
JAPANESE HEALTH CARE: LOW COST THROUGH REGULATED FEES

by Naoki Ikegami

Prologue: *Japan's health care system represents an enigma for Americans. The system incorporates features that Americans value highly: employment-based health insurance, free consumer choice of physician, and a delivery system that leaves clinical decision making in the hands of the doctor. But the cost of medical care in Japan is very low, compared with that in the United States, thus raising the question: How does Japan provide ready access to care for all of its citizens at a cost that is the lowest among major industrialized nations? In this essay, Naoki Ikegami describes the basic structure of the Japanese system, how it constrains expenditures, and the major issues it faces. Ikegami is a rare figure in the Japanese system because his interests span clinical medicine and health policy—a combination that is far more commonly found in the United States. Ikegami, who trained as a psychiatrist and started his research activities on the epidemiology of alcoholism, is a professor of health and public service management at Keio University in Tokyo. He also holds an appointment as professor of hospital and medical administration in Keio's School of Medicine, from which he received his medical degree. Ikegami received a master of arts degree in health services studies with distinction from Leeds University (United Kingdom). During 1990-1991, Ikegami was a visiting professor at the University of Pennsylvania's schools of medicine and business. Asked what lessons he derived from the experience, Ikegami said it allowed time "to ponder the pros and cons of opening the Pandora's box of managed care and micro-management in trying to evaluate the quality of care." While at Penn, Ikegami also strengthened his research interests in the comparative analysis of policy and management in health care. He was the director of a course in comparative health care systems at Penn. Other research pursuits have included the management of long-term care and the evaluation of health care.*

Japan, a centralized democratic state that thrives on capitalism, operates a health care system whose features are worthy of attention as American policymakers seek to craft a reform plan that is acceptable to the disparate interests of its society. At a cost that is little more than half of what the United States spends for personal health services, Japan provides its entire population with equitable health insurance that guarantees ready access to virtually all medical facilities. This policy is based on a belief that if equity and universality of access are goals, then cross-subsidization of payments must occur between people of different economic means, and government must regulate this process. The Japanese system also incorporates values that are highly prized in the United States, including patient freedom of choice of private physician; employment-based, nonprofit health insurance; and a delivery system operated on *laissez-faire* principles.

Another interesting dimension of Japanese health care is the impressive health status of its 122 million citizens. The infant mortality rate of 0.5 percent of live births (compared with the U.S. figure of 1 percent) places Japan in the top rank among industrialized countries. Japan's average life expectancy at birth of 75.6 years for males and 81.4 years for females also ranks high among nations.¹ But the exact relationship between these macro-outcome measures and the health care system is none too clear. While Japan's universal maternal and child preventive care programs may have considerable impact on health status and costs, it is likely that factors not directly connected to medical care—the greater cultural and ethnic homogeneity of its citizens, a more equal distribution of income, and a lower unemployment rate as compared with Americans—are of even greater importance.

The Japanese Health Care System

Japan is a constitutional monarchy with a population of 122 million, a little less than half that of the United States. Geographically, the country is about the size of Montana. Because two-thirds of the land is mountainous forests, most of the people live in the urban metropolis stretching from Tokyo through Osaka to northern Kyushu, making Japan one of the world's most densely populated nations. The country is divided into forty-seven prefectures and 3,268 municipalities. Heads of the local governments and their assemblies are elected by direct ballot, but the country's public policy-making process is highly centralized at the national level. Together with the high ethnic homogeneity and the relatively small income difference, this has resulted in a Japanese society that is extremely uniform and cohesive. Sustained economic growth since the

end of World War II has made per capita income one of the world's highest. Politically, the conservative Liberal Democratic party has been in continuous power since 1955.

The Japanese health care delivery system shares some basic characteristics with the US system. About 80 percent of Japan's hospitals and 94 percent of its physician-run offices (referred to as clinics) are privately operated. With the exception of a recently imposed ceiling on the number of hospital beds by region, there are no restrictions on capital development; reflecting this environment, Japan operates the highest per capita number of computerized axial tomography (CT) scanners in the world. This *laissez-faire* policy toward providers extends to consumers as well. Patients are free to select their ambulatory care physicians, who are reimbursed on the basis of a negotiated fee-for-service schedule, and they have direct access as well to tertiary care hospitals and the medical specialists who practice there.

However, in contrast to the American system, the Japanese delivery system is more loosely organized and far less functionally differentiated. Regarding ownership and management, virtually all clinics are solo practices owned by the physician who presides, while most of the hospitals are physician-owned, free-standing facilities. The most prestigious hospitals are large, mostly public institutions with medical teaching programs. Investor-owned for-profit hospitals are prohibited in Japan. A corporation may own and manage a hospital, but it must be for the benefit of its employees and the local community, and profits may not be taken out of it for other purposes. By law, the chief executive of any hospital must be a physician. Very few of these physician executives have any formal training in management.

There is little functional differentiation between hospitals and office-based clinics. Virtually all hospitals maintain large outpatient departments from which they draw their inpatients. Their medical staffs, with the exception of physicians who own a private hospital, are all employed and receive fixed salaries. One unusual feature is that a third of the clinics have their own beds, in large part because private practitioners do not have access to hospital facilities.² The distinction between a hospital and a clinic is primarily legal and is based on the number of beds; facilities with twenty or more beds are designated as hospitals, while those having fewer than twenty are called clinics. Hospitals and clinics compete aggressively for patients; hospitals seek to attract outpatients through their large ambulatory care facilities, and clinics strive to keep their patients from going directly to hospitals.

Hospitals accommodate both acute and long-term care patients, as the data bear out; sometimes, acute and chronic care are provided on the

same hospital floor. The average length of a patient stay in all kinds of hospitals is fifty-two days; this figure is deceptively large because these institutions are also used as nursing homes and the data are not differentiated. Japan operates thirteen hospital beds for every thousand citizens, well above the average of many other industrialized countries. Of hospital inpatients, 43 percent are over age sixty-five; at any given time, 45 percent of elderly inpatients have been hospitalized for more than six months.³

Another unique feature is that physicians both prescribe and dispense pharmaceutical products. Most physicians in clinics do their own dispensing, and hospital-based doctors dispense from the institution's pharmacy. This feature accounts for Japan's high per capita consumption of drugs—one of the highest in the world, amounting to 32,109 yen per capita in 1986 (purchasing power parity of \$146), which is more than the equivalent U.S. figure of \$128.⁴ About 30 percent of Japan's personal health expenditures are for drugs; the policies of the Ministry of Health and Welfare during the 1980s have reduced that percentage from about 38 percent.

