paper presented at the International Seminar on Health Care Financing and Cost-containment
sponsored by Korean Institute for Health & Social Affairs (KIHASA) on 17th June 2001[proceeding p53-84]

Japan's health care financing and cost-containment

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1 A brief history

Japan's Health Insurance Act was enacted in 1922 to cover the manual workers of large factories, being much inspired by the Bismarck-model German social insurance system. Unfortunately, its implementation was postponed to 1927 due to the big earthquake devastating Tokyo in 1923. The Health Insurance Act, covered only employed workers of large factories and the non-employed population such as farmers and fishermen were left uncovered. The other insurance system, the National Health Insurance (NHI) Act was enacted in 1938 to expand the coverage to the non-employed population. The new act, however, was not a product of the popular demand. Rather, it was created by a top-down order from the army together with the establishment of Ministry of Health & Welfare (MHW), the National Mobilization Act, both of which were enacted at the same time (NIPH was also established at the same time). The National Mobilization Act was abolished but the two laws; Health Insurance Act and NHI Act serve as two distinct pillars of Japan's health insurance system.

The NHI system failed to achieve universal coverage when it was enacted in 1938 because the NHI program was operated by voluntary societies (NHI societies) and not all municipalities had such voluntary societies. In the post-war era, the NHI Act was further amended to make municipal governments (cities, towns and villages) responsible for operating the NHI programs for their residents. Gradually more and more municipal governments started the NHI programs and in 1961 the universal coverage was eventually achieved. Many NHI societies disbanded after all municipal governments started the NHI programs but some NHI societies, many of which enroll relatively affluent professionals such as doctors, lawyers and construction workers, remained till today (there are 167 NHI societies enrolling some three million people).

Financing the elderly care has been an Achilles heel of Japan's fragmented health insurance system because the rates of the elderly enrollment vary considerably among insurers. Employees' health insurance has the lowest elderly enrollment while municipal NHI has the highest elderly enrollment (% of the elderly population over 70 years old was 11.4% of the population in 2006 but 22.9% for NHI and 2.1% for corporate-based health insurance societies). How to balance this inequality of elderly enrollment to sustain NHI has always been at the center of health policy debate. A total unification of all insurers is an obvious and ultimate solution, as Korea achieved in 2000, but has not been feasible.

In January 1973, the Elderly Welfare Act was amended to subsidize copayment of health insurance for the elderly >=70 yo. At that time, the "free" care was simply viewed as a symbol of welfare state. Although, post-war Japan has been governed by conservative parties, many local governments were dominated by left-winged parties, which emphasized social welfare. The year 1973 was later called "the first year of welfare state" but the timing was bad. The "oil shock" in October of the year plunged the entire economy into recession while the health care cost for the elderly skyrocketed with no copayment.

The increase of the elderly health care cost strained NHI most. A call for some form of financial redistribution mechanism balancing the inequality of elderly enrollment became louder and louder.

Another important reform in 1973 was the introduction of "copayment cap", beyond which the excess copayment would be refunded from insurers upon request. This was good news for chronic disease patients who incur high copayment, namely dialysis, a new technology which became available in late 1960s. Thanks to copayment cap, renal failure patients were able to sustain their lives without fear of financial catastrophes, as had often seen before. Now Japan is known with the highest number of dialysis patients per population (300,000 or over every 427 people).

In 1983, the Elderly Care Act was enacted to create the Elderly Care System (ECS) as a financial redistribution mechanism. The ECS alleviated financial burden of NHI considerably (though not entirely). After the ECS, concerns grew over the quality of the elderly care. Boosted by the ECS, many hospitals were constructed to fill the shortage of nursing homes, which was financed by the Elderly Welfare Act and had always been restricted by budgetary limitations. Since health insurance reimburse on a fee-for-service (FFS) basis, the elderly patients were subject to excessive and medically unnecessary treatment (for example, fed by transfusion even if patients can eat). Also, some of geriatric hospitals did not have rehabilitation services and many elderly disabled patients might have missed the opportunities for recovery. In 1990, as a radical departure from the traditional FFS, the first per-diem reimbursement was introduced to geriatric hospitals paving a way to the present LTCI reimbursement system.

Welfare services and LTCI

As the population grew older, concerns shifted from health care to long-term care or other social services. While economic burden for health care was much alleviated for the elderly, non-medical services such as nursing homes or domestic help were out of coverage of health insurance. In 1988, the Skilled Nursing Facilities (SNF) was created as intermediate facilities between hospitals and nursing homes which were reimbursed from the ECS. The SNFs were required to have enough rehabilitation facilities to ensure recovery of the disabled elderly. At the same time, visiting nursing services were included in the ECS benefit, and later in 199, independent visiting nursing stations were introduced. For the very first time, nurses were allowed to practice on their own though under supervision and prescription of doctors.

In 1990s, interests grew over how LTC should be financed. There was much debate over whether LTC should be financed from tax (Nordic model) or by social insurance (German model). The introduction of LTCI by Germany in 1995 influenced Japan to follow the social insurance model and the LTCI took effect in April 2000. Japan's LTCI is in many respect different system from health insurance and some of geriatric care covered by ECF (SNFs, visiting nursing services and part of geriatric beds) was transferred from health insurance system.

After the new LTCI firmly in place, health policy turned to the elderly care again. In April 2008, as part of the "Health Care Structural Reform", the ECS was transformed to the new Health Care System for the Old-old (HCSO). The crucial difference was the eligibility age: the ECS covered the elderly >=70 while the new HCSO covered those >=75. Another difference was that while the ECS was a financial redistribution mechanism among existing insurers (i.e., the elderly continued to be enrolled to the same insurers with their family members); the HCSO is a totally separate independent insurers. The new HCSO

turned out to be very unpopular because the elderly had to pay premiums withheld from their pension (before, premiums were collected from an entire household). The term "old-old" sounded derogative to the elderly. The Democratic Party, in the general election in August 2009, promised the abolishment of the HCSO in their manifest. After the change of administration, a debate going on what the next new system should be. The debate appears to go nowhere, the future of the present HCSO is quite uncertain.

