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PREFACE

Health care has emerged as perhaps the most urgent issue in America, and health

care reform as the most ambitious initiative in domestic policy since the New Deal. Japan, on the other hand, already boasts the world's lowest infant mortality rate and longest life expectancy, while achieving more success than America at containing medical costs: in 1991, spending on health care accounted for a mere 6.6 percent of Japan's total gross domestic product versus 13.4 percent of America's. How does Japan do it? What aspects of the Japanese model might be applicable to the United States?

To explore these questions, on Friday, April 30, 1993, the Japan Society organized a one-day conference entitled Making Universal Health Care Affordable: How Japan Does It. Three distinguished panels of Japanese and American health care specialists discussed the management of Japan's universal health care coverage, ways to balance quality care and cost containment, and how the United States might profit from Japan's experience. Professor Victor Rodwin was one of the conference participants (see Appendix 3) and agreed to draw on the conference discussions as a starting point for this more extensive monograph.

The Japan Society is grateful to KPMG Peat Marwick; New York Pharma Forum; the International Leadership Center on Longevity and Society (U.S.) of The Mount Sinai School of Medicine, an affiliate of The City University of New York; the Japanese Ministry of Health and Welfare; and the New York Academy of Medicine for their generous support of the conference and this publication.

We offer special thanks to the conference participants for their valuable presentations. We also thank John Campbell and Michael Reich for their close reading and comments on this manuscript; Toshihiko Takeda and Masaru Hiraiwa (JETRO-Ministry of Health and Welfare) for providing details on the Japanese health system and for reviewing key parts of the document; and Frank Schwartz for his diligent editorial assistance. Finally, we gratefully acknowledge David Forbes at New York University's Wagner Graduate School of Public Service for his secretarial assistance; Jennifer Capson McManus for proofreading the manuscript; and Donna Keyser and Lou Montesano for assisting in its publication.

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FOREWORD

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International study is gaining recognition as a useful method of inquiry into questions of how best to allocate national resources to improve health. Yet policy analysis of the Japanese system of health care remains underdeveloped.. Indeed, serious debates regarding health care reform strategies for the United States often exclude references to Japanese health care delivery and financing. This exclusion is

unfortunate and obscures some outstanding successes of health policy in Japan. For instance, in only 20 years and starting from a level similar to the United States, Japan has achieved the lowest infant mortality rate in the world. The United States remains 19th among developed nations. Japan became the world's leader through a well-thought-out plan for prevention, coupled with government investment. Now, Japanese policy leaders are turning their attention to the elderly.

The United States and Japan face similar problems. Both countries face a demographic revolution in the decades ahead as the population ages. Medical expenditures, as a proportion of GNP, are increasing at similar rates. Both governments face fiercely competing demands for resource allocation among prevention, treatment and basic science interest groups. Both medical care systems face a diverse mix of patients with increasing rates of functional disability. Both systems are financed by a large number of employer-based private insurance plans in addition to public insurance for the poor and the elderly.

In this information era, we face a world hungry to know what works in health care and what it costs. One of medicine's great challenges is to inform policy-makers and the public of long-term productive benefits and costs to our society of preventing and postponing disability. Many initiatives in the United States will require fundamental change. The most cost effective will be those targeted with sensitivity and respect for cultural tradition to reach the myriad of groups in our pluralistic society. Enlarging our understanding of socio-cultural patterns of health behavior, disease and economic productivity and costs calls for increasing international communication and research partnerships.

Professor Rodwin and his associates provide an excellent overview of the health care system in Japan. This comprehensive and well-documented monograph will serve as an essential reference for policy leaders and researchers alike who are interested in pursuing comparative policy analysis. The Japan Society is to be commended for organizing this timely conference. Professor Rodwin, a leading expert in the comparative analysis of health systems, has taken the conference presentations and discussions and used them as a springboard for his own further investigation of political and economic aspects of Japan's health care system. In this monograph, he presents a clear and well-organized perspective on what the United States can learn from Japan. Let us hope that the challenges Professor Rodwin raises will be met in the years ahead as we pursue health care reform to achieve the goals of effectiveness, efficiency and equity.

INTRODUCTION

Japan's health care system is characterized by universal coverage, free choice of health care providers by patients, a multi-payer, employment-based system of financing, and a predominant role for private hospitals and fee-for-service practice. Virtually all residents of Japan are covered without regard to any medical problems they may have (so-called predisposing conditions) or to their actuarial risk of succumbing to illness. Premiums are based on income and ability to pay. Although there is strong government regulation of health care financing and the operation of health insurance, control of the delivery of care is left largely to medical professionals and there appears to be no public concern about health care rationing.

Like the Australian, Canadian and many European health care systems, Japan's national health insurance program is compulsory. But Japan surpasses all 24 member countries of the Organization for Economic Cooperation and Development (OECD) in life expectancy at birth and also has the lowest infant mortality rate (Appendix 1, Table 1).¹ It achieves these successes at a cost of only 6.6 percent of gross domestic product, \$1,267 per capita - half that of the United States (Table 1).

Japanese-style national health insurance raises a fascinating question: how has Japan reduced financial barriers of access to medical care and achieved a No. 1 ranking on health status at a cost that is among the lowest of wealthy industrialized nations?² In addressing this question, we begin with a comparative analysis of health care resources and the use of medical care in Japan, the United States and other OECD countries. Next, we review the financing and organization of medical care in Japan, evaluate some strengths and weaknesses of the health care system, and explore possible lessons for health care reform in the United States.