Financing Care In Japan

Japan's financing system features multiple payers as does the U.S. system, but there the similarity ends. Every citizen must have an attachment to one of the social insurance plans, which finance virtually all of the care. The plans offer a largely uniform set of comprehensive medical benefits, including medications, long-term care, dental care, and some preventive care. Claims are filed with the insurance plans by providers, and services are provided to patients as benefits in kind. Virtually all medical care is provided under a nationally uniform fee schedule. "Uniform" means that the same fee is paid by all insurers to all providers, regardless of whether the service is performed in a tertiary hospital or a rural clinic, by an experienced specialist or a recently qualified physician. Neither insurers or providers have the freedom to negotiate individually a different fee schedule.⁵ Consumers do not have any real choice in selecting their health insurance plan; they must join the one plan that is offered by their employers or, if they are self-employed, that is administered by their local governments or trade associations.⁶

Exhibit 1 shows the insurance plans, which can be broadly divided into three categories.⁷ First is the insurance system for employees and their dependents, in which the premiums are generally divided equally between employer and employee. Premiums are deducted from employees' paychecks on a progressive income-related basis as part of the employee's

Exhibit 1
Status Of Health Insurance Plans Japan, 1989

Sector	Health plan	Population covered	Public subsidy
Employees	Government-managed health insurance	27.3%	16.4%
	Society-managed health insurance	24.9	
	Seamen's insurance	0.8	
	Mutual aid associations	9.8	
	Total	62.8	
Self-employed and pensioners	National health insurance (NHI)	34.0	50
	NHI associations		32-52
	Total	37.1	
Elderly (pooling fund)	Geriatric Health Act	7.5	30

Source: Kousei Tokei Kyokai, *Hoken to Nemkin no Dokou* (Tokyo: Kousei Tokei Kyokai, 1989), 76-77.

Social Security payment. This system of employer-based insurance can be subdivided into four segments: (1) government-managed health insurance for workers in small enterprises of fewer than 300 employees; (2) insurance societies (jointly managed- by management and labor representatives) for workers in large enterprises (which number about 1,800 societies); (3) the independent seamen's insurance; and (4) the mutual aid societies for public-sector employees. For all plans under this system, the copayment rate is 10 percent for employees and, for dependents, 20 percent for inpatient care and 30 percent for outpatient care.

Second is the insurance system for the self-employed and their dependents. It also includes most of the elderly living on pensions (the rest would be covered by their children as dependents). Premiums are calculated on the basis of income, the number of individuals in the insured household, and assets. This category can be divided into the community-based ordinary national health insurance (NHI), with the municipal government acting as insurer, and the NHI associations, which insure members in the same occupation, such as carpenters or barbers. Under this system, the copayment rate is 30 percent for both inpatient and outpatient care. Except for individuals on public assistance, all Japanese must be covered by one of these schemes. The employer-based plans cover 63 percent of the population, while the plans for the self-employed and their dependents cover the remaining population.

The third system is actually a pooling fund created by the Geriatric Health Act in 1983, which pays for all health care costs incurred by the elderly age seventy and over (age sixty-five and over for those who are bedridden), regardless of plan. Each plan must contribute a sum to this

fund, which is calculated on a basis that is similar to the national ratio of elderly citizens in society. With premiums calculated in this manner, no plan is forced to shoulder a disproportionate burden of the costs of insuring the elderly. Patient copayments are a fixed nominal amount.

Japan's Approach To Achieving Equity

While some marginal differences in the premium and copayment rates and other benefits exist among the plans, the fees that physicians derive from the services they provide are uniform regardless of the patient, the physician's experience, or the setting in which the care is rendered. Because physicians receive the same fee for any like service provided to a patient, including those on public assistance, they have no incentive to withhold care out of concern that they will not be remunerated. Balance billing (charging the patient more than the fee schedule allows) is strictly prohibited. Patients can be charged extra for only a few services, including a private hospital room (unless it is clinically indicated) and a very restrictive range of new technology still being assessed. The copayment rate differential to which insured workers and their dependents are subjected has been largely cushioned by the fact that any out-of-pocket copayment faced by a patient in a given month over the amount of 57,000 yen (\$438) [or 30,000 yen (\$231) for those with low income] is reimbursed regardless of the plan. These measures have inhibited the extensive development of a competitive private insurance alternative. Most private insurance offerings are for supplemental benefits, to cover amenities during a hospital stay or other incidental expenses.

Thus, Japan has one of the most equitable single-tiered health care systems in the world. According to a 1988 survey, conducted in Tokyo, neither the utilization rate nor the health care expenditure per person was affected by an individual's income level.⁸ In a national survey in 1985, of those who had experienced an illness but had not seen a physician, only 0.4 percent gave economic reasons for not having done so.⁹ Out-of-pocket expenses for copayments amount to only 12 percent of the total health care expenditure provided under social insurance.

The key factor that allows for this level of equity under a multiple-payer system is the government's central role in managing and subsidizing the plans that insure the financially disadvantaged. As shown in Exhibit 1, in the government-managed health insurance for those employed in small enterprises, the central government acts as the insurer and provides a direct subsidy from the general budget amounting to 16 percent of its total expenditure. In the national health insurance plan for the self-employed and pensioners, local governments act as insurers, and the central gov-

ement provides a direct subsidy amounting to half of total expenditures. For the elderly, the central pooling mechanism is financed through contributions from the national and local governments-the former, 20 percent, and the latter, 10 percent of expenditures-and from funds pooled from all plans. Because those individuals who are employed by large companies or in the government have relatively high incomes and tend to have better health status, no public subsidies are given to the insurance societies and the mutual aid associations, with the exception of some modest support for administrative expenses.

Are Japanese Health Care Costs Truly Low?

