

# Abnormal economics in the health sector

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## Abstract

The implosion of centrally-planned economies has led to a widespread and uncritical belief that a free market is the best mechanism for structuring the economic and social sectors. Many international agencies have pushed this belief on the developing nations. This paper offers a critical analysis of the effectiveness of using free market principles to structure the health sector. We try to answer two questions: in what spheres can the market operate freely? In what spheres is government action required? According to economic theory, the market is only appropriate for producing and distributing private goods. This study analyzed health care and subdivides it into three categories (public, merit, and private goods) to clarify where the market has a legitimate role. Next, we analyze two of the five markets in the health sector—financing and delivery — and assess the respective roles of the market and government. Competitive markets have certain prerequisites. We identify the major market failures by evaluating where these conditions are not satisfied. Next, we draw on international experience to ascertain the seriousness of those failures and the capacity of government action to correct them. Lessons are drawn for developing nations about the appropriateness of market strategies to finance and deliver health care.

*Key words:* Free market; Health sector reform; Developing nations; Financing health care

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## 1. Introduction

Every nation contemplating reform of its health system faces a fundamental question: what is the best way to structure the health sector? Nations have debated

and tried different approaches, often not informed by facts but driven by ideology. Two polar structures have emerged: central planning and the free market. Central planning relies on a belief in the ability of government to advance the welfare of all its people and manage its public sector operations efficiently. Free market relies on the beliefs that the consumer can make informed and rational choices and that a laissez-faire market will best satisfy individual wants and optimize efficiency.

Since 1980, leaders of major nations, like Ronald Reagan and Margaret Thatcher, have pushed the free market ideology as the soundest basis to structure all social and economic programs, including the health sector. But rational policy should not be based on ideology. Beliefs and theories must be tested empirically for validity before they are used for policy. Over the past three decades, the world has accumulated a tremendous amount of empirical evidence showing that neither polar structure of central planning or free market yields optimal results. Both have serious flaws. This paper examines only the free market approach because the collapse of the centrally-planned economies of communist nations has led to the instinctive reaction that a free market is the best approach for structuring the health sector.

The free market approach is based on the principle of utilitarianism, which recognizes that people have different needs, wants, and preferences. According to the neoclassic economic theory, letting people choose the bundle of goods they wish to consume within their budget constraints maximizes social welfare and yields optimum allocation and use of resources. Each household would shop for the best-quality goods at the lowest price, producers would have to compete to produce goods in the most efficient way. Market competition would spur efficiency and innovation. The free market also has another superior feature: it provides a constant flow of information about consumers' preferences, their judgment about the quality of products, and the production costs of individual firms.

The free market, however, is not a panacea. It alone cannot perform all economic and social functions. Government needs to guide, correct, and supplement the market in many realms. For example, the free market system is only concerned about efficiency—it assumes that income is reasonably equally distributed among citizens. In reality this is not the case; government has to subsidize those who are poor. Economic literature has also documented that a free market is not the best approach to producing and allocating resources for public and merit goods. More importantly, government has to intervene to correct market failures and to fill voids in which a private market cannot be established.

The health sector has many special characteristics; the economics of the health sector is more accurately termed 'abnormal' economics. First, health care consists of public, merit, and private goods. Public and merit goods call for the role of government and private goods call for the role of market. Second, there are serious market failures in all five markets of the health sector. A nation that wishes to rely on the market system to finance and deliver health care has to correct these market failures. Experience shows that some market failures are correctable by government action while others are not. Finally, the complex interrelationships among the five markets in the health sector make it difficult to coordinate the market forces to achieve the greatest benefit for the greatest number of people.

When a nation decides to use the market strategy to reform its health sector, the questions remain: where can the market work well? Where must the government intervene in the market in order to achieve a nation's social goals? Ultimately, decisions about the structure of a health sector rest on the social values a nation embraces. Social values determine the objectives of health sector and shape the nation's political institutions and processes, which craft policies by trading off among equity, efficiency, and control of health costs.

This paper examines the abnormal economic features of the health sector. We first identify which health services can be considered for using the market by distinguishing the services into public, merit and private goods. Market is only appropriate for producing and distributing private goods. Then we briefly describe the five markets in the health sector and point out its complex interconnections and strategic variables. The same section examines market failures and their consequences, based on international empirical evidence. We also evaluate measures that have been used to correct these failures. Finally, we suggest some lessons for developing countries which contemplate the adoption of a market strategy to reform their health sector.