In adopting this comparative approach to health care reform in the United States, we have relied on an extensive review of the English-language literature on Japan's health care system and on information presented at the Japan Society's April 30 conference, "Making Universal Health Care Affordable: How Japan Does It."³ We do not presume to have analyzed Japan's health care system in depth. For example, we remain intrigued by Japan's exemplary health status and by such societal values and traditions as egalitarianism and consensus- building upon which the health system is built. We have aimed, in earnest, to raise more questions than we are able to answer. We hope that these questions may lend a sense of perspective to the on-going public debate on health care reform in the United States.

NOTES:

¹For comparisons between Japan and the other OECD countries, see the Tables in Appendix 1.

²This is a reference to Vogel's (1979) classic book, *Japan as Number One: Lessons for America*. (Cambridge: Harvard University Press).

³We also refer the reader to a previous monograph on health and medicine in Japan and America based on a conference organized by the Japan Society in 1978 (Reich and Kao, 1978).

HEALTH CARE RESOURCES AND UTILIZATION

Japan has 15.8 inpatient hospital beds per 1,000 persons, the highest number among OECD countries and more than three times the American ratio (Table 1). By contrast, with 1.6 physicians per 1,000 population, Japan has the fifth lowest physician-per-person ratio, 43 percent *less* than the American rate of 2.3 per 1,000 (Table 1). Japan also has one-half to one-third the American number of intensive care beds per capita (Table 1). And Japan is tied with Austria for the lowest hospital staffing ratio (that is, the number of employees per bed) among OECD countries (Appendix 1, Table 3).

As for the use of these resources, at 8.3 percent, Japan admits a smaller proportion

of its population to hospitals every year than any other OECD country except Turkey, a rate barely over one-half that of the United States (Table 1). On the other hand, of all OECD countries, at 50.5 days, Japan has the longest average length of stay for inpatient hospital services, more than five times that of the United States (Table 1).

Although Japan has one of the lowest physician-to-population ratios among OECD countries (Appendix 1, Table 3), at 12.9, Japanese doctors have the highest number of physician contacts per capita, more than twice the American rate. It must be noted, (Table 1) however, that the average length of a physician visit in Japan is only 6.9 minutes, compared to over 20 minutes in the United States.¹

To the extent that OECD data are available on hospital admission rates for selected procedures, with the exception of appendectomies, Japan's rates are lower than those in the United States (Table 2).² Comparative survey data indicate that surgeons in Japan perform fewer than one-fourth the number of operations per capita that their colleagues in the United States do (Table 1).³ This pattern is supported by findings on cesarean section rates, which are half as frequent in Japan as in the United States.⁴ The United States is known abroad for its unusually high cesarean section rate.

It would be wrong to conclude from these data that Japan rations high-tech medical care. On the contrary, among OECD countries, Japan has the highest number of computerized axial tomography (CT) scanners per capita, the highest number of extra-corporal shock wave lithotriptors per capita, and the highest number of patients per million treated for end-stage renal disease failure.⁵ In addition, Japanese spend more than any other nation on drugs as a percent of total health expenditures, more than twice the American rate.⁶

Japanese doctors' clear preference for non-invasive procedures is demonstrated by the kinds of medical technologies imported and exported. Equipment requiring invasive operations (e.g., pacemakers and artificial heart valves) is almost all imported, whereas diagnostic equipment (e.g., CT scanners) is produced in Japan and exported in large quantities.⁷

In contrast to the United States, Japan's low rate of hospital admissions (Table 1) reflects its tendency to emphasize ambulatory over inpatient hospital care.⁸ But once hospitalization occurs, as we have seen, Japan holds the OECD record for long lengths of stay and low hospital staffing ratios (Appendix 1, Tables 3 and 4). This is encouraged by a reimbursement system that pays hospitals on a per diem basis and a style of medical practice that emphasizes bed rest and complete recovery while a patient is still in the hospital.

Beyond these more measurable differences in resource availability and use of medical care in Japan and United States, there are a host of political-institutional and cultural factors that reinforce each health care system's distinctiveness. The United States is a federal system whose 50 states have significant autonomy on matters of health insurance and public health policies. Although the federal government

exercises a dominant role over the Medicare program and regulatory aspects of health policy, Americans are multiethnic, suspicious of excessive governmental authority and inclined to solve social problems at the local level. Japan is a centralized, unitary state with a highly homogeneous population and a tradition of powerful state intervention in the economy, including its many health insurance plans.

NOTES:

¹Okamitsu (1993).

²McPherson (1989).

³Ikegami (1992).

⁴Notzon, Placek and Taffel (1987).

⁵Yoshikawa et al. (1992). In Japan in 1991, there were 945 patients per million treated for end stage renal disease failure in contrast to 784 in the United States (OECD Health data file, 1993).

⁶Iglehart (1988) reports that in 1981 reimbursement for drugs by Japanese health insurance was equal to 38.7 percent of all health expenditures and that in 1987 this figure dropped to 28 percent. More recent data from OECD Health Systems: Facts and Trends (Paris: OECD, 1992) indicate that this figure has dropped to 18.4 percent, in contrast to the U.S. figure of 8.3 percent. However, these data exclude pharmaceutical expenditures for inpatients, which are substantial. Ikegami (1990) reports that "about 30 percent of Japan's personal health expenditures are for drugs," which we assume include inpatient drugs, and supports the contention that the Japanese are among the highest spenders on drugs.