Among the major industrialized nations, Japan's personal health expenditures are virtually the lowest, according to data collected by the Organization for Economic Cooperation and Development (OECD). But are Japan's costs really that low? The first question that confounds any international expenditure comparison is the difference in statistical compilation. The boundaries between health care, human services, environmental protection, and education are not clearly drawn, so that what is aggregated under "health care" need not be, and is not, the same. The OECD has attempted to standardize the cross-national variations; it estimates that Japan spent 6.8 percent of its gross domestic product (GDP) on health care in 1987, 3 percent higher than the official Japanese government figure of 6.4 percent.¹⁰ The latter estimate is probably an understatement, since it is based only on the social insurance expenditures and excludes expenses for normal child delivery, direct medical education and research expenditures, grants to public hospitals, preventive health measures, private room charges, and private gifts to physicians (which I discuss later). Thus, the 3 percent difference may be regarded as too small for comparative purposes.- However, the OECD figure is the best comparable data currently available; even if increased by as much as 10 percent, this estimate would still be well below that of the major OECD countries, with the exception of the United Kingdom and Italy.

The second question is whether health care costs are low when compared with the service demands placed upon the system. The problems assailing the U.S. health care system and certainly adding to its higher costs-such as the high prevalence of people who abuse alcohol and drugs, engage in criminal practices that lead to death and injury, or have acquired immunodeficiency syndrome (AIDS)-are of a significantly lower magnitude in Japan. In particular, only 195 persons were reported as manifesting AIDS as of August 1990, most of whom were hemophiliacs.¹¹ With a little more than twice Japan's population, the

United States has about 180,000 AIDS patients. The Japanese may also have a healthier diet: only 25.5 percent of total calories come from fat (1988).¹² Another factor is the litigious nature of American society, which has led to malpractice suits and, of more significance economically, defensive medicine. In contrast, the number of lawyers per capita in Japan is about one-tenth that of the United States, and malpractice suits are far less common.

On the other hand, some negative factors in the Japanese lifestyle may counterbalance these positive attributes. About 61 percent (1989) of men over age twenty smoke, down from 84 percent in 1966 but still well above the U.S. rate and that of many other countries.¹³ The Japanese diet has a high salt content (daily consumption rate of 12.2 grams), which has led to a high incidence of cerebrovascular disease. Also, the manner in which Japan provides geriatric care to its elderly citizens is not likely to be a factor in explaining health spending differences. The ratio of individuals over age sixty-five is similar to that of the United States-about 12 percent. Although some 62 percent of the elderly live with their children in Japan, the institutionalization rate is quite high (6.2 percent) and is comparable to that of the United States. Thus, popular beliefs about the veneration of the elderly and the willingness of children to provide care in their homes in Japan are not borne out by available data. Moreover, the major burden for taking care of the elderly falls on the health care system because of the inadequate provision of social services. Of those institutionalized, 75 percent are in hospitals and clinics.¹⁴

The third dimension to be considered is the denominator in health costs. Since Japan's GDP has grown rapidly, the relative cost of health care has remained low when compared with most other countries, which have not experienced rapid economic expansion. According to George J. Schieber, of the seven major OECD countries, Japan had the highest growth in real per capita health expenditure during 1960-1987, adjusted for health care inflation and population growth.¹⁵ The increase was 8.18 times or 8.1 percent annually (the equivalent U.S. figure was 2.78 times and 3.9 percent, respectively). However, it should be noted Japan was still a relatively poor country in 1960 with a per capita expenditure of only \$258 (purchasing power parity), compared with \$1,489 in the United States. Thus, a more meaningful comparison is the real elasticity-the compound annual rate of growth in real per capita health spending relative to the compound annual rate of growth in real per capita GDP. This figure comes to 1.46 annually during 1960-1987 for Japan, which is well below the U.S. figure of 1.80 for the same period.

After one examines the above caveats, health care costs are definitely low in comparison with the United States and very likely in comparison

with Canada, France, and Germany as well. While the spending differential that exists between these countries could be partly attributed to the social systems in question, the following measures are important in Japan's effort to moderate the growth of its health spending.

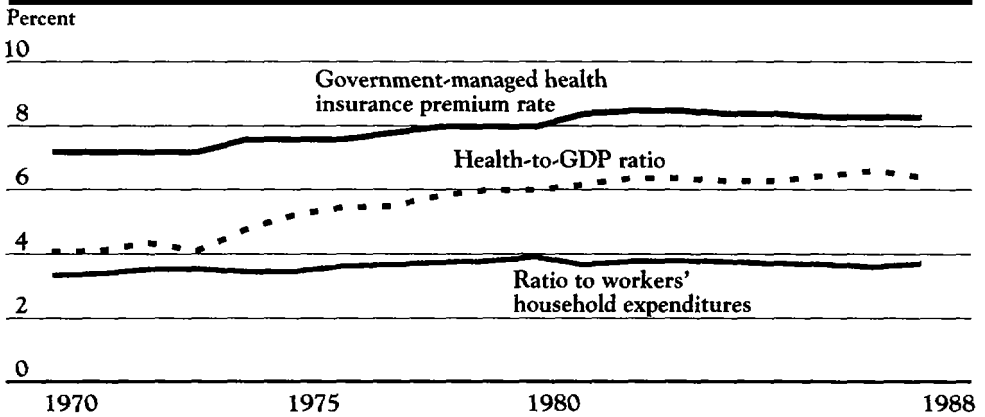
Mechanisms For Cost Containment

The nationally uniform fee schedule has already been cited as playing a key role in maintaining equity. It has also been the primary mechanism for containing total health care expenditure. This is because it establishes both the scope and standard of services that can be provided. Neither providers nor payers can negotiate individually to expand benefits; any such decision must be made by government. Because any benefit expansion must apply to all insurers, the government has a strong incentive to constrain the growth of total health expenditures. The incentive derives from the fact that the government subsidizes the plans at a fixed rate; when plan expenditures increase, so does the government's subsidy.

