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**Towards sustainable health care systems
Strategies in health insurance schemes in
France, Germany, Japan and the Netherlands**

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In France, Germany, Japan and the Netherlands, health care expenditures grow while revenue remains at the same level or even shrinks, and medical progress, ageing and other factors are widening this gap over time. The pay-as-you-go approach is reaching limits, either with rising employer and employee contribution rates in the "Bismarck systems" or with higher taxes in the "Beveridge systems." Neither of these systems is able to regulate itself quasi-automatically. Political interventions are needed with increasing frequency, and patchwork repair is evident everywhere. Major reforms are either too difficult or politically unmanageable in the highly sensitive and complex area of health care. This situation explains why in Europe and Japan, the public is calling for more substantial and longer lasting reforms.

The solution to this situation is relatively easy. The nations facing financial gaps can:

- Cut back expenditures through budgets, exclusion of benefits and services or both.
- Increase revenue through higher contribution rates, a broader base for financing, higher co-payments and out-of-pocket-expenditures or some combination of these mechanisms.
- Institute major structural reforms to close the financial gap. These reforms can be accomplished through the ability-to-pay-principle or the benefit or insurance principle.

All four nations examined in this report implement these theoretical approaches at one time or another, but there are differences in the way they do so. A comparison of their approaches might be beneficial to them as they face continuing challenges in closing the gap between health care expenditures and revenue.

Impacts on health care systems

Health care expenditures have risen considerably in the past 10 years in all four of the compared countries. Between 1992 and 2001, yearly increases in total health expenditures averaged 3.48 per cent in Japan, 3.75 per cent in Germany and 3.98 per cent in France, but health care expenditures in the Netherlands rose an average of 6.18 per cent per year during the same period. The percentage of gross domestic product (GDP) spent on health care services also increased over the last decade in all four countries, with Japan experiencing the largest increase, from 6.2 per cent in 1992 to 7.6 per cent in 2000.

Demographic characteristics

Changes in demographic characteristics are one major cause of recent expenditure growth in all four countries. A higher life expectancy combined with lower birth rates led to an ageing population in most industrial countries. In Japan, the number of people above the age of 65 years rose from 5.7 per cent of the total population in 1960 to 17.4 per cent in the year 2000. The changes in the three European countries were not so dramatic, but the number of people above the age of 65 years increased as well during the same period: from 11.6 per cent to 16.4 per cent in Germany, from 11.6 per cent to 16.1 per cent in France and from 9.0 per cent to 13.6 per cent in the Netherlands.

Changing patterns of disease

Changing patterns of disease are partially linked to the demographic changes that have a direct impact on the provision of health care and therefore on health expenditures. First, a shift to chronic diseases can be observed. Allergies, asthma and diabetes are becoming widespread. Second, an improved standard of living is making excessive weight a widespread health problem. For example, the number of people in France considered to be overweight, as measured by body mass index, rose from 5.8 per cent in 1990 to 9 per cent in 2000. The Netherlands and Japan have similar problems. This development is alarming because diseases associated with the skeleton, muscles and circulatory system are expected to increase as a result of this increase in excess weight. Nevertheless, life expectancy and healthy life expectancy have increased in all four countries over the past 40 years. In the year 2000, Japan had the highest life expectancy at birth of 81.3 years, followed by France with 79.0 years and the Netherlands with 78.0 years. Germany has had the lowest average life expectancy at birth of all four countries for more than 30 years.

Technological progress

New technologies have significantly increased the effectiveness of health care services, reducing the duration of treatments, improving outcomes and curing illnesses that were formerly incurable. The need for inpatient care also decreased. Between 1990 and 2000, the average length of stay in a hospital dropped by 26 per cent from 2.4 days per person per year to 1.9 days in both France and Germany. Additionally, technological progress has had an impact on longevity. Between 1975 and 1995, the number of life years lost because of diseases was reduced by 40.5 per cent in Japan, 45.3 per cent in Germany, 34.8 per cent in France and 31.3 per cent in the Netherlands.