In terms of pharmaceutical expenditures per capita, in U.S. dollar pharmaceutical purchasing power parities, Japanese spent \$332 per capita, Americans \$182. However, if these expenditure data are adjusted by GDP purchasing power parities, the difference narrows: \$179 for Japan, \$182 for the United States.

⁷Ikegami (1989).

⁸Ikegami (1992a).

Table 1

Comparisons of the United States and Japanese Health Systems (1990)

	U.S	Japan
Health Status		
Life Expectancy at Birth		
Males	72.00	75.90
Females	78.80	81.90
Infant Mortality Rate	9.10	4.60
Life Expectancy at 80		
Males	7.10	6.90
Females	9.00	8.70
Expenditures		

Per Capita Health Spending ¹	\$2,867	\$1,267
Total Health Expenditures as % of GDP ²	13.40	6.60
Resources		
Active physicians per 1,000	2.3	1.6
Inpatient hospital beds per 1,000	4.70	15.8
Hospital staffing ratios ³	3.35	.79
Intensive care unit beds per million ⁴	244.50	79.20
Coronary care unit beds per million ⁴	46.30	17.80
Neonatal intensive care unit beds per million ⁴	44.70	22.40
Medical Care Use		
Physician visits per capita ⁵	5.30	12.90
Hospital admissions as % of population	13.70	8.30
Average length of hospital stay	9.10	50.50
Inpatient days per capita ⁶	1.20	4.10
Number of surgical operations per 1000 ⁷	91.0	22

Source: OECD Health Data (CREDES), 1993

1. These figures are in \$U.S. price purchasing parities for 1991.

2. 1991

3. Non-medical staff per bed.

4. Woodward and Asano, 1991. U.S. data from the American Hospital Association, U.S. ICUs and CCUs Table 13. Japanese data, from 1987, are from the Health and Welfare Statistics Association, 1989.

5. 1988

6. 1991

7. Surgical operation rates are based on survey data. For Japan they are from a patient survey done by the Ministry of Health and Welfare. For the U.S., they are from the 1986 Annual Survey of the American

Table 2

Admission Rates for Selected Procedures (1980)*

Number of Admissions per 1,000 Population

	U.S	Japan
Tonsillectomy	205	61
Coronary Bypass	61	1
Cholecystectomy	203	2
Inguinal Hernia Repair	238	67
Exploratory Laparotomy	41	-
Prostatectomy	308	-
Hysterectomy	557	90
Operation on lens	294	35

Appendectomy	130	244
Renal dialysis ¹	784	945

Adapted from K. McPherson, "International Differences in Medical Care Practices," (Health Care Financing Review, 1989, Annual Supplement).

** These figures are not age standardized and assume equal proportions of men and women. Some are likely to be incomparable for artifactual reasons.*

Source: OECD Health Data File, 1989.

1. These data for 1991, not based on hospital admission rates, are from the OECD Health Data File, 1993. These rates are per 1 million population.

HEALTH CARE FINANCING AND NATIONAL HEALTH INSURANCE

The evolution of national health insurance

National health insurance emerged in Japan as the result of a gradual process that can be traced back to 1905, when the Kamegafuchi Textile Company provided limited benefits for its employees.¹ In the decades that followed, more and more corporations began offering benefits through mutual aid societies. A health insurance law enacted in 1922 was inspired by the German system established by Chancellor Bismarck in 1883. As in Germany, this first law extended health insurance coverage to industrial workers and miners but excluded the self-employed and employees in companies with fewer than five workers.² This law, implemented in 1927, established the practice of mandating coverage by enterprises and created an important government role in the provision of health insurance to those individuals not covered by employers. In 1938, health insurance was extended to farmers, fishermen, foresters and other groups not covered by the 1922 law.

After World War II, the effort to rebuild Japan gave new impetus to the achievement of universal coverage. In 1958, the 1938 law was revised to include the remaining 30 percent of the population not previously covered. This revision broke the precedent of extending health insurance to occupational groups by calling for universal coverage on the basis of residence. Every government jurisdiction, whether city, town or village, was required to provide health insurance to every uncovered resident by 1961. Since 1961, virtually all Japanese have been covered by either employers or the government.

Health care financing

Health insurance expenditures in Japan are financed by payroll taxes paid by employers and employees and by income-based premiums paid by the self-employed. In contrast to the United States, where the federal, state and local governments

finance roughly 42.9 percent of all health care expenditures and out-of-pocket payments contribute another 22 percent, in Japan, only 31.7 percent of national health care expenditures derive from national and local public funds and 12.2 percent from out-of-pocket payments. The largest share of health care financing in Japan is raised by means of compulsory premiums levied on individual subscribers (34.6 percent) and employers (21.7 percent).³ This employment-based share of health care financing in Japan (56.4 percent) raised by means of voluntary employer, employee and individual subscriber premiums in the United States (Figure 1).