When the Japanese government began to focus on containing overall public expenditures in the early 1980s, one of its targets in relation to medical care was limiting the increase in the fee schedule.¹⁶ The general effort to constrain public expenditures came in the context of an Administrative Reform campaign spearheaded by private business interests and the Ministry of Finance in reaction to the huge deficit spending in the 1970s. A committee headed by Dokou, honorary chairman of the Japan Federation of Economic Organizations, recommended in a widely publicized report that the combined burden of taxation and Social Security payment should remain below the level of 45 percent (recently amended to 50 percent) of GDP. This ceiling, the committee said, should apply even when the number of elderly reaches its maximum in the year 2020. This report, along with support from the Ministry of Finance, was successful in creating a national consensus on constraining public-sector spending. Health care costs, as a major contributor to the deficits, became an obvious target. The degree of success can be seen in Exhibit 2. Health spending as a proportion of GDP (Japanese government estimates) increased from 4 percent to 6 percent in the 1970s. However, the pace slackened greatly in the 1980s. A similar pattern can be observed in the premiums that employers and employees contribute to the government-managed health insurance plan: the rate increased from 7 percent in 1970 to 8.5 percent in 1982 but has now decreased to 8.3 percent. This has been reflected in the reduced proportion of an average worker's income devoted to health services. Currently, the average worker's health care expenditure (insurance premiums plus out-of-pocket expenses) amounts

Exhibit 2

Changes In The Ratio Of Health Care Expenditures In Japan, 1970-1988



Sources: Kousei Tokei Kyokai, "1990 Trends in the Nation's Health," *Kousei No Shihyou* 37, no. 9 (1990): 234; and Kousei Tokei Kyokai. *Hoken to Nenkin no Dokou* (Tokyo: Kousei Tokei Kyokai, 1989), 63, 107.

to 3.7 percent of income, a reduction to a mid-1970s level.¹⁷

The actual negotiations for any revisions in the fee schedule take place in the Central Social Medical Care Council of the Ministry of Health and Welfare. This council comprises eight representatives from providers (five physicians, two dentists, and one pharmacist), eight from payers (four from insurers, which includes two from the government, and two each from management and labor), and four to represent public interests (three economists and one lawyer). Global increases are based on the periodic survey made every second year of the financial state of hospitals and clinics (the latter being equivalent to a study on physicians' income). As noted, beginning from the revision made in 1981, the government has exerted strong pressure to contain increases in the fee schedule. Revenues used to grant fee increases derived largely from reductions in government-regulated prices for pharmaceuticals. Thus, while medical fees were allowed to increase 27 percent from 1981 to 1990, a 52 percent decrease in drug prices and cuts in laboratory test fees left the net increase for fees and prices at only 2.4 percent, far below the 15 percent increase in inflation that occurred during this period.

As a result of these cost containment measures, Japanese health care costs have been kept at a level considerably below that of the United States. The average cost per day, inclusive of all services, averages only 13,523 yen (\$101) for inpatient care (including physician expenses) and 4,329 yen (\$33) for an outpatient visit (including medication). For new technology, the fee is set by comparing it to the nearest existing procedure, equipment, or drug. For example, the fee for a magnetic resonance

imaging (MRI) examination is only 23,000 yen (\$177), just 4,000 yen (\$28) more than for a regular CT body scan. Importantly, the total revenue derived from billing for itemized services must pay not only for operating expenses, but also for capital acquisition costs. This practice is particularly significant for the physician owners of clinics and hospitals because they have very few revenue sources outside of the services provided under social insurance. This explains why the physician owners cannot make large investments in high-technology equipment.

Another constraining influence on medical costs is the retrospective review of claims sent by providers to third-party payers. Detailed item-by-item claims of the services rendered must be sent by every institution at the beginning of each month to the intermediary payment funds that operate at the prefecture level. These claims are then inspected by the funds' designated panel of physicians. If the panel concludes that excessive numbers of procedures or drugs have been provided, payment can be denied for those items. In addition, claims over the amount of five million yen (\$38,462) are subjected to special reviews at the national level.

It is difficult to evaluate the effectiveness of this claims review mechanism. The average time for reviewing each bill is less than one second because of the huge number of claims (1.6 billion a year) that must be reviewed manually; electronic billing is still not permitted in Japan. Even with administrative screening, there are still too many bills for objective evaluation. Moreover, the only information available is in the form of itemized services provided in the past month, which are checked against the patient's age, sex, and diagnosis. This has led to the practice of adding a diagnosis so that a particular procedure will pass review. As a consequence, it is common to see four or five, or even ten, diagnoses on a patient's bill. On the other hand, the peer review panel does have empirical knowledge of the practice patterns of the institutions in the community and tends to be more rigorous in checking claims coming from the more questionable providers. The arbitrariness of this process, plus the time-consuming nature of the appeals process, may discourage physicians from providing more services to their patients than are deemed clinically necessary. Thus, even though the actual ratio of the claims judged as providing excessive care is less than 1 percent, the sentinel effect of peer review may be greater than this figure suggests.¹⁸

Structural Reasons For Low Costs

Economic incentives. Complementing these procedural cost containment mechanisms are three structural factors that also constrain expenditures. First is economic incentives built into the fee schedule, which

favor the physician who provides primary care. This bias does not stem from more generous remuneration for the evaluation and management services (so-called cognitive services) that primary care physicians provide. Rather, it is a consequence of the fact that pharmaceutical products and laboratory tests constitute a larger ratio of revenue in primary than in tertiary care settings. Although the fees allowed for drugs and laboratory tests were cut in the 1980s, these reductions were compensated to a certain extent by the decrease in the market price that providers pay for drugs and laboratory tests for which they contract. By contrast, it has proved difficult for physicians to maximize revenue through surgical procedures because they are time-consuming and cannot be delegated to other personnel or contracted out. Although a direct U.S./Japanese comparison of the fee schedule is difficult, I note the marked difference in physicians' income. In Japan, physicians in clinics earn at least twice as much as do specialists employed in hospitals.¹⁹ All hospital medical staff members tend to be paid the same experience-based salaries regardless of clinical specialty. Therefore, physicians who are attracted to earning high incomes must go into private practice in clinics and focus on primary care, even though they have trained in a medical specialty.

There are many reasons why the fee schedule favors the clinic-based physician. Historically, the fee schedule for social insurance was designed for ambulatory services in clinics. This structure has been maintained because fees are negotiated on an incremental basis. The physicians in clinics have been relatively united politically, compared with hospital-based doctors. The interests of clinic physicians were effectively represented from 1957 until 1982 by the forceful leadership of Taro Takemi, chairman of the Japan Medical Association. Takemi flexed his considerable political muscle in a variety of ways during this period, including seeing to it that a representative of the Japan Hospital Association was excluded from the Central Social Medical Care Council. All five physicians who sit on the influential council are nominated by the Japan Medical Association.

