

Macro evaluation of the Japanese healthcare system in comparison with Germany

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The sustainability of the social security system with the aging of the population is a big concern in many developed countries. Aging of the population will be especially serious in Japan, and the Japanese total population will decrease from present 127 million to less than 100 million: the aging rate (proportion of people 65 years old or over of the total population) will increase from the present 20 percent to 36 percent or more in 2050. These demographic changes as well as financial situations will have profound effects on social security systems, and the sustainability of healthcare systems has been a pertinacious concern in Japan and Germany.

In this paper, we feature similarities and differences of healthcare systems in Japan and Germany (Section 1), describe healthcare reform efforts in both countries (Section 2), discuss issues for future reforms (Section 3), and draw some conclusions (Section4).

1. Overview of healthcare systems in Japan and Germany

Most healthcare services in Japan are provided through the public health insurance system. The total population has been covered by public health system since 1961. Japan has two categories of health insurance (employer-based insurance and National Health Insurance) and the Health Service Program for the Elderly. The total population, except those who receive public assistance, is covered by the public health insurance (Note 1), and there are hundreds of separate sickness funds (or insurers) linked to a person's employer, occupation, or geographic location. Each fund provides coverage for a person and his or her dependants. Insured persons cannot choose a sickness fund. While there are many similarities among sickness funds in terms of health services covered and reimbursement procedures for services provided, there are systematic differences in available benefits and level of national subsidy. Under the Health Service Program for the Elderly (Note 2), patient's cost-sharing is reduced, and a different Medical Fee Schedule is applied, although this program will be changed in 2008. The private sector is important in delivering healthcare services and maintaining public health. However, the role of the private sector

is relatively minor in terms of healthcare financing.

Table 1 is a summary table of health insurance in Japan and Germany. Employees and the self-employed are covered by different schemes in public pensions and health insurance in Japan. In Germany, about 90 percent of the population is covered by public health insurance, and those self-employed who were previously covered are also qualified for the system. In Germany, insured persons have been able to choose their insurer since 1996, and risk adjustment is done according to age, sex, number of dependants, etc. There is also a sharp contrast between the two countries in terms of treatment of the elderly. A special program for the elderly reduces patients' cost-sharing considerably, but there is no special arrangement for the elderly in Germany. The role of private insurance, which so far remains marginal, is expected to grow in Japan. On the other hand, private risk-based health insurance and solidarity-based public insurance co-exist in Germany, although the latter is dominant (OECD, 1997).

All funds cover a broad range of healthcare services including hospital and physician care, dental care, pharmaceuticals, and even some transportation in both countries. The sickness funds also pay some cash benefits, such as sickness allowance and maternity allowance, but society-managed funds generally pay greater cash benefits than National Health Insurance. Large employers provide some preventive care, but health insurance covers little preventive care in general, and it provides only cash payment for normal pregnancies in Japan. Benefits are more comprehensive in Germany, especially on preventive services and rehabilitation (Maydell, Shimomura, Tezuka, 2000). Both countries offer free choice of physicians and hospitals.

Both inpatient and outpatient services are provided in Japanese hospitals. While hospitals can enjoy economy of scope on the one hand, on the other hand there is severe competition in outpatient services between hospitals and physicians (Fukawa, 2005). In order to correct excessive competition, it has been considered that hospitals be classified by function and patient flow streamlined in Japan. Starting from a clear division between inpatient and outpatient services, more coordination is sought

between primary and secondary care in Germany. The Japanese reimbursement system is basically fee-for-service with partial price bundling mainly for chronic diseases of the elderly, and the same

nationwide fee schedule is applied to physicians and hospitals. In Germany, different reimbursement systems are applied to physicians and hospitals.