## **2. The multiple nature of health care**

Health care encompasses a multitude of services and programs, ranging from maintaining clean water and sanitation to cosmetic surgery and organ transplants. Using economic principles, we can subdivide health care into three major categories: public, merit and private. According to economic theory, it is socially optimal for government to finance and possibly to provide the first two types of services; while it may be more efficient for the free market to finance and provide the third [1].

### *2.1. Public and merit goods*

Public goods are non-exclusive and/or non-rival in consumption. Non-rival means that consumption by one person of a public good does not lessen the quantity of that good available to others. Non-exclusive means that it is impossible or prohibitively costly to make consumption of public goods exclusive to those who would demand and pay to consume the goods. The most common examples of public goods are lighthouses and national defense [2]. In the health sector, most of public health and preventive measures are public goods. Examples include programs to provide clean water, sanitation, vector control, road safety, air- and water-pollution control, fluoridation of water, and mass health education.

There are several types of merit goods. One type consists of services whose consumption produces greater social benefit than private benefit, such as family planning and certain primary-care services. Another type produces externalities such as vaccination and control of sexually transmitted diseases. A third type of merit goods includes services possessing significant interpersonal utility values (e.g. altruism) [3], such as emergency services for trauma patients and medical services to relieve acute pain and basic health services for vulnerable people. Every society has a vulnerable population such as children and possibly women and minorities,

who may be powerless to make consumption choices to pursue private benefit [2]. Finally, merit goods include services where individuals lack sufficient education or rationality to make rational consumption decisions. For example, many people significantly discount preventive services that produce future benefits [4].

2.2. Private goods

Private goods are those services that exclusively benefit the persons who consume them, and that if consumed by one person, can't be consumed by another. Because of their exclusivity, the market can produce and distribute them efficiently. Most of the curative medical services and drugs fall into this category.

3. Markets of the health sector

The health sector consists of five main markets: financing, physician services, institutional services, input factors, and professional education. We can trace the interconnections among these markets from theories of demand or supply.

Fig. 1 shows the interactions among the five markets. As we shall see from a demand perspective, consumers demand insurance or pre-payment plans (for instance, group-model HMOs) because they are risk-averse or optimizing inter-

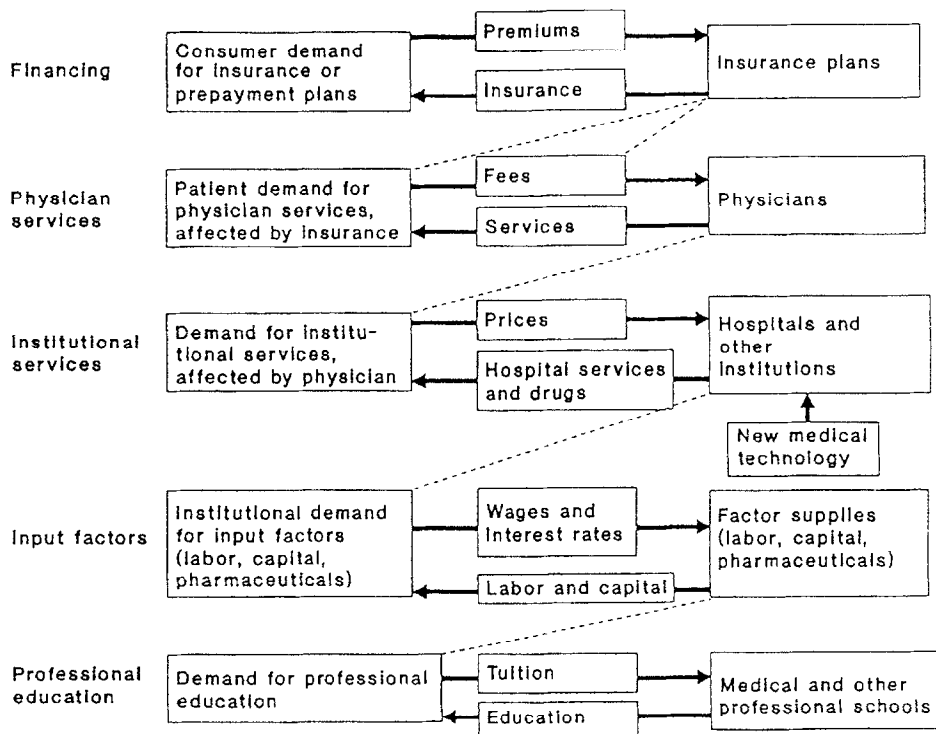


Fig. 1. Interaction among the markets in the health sector.