One reason for the dilution of influence of specialists in hospitals is that their appointments, for the most part, are arranged through the patronage of the chiefs of the medical school clinical departments. The chiefs' informal method of evaluating candidates for the much-sought-after hospital posts has inhibited the development of specialty boards, which could serve as power bases for their affiliated members. The other reason that specialists lack influence is that hospitals have been divided between public institutions, where high-technology medicine is concentrated, and private facilities, which provide more basic care.

Clinics versus hospital outpatient departments. Another structural

influence that constrains costs is the fact that clinic-based physicians do not have patient admitting privileges to hospitals. Even highly trained specialists find that once they have gone into clinic practice, their workload becomes more and more concentrated in primary care. While this leads to an inefficient use of manpower and duplication of equipment, it also gives the physicians in clinics an incentive to defer hospitalization or referral. In many instances, once referred to a hospital, a patient prefers to continue to visit physicians who practice in the outpatient departments there and not return to a clinic. The reason is a common perception that the quality of care provided is higher in the outpatient departments. Coupled with the fact that there are no deductibles in the health insurance schedule to inhibit access, this means that the Japanese system tends to emphasize ambulatory care over inpatient care. Exhibit 3 compares per capita utilization rates between Japan and the United States.²⁰ While Japan has more than twice the number of outpatient consultations the United States has, it has half the hospital admission rate and one-quarter the number of surgical operations. This is significant because the principal component for increase in the quantity of services in the United States has been the substitution of surgery for medical treatment.²¹

Low administrative costs. The third structural factor that constrains cost increases is low administrative costs. Mandatory coverage and the adoption of a single fee schedule precludes the need for each individual payer and provider to enter into protracted negotiations over payment and services; this also greatly simplifies claims processing. In addition, insurers have no marketing expenses, because consumers have virtually no choice of health plans. As a consequence; the average administrative cost for health insurance societies (the insurance scheme for large corporations) comes to only 2.5 percent of their total expenditure.²²

The use of one uniform fee schedule for providers greatly reduces the

Exhibit 3
Health Care Utilization Rates, Japan And United States, Various Years

Type of service	Japan	United States
Outpatient physician consultations (per capita)	12.8 ^a	5.3a
Hospital admission rates (percent of population)	7.5% ^a	14.70% ^a
Number of surgical operations per 1,000 population	22.0b	91.0c

Sources: For outpatient physician consultations and hospital admission rates, OECD, Health Data File, 1989; for surgical operations, calculated from Japanese Ministry of Health and Welfare, 1984 Patient Survey; and American Hospital Association, 1986 Annual Survey.

^aSurvey done in 1987.

^bSurvey done in 1984.

^cSurvey done in 1986.

cost and time of collecting receivables. Bad debts are not a problem for providers because virtually all claims are paid. Another factor that does not figure in health care costs but nevertheless is of a major benefit to consumers is that they are spared the time cost of keeping track of their coverage and of submitting claim forms for reimbursement.

Health Care And The Japanese Economy

Lower health care costs in Japan suggest a smaller financial burden on private corporations than large American enterprises face. While this is essentially true, it is worth recognizing that since Japan has a more equitable health care system, the corporate economy does shoulder a greater social burden than in the United States. First, central government's subsidies to the national health insurance and the government-managed health insurance are financed from general revenue. Corporate taxes amounting to 37.5 percent of profits account for 34 percent of total general revenues (second only to the personal income tax ratio of 37 percent in 1990).²³ The health insurance societies, which insure the employees of large enterprises, also must contribute to the central pooling fund to pay for the health care costs of the elderly. In 1987, this subsidy amounted to 25 percent of their total expenditure; by 1997, it is projected to increase to 50 percent. To pay for this contribution, over a third of the insurance societies have had to raise their premium rate to a level greater than the subsidized government-managed health insurance's rate of 8.3 percent in 1988.²⁴ The Japan Federation of Employers Association (Nikkeiren) has expressed serious concern regarding this trend and has called for greater government contributions. One argument that large corporations have used against the subsidy they are required to provide to help finance the health care of the elderly is that while their premiums are collected entirely as payroll deductions, the basis of evaluating the income of the self-employed is far less strict. The implication is that the self-employed may be paying less than their fair share on behalf of the elderly.

Unlike in some segments of American industry, management of individual Japanese corporations has not shown much interest in health care, in part because they have little freedom to set premiums and alter benefits that are set by the government. Also, health care is not directly paid for by the corporations, but rather by the health insurance societies, which have an independent legal status; that is, their assets cannot be used for other purposes since premiums are collected as part of Social Security. In addition, when employees retire they leave their insurance societies and join the community-based national health insurance plan. Thus, what

the corporations lose in the form of corporate taxes and contributions to the geriatric pooling fund, they gain by not having direct responsibility for their retired workers. Finally, the perceived major competitors are Japanese corporations in the same industries, which must pay similar health insurance premiums on behalf of workers.

Nevertheless, when one observes this process more closely, despite the uniform pattern presented, the independence of each insurance society allows some flexibility in setting premiums and benefits. Looking first at the cost side, the total premium rate varies from 5.8 percent to 9.5 percent between the highest and lowest insurance societies (Exhibit 4). It is clear that the rank order of the premiums, but not necessary that of the premium rate, is closely related to the average age of the employees. Thus, coal mining, which has the highest premium, has the highest average age. On the other hand, the textile industry has the lowest premiums as the result of its young work force. However, in textiles, although the premiums are low, the premium rate is relatively high at 8.281 percent because the monthly standard wage is below average. In contrast, in banking and insurance, the premium rate is lowest but the premium is average due to the high monthly wage. This demonstrates that even with a uniform fee schedule, health care costs constitute a greater burden on declining industries with an older work force and on industries having a low wage base.

