How Japan provides universal coverage at half the cost of US

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Comparison of health expenditures
Per capita PPP US$, ratio to GDP (2006)

Source: OECD Health Data 2009 - Version: June 09

8.1% of GDP, 19th among OECD

Source: OECD Health Data 2009 - Version: June 09
The reasons why in advance

1. Universal coverage by employment-based or municipal government-based health insurance plans
2. Nationally uniform single payment system controlled by the government
3. Costs contained by making item-by-item decreases in service fees and drug prices
1. Universal coverage by multiple plans

• Compulsory enrollment: either an employment-based plan, or a municipal government-based plan if self-employed or pensioner
  – Employers must provide insurance if they have 5 or more employees
  – If not in employment-based, then must enroll in the municipal plan
  – Dependents covered by plan of household head (without any age limit)

• No choice of plans by individuals
  – Benefits are essentially the same nation-wide for all individuals
  – Those who are enrolled in the same plan must contribute a fixed percentage of income, up to a ceiling ($180,000/year):
    • If contribution rate is 8%: Person earning $150,000 pays $12,000, person earning $15,000 pays $1,200, benefits are the same
    • Same principle as in Medicare Part A

• But, the income level and age profile of enrollees differ according to workplace or where they reside

• Government intervenes:
  – Gives subsidies to plans that enroll those having low average incomes
  – Forces plans to cross-subsidize the healthcare costs of elders
(1) Compensating for disparities in income

- National government’s subsidies differ according to which tier the plan is placed
  - **1\textsuperscript{st} tier:** Plans having relatively high ratios of healthy and wealthy enrollees → No subsidies
    - MAA (Mutual Aid Associations) for civil servants: 77 plans
    - SMHI (Society-managed health insurance) for employees of large corporations: 1497 plans
  - **2\textsuperscript{nd} tier:** One plan for employees of small to medium corporations → 13% from subsidies
    - NHIA (National Health Insurance Association, formerly GMHI)
  - **3\textsuperscript{rd} tier:** Plans having relatively high ratios of ill and poor enrollees → 34~80% from subsidies
    - CHI (Citizens Health Insurance) for self-employed and pensioners managed by municipalities: 1788 plans
    - Rich municipalities receive 34%, poor ones receive 80% of their health expenditures in subsidies
  - **4\textsuperscript{th} tier:** Plans for all 75+, organized at the prefectural level
    - 50% from subsidies
(2) Compensating for the differences in the percentage of elders enrolled

- 65~74: Cross-subsidization among plans
  - Upon retirement, employees leave SMHI, MAA and NHIA to join CHI
  - Transfer funds from SMHI, MAA and NHIA to the CHI
- 75+: New insurance plan implemented in April 2008
  - 50% paid by tax, 40% by contributions from all other plans
  - 10% paid by premiums from 75+
  - Organized at the prefectural level
  - Copayment rate: 10% for 90% of elders, 30% for the 10% rich; lower threshold of cap (on average ¥44,400 per month)
Flow of money in the 4 tiers of the SHI plans

- Tax
- Premiums

1st Tier
- Employer
- Large companies: 1497
- Public sector: 77
- Seamen: 1

2nd Tier
- Employee
- National Health Insurance Association: 1

3rd Tier
- Others
- Citizens' Health Insurance: 1768
- CHI Unions: 165

4th Tier
- Government
- 10%
- 40%
- 50%

1st ~ 3rd Tier plans

47 Prefectures

As of April 2010
2. Why should costs be controlled?

- Before explaining, health economics 101
- What is medical need? How do physicians define which treatment is appropriate?
- What are healthcare costs? Half of all healthcare is personnel costs. How much should physicians earn, relative to other nurses, other workers?
- \([\text{Healthcare expenditures paid by people}] = [\text{Healthcare providers’ income}]\)
- Should some specialists be paid more than others?
- Should increases in productivity lead to lower fees?
  - Should the fee for a cataract operation remain the same, even when the average time decreases from 1 hour to 10 minutes?
What is appropriate treatment?

“Appropriate” depends on not only on the patient’s needs, but also to:

1) Each physician’s experience: training, encounters with patients etc.
2) Where the physician practices
3) How the physician is paid: fee for service per item or case, or fixed wages
# Pros and cons of payment methods

<table>
<thead>
<tr>
<th>Payment method</th>
<th>Positive aspects</th>
<th>Negative aspects</th>
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<tbody>
<tr>
<td>Pay per item</td>
<td>Not to keep patients waiting, not to refer</td>
<td>Excessive services</td>
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<tr>
<td>Pay per case (DRG)</td>
<td>Same as above, but refer high cost patients to others</td>
<td>Same as above, but order less lab tests, prescribe less drugs</td>
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<tr>
<td>Fixed salary</td>
<td>Not provide excessive services</td>
<td>No economic incentive to provide</td>
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How much should physicians earn?
Lessons from health economics

• In healthcare, supply is elastic, demand is inelastic
  – Supply: Physician’s notion of “appropriate”, “reasonable fee”, “productivity” is elastic
  – Demand: All patients want the best
    • Areas of choice: generics, private rooms, cosmetic surgery, others?