As for welfare services, the Poor Law was enacted in 1929 to help the indigent population after the world recession but the benefit was limited. In the post-war era, the Poor Law was revised to become the Livelihood Protection Act urged by the American occupation army. The Livelihood Protection Act is a means-tested welfare services and financed exclusively by tax. The benefits include medical assistance (LTC assistance was added in 2000 simultaneously with the introduction of the LTCI). The number of beneficiaries of the Livelihood Protection declined in and around 1990 when Japan's economy was in a good shape but increased since then thanks to the long economic slump. Currently approximately two million (1.56%) of the population are beneficiaries, of whom 80% are receiving medical assistance. The medical assistance is gaining importance in terms of the national finance.

2. Current status

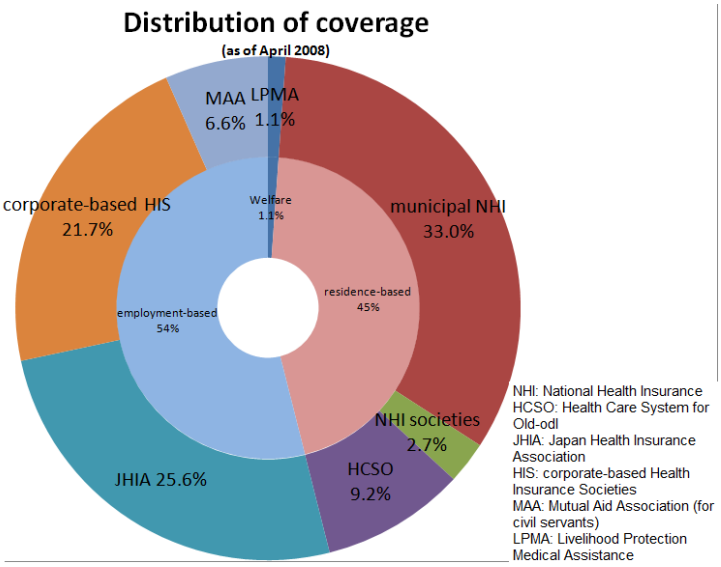
Japan's health insurance is fragmented but universal and compulsory. The distribution of coverage by categories of insurers of the population (128 million) is shown below. Municipal NHI is operated by 1,788 cities; towns and villages, corporate-based Health Insurance Societies consist of 1,497 societies and Mutual Aid Associations (MAA) consist of 77 societies in March 2009.

For employed workers, their employers will enroll them automatically upon employment and collect premiums by withholding from their pay checks. The premium rate for employees of small-medium corporations insured by Japan Health Insurance Association (JHIA, transferred from the Social Insurance Agency in 2008 as part of the reform) is currently 9.5% (for beneficiaries >=40 yo, 1.5% premium for LTCI will be added. Up to maximum annual income of 20 million yen). In addition to health insurance, the premium for pension will also be applied (16%. Up to the maximum of 10 million yen). The combined rate of health, LTC and pension will be 27% to be shared equally between employers and employees, i.e., the workers will receive paycheck deducted by 13.5%. Tax (national and local) will also be deducted. Roughly speaking, workers will receive paychecks at least 20% less than pro-forma basis.

For those who are not employed (self-employed, elderly retirees, unemployed, farmers and fishermen, etc.) will be AUTOMATICALLY (without any procedures) enrolled to municipal NHI where he or she resides. Enrollment is compulsory and if he or she fails to take procedures for enrollment, premiums may be levied ***retrospectively for up to two years*** (some foreign residents are exempt from the compulsory enrollment, namely the U.S., France, the Netherland and Belgium citizens who reside in Japan for less than five years pursuant to the mutual treaties. Japan also has treaties with Korea and Germany but they apply only to pension). Part-time workers whose working hours are less than 3/4 (<30 hours/week) of full time workers are currently exempt from

employees' health insurance but the exemption is planned to be reduced to half (<20 hours/week) to expand the coverage of employees' health insurance.

Premium schedule of municipal NHI is complicated and vary widely among cities, towns and villages. The premium is levied on household based on the combined annual income and the number of household members. In case of Tokyo 23 wards, annual premium in FY2011 will be 8% of annual income plus 40000 yen/member with a cap of 650,000 yen/year/household.



Health insurance should be financed primarily from premium contributions. However, NHI and JHIA cannot finance themselves by premium contribution alone and is sustained by ample subsidies from the government. JHIA receives 16.4%, NHI and HCSO receive on average half and LPMA receives 100% of their health care benefit as subsidies from the government. Such subsidies to health insurance and livelihood protection amounted to 9 trillion yen or approximately 10% of the total governmental budget of 92 trillion yen in FY2010.

Viewed from the national health care cost, subsidies from the government constitute 1/4 of the national health care cost (36 trillion yen in 2010). When subsidies from both the central and local governments combined, it accounts for 1/3 of the national health care cost (premium contribution accounts for half and the rest (approximately 16%) are patients' copayment).

3. Claims processing and reimbursement

Providers (hospitals, clinics and pharmacies) collect copayments (10-30%) from patients every time the patients visit them (or upon discharge for hospitalization). Providers submit claims for every calendar month by 10th of next month to claims review & reimbursement organizations (CRROs) in the prefecture. CRROs have the "Claims Review Committee" authorized to review claims and deny (or increase as the case may be) part of the claims. After claims are reviewed CRROs will reimburse the rest of the claims (70-90%) to providers by around 20th of the second month after the claiming month. CRROs collect "deposits" from insurers by around 10th of every month, i.e., CRROs keep the deposit in their bank account for 10 days. Given the sheer amount of money, such a short term deposit will bring in handsome interest revenue to CRROs even under

the low interest rate.