Table 1 Public health insurance in Japan and Germany

	Japan	Germany
Coverage of population	<ul style="list-style-type: none"> • 99 % • different schemes for employees and self-employed 	<ul style="list-style-type: none"> • 90 % • co-existence of public insurance, private insurance and other
Choice of insurers	<ul style="list-style-type: none"> • no 	<ul style="list-style-type: none"> • yes since 1996
Risk structure adjustment	<ul style="list-style-type: none"> • (Note 1) 	<ul style="list-style-type: none"> • according to age, sex, number of dependents, and income of the insured
Benefit		
Prevention	<ul style="list-style-type: none"> • none 	<ul style="list-style-type: none"> • health screening of cancer and geriatric diseases
Outpatient	<ul style="list-style-type: none"> • 70 % of the cost 	<ul style="list-style-type: none"> • 100 % of the cost with some patient's cost-sharing for pharmaceuticals, etc.
Inpatient	<ul style="list-style-type: none"> • 70 % of the cost with additional cost-sharing for meals 	<ul style="list-style-type: none"> • 100 % of the cost with patient's cost-sharing of 10 Euro per day up to 28 days a year
Others		<ul style="list-style-type: none"> • benefit for childbirth, Kur treatment, transportation, etc.
Upper ceiling of patient's cost-sharing	<ul style="list-style-type: none"> • per month per household 	<ul style="list-style-type: none"> • 2 % of annual income
Contribution rate (%)	<ul style="list-style-type: none"> • 8.2 % (2005) 	<ul style="list-style-type: none"> • 13.3 % (2006), 14.1 % (2007)
Access to physicians and hospitals	<ul style="list-style-type: none"> • free 	<ul style="list-style-type: none"> • free
Health service delivery	<ul style="list-style-type: none"> • bed pop ratio is quite high, but physician pop ratio is lower than that of Germany • ALOS is long 	<ul style="list-style-type: none"> • physician pop ratio is high, and nurse pop ratio is low • price of pharmaceuticals is high
Prospective payment in reimbursement system	<ul style="list-style-type: none"> • per day (per month for outpatient care) • applied mainly to the elderly care since 1990s 	<ul style="list-style-type: none"> • per case
Issues concerning benefit	<ul style="list-style-type: none"> • per capita expenditure for 65+ was 4.3 times of per capita expenditure for 0-64 • improper use of hospital beds 	
Issues concerning funding		<ul style="list-style-type: none"> • to reduce total social insurance contribution rate from 41.0 % in 2006 (health 13.3, pension 19.5, employment 6.5, long-term care 1.7) to less than 40 %
Health expenditure (% of GDP)	<ul style="list-style-type: none"> • 8.0 % in 2003 (OECD) • 6.5 % in 2004 (national source) 	<ul style="list-style-type: none"> • 10.9 % in 2004 (OECD) • 9.1 % in 2004 (national source)
Expenditure on pharm. prescriptions	<ul style="list-style-type: none"> • 1.5 % of GDP (OECD) • 1.3 % of GDP 	<ul style="list-style-type: none"> • 1.6 % of GDP (OECD) • 1.4 % of GDP
Over-the-counter	<ul style="list-style-type: none"> • 0.2 % of GDP 	<ul style="list-style-type: none"> • 0.2 % of GDP

Note 1: Health Service Program for the Elderly can be viewed as a kind of risk structure adjustment through age.

2. Healthcare reform efforts in Japan and Germany

(1) Healthcare reforms in Japan

Since the universal coverage of the nation through public health system in 1961, the benefit level was improved considerably in the 1960s and 1970s. However, cost containment has been a big issue in the Japanese healthcare reforms since the 1980s, and reforms in the 1990s featured the pursuit of quality (such as informed consent and patient's choice) as well as cost-containment. The main reform issues in the Japanese healthcare system identified in the 1990s were: 1) reorganization of the health service delivery system; 2) reforms of the reimbursement system of medical fees and pharmaceutical pricing system; 3) financing of healthcare for the elderly; and 4) quality assurance of health services and empowerment of patients (Fukawa, 2005). It has been more focused on the sustainability of the system and patients-oriented healthcare in the 2000s. Therefore, the control of health expenditure of the elderly has been targeted, as well as the reduction of lifestyle-related diseases especially those caused by obesity. The following two issues are discussed as key for the coming healthcare reform in Japan: a) to put the right incentives in the system; and b) to activate the roles and functions of insurers. In accordance with higher patients' expectations, the measurement and assurance of quality of healthcare services has become an important policy area.

Most health services are reimbursed on a fee-for-service basis in Japan, and in order to correct false incentives in the fee-for-service system, a partial price bundling has been introduced since the 1990s and a feasibility study of a prospective payment system has been conducted since 2003 for inpatient services. The focuses of reforming the healthcare system for the elderly are always a) coordination between healthcare services and long-term care services and b) elimination of inappropriate long-term hospitalization. One of the main reasons to introduce the long-term care insurance in 2000 was to reduce the number of so-called socially induced hospitalization cases especially among elderly patients.

(2) Healthcare reforms in Germany

Public healthcare insurance (GKV, "gesetzliche Krankenversicherung") faces great challenges. The

revenues of the compulsory health insurance funds ultimately depend on the state of the economy. In times of a weak economy, fewer job holders make full contributions and the revenues of the sickness funds have developed poorly. On top of this weak development, the member structure of the GKV has changed: the rising number of contributing pensioners with lower incomes on average than job-holding members; the switch of ca. 800,000 members to private health insurance, both in the years 2000 to 2003. These and other developments have negative effects on the revenues of the sickness funds. On the expenditure side, the rising life expectancy as well as the growing share of older people in the total population, which is laudable and welcome in itself, causes health expenditure increase.

The German government has undertaken a series of reforms starting with the health reform of 2000, in order to secure fair and high-quality healthcare for the 70 million insureds (approximately 90 percent of the population) in the future. The cross-sectional objectives of all reforms are to reduce contribution rates, to create further orientation towards the patients, to provide quality assurance and to improve efficiency (Sozialbericht 2005).