The structure of the national health insurance system

At first glance, understanding the system seems to be an impossible task. Japan's national health insurance program is made up of some 2,000 private insurers and more than 3,000 units of government. The system can be simplified, however, by distinguishing between two broad groups of beneficiaries (Appendix 2, Figure 1): 1) employees and their dependents, including some elderly dependents (65 percent of the population); and 2) the self-employed, unemployed, elderly and their dependents (35 percent of the population).⁴

Ignoring some administrative complexities and small beneficiary groups, health insurance plans for employees may be categorized into four groups:

1. Government-managed plans - These plans provide coverage for the almost 30 percent of the population comprised of employees (and their dependents) of small enterprises with more than five but fewer than 300 employees. These plans are managed by the government's Social Insurance Agency through a network of some 300 local offices. Premium contributions are set by law at a fixed rate (8.2 percent of monthly income before taxes) and evenly split between employees and employers.
2. Society-managed plans - Known as health insurance societies, more than 1,800 company plans provide coverage for 26 percent of the population. These health insurance societies are managed jointly by representatives of labor and management in enterprises with more than 300 employees. Society-managed plans can be also established by several enterprises employing 3,000 or more employees. Payroll taxes for such plans range from 5.8 to 9.5 percent of gross monthly income.⁵ Employers are required to pay at least half of these contributions, and some pay as much as 80 percent.
3. Mutual aid association (MAA) insurers - Covering almost 10 percent of the population, these include 27 plans for government employees in the national public service, 54 plans for local government employees, and one plan for quasi-public employees like teachers and other school employees. The average payroll contribution of these plans is 8.5 percent of the employee's wage.
4. Plans for day laborers (for those who work less than two months during the year) and seaman - These independent plans cover only 0.1 and 0.4 percent of the population, respectively.

In addition to the employee groups noted above, employees in enterprises with fewer than five workers, the self-employed and retirees are covered either by

municipal governments or by national health insurance societies. Roughly 3,000 municipal governments cover over 90 percent of such self-employed individuals as farmers, shopkeepers, their dependents, and a large number of elderly people on pensions. There are also 166 national health insurance societies that directly manage plans for certain trade and occupational groups such as physicians, lawyers, dentists, food retailers, carpenters, and barbers. Contributions to these national health insurance societies are based on reported income and assets as well as on the number of individuals per household.

In contrast to health insurance for employees, municipal governments and national health insurance societies receive no direct contributions from employers. Moreover, the self-employed and retirees earn less on average than employees in large enterprises, so the government ends up paying slightly less than 50 percent of their health insurance expenditures - four-twelfths by the national government and one-twelfth each by prefectures and municipalities.⁶ Once the elderly reach the age of 70 (or 65 if bedridden), since they use the lion's share of health care resources but do not pay premiums, under the Health Services System for the Elderly the other half of their expenses are financed by taxes on premium payments to all insurers of employees and the self-employed.

Most of Japan's health insurance plans are private organizations in terms of administrative law; in practice, they have a quasi-public status insofar as they are largely bound to provide uniform benefits and to cover all eligible beneficiaries. All employers with at least five employees are mandated by law to insure them (along with their dependents). Employers have little freedom to alter premium levels, which range from 5.8 to 9.5 percent of the wage base.⁷ The self-employed are required to contribute premiums to health insurance plans that are administered by local governments or trade associations. And all of these premiums are taxed to finance the national fund which, along with government subsidies, finances national health insurance for the elderly.

The extent and regulation of health insurance benefits

Health insurance benefits are designed to provide basic medical care to the maximum number of individuals. Although there are exceptions, mandated benefits are similar across the four groups of employee plans and for the self-employed and retirees. They include ambulatory and hospital care, extended care, most dental care and prescription drugs. Not covered are such items as abortion, cosmetic surgery, most traditional medicine (including acupuncture), certain hospital amenities, some high-tech procedures, and childbirth.⁸ Expenses that fall outside the normal boundaries of medical care are either not covered, dealt with on a case-by-case basis, or covered by the welfare system.

Differences between plans include the level of copayments, the amount of cash benefits, and the extent of cross-subsidization and government subsidies (Appendix 2, Figures 2 and 3). With regard to copayments, all plans for employees have a 10 percent rate for plan members and their dependents, a 20 percent rate for inpatient care, and a 30 percent rate for outpatient care. For the self-employed and their

dependents, the copayment rate is 30 percent for both inpatient and outpatient care. For the retired, the copayment rate is 20 percent, and for their dependents, the rate is 20 percent for inpatient care and 30 percent for outpatient care. But under Japan's system of catastrophic health insurance, there is a monthly ceiling for each beneficiary on all copayments for all health insurance plans.⁹ This has limited private insurance to coverage of copayments. There is, however, a small market for supplemental benefits that pay for amenities like private rooms.

Health insurance plans for employees provide cash benefits for extended sickness and injury and for maternity leave and delivery expenses. National health insurance plans for the self-employed and retirees provide cash benefits for midwifery and general expenses. Cash benefits can be substantial. Nearly \$2,400 is provided to cover child delivery expenses under most employee plans, for example.¹⁰ If the mother is the primary beneficiary, the cash benefit may be 50 percent of her monthly salary. Maternity leave amounts to 100 days and is compensated at 50 percent of a mother's salary in the case of working women. In the event of prolonged sickness or disability, an individual collects 60 percent of monthly remuneration for 18 months.

Society-managed plans provide more extensive benefits in kind. In addition to providing the cash benefits noted above, 74 percent of these plans also have a "patient cost-sharing restoration" program which picks up a portion of the mandatory 10 percent copayment.¹¹ Society-managed plans are also actively involved in health screening and promotion. Enterprises own and operate more than 3,500 sanitoriums, 1,000 gymnasiums and 300 health centers, for example.¹²

There is thus a widely held perception that employees of large corporations covered under society-managed plans are getting a "better deal." There is no evidence that these beneficiaries enjoy better health status, however. As John Campbell noted at the Japan Society conference, among all plans, individuals enrolled in society-managed plans receive the least value back for what they pay. For every dollar paid in premium contributions, only 62 cents is received in health insurance benefits. The beneficiaries of government-managed plans receive 84 cents in benefits for every dollar of premiums paid, the self-employed receive \$1.66, and retirees receive \$4 to \$5.¹³

Government subsidies and cross-subsidization between plans

Age and income disparities among health insurance plans result in an unequal distribution of health risks. Plans that insure beneficiaries who are older or in higher risk occupational groups will incur higher costs and therefore often generate deficits. Given the Japanese commitment to equity, these inequalities are reduced through government subsidies and cross-subsidization between plans.