Exhibit 4
Japanese Wages, Premiums, Rates, And Average Age, By Industry, FY 1988

	Number employed	Monthly standard wage (yen)	Premium rate	Monthly premium (yen)	Average age (years)
Coal mining	14,585 ^a	292,119	9.451% ^b	27,608 ^b	42.77 ^b
Schools, local governments	537,486	325,131	8.116	26,388	39.91
Utilities, construction	803,122	326,076 ^b	8.029	26,181	38.12
Ceramic and quarry	109,922	307,514	8.415	25,877	39.82
Transport	793,330	306,962	8.425	25,862	39.56
Metal mining	44,612	293,125	8.642	25,332	39.46
Chemical	792,303	308,656	8.075	24,924	38.52
Engineering	3,212,140	288,047	8.109	23,358	36.54
Banking and insurance	1,406,033	306,587	7.332 ^a	22,479	38.20
Other industries	401,146	279,214	7.977	22,273	37.19
General societies	4,487,578 ^b	267,236	8.175	21,847	37.73
Commerce	929,681	252,501	7.822	19,751	34.94
Textiles	136,051	211,229 ^a	8.281	17,492 ^a	34.85 ^a
Total	13,667,989	285,843	8.026	22,942	37.55

Source: National Federation of Health Insurance Societies (Japan), Accountfor Societies (1989), 40-43.

^aLowest.

^bHighest.

On the benefit side, individual insurance societies can exercise their initiative in three areas. The first is the ratio of premiums paid by employers, which varies from 50 percent to 80 percent with a mean of 56.7 percent. The second is the ratio allocated to health screening and promotion, which varies from 3.1 percent to 8.4 percent of the total expenditure with a mean of 6.6 percent. The third is the ratio allocated to additional benefits, consisting mainly of the reimbursement of the patient's copayment. This varies from zero to 4.4 percent with a mean of 2.9 percent. As Exhibit 5 shows, the generosity of these benefits is not necessarily related to the premiums levied. In the case of coal mining, despite the fact that it has the highest premiums, the high cost of the statutory medical benefits has led to spending the lowest ratio and amount on health screening and promotion, with no additional benefits. On the other hand, schools and local governments, which have the second-highest premiums, have managed to provide the greatest additional benefits because their strong unions have forced their employers to pay the highest ratio of the premiums. However, these two industries are exceptions to the norm. In general, benefits tend to be decided on the basis of the past year's record; rarely does this issue merit serious negotiation between management and labor.²⁵

Exhibit 5
Difference In Health Insurance Benefits In Japan, BY Industry, FY 1988

	Ratio of premiums paid by employer	Health screening and promotion		Additional benefits	
		Ratio to total	Average amount (yen)	Ratio to total	Average amount (yen)
Coal mining	57.5%	3.09%	14,150	0% ^a	0 ^b
Schools, local governments	63.7 ^b	5.33	17,810	4.43 ^b	14,807 ^b
Utilities, construction	55.7	8.04	25,211 ^b	3.25	10,196
Ceramic and quarry	58.2	6.80	21,456	2.95	9,310
Transport	58.6	5.87	18,989	3.33	10,770
Metal mining	59.6	7.18	23,145	3.60	11,611
Chemical	57.7	7.27	22,105	3.48	10,580
Engineering	56.8	7.01	20,299	3.49	10,091
Banking and insurance	60.2	8.41 ^b	21,951	3.34	8,712
Other industries	56.7	7.19	20,131	2.92	8,163
General societies	52.8 ^a	5.62	14,906	1.78	4,732
Commerce	54.5	7.11	17,057	2.68	6,421
Textiles	53.5	5.86	12,834	3.43	2,800
Total	56.7	6.64	18,650	2.87	8,058

Source: National Federation of Health Insurance Societies (Japan), *Account for Societies* (1989), 40-43.

^a lowest.

^b Highest.

Negative Aspects Of The Japanese System

Although the nationally uniform fee schedule has brought about both equity- and cost containment, it has also had a negative effect on the health care system. The first negative feature is the distorting effect on patient volume. Since fees are controlled, providers seek to maximize their revenue by seeing more patients. This dilutes the services provided. In outpatient care, a clinic physician sees an average of forty-nine patients per day; 13 percent see more than a hundred.²⁶ While patients have ready access to care, consultation times are short, and patients end up paying repeat visits to the clinics. In inpatient care, the total number of staff per occupied bed is still only 0.77, about one-quarter the U.S. level.²⁷ This is largely because illness severity level of patients is controlled. According to a 1988 survey by the Japan Nurse Association, one-third of inpatients do not require any personal care assistance.²⁸ Thus, even allowing for the fact that hospitals in Japan also act as nursing homes, the prolonged length-of-stay tends to offset the lower cost per day.²⁹

A second negative feature is the-distorting effect on the type of services provided. Services for which the fee schedule's price is higher than the market price (for example, drugs and laboratory tests) tend to be provided excessively, despite a recent lowering of their scheduled prices. In the case of drugs, the result of lowered fees has been heavy promotion of new drugs whose patents protect them from fierce price competition. One consequence is that third-generation antibiotics are used more extensively in Japan than anywhere else.³⁰ In the case of laboratory tests, free-standing laboratories have cut their prices to the point that their efficacy is questioned. On the other hand, cognitive procedures and home care are under-provided because of the implicit rationing process that keeps their fees at a very low level, if fees are established at all. Also, experimentation with new financing mechanisms has proved difficult because of the monolithic structure of the nationally enforced procedure-based fee-for-service system.

The third, and perhaps most serious, negative feature has to do with quality of care. Because Japan's fee schedule guarantees uniform payment to all providers, on the assumption that their quality is uniform, no real incentives exist to maintain quality. No formal quality assurance programs exist, and specialty boards do not contribute much to quality assurance. Under these circumstances, the increasingly quality-conscious public has turned to the large public and-teaching hospitals, perceiving that their quality is higher. This has resulted in long queues in their outpatient departments (appointments are not the general rule, even in these hospitals) and waiting lists in their inpatient departments. As a

consequence, a black market exists for those who can afford it. Using the channel of a monetary gift in the range of one to three thousand dollars to the attending physician in a Tokyo university hospital, which is socially prescribed, a patient choosing a private room can be admitted sooner and can be treated by a senior specialist. Notwithstanding the inequities implicit in such an arrangement, it also means that quality assessment is difficult, if not impossible.

Prospects For Change

Three powerful stakeholders with interest in maintaining the status quo have managed to impede efforts to address these and other imperfections in the Japanese system. These three groups are the Japan Medical Association, the medical schools, and the government. The Japan Medical Association, whose constituents are primarily solo practitioners lacking hospital privileges, opposes any differential fees based on qualifications or facility standards. The medical school department chiefs are not enthusiastic about introducing formal specialty qualifications, because this would in essence create their equals in clinical expertise and weaken the hierarchical structure in which they stand at the apex. Finally, since government's major concern is cost containment, it hesitates to introduce any measures that would increase the power of hospitals and specialists. Under these strong influences, hospital beds were capped as part of the regional health planning legislation in 1985. The local medical associations resented hospitals' increased siphoning of patients from their clinics, while the government was concerned with the high costs of hospital care. Their close cooperation in the capping of beds is reflected in the fact that although the legal responsibility lies with the prefectural governors, the local chairman of the medical association frequently chairs the committee that does the actual planning.