There are two kinds of CRROs: the Social Insurance Payment Fund (SIPF) and the Prefectural Federation of NHI. The SIPF is a national public corporation with prefectural branches in all 47 prefectures. It was established in 1948 pursuant to the SIPF Act. Before the establishment of SIPF, the health insurance was unpopular among doctors and with good reasons: 1) the price was regulated intentionally lower than private patients, 2) the doctors bore administrative burden of mailing out many claims to multiple insurers and, above all, 3) the reimbursement tend to be late and sometimes defaulted.

A solution to 2) and 3) was to establish a fund which collects deposits from insurers to facilitate timely reimbursement and also serve as a "clearing house" of claims processing. With SIPF, doctors have only to submit all the claims to a single SIPF branch in the prefecture and the claimed fee is guaranteed to be reimbursed by the specified time.

Claims review

Also, the SIPF was endowed with another important function: claims review. By law, the "Claims Review Committee" is established in each prefectural branch and authorized to review all claims and deny part of the claims. The number of reviewers is in the multiple of three, representing three parties: provider association such as medical and dental associations, insurers and public interest. Officially, no qualification is required for reviewers but practically all are doctors, dentists and a small number of pharmacists.

Although the three party equal representations may appear reasonable, the selection of reviewers is not much based on their merits but more influenced by provider associations. Therefore, one might assume that claims review is a form of "peer review" and function as a tool for self-governance of medical and dental associations.

The claims review is a form of ***corporatism*** between the often-conflicting providers and insurers. The transaction fee (approximately 110 yen per claim) is paid wholly by insurers and economically reviewers appointed by provider associations will work in the interest of insurers (they are expected to deny the claims rather than increasing them).

SIPF handles all claims EXCEPT those for NHI. Claims for NHI are handled by another CRRO: the Prefectural Federation of NHI (PFNHI) established in each of 47 prefectures pursuant to the NHI Act. The PHNHIs essentially function in a similar manner to SIPF: they maintain deposit and reimbursement and also have the "Claims Review Committee" with the same authority with SIPF.

Currently, SIPF have 5,250 full time staff and PHNHIs have a total of 5,500 full time staff, a total of 10,750 full time staff are engaged in claims processing and review. In addition to these administrative staff, SIPF have Claims Review Committees with a total 4,479 reviewers (3,719 doctors, 760 dentists and 56 pharmacists) and PFNHIs a total of 3,615 reviewers (2,969, 542 and 104 respectively), many of whom are part-time but some are full-time employees. Both CRROs are public corporations but their staff as well as claims reviewers are NOT civil servants, i.e., they are immune to legal restrictions (such as anti-bribery, corruption rules) on civil servants. Claims

reviewers carry criminal penalty against violation of confidentiality but such legal responsibility was not imposed on administrative staff until the revision of the SIPF Act in 2008.

SIPF handles 583 million medical and dental claims and 247 million pharmacy claims (a total of 830 million claims in FY 2008) in the amount of 12.6 trillion yen. Through claims review, approximately 0.2% of claims were denied payment or approximately 23.2 billion yen. In November 2009, shortly after the overwhelming victory of the Democratic Party in the general election, the new Democratic administration appraised the cost-effectiveness of many existing policies and the claims review by SPIF was targeted. The appraisers questioned if this amount of denial is cost-effective given the transaction cost incurred, 86.8 billion yen (denial rate of PFNHIs was even lower: 0.1%).

Argument against the cost-effectiveness analysis would be that "Claims review is to assure the appropriateness of the claimed charges and its effectiveness should not be evaluated by the cost-denial rate alone". Two standards by which the appropriateness is reviewed are: 1) the practicing rules of health insurance and 2) the fee schedule dictated by the Minister. The important aspect of the claims review is that it is NOT intended to evaluate the quality of care nor is it intended to improve it. This is a crucial difference from Korean HIRA, which is endowed with quality assessment of providers by law.

Oversight and regulation against fraud and abuse

Monetary matters involve fraud and abuse (F&A). Fraud and abuse in health insurance practices will lead to disciplinary actions in minor cases (abuse) and to criminal prosecution in malicious cases (fraud). Almost all providers (approximately 170,000 hospitals, clinics and pharmacies) have contractual agreement with the MHLW and hence under the oversight and regulation by the MHLW. MHLW has eight regional branches authorized for oversight and regulation for health insurance.

Oversight and regulation include 1) individualized guidance for potential inappropriate charges and practices, 2) disciplinary actions in the form of cancellation of contracts (de facto expulsion from medical practices) and 3) criminal prosecution against severe fraud cases. In FY2008, a total of 3,410 providers received individualized guidance. In such cases, providers may be acquitted by voluntarily returning inappropriate charges. A total of 3.67 billion yen was voluntarily returned to insurers by the providers. If the same inappropriate charges are repeated despite individual guidance or the cases are found to be fraudulent, disciplinary actions will be taken. In FY2008, a total of 69 providers were disciplined, in many cases leading to cancellation of contracts.

F&A may be detected through claims review or may be exposed by complaints from patients or whistle blowing from insiders. Insurers are encouraged to send statements of processed claims to patients (the data included in the statements are limited to the number of visits, the name of the providers and the total amount of reimbursement and do not include medical information such as diagnoses or name of drugs). Obvious frauds such as inflating the number of visits may be detected by complaints from patients receiving such statements.