Prevention has been given a high significance. Increasing and continuous investments in prevention and health-promoting measures increase the chances of the citizens of leading longer, self-determined lives with fewer impairments and more quality of life (Sozialbericht 2005). The risk of illnesses related to exposures due to lifestyle or environment can for the most part be reduced through taking the earliest possible steps for prevention. Developing prevention and health-promotion into an independent, self-contained pillar is a concrete part of the future-oriented health policies of the German Government (Sozialbericht 2005).

In the upcoming reforms, the German Government wishes to develop the system with fair and just distributional effects (Sozialbericht 2005). Much will depend on how to balance solidarity and efficiency. On the supply side, the German Government intends to follow the course towards intensification of competition between providers as well as contract models, in order to improve efficiency of the system (Sozialbericht 2005).

3. Issues for discussion

Table 2 shows health-related indices in six countries. The numbers of physicians and nurses are higher in Germany than in Japan. The number of beds per 1,000 is very high in Japan, and as a natural consequence of the over-supply of beds together with under-developed division of hospitals for acute and chronic diseases, the average length of stay in hospitals is very long in Japan. The health expenditure as a percentage of GDP was low in

Japan and the UK and higher in Germany. Health expenditure by provider reveals that hospital services amount to 3.9 percent of GDP in Japan, compared to 3.2 percent in Germany, although Japanese health expenditure is lower than that of Germany. This is explained by the fact that both inpatient and outpatient services are provided in Japanese hospitals, which is not the case in Germany. Out-of-pocket payment is higher in Japan (1.4 percent of GDP) than in Germany (1.1 percent).

Table 2 Health related indices in 6 countries

		France	Germany	Japan	Sweden	UK	USA
Total population (million)	2004	60.2	82.5	127.7	9.0	59.8	293.7
Proportion of 65+ (%)		16.3	19.3	19.5	17.2	16.0	12.4
GDP (100 billion US\$)	2004	20.4	27.4	46.7	3.5	21.2	116.8
Per capita GDP (1,000 US\$, PPP)	2004	30	29	30	31	31	40
Total fertility rate (TFR)	2004	1.91	1.36	1.29	1.75	1.63	2.05
Life expectancy (years)	2003/04	80.3	78.6	82.1	80.6	78.5	77.5
Infant mortality (Per 1,000 Births)	2004	3.9	4.1	2.8	3.1	5.1	6.9
Health manpower (Per 1,000 pop)	2004						
Physicians		3.4	3.4	2.0	3.3	2.3	2.4
GP		1.7	1.0	—	0.6	0.7	1.0
Dentists		0.7	0.8	0.7	0.8	0.5	0.5
Pharmacists		1.1	0.6	1.3	0.7	0.5	0.7
Nurses		7.5	9.6	9.0	10.2	9.2	7.9
Hospital beds (Per 1,000 pop)	2004						
Total		7.5	8.6	14.2	2.4	4.1	3.3
Acute care beds		3.8	6.4	8.4	2.2	3.6	2.8
Long-term care beds		1.3	...	2.9	0.3	0.4	0.6
ALOS: in-patient care (Days)	2004	13.4	10.4	36.3	6.2	7.2	6.5
acute care (Days)		5.5	8.7	20.2	—	6.6	5.6
Per capita per annum							
Acute care beddays	2004	1.0	1.8	2.1	—	1.1	0.7
Doctors' consultations	2000-04	6.7	7.3	13.8	2.9	5.3	3.9
Health expenditures (HE)/GDP (%)	2003/04	10.5	10.9	8.0	9.1	8.3	15.3
Public HE/GDP		8.3	8.5	6.5	7.7	7.1	6.9
Private HE/GDP		2.3	2.4	1.5	1.4	1.2	8.5
Current HE/GDP by provider (%)	2003/04						
Hospital services		4.0	3.2	3.9	—	—	4.9
Ambulatory care		2.5	3.0	2.3	—	—	5.3
Pharm. & medical goods		2.3	2.3	1.1	—	—	2.1
Public health		0.3	0.2	0.2	—	—	0.5
Nursing & residential care		0.2	0.9	0.3	—	—	1.0
Admin. & others		0.9	1.1	0.2	—	—	1.3
HE/GDP by source of funds (%)	2003/04						
Government		0.4	1.1	1.4	—	—	4.9
Social insurance		7.9	7.4	5.1	—	—	1.9
Out-of-pocket payment		0.8	1.1	1.4	—	—	2.0
Private insurance		1.3	1.0	0.0	—	—	5.6

Source : OECD Health Data 2006.