temporal utility [5]. Insurance in turn alters patients' demands for medical services because it reduces the amount that patients pay directly when they use services. Insurance also alters the behavior of physicians and hospitals in two ways. In the presence of insurance, providers feel less constrained by ethical and psychological considerations to raise their prices since they are paid by depersonalized institutions—insurance companies. Also, the payment schedules used by insurance plans establish an incentive structure that determines which services are most lucrative to perform. In clinical services, primary-care practitioners largely determine demand for diagnostic tests, drugs, and hospital care. Hospital production functions determine demand for input factors such as nurses, technologists, technicians and the labor market for health professionals in turn determines the demand for medical education. Medical technology appears on Fig. 1 as an exogenous factor that influences the supply and demand. New medical technology is typically developed as a result of independent decisions such as government research funding (e.g. USA) and diffused through the profit motive, medical training, prestige enhancement, and patient demand.

The equilibrium condition in the health sector depends on the interaction between health-care institutions and government regulations. There are barriers and time delays in transmitting information from one market to another. Moreover, markets are often regulated by different government agencies. For example, the social security agency might be responsible for financing, while the Ministry of Education regulates medical education and the Ministry of Health plans capital investments. It appears impossible to design a system that coordinates these markets to achieve maximum health gains in an efficient way.

### *3.1. Prerequisites for a competitive market*

A free and competitive market may be a superior system for the production and distribution of private goods. However, the free exchange of goods between buyers and sellers, without government interference, does not necessarily connote a competitive market. For a competitive market that yields the desired social outcomes to exist, several basic conditions must be met. A competitive market presupposes consumer sovereignty and price competition, which in turn requires consumers to have sufficient knowledge about the price, quality, and benefits of the services and drugs they wish to buy in order to make rational choices. Market systems function by price signals, and a competitive market requires that prices be known in advance and the buyers have time to shop.

Certain basic conditions also have to be satisfied on the supply side. There has to be free entry and exit of suppliers (practitioners, clinics, hospitals, and pharmaceutical companies) for competition to exist.

Let us examine these prerequisites to see whether key markets in the health sector meet them. We will base our analysis on the experiences of the United States, which has a long and consistent history of relying on the market to finance and organize its health sector. The United States has also evaluated its private health markets, which few developing nations have. We will also draw on the experience of Singapore, South Korea, Chile, and the Philippines, nations that have

recently structured their health systems explicitly on free-market principles. Then we will analyze the success of various government actions taken to correct these market failures.

### 3.2. *The financing market for health care*

According to neoclassic economic theory, private health services should be financed by having patients pay directly for the services they use. However, the incidence of serious illness is uncertain and the medical costs of serious illness may be catastrophic, yet, a capital market does not exist from which patients can borrow for large medical expenses. The reason is simple: the success of medical treatment is uncertain, and serious illnesses may impair a person's ability to work, and thus to repay a loan. High interest rates to compensate for the high risks would make such loans unaffordable for most patients. Consequently, people demand health insurance to prevent large financial losses. Because high medical expenditures can lead to financial destitution [6], the State has an interest in preventing poverty by seeing to it that citizens are covered by health insurance.

Furthermore, clinical services that relieve acute pain and suffering or maintain life are a basic necessity. Every person has to have reasonably equal access to these basic clinical services. For reasons of equity, the State has a stake in assuring that every citizen can pay the user's fees for basic clinical services.

*Market failures and their consequences.* There are failures, however, in the insurance market as well. An unregulated private insurance market suffers from adverse selection by consumers, and risk selection by insurance companies. Moreover, insurance companies have demonstrated a strong propensity to create monopolies or cartels. These market failures result in no insurance coverage for the poor, the aged, and the disabled and yield excess profit for insurance companies.

Adverse selection arises because consumers have more complete knowledge about their own health status and their own propensity to utilize health services. Informed and rational buyers select the health insurance plan that gives them the greatest payoff. For instance, consumers who expect to make heavy use of hospital services buy insurance that offers full hospital coverage. If such an insurance plan raises its premium rates to cover these expected higher risks, consumers who expect to use fewer hospital services would abandon this plan and leave only the higher-risk enrollees in it. This adverse selection by consumers, in pursuit of the greatest personal benefits, creates a spiral effect such that no stable insurance market can exist unless insurers are allowed to screen risks or the government reinsures poor risks [7].