• What insurance plans can do
  – Control supply: Try to manage care, negotiate lower fees
  – Control demand: Insure only the good risks
  – Which is easier? Controlling demand

• What governments should do: Control supply, not demand
  – Set the norm for “appropriate”, “reasonable”, “productivity”

• What Japan has done: Control supply by nationally uniform fee schedule (single pipe) to all providers
Japan: Containing costs despite private sector dominated providers, fee for service

- All prices set by government’s fee schedule ⇒ The KEY role
- Catastrophic coverage, Extra-billing and balance billing prohibited in principle
- Premiums + taxes

People, Patients → Health care providers → Wages, Drugs etc., Depreciation, Profits

Insurance plans Government

② Premiums + taxes
③ All prices set by government’s fee schedule ⇒ The KEY role
① Catastrophic coverage, Extra-billing and balance billing prohibited in principle
3. How have costs been controlled?

- **Fee schedule:** Single payment system set by government
  - Applied to all plans and virtually all providers, also defines the conditions for which the service can be billed

- **How can costs be contained by fee and price revisions?**
  - Revisions made every two years
  - Global revision rate: Prime minister decides the volume weighted revision rate for all service fees and drug prices
  - Item-by-item revision rates: Government’s Council decides
    - If the volume is perceived as expanding too much, or if costs are perceived as having decreased, then the price will be reduced
    - Balance among providers: No one particular type will always be the winner → General rule: Profitable services will be made unprofitable after revision
  - Cumulative effect of item-by-item revisions must be equal to the global rate: Impact of revising each item estimated from its volume
Council meeting in progress: Composed of members from payers, providers and academia
Why did the government step-up cost containment from 2002?

Taxes, not premiums, finances one quarter of total expenditures

This one quarter composes one tenth the general revenues budget

Government’s debts mounted as revenues ↓, expenditures ↑ → Pressure to contain healthcare expenditures increased
Annual changes in Gross Domestic Product, National Medical Expenditures and Fee Schedule Global Revision Rate, Japan 1978-2007
How drug prices are revised

Fee schedule price set at $10 per tablet

Market price survey shows following:
10,000 tablets sold @ $9:50
10,000 tablets sold @ $9:00
10,000 tablets sold @ $8:50

Volume weighted average market price for one tablet is $9.00

Revised fee schedule price for one tablet is $9:02

2% margin allowed

Next round of price reductions
Example of an item-by-item revision: MRI diagnostic imaging (Yen)

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<tr>
<th>Year</th>
<th>Head</th>
<th>Body</th>
<th>Limbs</th>
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<tbody>
<tr>
<td>2000</td>
<td>16,600</td>
<td>17,800</td>
<td>16,900</td>
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<tr>
<td>2002</td>
<td>11,400</td>
<td>12,200</td>
<td>11,600</td>
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<tr>
<td>2006</td>
<td>10,800 if &lt;1.5 Tesla, 12,300 if &gt;1.5 Tesla*</td>
<td>10,800 if &lt;1.5 Tesla, 12,300 if &gt;1.5 Tesla</td>
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<tr>
<td>2008</td>
<td>10,000 if &lt;1.5 Tesla, 13,000 if &gt;1.5 Tesla</td>
<td>10,000 if &lt;1.5 Tesla, 13,000 if &gt;1.5 Tesla</td>
<td></td>
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<tr>
<td>2010</td>
<td>10,000 if &lt;1.5 Tesla, 13,300 if &gt;1.5 Tesla</td>
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* Differential fees according to type of equipment introduced for the first time
De facto decisions made by Council:
Which physicians should earn more?

Physicians prefer high-tech care: Why should they be paid more?
Changes in the political environment

• Cost containment began from the 1983 revision
  – Part of administrative reform, which was initiated despite booming economy
  – In 1980s, healthcare allowed to expand because economy expanded
  – In 1991 the economic bubble burst, economy began to contract
• Koizumi steps-up austerity policy in healthcare when he became prime-minister in 2001
  – Macro revision rate: -2.7% in 2002, -1.0% in 04, -3.16% in 06
• LDP prime-ministers who succeeded Koizumi relaxed his austerity policy
  – Macro revision rate: -0.82% in 2008
• Democratic Party of Japan (DPJ) government elected into office in September, 2009, promising to increase fees, give better deal for hospital specialists
  – Global revision rate: +0.19% in 2010
  – Some high-tech surgical fees increased by 50%
Why did government policy change?