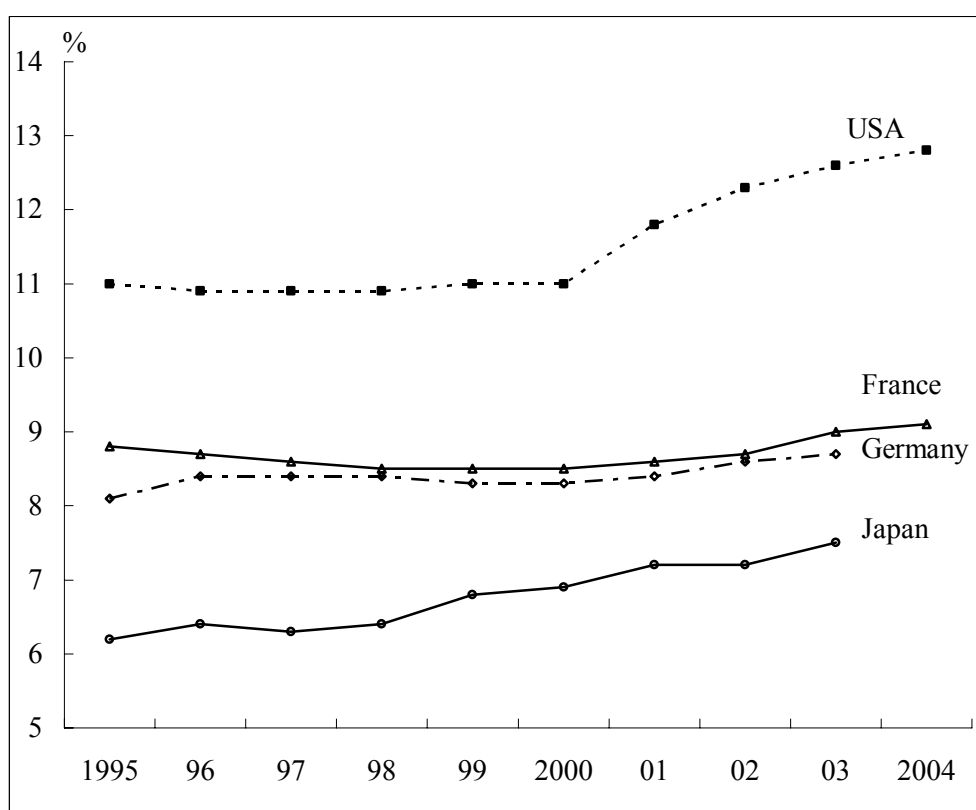
Based on the OECD Health Expenditure, we define **healthcare expenditure** as the sum of (a) hospital services, (b) ambulatory care, (c) pharmaceuticals and medical goods, and (d) public health, in order to eliminate nursing and residential care expenditure which is partially included in the healthcare system.

(1) Financing

Fig. 1 shows the above-defined healthcare expenditures in four countries since 1995, and this

chart suggests that despite vigorous efforts to contain expenditure since the 1980s, healthcare expenditure still faces pressure to increase in the 2000s in each country. Despite vigorous efforts to contain healthcare expenditure, Japanese healthcare expenditure has increased steadily due to rapid ageing of the population, health technology, etc. If we include long-term care expenditure to some extent or in full, the tendency will become much clearer in countries like Japan.

Fig.1 Healthcare expenditure as percent of GDP: 1995-2004



Note: Healthcare expenditure is the sum of (a) hospital services, (b) ambulatory care, (c) pharmaceuticals and medical goods, and (d) public health.
 Source : OECD Health Data 2006.

Public health insurance in Japan is currently financed through contributions (individuals as well as employers), government subsidies and out-of-pocket payment (patient cost-sharing + direct patient payment for services not covered by insurance). Health services for needy persons based on the Public Assistance Law of 1950 and public funding for specific diseases and disorders (such as tuberculosis, nuclear irradiation and mental illness) accounted for 6 percent of all health expenditures.

The proportion of patient cost-sharing in the national health expenditure has been decreased from 40 percent in 1955 to 11 or 12 percent in the 1980s and 1990s, but it has started to increase due to recent healthcare reforms. Now, the proportion of patient's cost-sharing of the total health expenditure was more than 15 percent as of 2004. Thirty-five percent of health expenditure is financed by the public funds, and there are vigorous political budget debates each year in order to secure necessary national subsidy.

Under these circumstances, it is not easy to discuss the issues according to the priorities.

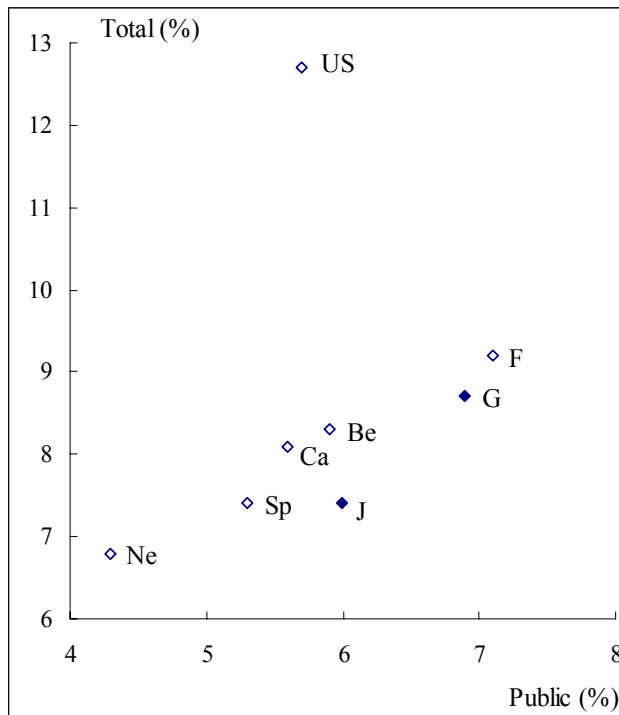
Patient's cost-sharing used to be different among different schemes, but it has been unified to 30 percent of healthcare costs for non-elderly patients and 10 or 20 percent for elderly patients. Moreover, there is an upper ceiling on patient's cost-sharing (Note 3), and all sickness funds pay 100 percent of expenses above the upper ceiling. This cap is lower for low-income persons and those who have already paid the maximum for three months within a year. Because of the cap, patients' cost-sharing used to be low. However, increase in the patients' cost-sharing have been the main tool of healthcare reforms in recent years, and the patient charge on pharmaceutical cost for outpatient services, which was introduced for the first time in September 1997 (Note 4), was reported to have had a major impact on patients behavior. There are concerns that the present level of patients' cost-sharing (30 percent) could induce under-utilization of healthcare services among low-income households.