To perform this task, a total of 123 medical (73) and dental (50) doctors are employed at the MHLW regional branches. However, 32 out of 73 medical, and 3 out of 50 dental positions are vacant according to the report by MHLW. Those medical and dental officers are called "Medical G-men" and are similar in status with other medical officers working for MHLW and public health centers. The high rate of vacancy may reflect the unpopularity of the task among doctors and dentists.

There is no quantitative analysis how much cost containment effects these oversight and regulation have on the national health care expenditures. It may have some effects because providers whose the average charges per claim are ranked within top 4% of each specialty will be subject to individualized guidance by G-men.

Computerization of health insurance claims

Japan lagged behind in terms of computerization of health insurance claims. Only 10% of medical and approximately half of pharmacy claims were submitted electronically in April 2005, when Korea had already achieved nearly 100% computerization. The then Koizumi administration, much inspired by Korean success of computerization of health insurance claims and their use of the data for cost-containment, declared a full computerization of health insurance claims within five years in its IT strategy published in January 2006. The goal was achieved in April 2011 and the use of computerized claim is hoped to provide an effective tools for cost containment.

The immediate cost-containment effects of computerization are on the administrative cost. When claims were in paper form, all claims were manually reviewed by claims reviewers and administrative staff who support them. The combined number of administrative staff of SPIF and PFNHIs of 10,750 and claims reviewers of 7,976 is quite large when one compares it with 1,730 administrative staff and 630 reviewers of Korean HIRA at the end of 2008 even after the population size taken into consideration. Still, the number of staff in charge of claims processing of PFNHIs has declined considerably from 3,651 in 2004 to 3,026 in 2010 reflecting the on-screen reviewing system. SIPF also reduced the handling charges on a claim from the high of 119 yen in 2004 to 110 yen in 2009.

Use of electronic claims data by insurers

Claims reviewed and process by SIPF will be sent to individual insurers. Then insurers will be able to analyze the data on their own. Unfortunately not many insurers seem to be effectively using the data possibly because of lack of analytical skills to handle large and complicated dataset as health insurance claims. Still, some pioneering insurers effectively use the electronic claims data for not only cost-containment but also for health promotion or disease management.

One of the examples is the Kure city in Hiroshima prefecture. The Kure city, with the help from an IT company, used the claims data for the following purposes: 1) drug cost containment through promotion of generic drugs, 2) secondary and tertiary prevention of lifestyle-related diseases, 3) guidance against "doctor-shopping" and 4) detection of multiple/duplicate medication. As for 1), the city analyzed pharmaceutical claims to detect patients receiving brand-products and inform them of the potential saving by switching to generic products. Consequently, over 60% of

those who received the notice switched to generic product thereby saving the balance for both patients and the city. As for 3), the city listed up patients who visit multiple providers for the same diagnoses or visit doctors so many times and provided face-to-face interviews. Consequently, a total of 23 patients were interviewed resulting in a total of 432,229 yen in one month (the maximum reduction per person was 89,220 yen). Also, a total of 80 patients were interviewed for excessive doctor visits resulting in the reduction of 80,550 yen/patient. As for 4), data mining of pharmaceutical claims revealed duplicate medication in 2.7% and adverse drug interaction in 6.4% and contraindication in 0.3%.

4. Policies for cost-containment

Cost containment under the Koizumi administration

The Koizumi administration (26 April 2001-26 September 2006) is remembered as the 3rd longest administration in the post-war Japan (5 years and 5 months) with strong leadership and popular support (the >80% support rate after its inauguration is unsurpassed). It also left important footsteps in the field of social security. It is also noteworthy that Japan's administrative system underwent a radical reform shortly before Koizumi took office. In January 2001, the government structure was reformed to enable Koizumi to exert his strong leadership.

As part of the reform, some ministries merged. The Ministry of Health & Welfare merged with the Ministry of Labour to make the present Ministry of Health, Labour & Welfare (MHLW). The central government reform did not stop there. To support the cabinet, the Economic and Fiscal Advisory Council (EFAC) was set up. EFAC is chaired by the prime minister but the members included four civilians who express their opinions from a free standing. The civilian members consist of executives of major corporations as well as university professors of economics. The EFAC under Koizumi administration was dominated by ***Neo-conservative*** economists who emphasize market economy and deregulation. The group of four occasionally collided with medical association by proposing radical reforms such as deregulation to allow for-profit corporations to manage hospitals.

Tug-of-war over the macro-management

On 15th February 2005, the group of four proposed "macro management of health care *benefit*" to control the growth of health care cost at the EFAC. Their proposal was to contain the health care ***benefit (=total health care cost – patients copayment. patients copayment accounts for approximately 15% of the total health care cost on average)*** by pegging it at a certain % of GDP. At that time, it was projected that the health care *benefit* would grow from 5.4% of GDP in 2006 to 6.4% in 2015 and 7.7% in 2025. They proposed that the growth of health care cost should be contained at 5.7% in 2015 and 5.8% in 2025 after considering the population ageing.

To this, both MHLW and Japan Medical Association opposed claiming that "health care cost is not something to be limited by economic growth". For MHLW, the proposal from the "Koizumi economists" was a *déjà-vu* because MHLW itself once proposed a similar plan back in 2002 but had to be withdrawn due to strong opposition from medical community. To counter the strong voice

of EFAC backed by the cabinet, MHLW had to present an alternative. The then vice-minister of MHLW was a great fun of fitness and prevention and a strong believer in the long-term cost-containment effects of health promotion. On 19th February, at a public speech, the vice-minister emphasized the potential of cost containment through health promotion while criticizing the macro-management by the EFAC.