With the exception of mutual aid associations for government employees, all insurance plans receive some form of government subsidy. Even society-managed plans, for example, receive government funds (¥4.85 billion in 1992) to defray their administrative costs. Likewise, government subsidies financed 50 percent of the benefit payments to self-employed individuals covered by national health insurance

(Appendix 2, Figure 3).

Cross-subsidization supports the poorer plans. As noted above, the most generous example is the national pool created as part of the Health and Medical Service Law for the Aged of 1983. Government (national and local) provides 30 percent of this special fund, and local governments another 20 percent. The remaining 70 percent comes from other insurance plans based upon the total enrollment of retirees in each fund.¹⁴ As a percentage of their total expenditures, government- managed plans, society-managed plans and national health insurance plans contribute 15.4, 20.4 and 24.2 percent, respectively.¹⁵

Provider reimbursement

Under Japanese national health insurance, all insurance plans pay health care providers low fees by American standards (Table 3). The fees must conform to a uniform national fee schedule known as the point-fee system. For any particular service, the same fee is paid by all insurers to all providers. As in Canada or Germany, there is no "extra-billing": neither physicians nor hospitals may bill their patients more than the authorized fee; but illegal side-payments are common and condoned. All covered medical procedures are ranked by complexity, and neither geographic location, the institutional setting (e.g., type of hospital or ambulatory care), the qualification of the provider, nor the actual cost of the service are considered in this rating system.¹⁶

Medical procedures are assigned a number of points, each of which is worth 10 yen.¹⁷ Only the basic charges for hospital room and board services are covered; the costs for additional hotel amenities are not covered.¹⁸ The fee covers all supplies, materials, capital depreciation and personnel costs. There is no flexibility in this system of price controls for insurers or for providers. Hospitals can bill patients extra only for room and board and a restricted number of specialized services, for example.¹⁹ As John Campbell noted at the conference, "cheap stuff is profitable and expensive stuff is unprofitable. A doctor who sees a few extra patients and prescribes drugs for them makes money; coronary bypass surgery at an urban hospital loses money."

The Ministry of Health and Welfare sets the fee schedule. Its Central Social Medical Care Council has 20 members who represent a cross section of health care interests: eight providers (five physicians, two dentists, and one pharmacist), eight payers (four insurers, including government representatives, two employers and two labor representatives), and four public interest representatives (three economists and one lawyer).²⁰ Every other year, this council renegotiates the fee schedule with the medical profession, but these negotiations are constrained by a rate cap set by the Ministry to limit the overall increase in costs. This rate cap results in an effective, if implicit, global budget for all health care expenditures.²¹

NOTES:

¹Kemporen (1990).

²Steslicke (1989).

³From a table distributed at the Japan Society conference by Toshiro Murase, president of the Japanese Medical Association.

⁴J. Campbell (1993a).

⁵Ikegami (1992b) p. 616.

⁶These figures are taken from documents provided by representatives of the Ministry of Health and Welfare in New York (JETRO).

⁷Ikegami (1992).

⁸Cash benefit payments, although they vary between plans, are generally sufficient to cover the costs of childbirth.

⁹Amounts in excess of about \$400 a month are fully reimbursed; for those with low incomes, amounts in excess of about \$200 are fully reimbursed (Ikegami, 1991).

¹⁰Kemporen (1990) p. 12.

¹¹Ibid p. 22.

¹²Ibid.

¹³John Campbell, presentation at the conference.

¹⁴Yoshikawa et al. (1992) p. 8.

¹⁵Kemporen (1990) pp. 43-44.

¹⁶Ikegami (1992b).

¹⁷Yoshikawa et al. (1992).

¹⁹Ikegami (1992a) p. 702.

²⁰Yoshikawa et al. (1992).

²¹Ikegami (1992).

Table 3

Fee Schedule Rates in \$U.S.: U.S. and Japan (1992-93)

	Japan	U.S. (Medicare)
Chest X-Ray	13	32
EKG	12	20
Pap Smear	13	32
Total Colonoscopy	127	427
First Consultation (office visit)	17	79
Appendectomy	369	647
Cataract Operation (incisional)	292	747
C-section ¹ (delivery only)	454	1149

¹The Japanese fee for this procedure was reported in Yoshikawa (1992) p.12, Table 1

Sources: Japan's fees in yen were converted to \$U.S. at a rate of 130 yen per dollar. Data provided by Toshiro Murase at the Japan Society conference. U.S. Medicare rates are for the New York area. They were taken from the Datasheet Charge Summary Report, Empire Blue Cross and Blue Shield, 1993. These charges apply to physicians who do not accept the Medicare rate as payment in full.

THE ORGANIZATION OF MEDICAL CARE

Hospitals

Despite Japan's relatively high hospital bed-to-population ratio (Appendix 1, Table 3), the number of hospital beds is not decreasing. Between 1970 and 1988, in fact, it increased by 25.8 percent.¹ This reflects at least five characteristics of Japan's broader health system. First, until the late 1980s, few barriers were placed on entry into the hospital market in Japan's rapidly growing postwar economy. Second the organization of medical care in Japan is heavily centered around hospitals. Third, 81 percent of hospitals are privately owned, and they have had few restrictions on their capital investments. Fourth because hospitals have competed fiercely with one another, expansion has served as a key strategy to gain a competitive edge. Finally, at least until the mid 1980s, the Ministry of Health and Welfare has not played an active role in containing the total number of hospital beds.