Solidarity between patients and non-patients

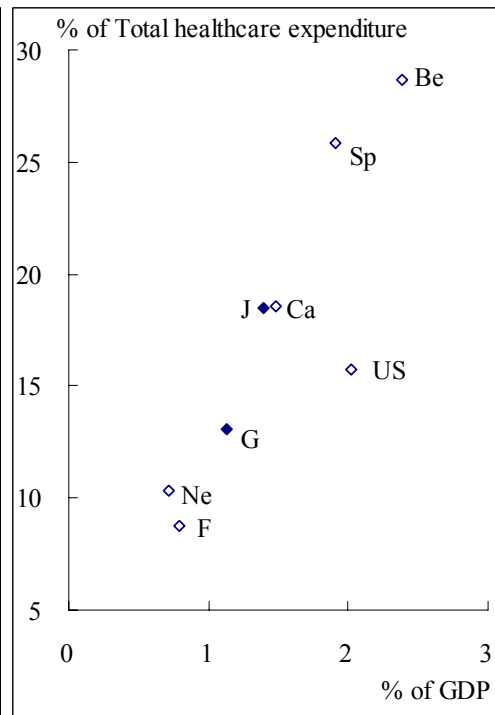
remains the same, but solidarity between young and old may be changing in both countries. Patients' cost sharing has been increased several times without lasting effects for cost-containment in Germany (OECD, 1997). The success of these reforms could have created the margin necessary to tackle the reform of the financial side. The proportion of out-of-pocket payments to the healthcare expenditure differs country by country, but Japanese out-of pocket payments are higher than those of Germany in terms of both percentage of healthcare expenditure and percentage of GDP (Fig. 2b). The existing coupling of funding to the wages and salaries has shown weakness, not fully taking the changes in the job market into account. However, there is no easy solution, and options such as reducing the benefit catalogue of the public health insurance and relying more on private health insurance should be based on careful deliberation. Among total healthcare expenditure, private healthcare expenditure ranges so far between 1.5 and 2.5 percent of GDP in most countries except the United States (Fig. 2a).

Fig. 2 International comparison of healthcare expenditure in 2003/04

(a) Public healthcare expenditure vs. Total healthcare expenditure: % of GDP



(b) Out-of-pocket payments: % of GDP vs. % of Total healthcare expenditure



Note: Be: Belgium, Ca: Canada, F: France, G: Germany, J: Japan, Ne: Netherlands, Sp: Spain, US: United States
Source: OECD Health Database 2006.

A large cut in medical fees and the introduction of a new insurance scheme for those over the age of 75 is expected to help keep spending at around 5.5 percent of GDP through 2010 (OECD, 2006b). Much of the expected spending restraint, however, depends on reducing the demand for healthcare by preventing lifestyle-related diseases. Given the difficulty of achieving such savings, additional reforms are needed and public health insurance will have to be trimmed further due to financial constraints. The key to achieving higher quality and greater efficiency in healthcare, as well as in long-term nursing care, is to make greater use of the dynamism of the private sector, in part by allowing companies to manage hospitals and nursing homes (OECD, 2006b). However, some important aspects such as quality assurance and fairness to all will not automatically follow to the greater use of private sector. In this context, it is quite interesting to study the effectiveness and efficiency of the dual system in Germany: the co-existence of private risk-based health insurance and solidarity-based public insurance.

(2) Healthcare for the elderly

The Health Service Program for the Elderly was first introduced in 1983 to equalize the burden of healthcare costs of the elderly among various health insurances and to ask elderly patients for reduced cost-sharing. Membership in this plan was those who were aged 70 or over as well as disabled persons aged 65-69. These persons may be in any fund, although they are most likely to be in National Health Insurance. Patient cost-sharing aside, 70 percent of the total cost is covered by all sickness funds, 20 percent by the national government, and 10 percent by local governments. In consideration of

the importance of long-term care for the elderly, the proportion borne through public funds was raised in 1992 from 30 percent to 50 percent when the expense is related to long-term care services.