Economic situation

In all four countries, the increase of health care expenditures as a percentage of GDP is due partially to the deceleration of economic growth. Japan experienced a decline in annual average GDP growth rate from 4.5 per cent between 1970 and 1990 to 2.2 per cent in 2000 and -0.8 per cent in 2001. Germany also is on the verge of a recession, with a decline in GDP growth rate from 2.9 per cent in 2000 to 0.8 per cent in 2001 and 0.2 per cent in 2002. In 2002, the GDP growth rate was 1.2 per cent in France and increased by only 0.2 percent in the Netherlands. Because health care systems that follow the Bismarckian approach, as all four countries in this report do, are linked mostly to wages and salaries as the base for

contributions, high unemployment rates contributed to the financial constraints of their sickness funds. Although unemployment rates increased sharply between 2000 and 2002 in Japan (4.7 per cent to 5.4 per cent) and Germany (7.8 per cent to 8.6 per cent), the French unemployment rate dropped slightly from 9.3 per cent to 8.8 per cent, and the Netherlands managed to keep unemployment at a low level.

Changes in needs and demands

The changes in health care needs and the occurrence of new demands can generally be regarded as positive developments because they create new supply and therefore economic growth. Because many of these new services and products are reimbursed by the sickness funds in the four countries, however, this increased demand also means higher health expenditures and thus higher contribution rates for the social health insurance systems.

Structural weaknesses of the system

All social health insurance systems contain various disincentives, as well as some fundamental weakness in their structures, such as the separation of inpatient and outpatient sectors in Germany. Such flaws have a direct impact on health expenditures and result in higher insurance contributions. In the case of moral hazard, there is an imminent increase in the redistribution of insurance funds from nonusers to users.

Institutional and organisational framework

The institutional framework of social health insurance and its organisation in the four countries have developed according to national and cultural needs and are sometimes quite far from the original ideas that prevailed at the beginning of social security systems under Bismarck. The categories below facilitate comparisons among the four countries, given the complexity of the different institutional settings.

Membership, enrolment and coverage

All compared countries have a social health insurance system based on several sickness fund schemes that cover the majority of the population with health insurance protection. Membership in sickness fund schemes is compulsory; only in Germany and the Netherlands are segments of the population exempted from this obligatory membership.

Benefits

The extent of granted services differs among the countries. Although the sickness fund schemes in Japan and France cover almost the entire population, the granted services are more comprehensive in Japan. For this reason, nearly 90 per cent of the French population is insured by supplementary private insurance, whereas the Japanese population has no need to be privately insured, which holds down the market share of private health insurance in Japan. Germany's social health insurance is as comprehensive as Japan's, but it covers only 89 per cent of the population.

Benefits granted by sickness funds in the Netherlands differ completely from those of the other three countries, because the Netherlands has one scheme for long-term care and high-cost treatments, the Algemene Wet Bijzondere Ziektekosten (AWBZ), and it covers the entire population. Another scheme for normal medical care, the Ziekenfondswet (ZFW), covers 63 per cent of the population. As much as 30.2 per cent of the population substitutes the sickness funds scheme (ZFW) with comprehensive private health insurance.

Ownership of sickness funds and freedom of choice

The ownership of the sickness funds in the four countries varies from governmental to nearly private. In France, the financial risk of the sickness funds is carried solely by the state, whereas the Japanese state carries only the deficits of certain schemes and offers the possibility to privately fund sickness funds. In the Netherlands, the sickness funds of the ZFW (normal medical care) increasingly are carrying financial risks on their own. They can also apply for the management of the AWBZ in one region.

Regarding choice, in France membership in one of the three large sickness funds is determined strictly by the type of employment. Japan has a similar arrangement whereby employees in bigger companies of a certain size are insured by society-managed sickness funds, which often belong to the company itself. Employees of smaller companies are insured in one of the sickness fund schemes for special occupations or in the government-managed scheme. All other citizens are compulsorily insured by the municipal insurance scheme called National Health Insurance. In 2000, Japan had a total of 5,192 different sickness funds. In Germany, all citizens are able to choose among a variety of sickness funds, which are organised on a regional or nationwide basis. There were 319 sickness funds in Germany in 2003. The sickness funds are competing with each other on the basis of different contribution rates. Because the Netherlands' AWBZ scheme for long-term care and high-cost treatments consists of only one sickness fund in each region, Dutch citizens have no choice in this segment. In the ZFW scheme for normal medical care, they can choose among 25 different funds.