On 18th March, MHLW submitted a simulation at another meeting. According to the simulation, the health care cost would be reduced by 1.6 trillion yen through health promotion and 1.7 trillion yen through reduction of length of stay by 2015, 2.8 trillion yen and 4.9 trillion yen by 2025 respectively. These simulations translated into the projected health care cost at 6.4% of GDP in 2015 and 7.7% in 2025. This simulation fell short of the proposal of macro-management but did suggest the potential of cost-containment through health promotion. Eventually, the staunch Koizumi economists backed down without pursuing their cause further.

After the dismissal of the macro-management proposal, Japan's health care reform began to center around the cost-containment through primary prevention of "lifestyle-related disease". Elsewhere, on 8th April, the assembly of the association of internal medicine was held in Osaka, which adopted the concept and definition of "metabolic syndrome" including the much publicized criteria of the waist size: 85 cm for men and 90 cm for women. Although the adoption of metabolic syndrome had no official relationship with the policy debate, MHLW jumped over this popular, new and authoritative idea and introduced "metabolic syndrome" as a key concept of the subsequent reforms.

Computerization of claims and the national database

Shortly after the group of four proposed the macro-management, the IT Strategic Headquarter (ITSHQ) of the cabinet published an interim evaluation of IT development. At the same time of the central government reform in 2001, the IT Promotion Act was enacted with an ambitious plan to make the country "the top-level IT country" and the ITSHQ was established to oversee all branches of the government. The originally set goal in health care field was: 1) >50% of hospitals claims are electronically submitted by 2004 and >70% by 2006, 2) >60% of hospitals with >=400 beds will have electronic health record (EHR) by 2006. The interim evaluation was encouraging in some field but disappointing in others. Particularly disappointing was in health care field. Computerization of claims was far from the targeted goals and lagged behind neighboring countries. Korean success in computerization of claims as well as development and effective use of the national database also provided motives.

The new IT Strategy published in January 2006 declared an explicit goal of full computerization of claims within five years (i.e. by March 2011) and, more importantly, proposed a national database. It states "Streamline the administrative cost of health insurance through full computerization of claims by no later than early FY2011 and contain the national health cost through prevention and epidemiological use of the claims database. The new national database must be instituted by FY2010". The timeline was set.

This decisive policy decision was also boosted by the overwhelming victory of the Koizumi

administration in the general election in September 2005. An official of the ITSHQ later confessed to a press interview that he had felt a "move" when PM Koizumi stated that "computerization of claims must be realized" at the ITSHQ meeting on 25th October. Actually most of the important policy decisions were made in a short time around the end of 2005. This fact amply evidences the importance of strong leadership and timeliness in any policy decisions.

Health Care Cost Containment Plan (HCCCP)

Development of a national database (NDB), cost-containment through prevention metabolic syndrome, and reduction of hospital length of stay....these agenda must be instituted as a form of law. They were instituted as a form of revision of the Elderly Care Act to a new name: the Elderly Health Care Security Act. The new law includes provisions on Health Care Cost Containment Plan (HCCCP) as follows.

1) All 47 prefectures shall develop five-year HCCCPs starting in FY2008 (-FY2012).
2) The HCCCP shall include the following policies
---Health checkups and guidance (HC&G) against metabolic syndrome
---Reduction of hospital length of stay through conversion of geriatric hospital beds
---Disease-oriented critical paths for diabetes, strokes, myocardial infarction and cancer
---Interim and final evaluation (to be conducted in FY2010 and 2013 for the 1st plan 2008-12)
3) The MHLW shall collect anonymized data for the purpose of development, implementation and evaluation of HCCCP.

The last 3) constitutes the legal basis for the NDB. Essentially, NDB was created for the purpose of "development, implementation and evaluation of HCCCP". It is noteworthy that "research use" or "improvement of quality of care" is not explicitly stated as the purpose of NDB. Research use of NDB is based on the discretion of the MHLW leaving room for future revision of the law.

Reduction of hospital length of stay through conversion of geriatric hospital beds

Before discussing about HCCCP, one must understand a peculiar situation about geriatric hospitals beds. Japan has a total of 1.6 million hospital beds as of 1 October 2008 (there are also 146,568 beds in clinics with <20 beds in addition to hospitals) which are classified into three categories: general acute care beds (909,437 beds), psychiatric beds (349,321 beds) and geriatric beds (339,358 beds).

When the LTCI was introduced in April 2000, a peculiar arrangement was made about geriatric beds: hospital administrators chose to "separate" the geriatric wards into on reimbursed from health insurance and another from the LTCI. Consequently some geriatric wards remain exclusively health insurance wards, some converted into exclusively LTCI wards many chose to be a "mix" of the two (such wards came to be called "care mix" wards). There is an institutional difference between the health insurance beds and the LTCI beds. The health insurance beds, as with as other forms of beds, can admit patients of any age and of any diagnoses at the order of doctors. The LTCI beds, on the other hand, can admit the elderly over 65 and was assessed as in need of care by outside assessors.

The average LOS of 33.8 days in 2008, which is broken down into 18.8 days for general acute care beds, 312.9 days for psychiatric beds and 176.6 days for health insurance geriatric beds and 292.3 days for LTCI geriatric beds. These LOS are much longer than the international standard suggesting inefficiency. Also, some research suggested that the case mix between two types of geriatric beds did not differ significantly despite a slight difference of LOS.