The control of health expenditure of the elderly has always been focused, and cost-sharing of the elderly patients (70+) was increased from a fixed amount to 10 percent of the cost in 2000. The eligibility to the Health Service Program for the Elderly (HSE) has gradually increased from 70 to 75 years old in 2002 reform. In 2006 reform, it was decided to create a new health insurance for the elderly aged 75 or over in April 2008. Under the new scheme, all the elderly including those who are dependent will have to pay the contributions.

After the implementation of the long-term care insurance in April 2000, the number of so-called socially induced hospitalization cases especially among elderly patients has been reduced, although not totally eliminated. Table 3 shows health expenditure by age group in Japan and Germany (eliminating long-term care expenditure) using national sources. Per capita health expenditure by age group in Fig. 3 (a) clearly shows a positive effect of long-term care insurance in Japan for reducing the health expenditure of the elderly. Nevertheless, Japanese elderly consume relatively higher healthcare expenditure compared to their German counterparts (Fig. 3 b). The average per capita health expenditure for those who are 65 or over is 4.3 times than that for 0-64 age group in Japan. As a result, about half of the national health expenditure is consumed by those who are aged 65 or over (19 percent of the population) and about 40 percent by those who are aged 70 or over (13 percent of the population).

Table 3 Health expenditure by age group: 2004, national sources

Age group	Japan					Germany				
	Share of population (%)	Health expenditure			% of GDP	Share of population (%)	Health expenditure			% of GDP
		100 Billion Yen	Share (%)	Per capita (1000 Yen)			Billion Euro	Share (%)	Per capita (10 Euro)	
Total	100.0	321.1	100.0	251.5	6.5	100.0	200.5	100.0	243	9.1
0-14	13.9	20.2	6.3	114.0	0.4	14.6	13.2	6.6	110	0.6
15-29	18.2	18.2	5.7	78.3	0.4	17.4	16.5	8.2	115	0.7
30-44	20.7	30.6	9.5	116.1	0.6	23.7	29.9	14.9	153	1.4
45-64	27.8	87.9	27.4	248.1	1.8	26.0	60.7	30.3	283	2.8
65-84	17.3	136.7	42.6	617.4	2.8	16.6	69.7	34.8	509	3.2
85+	2.1	27.4	8.5	1002.0	0.6	1.7	10.2	5.1	725	0.5
GDP		4,962.0		3,886			2,207.2		2,675	

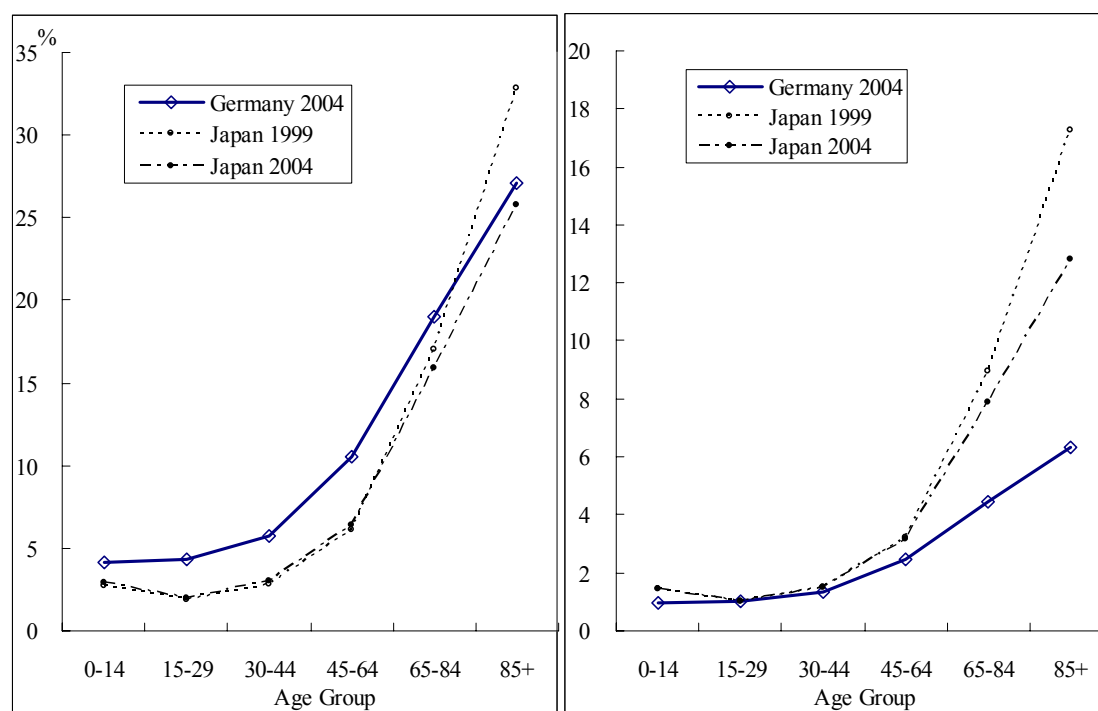
Sources: MHLW (2006), National Health Expenditure for FY 2004.