Competition and risk structure compensation

To spread the financial risks among the different funds and provide fair competition, three countries have implemented a risk structure compensation scheme. Japan does not have such a scheme; instead, the government subsidizes municipal sickness funds because Japan has more retired persons and therefore a more negative risk structure. In Germany, after each calendar year standard expenditures are calculated according to income, age, sex and invalidity. On this basis, certain sickness funds pay into this scheme and other funds receive from the pool. In 2001, Germany introduced a morbidity-oriented risk structure compensation scheme, in effect through the year 2007.

In the Netherlands, the risk structure compensation scheme compensates funds of the ZFW. It comprises both a prospective and a retrospective calculated component. The prospective component is paid to sickness funds as a capitation according to the risk adjusters age, gender, employment/social security status and region. The retrospective component consists of two different mechanisms. First, the sickness funds share any difference between the allocated budget and the actual costs to a certain percentage, called the equalisation percentage. Second, sickness funds are compensated for a certain percentage of the difference between the budget allocated to all sickness funds and the actual expenditure arising from cost drivers that cannot be influenced by the sickness funds. In France, one risk structure compensation scheme compensates differences between the general scheme and small schemes according to the criteria of age and income. Another risk structure compensation scheme adjusts the differences between the three main schemes on the basis of age. Although the introduction of competition in Germany and the Netherlands was also targeted at bringing down the administration costs of sickness funds, the costs are even higher than in France and Japan, which have no competition among sickness funds.

Funding

When Bismarck first introduced social insurance schemes, they were meant to provide sickness benefits and primary care for the needy. Over the years, the provision of primary

care was extended to most parts of the population. Although it is under increasing pressure, the pay-as-you-go-principle has remained untouched in all four countries. Instead, the countries have extended the benefits they provide, changed their contribution assessment bases and amended their structure of financing health care.

Contribution rates, income ceiling and contribution assessment bases

In the Netherlands, the contribution rate for the AWBZ is set at 12.3 per cent and is paid completely by the employees with a yearly income ceiling of € 27,009 (2003). The contribution rate of 8.45 per cent for the ZFW is paid by the employer (6.75 per cent) and by the employees (1.7 per cent). The income ceiling for the ZFW for 2003 was set at € 28,188. Germany has a higher income ceiling at € 41,850 (2003). The average contribution rate of 14.3 per cent (2003) is lower in Germany than in the Netherlands and is shared equally between employers and employees. Although the average contribution rates in Japan are nearly the same for the society-managed sickness funds (8.6 per cent in 2003) and the government-managed sickness funds (8.5 per cent in 2003), the rates for the municipal funds vary greatly. As in Germany, the contribution for the Japanese government-managed sickness funds is shared in equal parts by employers and employees, but for the society-managed sickness funds, employers pay 4.8 per cent and employees pay only 3.8 per cent of their income. In France, the contribution rate for the general employee scheme (CNAMTS) is currently 13.55 per cent of wages and salaries and therefore higher than in Japan. The employer carries 12.8 per cent; employees pay only 0.75 per cent. In addition, every employee also pays a tax of 5.25 per cent into the CSG (Generalised Social Contribution), a state fund with a different contribution assessment base, which is channelled into the sickness fund schemes.

Contribution of pensioners

Every country has its own strategy to handle the growing number of pensioners and the increasing demand for long-term care. In Japan, pensioners have to join the municipal funds, which receive compensation for increased expenditures resulting from the old age structure. In the other countries, pensioners are staying in their former sickness fund schemes but sometimes under changed conditions. In France, they are paying a reduced rate for the CSG of 3.95 per cent, whereas the Netherlands has initiated a lower income ceiling of € 19,550 for sickness funds in the ZFW for pensioners. In Germany, pensioners are paying half of the average contribution rate of all sickness funds; the other half is paid from the pension scheme.

Separation of health and long-term care

As a strategy to cope with rising demand for long-term care, Germany and Japan have separated funding for health care and long-term care institutionally. In both countries, risks for long-term care are countries insured under a long-term care insurance with payroll-deducted contributions. In the Netherlands, long-term care is covered by the AWBZ; in France, it is insured under the normal social health insurance, although long-term care insurance will soon be introduced.