Geriatric beds were thus singled out as a target in HCCCP: abolishing the LTCI beds by March 2012 (the end of the 1st HCCCP) and reduction of the health insurance beds by then. Such abolishing and reduction will be achieved by "conversion" into less-costly nursing homes, group homes, care houses or home care. There were approximately 380,000 geriatric beds in 2006, of which 250,000 were health insurance beds and 130,000 were LTCI beds. Through the five years of HCCCP (FY2008-12), the former would be reduced to 150,000 and the latter would have gone. A total of 230,000 geriatric beds would have to be converted. It was targeted that the average LOS in 2012 would be reduced to 29.8 days according the goal set by MHLW

Targeting geriatric beds alone may be contradictory when one sees that the by far the longest LOS is in psychiatric beds. Actually, a committee reported back in 2004 that as many as 70,000 patients in 350,000 psychiatric beds are stable enough to be discharged and called for "normalization" of psychiatric care. Unfortunately the recommendation in 2004 has not been realized so far and reduction of LOS had to be attempted by conversion of geriatric beds alone.

Prefectural HCCCPs and saving from conversion of geriatric beds

By April 2008, all prefectures except one (Niigata prefecture) developed HCCCPs. Of 46 HCCCPs, 42 included the projection of future health care cost as well as potential savings by HCCCPs (notably, Tokyo, the largest prefecture, did not made future projection because they did not plan reduction of geriatric beds). The potential saving was estimated by the reduction of LOS due to conversion of geriatric hospital beds and did not include the saving from HC&G. It was based on the MHLW direction that prefectures did not have to consider the cost saving effects of HC&G because it would take long before the HC&G would take effect.

The combined sum of 42 prefectures: 28.6 trillion yen in 2008 was projected to be 32.6 trillion yen in 2012 (the last of five year period) but would be reduced to 31.9 trillion yen as a saving effect of HCCCPs or 0.7 trillion yen (2.2%) saving (author's calculation). The final evaluation for the period of 2008-12 will be conducted in FY2013. The interim evaluation by MHLW showed that the number of geriatric hospital beds had been considerably reduced from 352,000 beds in October 2006 to 320,000 in July 2009 contributing the reduction of LOS of the entire hospitals beds from 32.2 days in 2006 to 31.3 days in 2009.

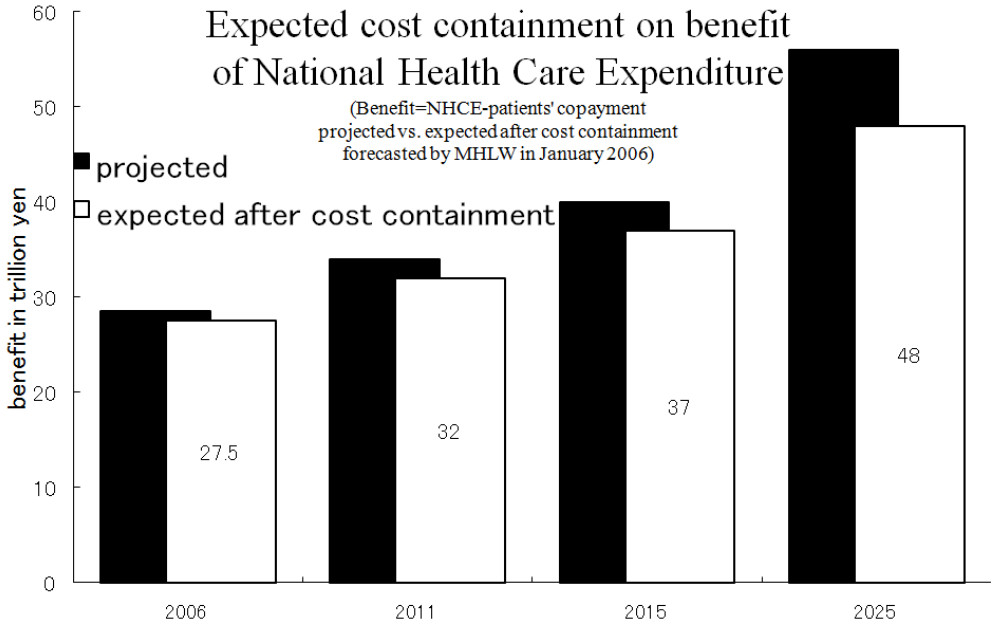
The fate of geriatric beds was twisted by the change of administration in 2009. The Democratic Party declared that "geriatric beds need not be reduced" in their manifest in the general election in August 2009. Following this policy change, MHLW had to put a "hold" on HCCCPs. The abolishment of LTCI beds will remain unchanged but the deadline will be postponed to 2018 from the current 2012. Whether the goal of average LOS of 29.8 days will be achieved by 2012 now appears uncertain.

Cost-containment effect of HCCCPs

Are we achieving the goal? To evaluate the cost-containment effects of HCCCP, one must first project the future health care cost without interventions. Because we cannot conduct controlled trials as researchers do for evaluation of drugs, the accuracy and reliability of the future projection will largely determine the results.

The initial simulation MHLW submitted on 18th March 2005 quoted its projection from the projection made by MHLW in May 2004: national health care cost (***31.4*** trillion yen in FY2004) will be 49 trillion yen in 2015, 69 trillion yen in 2025. It simulated that HC&G would save 1.6 trillion yen and reduction of hospital length of stay would save 1.7 trillion yen or a combined saving of ***3.3*** trillion yen in 2015 resulting in the total health care cost of 45.7 trillion yen in that year.

Later, MHLW altered the projection in October 2005: 46.5 trillion yen in 2015 and 65 trillion yen in 2025 with a combined saving of ***2.3*** trillion yen in 2015 resulting in the total health care cost of ***44.2*** trillion yen. This projection preempted the MHLW May 2006 future projection and remains valid till today. The revision of the future projection in only two years reflected the current economic situation. One is strongly cautioned that the future projections by government tend to err on the optimistic side. The projection made in October 2000 projected the National Income in 2010 as 490 trillion yen. Two subsequent projections in 2002 and 2004 put it as 414 trillion yen and the 2006 projection put the NI in 2011 at 433 trillion yen. As it turned out: the NI in FY2010 was 345.5 trillion yen (the economic outlook decided by the Cabinet on 24th January 2011). The overly optimistic future projection will exaggerate the cost-containment effects of any interventions. A problem concerning the revision of future projection is that it had no explanation why the expected cost-containment of HCCCP had also been reduced from 3.3 trillion to 2.3 trillion yen.