Statistisches Bundesamt (2006), Gesundheit-Ausgaben, Krankheitskosten und Personal 2004.

Fig. 3 Per capita healthcare expenditure by age group

(a) As percent of per capita GDP

(b) 15-29 = 1.0



Sources: MHLW (2006), National Health Expenditure for FY 2004.
 Statistisches Bundesamt (2006), Gesundheit-Ausgaben, Krankheitskosten und Personal 2004.

Given the rapid ageing of the population, the question of how to finance the cost of public programs for the elderly has been a leading issue in recent years. Japanese health expenditure as percentage of GDP is lower than that of Germany, but health expenditures for the elderly (65+) are similar in both countries (Fukawa, 2001). The cost of public programs for the elderly (65+) concerning healthcare and long-term care may reach to a certain range, which is quite related to the cost of old age and survivors pension. Aging of the population together with a declining working-age population inevitably focuses on the cost of old age in general.

(3) Incentive issues

Most healthcare services are reimbursed on an itemized fee-for-service basis in Japan, and the price of each service is specified in the Medical Fee Schedule. The same nationwide fee schedule is applied to physicians and hospitals. The fee schedule and the drug standard have been the primary tools used to pursue healthcare reforms in the 1980s and

1990s in Japan. It has become clear, however, that these tools are limited, and other measures are being studied to improve the quality and efficiency of health services concurrently. In order to correct false incentives in the fee-for-service system, a package payment (or partial price bundling) mainly for chronic diseases of the elderly has been introduced since the 1990s. Price bundling is applicable monthly for outpatient care and daily for inpatient care on clinical tests, pharmaceuticals, injections, and nursing charges (inpatient only). Total inpatient per diem is bundled only in special cases such as hospice care. A nationwide feasibility study of a prospective payment system (called DPC) has been conducted since 2003 for inpatient services. These Japanese efforts are still at an initial stage and the actual situation is far from typical prospective payment (Fukawa, 2005). A final goal may be the transformation of the reimbursement system from itemized fee-for-service to payment per case.

The reform of the reimbursement system is especially important to place the right incentives in

the system. Case payment to hospital services and assessment of hospital budgets using the DRG-method (Diagnosis Related Groups) in Germany and experimentation with DPC in Japan are certainly typical examples to improve the healthcare system, although the effect of such approaches on healthcare expenditure still needs to be seen.

In Japan, activities of insurers have been marginal so far. In 2006 reform, however, some incentive has been finally placed on insurers to do more preventive activities. Patient's cost-sharing is not only a financing issue but also an incentive issue. Both countries are seeking the right incentive structure for all parties concerned because this is crucial for the sustainable development of the healthcare system. The ways to improve the incentive structure in the healthcare systems lie in inspection and open management.

(4) Patient-oriented healthcare

Patient's involvement is more and more needed in order to achieve higher quality and greater efficiency in the healthcare system. However, lack of empowerment of the user is another weakness of the Japanese healthcare system. In order to improve the satisfaction of service receivers, it is desirable to make various decisions and coordinate services at points where the system interacts with end-users. For example, it is quite natural from the consumers' point of view to demand coordination between healthcare and long-term care services.

Benefit packages do not allow the mixed use of listed and non-listed items in Japan. For example, whenever advanced technology that is not covered by health insurance is applied, the total costs are treated as ineligible for insurance coverage. This is called the prohibition of mixed use. However, under the high-cost relief scheme, if a patient receives certain high-technology treatments in specially approved medical facilities, the basic part corresponding to the listed conventional health service is covered by the insurance, and the patient should pay the balance.

Patients are free to choose any healthcare institutions and the prices of the services provided there are basically the same. Priority is given to equality in healthcare delivery, and classification of

hospitals according to their functions and streamlining patient flow are not sufficient in Japan. Therefore, the so-called "gate-keeping" function of primary care physicians is weak, and the referral system does not work well. According to Smith (2004), public systems are seeking to expand and enhance levels of patient choice of provider and treatment, whilst social insurance systems are seeking ways to restrain traditionally high levels of choice in order to promote cost containment and improve coordination of care.

Japanese health insurance in general pays relatively little attention to preventive care. However, in view of the importance of lifestyle-related diseases, prevention has slowly become one of the main issues in 2006 healthcare reform. Prevention is important not only for averting cost-push pressures to health expenditure but also for people's quality of life. People wish for quality healthcare services, and they will pay higher prices for better healthcare services. People will accept greater responsibility for lifestyle-related diseases.

4. Evaluation and Conclusions

Japan enjoys the lowest infant mortality rate and the longest life expectancy at birth among the major developed countries. In comparison with Germany, Japanese output indices are better with lower healthcare expenditure. However, we should be careful in drawing any conclusions, because the infant mortality rate and life expectancy at birth are no longer proper indicators for evaluating healthcare systems. Japan's healthcare delivery system and patterns of patient flow raises many questions such as quality issues and overuse of pharmaceuticals. On the other hand, the performance of the Japanese healthcare system is not so bad as to require the system to be fundamentally redesigned (Fukawa, 2005).