At the same time this powerful political alignment of forces has successfully maintained the status quo, market mechanisms that lead to change work imperfectly in Japan. Theoretically, because consumers have free choice of providers, even if fees are totally regulated, providers could still compete on the basis of patient volume that would indicate their quality level. However, lacking data on which to base such decisions, consumers show preference for the large public and teaching hospitals for their higher perceived quality. Thus, these hospitals, unlike their U.S. counterparts, have no difficulty in filling their beds and so far have felt no need to implement formal quality assurance programs. They tend to maintain their competitive edge by fighting more in the political than in the economic arena, to gain subsidies for high-technology medicine that

is underpriced in the fee schedule. Private hospitals and clinics, on the other hand, would like to increase their patient load but are restrained from doing so because they lack resources and because of proprietary concerns. Establishing new privately financed ventures is also not feasible; because they cannot rely on any revenue from the statutory social insurance, their charges would become prohibitively expensive. Moreover, a blatantly two-tiered system would be difficult to implement in a country of Japan's economic and social homogeneity.

Thus, despite the global trend toward more competition and greater provider accountability in health care, major changes are not likely to occur in Japan. Two areas, preventive and long-term care, do show promise for new ventures. Because these areas are marginal to the core medical services, they have escaped the notice of the major stakeholders. Because they are related to individual lifestyle, they would be more palatable to a public that finds it morally reprehensible to have a diversity of services based on willingness to pay (the difference in the range of preventive services provided by each insurance society has not been regarded with too much animosity). Consumers can evaluate these services more easily, thereby enabling the market mechanism to function properly. The government would welcome this move since it could be largely financed by private capital and decrease the public burden of caring for the aged. Although changing only these two service areas may fall short of comprehensive reform, it is best to keep in mind that the Japanese health care system is a two-sided coin. The negative aspects of the system must be balanced with its positive attributes. Opening the Pandora's box of evaluation and micromanagement may be too high a price to pay for benefits that still seem to be largely illusory, especially given the fact that, in the larger picture, Japan's life expectancy at birth and infant mortality rate are already excellent.

Implications For The United States

An American looking at the Japanese health care system may be misled by the superficial resemblance of the two countries' delivery systems to conclude that Japan would eventually follow the road that the United States has taken. The major difference in the historical origins of their respective financing systems indicates that this is unlikely. In Japan, health insurance was first made available in 1927 for manual workers employed in large companies. The government led in introducing it, believing that insurance would contribute to the nation's wealth by providing healthy and productive workers and also would preempt the socialist movement. For this reason, fees were set at a low level, favoring

ambulatory treatment of acute illness and injury. As the covered population expanded, other plans adopted this fee schedule, thus setting the pattern for Japan's health care system.³¹ By contrast, the present U.S. system began as health insurance initiated by hospitals for the inpatient care of the middle class.³² Socialized medicine was regarded as a form of socialism, not as a force to prevent its taking root.

Given their contrasting origins, taking some component of one system and transplanting it to the other country's alien soil would not be feasible. What has worked in a corporate, centralized state such as Japan is not likely to succeed in a decentralized state tied down by checks and balances such as the United States. However, the Japanese experience does offer some generic lessons for the United States.

Political will. First, there must be the political commitment to establish a universal health insurance system. When social insurance was first introduced in Japan, the government had to override the opposition of virtually all interested parties: managers feared malingering workers; workers disliked the fact that they had to pay half of the premiums; and physicians opposed the low fees. The government's commitment was later strengthened by the army's demand for healthy soldiers during the war with China in the 1930s. The greatest increase in the population covered occurred between 1935 and 1940. Although defeat in World War II nearly destroyed the system, its rebuilding was rapid because of a new commitment to establishing a welfare state. Under Article 15 of the new constitution enforced from 1947, the government has the responsibility to provide an adequate minimum for realizing a healthy and culturally enriching life. Japan achieved its goal of universal coverage in 1961, when the last local governments established their national health insurance. The subsequent years have witnessed greater equality between the plans, realized largely through increased government subsidies. Thus, in retrospect, despite the incremental approach taken and despite changes in motive, the government has long been committed to establishing an equitable system for all Japanese. Evidence of such commitment has yet to be seen in the United States.

Cross-subsidization. Second, if equitable care is desired, some form of cross-subsidization is needed. In Japan, the government has taken on the responsibility of acting as insurer and subsidizing health care spending for the employees of small enterprises and the self-employed. It has also established a pooling fund to pay for the health care of the elderly, to which it makes a direct contribution. In all, about two-thirds of the population receive some form of public subsidy to pay for their health care. In the United States, governmental cross-subsidization is minimal; thus, individual providers must play an important role by receiving

differential payment. The extent of private subsidy, however, depends on the location and discretion of each individual provider. Given this situation, corporations need to be prepared to underwrite this process. The alternative would be, as in Japan, for corporations to pay for the disadvantaged through higher corporate taxes and/or more Social Security benefits for their employees. Although corporate executives would prefer to avoid paying for both, this is impossible unless health care is regarded as purely a private good.

Equity and cost containment. Third, equity and cost containment are not mutually opposing goals but, rather, complement each other. If health care is to be provided equitably, then total health care expenditure would become constrained by the amount that government is willing or able to allocate. In essence, the level of care would be kept at the level that the government is prepared to pay for the care of the financially disadvantaged. However, if one section of the market is permitted to have an open ceiling based on willingness to pay, this not only will increase the total, but by raising the general expectation and amenity level will ultimately raise the level provided under public assistance. This is because even in the United States, blatant discrimination at the point of service delivery is unpopular. Thus, the more egalitarian the system, the better its chances for cost containment. Japan has been largely successful because of the nation's ability to confine the available higher levels of care to preventive services and a small black market for the services of renowned specialists. In this regard, the multitiered U.S. system has been notably unsuccessful.