Where does the latest situation stands? The latest estimate put the health care cost in FY2010 at ***37*** trillion yen (the data is available only up to December 2010 and the author estimated the

annual cost up to March 2011 by applying the same growth rate in other months). It appears that Japan's health care cost is growing slower than the originally projected and, even if population ageing will advance further, one can be comfortably certain that the health care cost in 2015 is not likely to exceed the originally projected 46.5 trillion yen.

This finding is remarkable when one considers the rapid population ageing as well as a sharp increase of LPMA recipients with ample evidence of fraud and abuse. The cost-containment effect of LOS was projected at only 0.7 trillion yen in 2012, a minor contribution particularly after the conversion of geriatric beds was halted in the middle of the five year plan period. Can one claim that HC&G is taking effect? Not necessarily.

The MHLW itself acknowledges that HC&G will not bring any savings during the first HCCCP period (2008-12). A systematic review by the author analyzing the results of controlled studies conducted on 31 municipalities during 2002-6 failed to demonstrate any certain cost-containment effects at least during one year after interventions. Rather, one should assume that the future projections were exaggerated. If projected based on age-sex specific population alone, the health care cost in 2015 will be 48 trillion yen and 2025 will be 50 trillion yen, far smaller than previous official projections. The original projection was exaggerated due to the overly optimistic economic growth (consumer prices, inflation, interest rate) while in fact Japan's economy has undergone a serious deflation for last few years.

5. IT initiatives for cost-containment by the Livelihood Protection

The nation-wide attempt of cost containment has just been started for the Livelihood Protection Medical Assistance (LPMA) for the indigent population. Due to the prolonged economic slump, the population receiving the means-tested Livelihood Protection has reached two million (1.5% of the population) recently, of whom 80% also receiving LPMA. The Livelihood Protection is financed exclusively from tax (shared by the central government and local governments by 3:1) and the total disbursement in FY2011 is budgeted at 3.4 trillion yen, of which LPMA accounts for about half. Unlike health insurance which usually requires 30% copayment, LPMA does not require any copayment and patients can receive medical care for free.

The LPMA has long been regarded as "sanctuary". In April 2008, the MHLW issued a notice requiring LPMA patients to be dispensed generic products whenever available for cost-containment. A strong public outcry followed forcing the then minister Masuzoe to revoke the notice shortly. Almost at the same time, the MHLW issued another notice restricting the transportation benefit for LPMA patients after a gang member in Hokkaido had received a sum of 2 million yen for taxi fare to visit clinics hundreds of miles away. Again, minister Masuzoe was forced to revoke it in response to protests.

The only government effort was to encourage municipal governments to double-check the LPMA claims by "contracting out" to the commercial third party claims reviewers. Theoretically, LPMA claims, as well as health insurance claims, are reviewed by the "Claims Review Committee" of the SIPF. Still, many F&A go unchecked. To fill the need, there are many commercial third

party claims reviewers (some of them are publicly owned corporations) which contract with insurers for double checking. If they find unchecked F&A, then the insurers can appeal to the SIPF for denials. MHLW encourages municipal governments to double check through subsidy (this is a peculiar situation: the MHLW itself officially acknowledges that the claims review by SIPF is flawed). In FY2007, a total of 1.83 billion yen subsidy was disbursed to 729 municipal governments (out of 1804 municipal governments) resulting in the saving of 11.1 billion yen or six times the cost.

Such sanctity was altered late 2008, when the Lehman shock plunged many people into poverty. The number of the recipients of the Livelihood Protection skyrocketed straining the national and local finances. In April 2010, another scandal was cracked down in Osaka, where >5% of the 2.5 million residents on the Livelihood Protection. Many LPMA patients got prescribed psychotropic drugs from multiple clinics and pharmacies and sold them over the net. The peddlers were arrested for violation of the Drug Control Act.

The MHLW conducted a sampling survey on LPMA claims to detect duplicate or multiple medication of psychiatric drugs. They sampled claims from psychiatric hospitals or clinics identifying 2,555 patients. Of them, 1,797 or 70.3% were judged inappropriate medication. Based on this evidence, the MHLW called for utilizing electronic claims data for detection of such drug abuse.

Osaka city quickly followed suit: they requested SPIF to provide LPMA claims data for detection of abuse, the very first of such move among municipal governments. The city identified 34 hospitals and clinics whose patients are ***exclusively (!)*** LPMA patients in addition to many clinics whose >90% of their patients are LPMA recipients. Then the city conducted interviews and on-site inspections on 127 patients and 16 providers. It was found that many patients were living at residential facilities and affiliated doctors visit them as regular house calls. According to the calculation by the city, the typical charge of office visits of diabetes patients four times a month would be 11,060 yen but it would be 50,000 yen if doctors make the same number of house calls. For health insurance patients, 30% of the charge would be levied from patients but no such copayment is charged on LPMA patients. A patient diagnosed as respiratory failure had rented a home oxygen therapy unit from a clinic which charged the city 65,000 yen/month. When a city official visited the patient, the patient was in a stable condition and the unit had not been used for months. The report stated that patients on health insurance would have returned the unit to avoid 30% copayment.

In FY2011, the MHLW sets an explicit policy to utilize electronic claims for cost containment of LPMA with the following agenda: 1) double-checking of electronic claims, 2) detection of duplicate or multiple medication of psychotropic drugs, 3) enhancement of generic products. The last 3) on generic use is a notable policy change from the revoked directive just a few years ago.