Adverse selection also discourages risk pooling. Each consumer will tend to select an insurance plan whose premiums closely reflect the expected pay-out for that risk class. Thus, insurance plans, in order to compete, will not voluntarily pool the healthy and the unhealthy. Instead, the premium for the low-risk population will be inexpensive while that for the high-risk population will be very expensive. As a result, the higher-risk population (the aged, the disabled, and child-bearing-age women) may not be able to afford insurance [8]. Similarly, when insurance is employment-based, companies with young and healthy workers do not want their

risks pooled with those of companies that employ older and less healthy workers. In response, insurance companies abandon community-wide risk-pooling in favor of premiums based on experience rating [8]. Consequently, firms employing older workers find they cannot afford health insurance. Because this practice also discourages firms from employing older or disabled workers, it has a negative impact on the labor market.

Meanwhile, insurance companies have found that they can profit greatly by risk selection. The bulk of health resources is spent on a very small proportion of the people. In the United States, 1% of the under-65 population uses 27% of the total health resources spent for those under age 65; 10% of the same population uses 70% of total resources spent on that age group [9]. Given this skewed distribution of expenditures, insurance companies can profit by excluding high-risk individuals through underwriting rules and by targeting products to low-risk groups. When insurance companies would not insure elderly and disabled individuals and persons with pre-existing conditions, these high-risk populations become burdens on society.

Insurance operations call for sophisticated technical knowledge and ample equity capital, requirements that create barriers to entry into the industry. More importantly, business corporations long ago discovered that competition squeezes profits while monopolistic practices expand profits. Consequently, insurance companies, once established, tend to adopt various monopolistic practices, including forming cartels, unless governments establish and enforce strong anti-trust laws.

Finally, insurance creates distortion in consumers' demand for health services. Once insured, patients pay less when they use services. Insurance thus tends to increase patient demand for services to a point at which their marginal cost far exceeds the marginal benefit [7]. This moral hazard tends to increase the rate of inflation in health expenditures.

*International experience with correcting market failures in the insurance market.* Three different remedies for adverse selection have been tried. Germany, which mandated that everyone with an income of less than \$35 000 must insure [10], requires people to remain in the same insurance plan for life. As is commonly known, the United States, which has employment-based insurance, requires at least 75% of its employees to enroll in insurance plans to reduce adverse selection. New York State uses a mandated reinsurance pool [11]. The evidence shows that such government actions can vastly reduce adverse selection.

Regulatory measures have also been used to control risk selection. Certain US states have required insurance plans to offer open-enrollment periods each year and to charge a uniform premium rate to everyone in a community (community rating). These efforts were not effective. Insurance plans used subtle devices to screen out high risks, such as doing business only in wealthy communities whose residents tend to be relatively healthy. There have even been reports of insurance plans locating their enrollment offices on the fifth floor of a walk-up building to exclude those with heart and musculoskeletal problems. These efforts to exclude high risks add to the cost of health insurance without contributing to the improvement of health.

Recently, theoreticians have argued that risk-adjusted premiums could serve as a

device for discouraging risk selection. Each individual's premiums would correspond to his or her expected health expenses. However, the field of actuarial science currently lacks the tools and data to assess risk accurately on an individual basis.

Attempts to moderate the moral hazard and the cost-inflation rate have used co-insurance, deductibles, and co-payment. Most studies, in low-income and affluent nations alike, have found that the price elasticity of demand for clinical services is greater than zero but less than one (i.e. price-inelasticity) [12,13]. Thus, cost-sharing by patients would reduce demand. However, reduction in patients' demand evokes a supply response whereby providers induce greater demand for their services to offset loss in revenues [14]. As a result, the use of demand-side strategy to constrain cost inflation has had very little effect. Singapore and Korea, two nations that relied heavily on a demand-side approach, have found cost-sharing by patients ineffective in constraining health-care costs [15].

Table 1 summarizes the major market failures of the insurance market, their consequences, and the effectiveness of government actions.