Burden sharing by income levels and between employers and employees

With contribution rates of 18.8 per cent and without an income ceiling, French residents pay the highest contributions, although it has to be considered that the French social health insurance contributes a higher share to the total health expenditure. Whereas in France social health insurance contributes 76 per cent to the total health expenditures, it contributes only 57 per cent in Germany and 45.2 per cent in Japan. In the Netherlands, its contribution to the total health expenditure is similar to that in France (79 per cent), but Dutch residents pay an even higher rate of 20.75 per cent, and unlike France, the Netherlands has an income

ceiling. Under the Dutch design of contributions, persons with incomes up to € 30,000 pay more contributions than in France, but those with higher incomes pay less. Japan has the lowest contributions up to an income of € 67,500, but the Japanese social health insurance contributes less than the other three countries to the total health expenditure. Germany has the second lowest contribution burden for persons with low incomes up to a ceiling of € 41,850 and high incomes from € 70,000 and higher.

Employees in the Netherlands pay the highest contributions up to an income of about € 65,000 (2003). For higher incomes, the French contributions show more progressiveness. Japanese employees pay the lowest contributions for the lower incomes, and German employees pay the lowest contributions for incomes higher than about € 80,000.

Government subsidies for sickness funds and out-of-pocket payment

Social health insurance in every country is partially subsidised by the state. The Japanese state pays for the administrative costs of the government-managed sickness fund scheme, partially subsidises the administrative costs of the society-managed sickness fund scheme and supports the society-managed sickness fund scheme in case of financial difficulties. The society-managed sickness funds had a financial deficit of € 2.4 billion in 2002. Unlike Japan, the German state does not cover any financial deficits of sickness funds, although they also were running deficits of € 3.1 billion in 2002, but it subsidises them for extraordinary expenditures (e.g., long-term unemployed) with € 4.06 billion. France and the Netherlands are also subsidising their sickness funds: in 2000, France with € 6.2 billion; and in 2002, the Netherlands with € 6.9 billion Euro. The reimbursement percentage for out-of-pocket expenditures varies significantly among the four countries, with the Netherlands showing the smallest and Japan the highest percentage.

Provision and purchasing of health services

Expenditures for each type of service vary according to the design of the health care system. It is difficult to compare overall expenditures for outpatient and inpatient care, but some categories can be compared. It is striking that services reimbursed in some countries by sickness funds or other carriers are in greater demand and therefore represent a higher share of total health expenditures than in countries that do not include them in their benefit catalogue. The Netherlands, for example, spends a significantly lower percentage (3.8 per cent in 2001) of its total health expenditure for dental care than the other three countries, because its dental provision is limited to preventive services for children and surgical care for adults. Another major difference is in long-term care. Outpatient care (7.3 per cent in 2001) and inpatient care (9.5 per cent in 2001) represent a far higher share of total health expenditures in the Netherlands than in any of the other countries.

Hospital care

Ownership

As in the Dutch institutional organisation of the social health insurance, the Netherlands also takes a leading role in privatising hospital infrastructure. More than 90 per cent of the hospital beds in the Netherlands are in private or non-for-profit institutions. (It must be noted that private or-profit management is prohibited in the Netherlands.) In Germany, the share of beds owned by private for-profit and not-for-profit hospitals is steadily increasing (from 37.2 per cent in 1990 to 46.8 per cent in 2001). In Japan the share of beds owned by private not-for-profit hospitals is lower than in the Netherlands but still high compared with France and Germany because of the establishment of private "Medical Care Corporations," which are managed as nonprofit organisations and account for 48.8 per cent of all hospital beds.

Compared with the other countries, the share of beds in public hospitals is quite high in France, with 64.8 per cent of all beds. But France also has 21.8 per cent of its beds in private hospitals – a higher percentage than in Germany, where private nonprofit hospitals are historically more dominant than private hospitals.

Access to services

Despite different ownership structures in the four countries, patients insured under social health insurance generally have access to all types of hospitals. Although all patients have access to outpatient services in hospitals, some countries regulate access by establishing referral systems. In the Netherlands, secondary and tertiary care is provided primarily by medical specialists in hospital outpatient care units. Patients have to be referred to these facilities by a general practitioner. Germany also uses a referral system, but specialists outside of hospitals also provide secondary and sometimes even tertiary care. Japan and France have not established a referral system for outpatient services in hospitals; therefore, patients are free to visit any outpatient unit in hospitals. The Netherlands is the only country that is reporting waiting lists for certain diagnostic procedures and treatments in hospitals.