6. What's ahead?

Japan's health care cost has been in good control despite its rapid population ageing. At least,

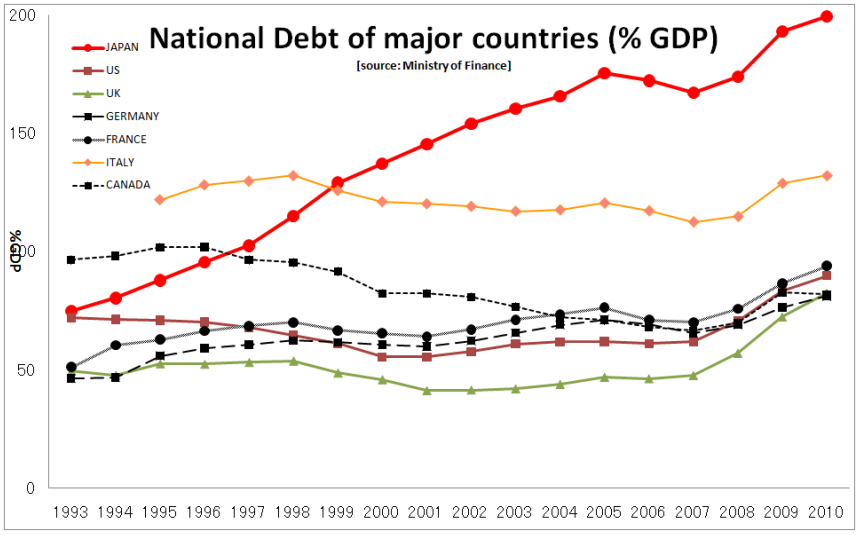
health care cost is not a financial menace to Japanese people yet. However, the stagnant economic growth and resulting tardy growth of income is making the financial burden of health care cost heavier and heavier (Japan's GDP has not grown much for last 20 years and has been passed by China in 2010). Not because of the growth of numerator but the shrinking denominator, the % of health care cost in National Income has already passed 10%.

Then, what is the major concern about Japan's health care cost in the near future? It is not likely that the health care cost increases out of control. What is more worried is the potential financial catastrophe. Japan's national finance is deteriorating due to the accumulating debt (government bonds). Already it is reaching to 200% of GDP, by far the highest in the world.

Why is this a problem for health care cost? As shown before, 1/4 of Japan's health care cost is financed from the government subsidies (when local governments combined it will be 1/3). If the government falls in default, as much as 1/4 or 1/3 of the health care cost will not be paid to providers. This heavy reliance on government subsidy makes Japan's health care vulnerable to the governmental financial conditions.

Of the government's revenue of 92.3 trillion in FY2010, only 37.4 trillion yen was levied as tax and 44.3 trillion yen was raised by selling bonds. Paradoxically, the interest rate on 10 year bonds remains around 1% (it went below 1% in 2010). With this ridiculously low interest rate, the government is sustaining by paying *only (!)* 10 trillion yen in interest (plus another 10 trillion yen for redemption). Borrowing 44.3 trillion yen while paying back 20 trillion yen: sounds good? What will happen if interest rate goes up to 3% or higher? It is alarming when one recalls that Japan's interest rate was once 7-8%.

The Koizumi administration, with his neo-conservative economists and the overwhelming support in the previous general election, adopted a radical fiscal reform in 2006 to achieve positive primary balance by FY2011. Thanks to controlling the social security budget including the largest price "cut" in the fee schedule in 2006, Japan's financial conditions recovered temporarily as shown as a "dent" in the following graph of accumulating national debt.



Such neo-conservative policy was unpopular, and the Democratic Party won the overwhelming victory in the general election in August 2009 by promising the revocation of such stringent fiscal

policy. As soon as the Democratic government took office, “fiscal soundness” was put aside and the new social security policies were adopted, most notably the children allowances (13,000 yen/month for children under 15yo totaling two trillion yen). As much as 44.3 trillion JGB was issued to supplement the pitiful 37 trillion tax revenue in FY2010, the trend which continued in FY2011 as well. The administration was forced to promise at the G20 meeting held in Canada in June 2010 to decrease the deficit in primary balance by half by 2015 and achieve balance by 2020 (the target year agreed at the meeting was 2013 and 2016 respectively but Japan was treated as exception given the sheer size of governmental debt). However, credit rating companies responded by downgrading Japanese Government Bond (JGB).

Belatedly, the present administration adopted a reform plan on 2nd June, calling for raising the consumption tax from current 5% to 10% by 2015, which will generate additional 10 trillion yen tax revenue. To mitigate the rise of consumption tax, the plan included some cost-containment strategies, some of which are continuation of HCCCP and others are new initiatives. The reduction of LOS is estimated to reduce the government subsidy (1/4 of health care cost) by 0.43 trillion yen in 2015 (it is remarkable that the targeted beds include psychiatric beds).

A new initiative was disease management which is expected to save 0.12 trillion yen in 2015 through effective use of ICT by insurers. The IT initiatives by Kure city or in the LPMA are exemplified in the reform plan. The reform plan encourages insurers to guide patients for “optimal” use of health care services making best use of the computerized claims data, something unheard when insurers were not supposed to intervene into patients behaviors. Also it encourages active use of the National Claims Database for regional integration of health care. Other initiatives include enhancement of generic use, prevention of disability to reduce the LTCI cost.

The reform plan was a remarkable about-face when one considers the original stance of the ruling party (there is much debate inside the ruling party itself). The plan set a schedule that the law must be revised by the end of this FY2011. However, given the present unstable political situation (the PM already expressed his resignation) as well as discordant majority between the Congress and the Senate. Unless this ambitious reform sees the light of day, one must expect a day when Japan is placed under the IMF control.