It is generally understood that improvements in the standard of living have strong impacts on the extension of life expectancy in postwar Japan. The availability of health insurance has also helped to raise the quality of people's lives, and equity and stability in society. Employer-based insurance eliminates workers' fear of financial burdens imposed by illness. Community-based National Health Insurance functions as a kind of barrier

against an individual's becoming a recipient of public assistance too easily. Health insurance for the elderly provides a remarkable example of solidarity.

Japanese health insurance is divided into various programs, but coverage is quite egalitarian in terms of burdens as well as benefits through an intricate set of cross-subsidization mechanisms (Campbell, 1996). The fee schedule clearly favors physicians in private practice over hospitals, and fees are especially low for the services that more advanced hospitals provide, such as surgery and intensive care (Hsiao, 1996). Therefore hospitals compete with the clinic doctors by promoting their outpatient care. On the other hand, Japanese hospitals are not eager to perform those services which are undervalued by the fee schedule. The fee schedule was the key factor to controlling the increase in health expenditures in Japan (Ikegami, 1991). Examination of fee claims, through third-party examination organizations as well as checks by the insurers, functions to contain health expenditure increases in the Japanese fee-for-service system. Even if the scale of utilization reviews is limited, the existence of such reviews itself has an important impact on the prevention of excessive utilization and fraud.

Universal healthcare coverage through a public health insurance scheme with fee-for-service payment is the basic definition of the Japanese system so far, which has contributed to the equitable distribution of health services and relieved families from old-age support. Several mechanisms are necessary to make a fee-for-service payment system work, including price-setting, utilization reviews (to control the volume of service), and regulations (to minimize moral hazards tempting both physicians and patients). The Japanese experience has shown so far that fee regulation on virtually any service, combined with utilization review, can control costs even without supplementary measures to limit volume (White, 1995).

However, this approach faced serious limitations in the 1990s, and the Japanese government is searching for new measures to control the increase in demands for health services. Prevention and empowerment of patients are gaining importance in both countries as key factors to advance higher quality and greater efficiency in healthcare systems. Compared to the German co-existence of private and

public health insurances, Japanese universality concerning healthcare delivery and pricing of the services provided may have some significant effects in terms of preventing the occurrence of moral hazard on both service provider sides and service user sides.

Conclusions

The performance of the Japanese healthcare system is not so bad as to require the system to be fundamentally redesigned. In comparison with Germany, there is some room to reduce healthcare expenditure for Japanese elderly. German dual system (co-existence of private risk-based health insurance and solidarity-based public insurance) may be one of the reasons for higher health expenditure.

Both countries are seeking the right incentive structure for all parties concerned because this is crucial for the sustainable development of healthcare system. New approaches in reimbursement systems such as G-DRG and DPC are typical examples of this direction. Prevention and the empowerment of patients are gaining importance in both countries as key factors to advance higher quality and greater efficiency in healthcare systems.

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Notes

(Note 1) Employer-based health insurance includes Society-Managed Health Insurance, Government-Managed Health Insurance, and Mutual Aid Associations. Society-Managed Health Insurance covers employees of large companies and their families (23.8 percent of the population in 2005), Government-Managed Health Insurance covers employees of medium- and small-sized companies and their families (28.0 percent), and Mutual Aid Associations cover public sector employees and their families (7.7 percent). National

Health Insurance covers self-employed people, farmers, retired people, etc. and their families (40.4 percent of the population in 2005).

(Note 2) Membership in the Health Service Program for the Elderly (HSE) is those aged 75 and over as well as disabled persons aged 65-74. Under this program, patients' cost-sharing is 10 percent (20 percent for high-income elderly) of the expenditure, although the patient's cost-sharing in excess of a certain amount is covered by the program.

(Note 3) Upper ceiling of patients' cost-sharing per month (in yen; from October 2006):

- Less than 70 years old
 - (a) High income (530,000 yen or more per month): 150,000+1% of Exp. above 500,000
 - (b) Middle income: 80,100 + 1% of Exp. above 267,000
 - (c) Low income (exempted from local tax): 35,400
- 70 years old or older
 - (a) Income as high as active workers (annual taxable income > 1,450,000 yen):
 - 44,400 for outpatient care;
 - 80,100+ 1% of Exp. above 267,000 for inpatient care
 - (b) Middle income:
 - 12,000 for outpatient care (From 2008, 24,600 for 70-74)
 - 44,400 for inpatient care (From 2008, 62,100 for 70-74)
 - (c) Low income (exempted from local tax):
 - 8,000 for outpatient care;
 - 24,600 or 15,000 for inpatient care

(Note 4) This patient charge was terminated in 2000 for those who were eligible to the HSE and in 2002 for the non-elderly.

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