on the Feasibility of Franchising Friendly Care." Manila.
- Love, John F. 1995. *McDonald's Behind the Arches*. New York: Bantam Books.
- Maness, Robert. 1996. "Incomplete contracts and the choice between vertical integration and franchising." *Journal of Economic Behavior & Organization* 31:101 - 115.
- McBride, Julie and Rehana Ahmed. 2001. "Social Franchising as a Strategy for Expanding Access to Reproductive Health Services." Commercial Market Strategies Project --US Agency for International Development, Washington, DC.
- Mokyr, Joel. 1993. "Technological Progress and the Decline of European Mortality." *American Economic Review* 83:324-330.

- Montagu, Dominic. 2002a. "Clients of Social Franchises: Behavior and Beliefs." in *Population Association of America*. Atlanta, GA.
- . 2002b. "Franchising of Health Services in low-income countries." *Health Policy and Planning* 17:121-130.
- Montagu, Dominic, Kristin Bradbury, and Khama Rogo. 2002. "KIMET: Private provider network of the Kisumu Medical and Education Trust." World Bank, Washington, DC.
- Newhouse, Joseph P. 1981. "The Demand for Medical Care Services: A Retrospect and Prospect." Pp. 85-103 in *Health, Economics, and Health Economics*, edited by J. van der Gaag and M. Perlman. New York: North-Holland Publishing Company.
- Rubin, Paul H. 1978. "The Theory of the Firm and the Structure of the Franchise Contract." *Journal of Law and Economics* 21:223-233.
- Wimmer, Bradley and John E. Garen. 1997. "Moral Hazard, Asset Specificity, Implicit Bonding, and Compensation: The Case of Franchising." *Economic Inquiry* 35:544-554.