Close to 90 percent of hospital facilities with 20 or more beds are classified as "general hospitals." The remainder are mental health facilities or tuberculosis and leprosy centers. General hospitals are dominated by small, privately owned and operated "nonprofit" facilities. The average number of beds in a Japanese hospital is 163 -slightly fewer than the 190 in an average American hospital - and half have fewer than 100 beds.² Although the last few years have witnessed a proliferation of national hospital chains, the majority of small hospitals continue to be privately owned and managed by physicians. As in public hospitals, physicians in private hospitals are salaried.

With 283 beds, the average public hospital is larger than its private counterpart. Although 19 percent of hospitals are public, they account for 33 percent of all beds. About 75 percent of public hospitals are under the jurisdiction of municipal and prefectural governments the remainder are national institutions. About 1 percent of hospitals are owned and operated by quasi-public agencies and organizations such as the Red Cross, social insurance agencies and employment related groups.

Despite these distinctions, all hospitals in Japan tend to be viewed as recuperative centers rather than as merely therapeutic institutions. Even large teaching hospitals do not limit themselves to providing acute-care services. Hospitals have traditionally functioned, in part, as long-term care facilities. Of the nearly 400 hospitals that have more than 500 beds, only about 60 percent have adult intensive care units, and only

30 percent of them have neonatal intensive care units, the majority of which have only five to seven beds.

As a result of this orientation, patients in Japanese hospitals have the longest average length of stay in the world.³ Even accounting for the lengthy stays of psychiatric patients, the average patient's stay in a Japanese hospital far exceeds that of most other OECD countries both in the aggregate and by specific disease categories (Appendix 1, Table 5). In addition to the nursing home functions played by hospitals, other factors accounting for the lengthy stays are probably the large number of beds, the low admission rates, the per diem form of hospital reimbursement, and the emphasis on recuperation over invasive medical and surgical interventions.

As is the case with intensive care units, there are far fewer emergency rooms in Japan than in the United States. But while Japan has roughly half the population of the United States, it has only 7 percent of the murders, 2 percent of the reported rapes, and 0.3 percent of the armed robberies, so there would seem to be less of a need for extensive trauma facilities.⁴ In addition, unimpeded access to health care through the clinic system has the effect of steering non-urgent care away from emergency rooms. An integrated system of primary, secondary and tertiary-level emergency facilities appears to meet the need for emergency and trauma care.⁵

As in the United States, university hospitals in Japan are centers for research, teaching and the delivery of tertiary-level "cutting edge" medical care. In contrast to America's 129 academic medical centers with an average size of 664 beds, Japan has 131 university hospitals (half of them public) with an average size of 735 beds.⁶ Despite their larger average size, Japanese teaching hospitals have far fewer inpatient admissions, less than 30 percent of the American rate. And the 36.2 day average length of stay in these hospitals far exceeds the 7.9 days in American teaching hospitals.⁷

Although Japanese university hospitals generally incur higher costs, they also have shorter lengths of stay and higher staffing ratios than other Japanese hospitals. Increasingly, the public perceives these facilities as preferred sites for receiving medical care.

A recent innovation for the delivery of high-tech medical care has been the establishment of officially designated centers for such procedures as open-heart surgery. This "Highly Advanced Medical Technology System" provides a mechanism by which new medical devices can receive broader use and evaluation despite their ineligibility for reimbursement under the normal benefits plan of Japan's health insurance program. Most often, highly advanced medical procedures are performed at teaching facilities.⁸ For third-party reimbursement to be awarded, these procedures must now be performed at these centers, which are required to have appropriate equipment and personnel.

Clinics and Ambulatory Care

Japanese physicians have traditionally operated on a small scale, working out of their homes to provide health care services to their community. Although these clinics have typically provided a low-level intensity of care, many have recently acquired a wide range of sophisticated medical equipment including ultrasonic testing and gastrointestinal fiberscopes.⁹

Small, privately owned clinics provided most outpatient services until the 1970s. In addition, roughly 25,000 physicians' offices, equipped with up to 19 beds and also referred to as "clinics," function as small hospitals. They add 276,000 beds to Japan's already high number (15.8 per 1,000 persons), thus increasing the total number of hospital beds by 17 percent.¹⁰

Since the 1970s, clinic physicians have become concerned about losing their share of primary-care services to hospitals. Although the number of clinics has increased from about 50,000 in 1955 to more than 80,800 in 1990, the number of clinics with beds decreased by almost 20 percent during the 1970s and 1980s.¹¹ Likewise, although the number of physicians has increased by 113 percent since 1960, the proportion of physicians running clinics has dropped from 44.8 percent in 1960 to only 27.5 percent in 1990.¹² This decrease in the number of clinics with beds and the proportion of physicians running clinics is due largely to direct competition with larger hospitals in outpatient services and high land prices that prohibit the establishment of new clinic facilities. Larger hospitals are attracting both young doctors and outpatients with their sophisticated technology and services.¹³

Despite the competition between clinics and hospitals, two structural aspects of Japan's health care system appear to constrain the trend toward specialization and high-tech care and to promote primary-care services. First, clinic physicians do not have admitting privileges to hospitals. Second, once referred to the hospital, many patients do not return to a clinic but continue to be treated by the hospital's outpatient department. These barriers give clinic physicians an incentive to put off hospitalization.¹⁴