*Regulation and social insurance.* Several nations have discovered that it is very difficult and expensive to correct private-health-insurance market failures. Complicated regulatory mechanisms must be put in place to prevent adverse selection, risk selection, and monopolistic practices of insurers. These nations have also found that some failures cannot be effectively corrected. Moreover, regulatory measures impose high administrative expenses on both regulators and regulatees. Thus all industrialized countries except the United States have chosen to establish compulsory universal insurance to finance private health services.

The use of social insurance is problematic, however, for developing countries. Social-insurance programs financed by wage taxes, can practically be established only for workers employed in the organized sector. Typically, such programs only cover 10–30% of the population of a developing nation. These workers, who tend to be the more affluent, become a strong vested interest group. They use their political influence to gain greater benefits, which shifts health resources and trained personnel to this urban middle class at the expense of the rural population and the urban poor. Hence, developing nations always need a parallel financing strategy, such as community financing, to fund health care for the rural population and thus balance the social welfare of urban workers, rural peasants, and the urban poor [16].

### 3.3. *The market for clinical services*

*Market failures and their consequences.* The market for the provision of clinical services also suffers from market failures. First and foremost, consumer sovereignty is weak in deciding what clinical services to purchase; most consumers lack sufficient medical knowledge to make their own choices. Patients seek diagnosis and treatment from physicians because physicians have far-superior medical knowledge. Unlike in the markets for groceries or clothing, asymmetry of information between buyers (patients) and sellers (physicians) vastly undermines consumer sovereignty.

While physicians can serve as agents for patients, advising them about needed



Table 1  
Market failures in financing

Market failures	Consequences	Measures used to correct failures	Empirical outcomes
Adverse selection	Little risk pooling, no insurance market some insured	Education, tax subsidy, compulsory universal coverage lifetime enrollment	Ineffective Effective Effective
Risk selection	No insurance for the disabled, sick, poor and elderly	Open enrollment Community rating Risk-adjusted premiums for individuals	Moderately effective Moderately effective Technically unfeasible
Monopoly or insurance cartel	Excess profit, poor quality products underproduction	Anti-trust laws	Effective
Insurance effect	Overuse of services by patients, moral hazard	Deductible, coinsurance Gatekeepers Waiting lines	Moderately effective Moderately effective Patient dissatisfaction

medical treatments, physicians also provide those treatments and earn their livelihood from them. The dual role of agent and provider creates an imperfect agency relationship, allowing physicians to induce demand for their own services in the interests of profit or professional satisfaction. The absence of consumer sovereignty in the clinical-service market is well documented. Studies have found that physicians possess the ultimate degree of market power as demonstrated by their ability to price-discriminate [17] and to induce demand for profitable services such as the use of expensive and profitable technology, surgery, and drugs [18]. This market failure results in high income for physicians, performance of unnecessary services (which may harm patients), and overuse of expensive technology and drugs.

Physicians' monopolistic power is also promoted by the rendering of clinical services for life-threatening or emergency conditions. Functionally, such services resemble those delivered by fire and police departments. Under emergency conditions, consumers lack the time and presence of mind to do price-shopping and exercise rational choice. Using the free market to organize and deliver these medical services generates excessive profits for the providers and does not yield optimal social outcome.

Moreover, even in normal circumstances, physicians and hospitals cannot tell patients in advance the price of treatment because of the uncertainty of diagnosis and individual's recovery rate. Thus, a basic prerequisite of market competition — advance price information—is largely absent in the clinical-service market.

Hospitals also tend to be local monopolies. Because of the large capital investment required to build and equip a hospital, and because of economies of scale, a community may have only one or two hospitals. In an unregulated environment, a hospital could use its monopolistic power to generate excess profit, offer poor-quality services, and acquire expensive and prestige-enhancing technology without regard to cost-effectiveness.

*International experience with correcting market failures in clinical-service markets.* To remedy market failures in the clinical-service market, governments have typically adopted two measures: price regulation and control of supply. Because providers enjoy the monopolistic power to set prices, governments have had to regulate prices for hospitals, physicians, and drugs. High profits also create distortions in the labor market when a disproportionate number of young and talented people is drawn to unusually lucrative professions [19].