Hospital planning and contracting

Capacities for hospital care are planned on a regional government level by the L ander in Germany and the prefectures in Japan and by the central government in the Netherlands. In France, Regional Hospital Agencies plan hospital capacities. Hospitals included in the regional or central hospital plans usually have contracts with the sickness funds for reimbursement. In terms of hospital infrastructure, the number of personnel per bed has increased and the average length of stay has decreased in all four countries.

Reimbursement and spending control

Regarding reimbursement of hospital services, diagnosis-related groups (DRG's) seem to be the dominant reimbursement method of the future. A system of DRG's has already been introduced in Germany, and one is planned for introduction in the Netherlands and France in 2004. In Japan, a capitation system based on diagnosis procedure combinations (DPC's) was introduced in 2003 for hospitals with specified functions that provide advanced medical care and other services.

User charges

Japan charges the highest co-payment rate for hospital care, at 30 per cent of costs for citizens below the age of 70 years, 20 percent for those above age 70 but only 10 percent for low-income citizens above age 70. France follows a different strategy, with co-payments of 20 per cent for the first 31 days of hospital care and a ceiling of € 200, and an additional € 10.67 per day for accommodations. Germans pay the lowest user charges for hospital care with a fee of € 10 per day, but that amount is limited to a maximum of 28 days per year. The Netherlands is the only country that requires no co-payments at all for hospital care.

Ambulatory care

Employment status and organisation

In Germany and France, the majority of physicians are self-employed and in solo practices. In the Netherlands, ownership and organisation of practice differ according to the field of medical services. Half of the general practitioners are self-employed in solo practices, and the other half are working in group practices or in health centres. Specialists in the Netherlands usually practice in outpatient departments of hospitals. In other contrast to countries, physicians in Japan practice in all forms of organisations. They are employed by hospitals and practice in outpatient departments or work as self-employed physicians in single practices or clinics, which are similar to health centres in other countries.

Manpower planning

All four countries limit the admission of medical students by quota. Unlike France and Japan, Germany and the Netherlands have limited the number of physicians practicing in ambulatory care by medical specialty and region. Apart from Japan, all other countries legally define the field of medical services physicians are allowed to offer as ambulatory care. In Japan, physicians can freely claim any field of medical services they would like to provide. As in France in Germany, Japan has no gatekeeper system; patients have free choice between general practitioners and any kind of specialists. The Netherlands is the only country of the four that has an institutionalized, mandatory gatekeeper system.

Contracting

In Japan, Germany and France, the sickness funds are obliged to contract collectively with all providers of ambulatory care. In contrast, the Netherlands established a system of selective contracting in 1994. The sickness funds now have a choice whether to contract with certain providers or not.

Reimbursement fees

Physicians are reimbursed for the services they provide in different ways in all four countries. In Japan and Germany, physicians claim their payments from institutionalised bodies that administer the payments for physicians. In Germany, the Associations of Sickness Funds Physicians process claims and reimburse physicians on a regional basis. Unlike Japan, sickness funds in Germany do not reimburse the Associations of Sickness Funds Physicians according to each claim but pay negotiated capitations that differ significantly among sickness funds. The Netherlands has no administrative body for processing claims, but physicians are asked to claim payments directly from the AWBZ, ZFW or voluntary health insurances. French physicians generally claim their fees directly from the patients on a cost-reimbursement basis.

Reimbursement method

Although it is widely accepted that fee-for-service reimbursement leads to an oversupply of services, all four countries still use this method of reimbursement at least partially. Japan and Germany combine the fee-for-service payment with a point system under which physicians receive a certain number of points for each service delivered. In France, services are reimbursed on a fee-for-service basis as in Japan, although some services are reimbursed on a capitation basis. In the Netherlands, reimbursement methods differ between general practitioners (capitations) and specialists (fee-for-service).