Beyond the barriers to referring patients to hospitals, two financial incentives also appear to support primary-care services. First, clinic physicians are remunerated under the fee schedule each time they write a prescription for a dispensing pharmacist. Second, they make an average profit of 26 percent of the reimbursement rate every time they prescribe - and sell - a drug to their patients.¹⁵ Because pharmaceutical manufacturers and wholesalers routinely sell drugs to physicians at prices well below the fee schedule's reimbursement rates, drug sales have become an important source of profits for clinics.¹⁶

The average net monthly income for clinic physicians was \$22,900 in 1990, while specialists based in private hospitals earned only \$6,300.¹⁷ A 1985 study indicated that revenues and net profits of clinic physicians vary with the quantity of drugs prescribed and sold by physicians, the age of the physicians and the size of the clinic. This finding supports the contention that clinic physicians maximize their income by

prescribing and selling more drugs.¹⁸

Despite clinic physicians' practice of selling the drugs they prescribe, which strikes most Americans as a blatant financial conflict of interest, the doctor-patient relationship presumably is based on trust. Patients are typically told little about their diagnoses, and doctors explain away problems in "soothing terms without necessarily providing precise information about what exactly the problem is."¹⁹ Pills frequently go unlabeled, and patients are not always told when they are part of an experiment. Such practices were recently supported by a court decision that doctors need not share the full details of a diagnosis with a cancer patient.²⁰

The clinic physician, however, does not provide the kind of primary health care so often extolled by family physicians in the United States. Most clinic physicians operate in solo practices without hospital privileges, thus making it difficult to collaborate with specialists as well as with peers. Standards of practice, professional competence and patient care are neither monitored nor evaluated in any formal way. In addition, as in the United States, Japanese physicians do not typically subscribe to the idea of "comprehensive primary health care and often fail to respect the person as a whole person operating in a complex social and economic environment."²¹

Services for the elderly

Since the early 1970s, the elderly enjoyed a privileged status in the Japanese welfare state. With the economic growth of the 1960s came demands for the expansion of social benefits that could not be ignored. In 1973, the government responded to social pressures by creating an almost free medical care system for the elderly, the national insurance plan administered by local governments. In 1982, in response to rising health care costs, the Health and Medical Service Law for the Aged established the national pool to subsidize medical care.²² The government sought to increase equity in financing by taxing all health insurance plans based on a formula related to each plan's number of beneficiaries and past medical expenditures on the elderly.²³

Despite universal coverage under national health insurance, the range of services designed to meet the needs of the elderly is limited. In general wards, no distinction is made between acute and long-term care facilities.²⁴ A significant fraction of hospital beds are routinely occupied by elderly people requiring long-term care. Seventy-five percent of the institutionalized elderly are in hospitals and clinics, for example, and survey data indicate that 45 percent of elderly inpatients are hospitalized for more than six months.²⁵ Due to the shortage of rehabilitation services, roughly 4.6 percent of the elderly population is bedridden.²⁶ In 1987, 34 percent of patients in Japan's long-term care facilities were bedridden, a striking contrast to America's 6.5 percent.²⁷

There are now a growing number of hospitals specializing in treating and caring for the elderly. There are also three other types of facilities that serve the elderly in

Japan: a small number of nursing homes (10 beds per 1,000 elderly persons in 1988, in contrast to 46.2 in the United States in 1985), welfare institutions for those who need constant care, and facilities providing rehabilitation services.²⁸ But the relatively limited number of home health aides leads to an absence of reliable support services.²⁹ Compared to the United States, Japan has a far more severe shortage of long-term care services. There are long waiting lists for admission to nursing homes—applicants commonly wait for more than a year.³⁰

In addition to the lack of appropriate institutions and support services, at least three other factors contribute to Japan's high rate of "social admissions" to hospitals. First, medical practice generally tends to emphasize passive care and bed rest. Second, a lack of space at home to accommodate elderly relatives pushes more of the frail elderly into hospitals and clinics. Finally, women, the traditional care givers for the elderly, are entering the work force in increasing numbers. Thus, although some 62 percent of the elderly live with their children or other relatives, in contrast to less than 33 percent in the United States, Japan's institutionalization rate (6.2 percent) is comparable to America's.³¹ Where Japan diverges from the United States and other OECD countries is in its rapidly graying population. In 2020, 26 percent of Japanese will be over 65, compared to 17.3 percent of Americans.³² Because there are already about 700,000 Japanese aged 65 and over (4.6 percent of the elderly population) who are so severely disabled that they are bedridden or require constant supervision, these projections impelled government policy-makers to publish the "Golden Plan" and make a commitment to solve this anticipated crisis.

The Golden Plan is a 10-year national health care and welfare plan for the elderly agreed upon by the Ministries of Health and Welfare, Finance and Home Affairs in 1989.³³ At the Japan Society conference, Ministry of Health and Welfare Director-General Nobuharu Okamitsu described it as an attempt to integrate welfare services, medical care and insurance in a comprehensive manner. The plan outlines an ambitious set of goals at a projected cost of \$40 billion during the 1990s. This is in contrast to the \$11.3 billion spent in the 1980s.

The plan relies on four principal strategies to build the infrastructure necessary to accommodate the growing needs of the elderly:

1. Expansion of existing services by increasing the number of home helpers from 40,900 in 1991 to 100,000 in 1999 and the number of nursing home beds from just over 144,600 to 240,000;³⁴
2. Creation of a more diverse range of services by defining the respective roles of corporations and of the national, prefectural and municipal governments;
3. Decentralization through an increased role for municipalities in the design of programs;
4. Reduction of fragmentation by developing government entities to provide services, support research, disseminate information and coordinate the regional administration of model projects.