Equity and competition. Fourth, equity and competition tend to be mutually incompatible. In Japan, the fee schedule is uniform to all providers, for reasons of both cost containment and equity. The argument is that since an equal level of services should be provided to all, there should not be any differences in quality of provider. Thus, competition is limited to increasing the volume of patients. However, this has worked imperfectly in Japan because fees have to be politically negotiated and, as a consequence, have become skewed to the primary care services. This has given a perverse competitive edge to the public and teaching hospitals, which are able to obtain subsidies for high-technology medicine. In the United States, moving toward a uniform payment system for all physicians raises three questions: first, whether uniform payment is justified when the quality is not uniform; second, whether patient volume would act as a sufficient incentive for physicians to maintain quality; and third, whether a value-free, politically neutral relative value scale can be designed and implemented.

To simultaneously achieve maximum access and quality while containing costs appears to be an impossible goal. In many ways, the Japanese

system is a mirror image of the U.S. system. Japan has been relatively successful in attaining access and cost containment by focusing on ambulatory care, whereas the United States has had its greatest if uneven success in achieving high-quality care by focusing on inpatient care. Both countries need to reassign the relative weights given to these key components of the health care system. However, this will prove to be difficult, since these elements are rooted in the values and beliefs intrinsic to each country. Because the process of reform will require incremental adjustments as each country strives to attain its long-range goals, considerable investment in political commitment will prove crucial to each country's success.

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NOTES

1. Unless otherwise cited, Japanese data are from Kousei Tokei Kyokai, "Special Issue: 1990 Trends in the Nation's Health," *Kousei No Shihyou* 37, no. 9 (1990). This special issue is written by Ministry of Health and Welfare officials and published annually in September.
2. There were 158 physicians per 100,000 population in Japan as of 1989. Of these, 33 percent are in private practice, 40 percent are in nonteaching hospitals, and 20 percent are in teaching hospitals. Kousei Tokei Kyokai, "1990 Trends in the Nation's Health," 183.
3. Ministry of Health and Welfare, 1987 Patient Survey (Tokyo: Kousei Tokei Kyokai, 1989). Yen has been converted to U.S. dollars at the rate of 135 yen to one dollar, except when purchasing power parity was used.
4. Unless otherwise cited, U.S. and other international data are from Organization for Economic Cooperation and Development, *Health Care Systems in Transition* (Paris: OECD, 1990).
5. There are, strictly speaking, three fee schedules: one largely used by clinics and small hospitals; the second by public hospitals; and the third by the elderly. However, providers are given the option of choosing the first or the second. All three are decided by the Central Social Medical Care Council, and their differences are marginal.
6. The self-employed are the only ones who have a choice between the plan offered by their local government or that offered by their trade association. Premiums tend to be lower for the latter.
7. Kousei Tokei Kyokai, *Hoken to Nenkin no Dokou* (Tokyo: Kousei Tokei Kyokai, 1989), 76-77, 63.
8. Tokyo Metropolitan Government, *Basic Study of Tokyo's National Health Insurance* (Tokyo: Tokyo Metropolitan Government, 1989).
9. Ministry of Health and Welfare, 1985 National Health Survey (Tokyo: Kousei Tokei Kyokai, 1986).
10. Kousei Tokei Kyokai, "1990 Trends in the Nation's Health."

11. Ministry of Health and Welfare, unpublished data.
12. Ministry of Health and Welfare, 1988 *Present State of Nutrition* (Tokyo: Kousei Tokei Kyokai, 1990).
13. The tobacco industry was a government monopoly until 1987. Although it is now privatized, its shares are all still held by the government. This is why it has been difficult to legislate against smoking in Japan and why the Ministry of Finance has been conducting annual studies of smoking.
14. N. Ikegami, "The Japanese Health Care Financing and Delivery System: Its Experiences and Lessons for Other Nations" (Paper delivered at the International Symposium on Health Care Systems, Taiwan, 18-19 December 1989).
15. G.J. Schieber, "Health Expenditure in Major Industrialized Countries, 1960-87," *Health Care Financing Review* (Summer 1990): 159-167.
16. The other major moves for containing public expenditure in health care were the creation of the pooling fund for the health care costs of the elderly in 1982, which increased the burden for insurers, and the introduction of a 10 percent copayment to employees' health insurance.
17. Kousei Tokei Kyokai, *Hoken to Nenkin no Dokou*.
18. N. Ikegami, "Health Technology Development in Japan," *International Journal of Technology Assessment in Health Care* 4, no. 2 (1988): 239-254.
19. R. Niki, "Are Physicians' Incomes Too High?" *Byoin* 48, no. 9 (1989): 890-894.
20. Outpatient consultation and hospital admission rates are from OECD; surgical rates are calculated from Ministry of Health and Welfare, 1984 Patient Survey; and American Hospital Association, 1987 Annual Survey.
21. J.A. Showstack, M. Stone, and S.A. Schroeder, "The Role of Changing Practices in the Rising Cost of Hospital Care," *The New England of Medicine* 313, no. 19 (1985): 1201-1207.
22. Federation of Insurance Societies, *Account for Societies* (Tokyo: Federation of Insurance Societies, 1989).
23. National Tax Agency, unpublished data.
24. Federation of Insurance Societies, *Account for Societies*.
25. N. Ikegami, "The Impact of the Health Care System on the Japanese Economy" (Paper delivered at the International Summit on the Economic Impact of Health Care Systems, Houston, Texas, 14-15 May 1990).
26. Ministry of Health and Welfare, 1983 Patient Survey (Tokyo: Kousei Tokei Kyokai, 1985).
27. OECD, *Health Care Systems in Transition*.
28. Japan Nurse Association, *Basic Survey of Hospital Nursing* (Tokyo: Japan Nursing Association, 1988).
29. The high volume of patients has not led to the development of nurse practitioners or medical assistants in Japan. The medical profession's opposition to any encroachment is such that even the ambulance service is limited to transporting the patient and providing oxygen.
30. J.K. Iglehart, "Health- Policy Report: Japan's Medical System, Part Two," *The New England Journal of Medicine* 319 (1988): 1166-1172.
31. S. Fuse, *History of Doctors-Its Japanese Characteristics* (Tokyo: Chuou Kouron-sha, 1979), 189-210.
32. R. Stevens, *In Sickness and in Wealth: American Hospital in the Twentieth Century* (New York: Basic Books, 1989), 193.