However, price controls are not sufficient to control health costs. International experience shows that providers can increase the volume of services by inducing demand, altering medical practice patterns, and shifting to high-priced drugs, which give higher mark-ups to compensate for falling revenues arising due to price regulations. Developed countries have thus had to regulate both price and quantity. Payment methods based on capitation, total hospital budget, and global budget for physician services have all proven effective in controlling costs and allocating resources. The United Kingdom has adopted the capitation payment method for GPs. Managed-care plans in the United States are also adopting capitation payment. Canada, Germany, and Japan all rely on one form or another of global budgeting to control cost inflation and allocate resources. Their experiences with

global-budget approaches show that these methods are effective in containing cost escalation [20].

Because providers can induce demand, developed nations have found that they have to control the aggregate supply (such as the number of hospital beds, the number of physicians, and distribution of physicians by specialty) in conjunction with other government actions. Otherwise, as Germany found, excess supply creates pressure to increase global budgets. Government has also had to regionalize expensive and complicated services (such as kidney and heart transplants, hip and knee replacements, coronary artery bypass grafts, and the like) because competition for prestige prompts medical centers to acquire the latest technology regardless of cost-benefit.

Table 2 summarizes market failures in the clinical-services market, their consequences, and the effectiveness of government actions.

*HMOs and 'managed competition'.* An innovative approach to correcting market failure is to change the structure of health-care financing and delivery by combining risk pooling with delivery of clinical services in an organization known as a pre-paid group-practice plan (group-model HMO). These HMOs accept a payment set prospectively to render all needed clinical services to a defined population. Thus, the HMO has an incentive to prevent illness and produce services efficiently. Moreover, if there is competition among HMOs, and between HMOs and traditional insurance plans, the HMOs will vie to provide quality services at the lowest possible cost.

Another new approach to regulate market failure in the production of clinical services is managed competition. Basically, managed competition counters the powerful monopolistic power possessed by providers by establishing powerful monopsony buyers representing a large group of patients. These buyers use their market power to negotiate and contract for lower prices and better-quality clinical services ('buying for value'). To establish monopsony buyers, a nation would create health-insurance purchasing cooperatives (HIPCs). These cooperatives in turn would carefully select several insurance plans. Each qualified plan would offer a standard insurance product, enabling the consumer to compare the prices and quality of insurance products. Consumers then select a plan in which to enroll. Hence, insurance plans would be forced to compete with each other on prices and with group-model HMOs. It is believed that, in order to compete for enrollees, insurance plans and HMOs would have to exert pressure on providers to reduce the costs of hospitalization, outpatient visits, laboratory tests, and the like [21]. There is little reliable empirical evidence yet on how effectively managed competition would improve the efficiency of clinical services or reduce cost inflation.

*Public provision of clinical services.* Many countries use public institutions to deliver health services. Theoretically, the goals of public and private for-profit institutions are vastly different: the former seek to improve the health status of the population while the latter seek to maximize profits. Nonetheless, both types of institutions would, in theory, produce services in the most efficient manner. However, public institutions often suffer from political patronage, cumbersome bureaucratic rules and dominance by strong trade unions. Inefficiency and poor

Table 2  
Market failures in clinical services

Market failures	Consequences	Measures used to correct failures	Empirical outcomes
Hospital as natural monopoly	Excess profit, poor quality, expansion of expensive technology	Retrospective cost reimbursement Prospective price or hospital budget	Ineffective Effective
Monopolistic power of physicians due to asymmetry of information, one-time shopping, life and death conditions, barriers to entry	Induced demand, price discrimination, excess profit, poor quality expansion of expensive technology	Monitoring and claim reviews Payment by capitation, salary or global budget Consumer education Promote physician substitutes	Expensive to administer and ineffective Effective Ineffective Ineffective
Information barriers due to uncertainty & technical complexity	High search costs, high monitoring costs	Consumer information	Expensive & moderately effective
Absence of advance price information due to uncertainty	Weak competition, expansion of expensive technology	Post prices on standard services	Moderately effective for physician services, ineffective for hospital services

management are sometimes rampant, as is corruption. In the absence of competition, there is little incentive for public institutions to respond to consumer preferences and operate efficiently. Moreover, without external market pressure, it is difficult to innovate and change the status quo.

Public provision has another shortcoming: the management of public institutions relies on central planning and control. Central regulatory agencies in turn often lack the capacity to plan, regulate, and monitor. For example, they may have little access to information on people's preferences and the most efficient methods of production.

#### **4. Lessons for less developed countries**

While it sounds seductively simple to use the free market to finance and organize health care, the markets in the health sector are plagued by a number of major market failures. Moreover, the health sector is complicated; it actually consists of several markets whose interactions are complex. Many countries have tried to correct market failures in the insurance and clinical-service markets. Some measures were successful and others were not. We can draw some clear lessons for developing nations.