In addition to expanding infrastructure for the elderly, the Golden Plan seeks to rationalize services. It aims to reduce the geriatric population of hospitals and to

increase capacity in skilled nursing homes and particularly in new institutions known as geriatric rehabilitation centers. In addition, it calls for a three-fold increase in government-employed visiting homemakers, a 10-fold growth in adult day centers, and a 12-fold increase in respite care centers. If the plan is implemented, the bedridden elderly will be shifted over the next decade away from hospitals toward home care support services, informal support services and nursing homes.

The government has recently adjusted the fee schedule's reimbursement rates to encourage those general hospitals that provide mostly long-term care for the elderly to become approved geriatric hospitals. The fee schedule's per diem rates for long-term care in general hospitals have been reduced to provide an incentive for many private, medium-sized hospitals to become chronic and geriatric care facilities that would be reimbursed on the basis of a more favorable geriatric fee schedule.³⁵

Another major change in the reimbursement of medical care for the elderly was the reinstatement of copayments. When the elderly were first covered under national health insurance in 1961, their copayments were set at 50 percent of the allowed fees. Free medical care for the elderly was established in 1973 and lasted until 1983. When reinstated, the copayment was kept at a low level, far lower than the pre-1970 levels of patient contribution.³⁶ But cost-sharing for care of the elderly has continued to rise. Moreover, the government is now emphasizing programs that draw on family resources. In contrast to inpatient services, local governments now ask the children of residents in nursing homes and geriatric hospitals to contribute toward the cost of care.³⁷

NOTES:

¹ Statistics Bureau, (*Iryo-Shisetsu Chosa*). Cited by Yoshikawa et al. (1992) p. 15.

² Holt et al. (1992).

³ OECD (1993).

⁴ Crime statistics are from JETRO (Ministry of Health and Welfare) 1991, p. 30. Cited by M. Calhoun, "The Japanese Health Care System in Perspective," ch. 16 in Okamoto and Yoshikawa (1993).

⁵ In 1990, about half of all patients entering emergency facilities were considered "emergencies," 28 percent were "injuries," and 23 percent were "traffic-related." From "Present Situation of Emergency Care and Services," Fire Defence Agency, 1992. Document provided by Japanese Ministry of Health and Welfare representatives in New York.

⁶ Holt et al. (1992).

⁷ Ibid

⁸ Yoshikawa et al. (1992) p. 47.

⁹ Ibid.

¹⁰ This calculation is based on 1988 data from the Ministry of Health and Welfare, cited by Yoshikawa et al., *How Does Japan Do It?* Stanford University, Spring 1992.

¹¹ Yoshikawa et al. (1992) p. 15

¹² Presentation by Aid Yoshikawa at the conference.

¹³Yoshikawa et al. (1992). At the conference, Nobuharu Okamitsu pointed out that a new policy was introduced last year requiring patients to obtain a referral from primary-care doctors before going for outpatient services to large hospitals. Without a referral, patients would have to make larger copayments. However, at this time we have no information on the extent to which this policy has affected the flow of outpatient visits to large hospitals. Only two hospitals are currently slated to participate in this program beginning in September 1994.

¹⁴Ikegami (1991) p. 99.

¹⁵Yoshikawa et al. (1992).

¹⁶Iglehart (1988b); Ikegami (1992a).

¹⁷Yoshikawa et al. (1992) p. 15.

¹⁸Abe (1985).

¹⁹M. Yamamoto, "Primary Health Care and Health Education in Japan," *Social Science and Medicine* 17(19) 1419-31. Quoted in Powell and Anesaki (1990) p. 173.

²⁰Sterngold (1992).

²¹Powell and Anesaki (1990).

²²John Campbell (1992b). Perceptive analysis of the evolution and politics behind the policy changes so briefly summarized here.

²³Fujii and Reich (1988).

²⁴Health and Welfare Statistics Association, *Health and Welfare Statistics in Japan*. Tokyo, 1992. Table 60.

²⁵Ikegami (1991). This figure is from a 1987 nationwide patient survey conducted by the Japanese Ministry of Health and Welfare: *Kokumin Eisei no Doko* (Health State of the Nation, Annual Report). Kosei Tokei Kyokai, Tokyo, 1990. Cited by Kobayashi and Reich (1992).

²⁶Butler (1990).

²⁷K. Takenaka et al., *The Report of the Task Force on the Current Status of the Bedridden Elderly in Comparison to Several Foreign Countries*. Tokyo: Ministry of Health and Welfare, 1989. Cited by Kobayashi and Reich (1992) p.7.

²⁸Okamoto (1992); Kobayashi and Reich (1993) p. 347.

²⁹Kobayashi and Reich (1993). Table 10 from Harvard School of Public Health, Working Paper No. 7.

³⁰Kobayashi and Reich (1993).

³¹Ikegami (1991).

³²Kobayashi and Reich (1993) p. 16.

³³*The Golden Plan: Japan's 10 year strategy to Promote Health and Social Services for the Aged*, 1990. New York: International Leadership Center on Longevity and Society, Mt. Sinai Medical Center.

³⁴Ministry of Health and Welfare (1992a) pp. 145, 150.

³⁵Yoshikawa et al. (1992) pp. 18, 19.

³⁶Okamoto (1992) p. 403.

³⁷Japan Economic Institute (1992), p. 13.