Long-term care

Planning

Planning for long-term care capacities takes place on the local, provincial and central levels in the four countries. In general, the planning of resources is especially conducted for institutional. In Japan, municipalities (local communities) determine care plans under the supervision of prefectures (provinces). In France, the planning of long-term care capacities is the responsibility of local communities, whereas in Germany, the Länder (provincial) governments planning long-term care capacities. In the Netherlands, the central government also has the function of planning for institutional care.

Benefits

The statutory long-term care insurance provided by statute in Germany and Japan is paying for institutional as well as home care services. In the Netherlands, institutional and home care services are also fully covered by the AWBZ. Unlike the three other countries, France has no separate long-term care insurance; therefore, the sickness funds are paying for long-term care. However, long-term insurance will be introduced in France soon.

Lessons towards sustainable social health insurance

Competition vs. regulation of sickness funds

For several years, a trend towards enforcing competition among sickness funds has been evident in the Netherlands and Germany. Sickness funds in both countries have opened up, and their risk structure compensation schemes are further developed step by step [not clear what this means] to ensure fair competition among sickness funds. It is difficult to assess the effect of competition in these countries empirically. Thus far, sickness funds in both countries have not been sufficiently able to influence the decisive parameters for competition such as contribution rates, the services provided and the quality of those services. Therefore, it is yet to be proved that competition among sickness funds is more successful.

Separation of long-term care and high-cost medical care

In view of ageing societies, the rising demand for long-term care and the resulting problems for social health insurance systems, all countries are increasingly concerned with different strategies for financing long-term care. Apart from France, all countries have separated their social health insurance from long-term care by introducing mandatory long-term care insurance. In Germany and Japan, long-term care insurance solely reimburses long-term care services primarily for elderly citizens. The Netherlands has chosen an even more comprehensive approach. This long-term care insurance (AWBZ) supports a smooth transition from hospital care to long-term care, and therefore reduces durations of hospital stays. Because it also separates high-cost medical care and long-term care from normal medical care, it could serve as an example for future organisation of social health insurance.

Private health insurance

With the exception of Japan, the compared countries increasingly rely on the integration of private health insurance with the social health insurance systems. Private health insurance is used either on a supplementary basis to cover certain services not included in social health insurance or on a complementary basis to substitute for social health insurance. Complementary private health insurance might be an option to enforce more service orientation and competition among sickness funds, although in the case of Germany, administrative costs are higher for private health insurance. Supplementary health insurance could be an important element in the design of more sustainable social health insurance systems because it could immediately replace services excluded from sickness funds. In this way, it helps social health insurance to concentrate on its major task, which is to provide risk pooling that prevents citizens from being exposed to financial risks.

User charges

The comparison of the four countries reveals sharp differences in user charges. Japan relies more on user charges for hospital as well as for ambulatory care; the Netherlands does not charge any user fees. Because Japan's ceiling on user charges differs according to income, it has in a certain way a progressive effect similar to contributions. But it should be noted that user charges can be implemented in a manner that provides an economic incentive (for example, on the basis of patient contact) and therefore prevents an overuse of services. For this reason, user charges as applied in Japan are probably the best solution to generate revenue and create economic incentives at the same time.

Reimbursing hospital care with DRG's

All four countries are working to introduce a system similar to that of DRG's for reimbursement of hospital care. Although Japan appears to be farthest along in this regard, the Netherlands plans the most comprehensive DRG-like system, including both inpatient and outpatient care. Such a comprehensive reimbursement system would integrate these two sectors not only institutionally but also financially. Generally, such a system would

facilitate the transition from inpatient to outpatient care and generate cost savings to a certain extent. It would therefore encourage the introduction of integrated care, especially disease management programs, which are gaining importance in view of rapidly ageing populations.

Further developments

Certain developments can be anticipated for the future of social health insurance systems. Most countries wish to introduce an integrated health care system while setting priorities in health care. This is a consistent topic, and it is the basis on which day-to-day-adjustments take place in all four countries compared in the report. In line with these corrections and more comprehensive ideas of a health care network, health services in the future may need to be financed differently than in the past. For these new approaches, some financing options exist. They could be modeled on the systems of France, Germany, Japan and the Netherlands, with their customs and historical experiences. Finally, the future of the European welfare state within the European Union, with its growing importance for national and European economic and social policy, has to be taken into account.