##### *4.1. The commercial insurance market*

Various methods have been used to correct failures in the insurance market. Regulation has proven to be largely ineffective and costly. The experiences of Chile, the Philippines, and the United States demonstrate that it is both perilous and inefficient to create commercial insurance markets to finance health services. For-profit insurance plans and HMOs tailor their products to low-risk customers and to those who have the ability to pay. To avoid individual adverse selection, private plans often limit their customers to large employer groups. This practice would exclude most people in developing nations. The elderly, the disabled and chronically ill, the unemployed, the poor, workers in the unorganized sectors, and farmers are left as a public responsibility. In Chile, a middle-income nation, two-thirds of the population was excluded from private insurance plans. The United States, a wealthy post-industrialized country, counts at least one-third of the population as public charges; they tend to belong to the high-risk, high-cost groups [15].

Private insurance thus creates a two-tiered health-care system. The affluent, insured through private plans, are reluctant to pay higher taxes to fund similar health services for the less affluent. Reforming such an inequitable system will be difficult. Besides opposition from the already-insured affluent groups, private insurance plans, once well-established, become well-financed and ferociously active interest groups who will strenuously oppose universal health insurance or stronger regulation of private insurance. Any nation that contemplates relying on private insurance to finance basic health care would be well-advised to study the experiences of the United States, Chile, and Philippines. Their unforeseen long-term negative consequences have far exceeded any short-term relief that private insurance provided.

Private health insurance also entails large transaction costs. Using the private insurance market to achieve greater efficiency in health care requires us to weigh the inefficiency losses from public-sector financing against the additional transaction costs of an insurance market. In the unregulated HMO market of the Philippines, transaction costs and profit totaled 45% of premium revenues. In Chile, a regulated insurance market, transaction costs totaled more than 30% of average premium revenues. In the United States, where medical costs are high, total transaction costs still run as much as 25% of premiums. By contrast, most publicly-run health-insurance systems have spent less than 10% of revenues on transaction costs, such as in Canada, Japan, and Germany.

International experience also shows that regulation cannot correct the failure of the private insurance market to cover everyone, even if the government provides large subsidies to the elderly, poor, and disabled. The United States has found that 14% of its population (37 million people) is uninsured even though the elderly, severely disabled, and poor are covered by government programs. In sum, there is ample evidence that an equitable health-financing system for all citizens can only be achieved with strong government actions, such as compelling every individual to be insured.

#### *4.2. The clinical-service market*

The prerequisite conditions for a competitive market are largely absent in the clinical-service market. The clinical-service market suffers from asymmetry of information between patient and doctor and imperfect agency relationships. Patients also lack consumer sovereignty to rationally choose medical treatments, admit themselves into hospitals, order laboratory tests, and purchase prescription drugs; physicians exercise that power. On the supply side, barriers to entry, such as licensing restrictions that limit who can practice medicine and operate hospitals, dampen competition.

International experience shows that clinical-service market failures can be corrected sufficiently through price and quantity regulations, such as using capitation to pay primary-care physicians, performance-related prospective budgets for hospitals, global budgeting for physician services, reference drug prices, regional capital-and-manpower planning, and the like. These measures have been applied successfully in Canada, Japan, the United Kingdom and Germany. However, regulatory measures create tension between the government and providers; it results in periodic political confrontation.

### **5. Conclusions**

A worldwide search is underway to design health systems that combine the best of central planning with market mechanisms. Developed nations have been moving away from both polar positions and converging toward the center. The central-planning systems, such as the United Kingdom and Sweden, are introducing market forces and developing an internal-market approach. It is too early to assess their successes and failures. Meanwhile, the United States is moving away from its free-market approach toward a scheme of managed competition. Again, there is

little empirical evidence on how well this scheme will work. One thing is clear, though: market competition engenders much higher transaction and administrative costs. Furthermore, genuine competition requires excess supply. Thus, it is unclear whether the total cost of a health-care system will be lower when it operates under managed competition.

Over the past 30 years, we have learned much about health economics. Empirical evidence has taught us about the abnormal economics of the health sector. While this knowledge can guide us in designing health-sector reform, it also shows that there is no simple free-market solution in the financing and provision of health services.

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