• Media publicity of “collapsing healthcare system” in 2006~09
  – Mothers in labor turned away from hospitals → Main reason lies in unfortunate combination of events
  – Emergency patients denied access → Has been happening before
  – Closing down of public sector hospitals → Only 2% have actually closed
  – Clinic-based physicians’ income have fallen → Still nearly twice that of hospital based physicians and five times that of average worker
  – Opposition party has used this slogan to discredit the government
  – Macro revision rates of -1.0% in 2004, -3.16% in 06, -0.82% in 08 blamed
  – Issues have been centered on quantity and accessibility, not quality

• Democratic Party of Japan (DPJ) government elected into office in September, 2009, promising to increase fees, provide a better deal for hospital specialists
  – Publicity on “collapsing healthcare system” may have contributed to winning
  – Macro revision rate: +0.19% in 2010
  – Some high-tech surgical fees increased by 50%

• Nothing has really changed, but the fickle media no longer reports
Why didn’t the physicians react sooner?

- Physicians had been protesting but were over-ruled
- Bitter pill sweetened somewhat for the physicians in clinics
  - Physicians in clinics focusing on primary care have been well-organized under the JMA (Japan Medical Association)
    - JMA has been the largest donor to the LDP
- Specialists and hospitals not well organized
  - Hospital-based doctors identify more with their university clinical departments than with their professional societies
  - Antagonism between high-prestige, subsidized public hospitals and generally low-prestige, unsubsidized private hospitals
  - Problems in quality assurance: Difficult to show tangible evidence of efforts made by physicians
  - Have started to put their act together
    - Medical school dean (neurosurgeon) becomes a member in the Council
    - JMA lost all three seats in the Council under the new DPJ led government
Appointment of physicians in Japanese hospitals

Historical background: Medical schools wanted high quality hospitals, hospitals wanted high quality young physicians ⇒ Development of closed network between university clinical departments and affiliated hospitals.

University Hospital

1st Internal Med. Dept. →
2nd " →
3rd " →
1st Surgical Dept. →

National Hospital
City Hospital
Red Cross Hospital
Private Hospital
Lack of quality control

• Training and accreditation of specialists under-developed → Lack of standardization
  – Appointment to major hospital positions: Under control of university clinical departments, credentials as specialists less important
  – Each university department sets its own standards
  – Has made it impossible to control the number of residency training positions in each specialty

• Lack of standardization in hospital quality
  – Hospital accreditation organization established 1995, but still less than 1/3 accredited
  – All hospitals inspected by local government but this is focused mainly on staffing (number of physicians, nurses to patients) and floor space per bed
  – Expensive equipment has been purchased without considering the following:
    • Has the hospital technically competent staff?
    • Would the hospital have sufficient volume of patients needing equipment?

• Since norms are not well established, difficult to monitor decline

• Main pressure to maintain quality → Competition
  – Compete for patients (by grape-vine), and for physicians, nurses etc.
  – If unsuccessful, then goes out of business
    • Number of hospitals: 9,490 (96) → 8,943 (06)
Challenges facing Japan

• Economy has been bad, will be worse
• Absence of political leadership
• Balance of power among physicians has shifted to specialists
• Patients’ expectations continue to rise
• Medical education is not geared to society’s needs
• Japan is the oldest nation in the world, will become even more so in the next 40 years
Impact of Aging: Share of 65〜74 and 75+

In population

- 2005
  - 0 ~ 64: 80%
  - 65 ~ 74: 11%
  - 75+: 9%

- 2025
  - 0 ~ 64: 70%
  - 65 ~ 74: 12%
  - 75+: 18%

In health expenditures

- 2005
  - 0 ~ 64: 49%
  - 65 ~ 74: 22%
  - 75+: 29%

- 2025
  - 0 ~ 64: 35%
  - 65 ~ 74: 16%
  - 75+: 49%
Healthcare costs of elders: Options

• Failure of the attempt by the new insurance plan for 75+
  – Original intention: To make the benefit package more suitable for elders
  – One new service, just for 75+, introduced: End-of-life consultation fee
    (99.99% of the benefit package remained the same)
  – Had to be cancelled after 2 months because of protest about ageism: fear
    it would not be consultation, but persuasion to end life
  – Was one factor that led to the government losing the 2009 election
  – New government made the benefit package 100% the same again, has
    promised by abolish the new insurance plan for 75+
  – Voice of the people: No discrimination by age
  – But are the people willing to pay for elders’ costs?

• Singapore’s solution: Age group indexed premiums (elders pay
  more), plus no public insurance coverage after 85

• My solution: Manage expectations, shift to long-term care
Changing expectations in healthcare

Admission

Young patient, admitted in a stretcher, discharged fit and walking

Discharge

Before

Now

Elderly patient, admitted in a stretcher, discharged improved, but in a wheel chair
Cost of end-of-life care may not increase: Percentages of deaths that occur after 75

Since the percentage of deaths that occur after 75 will continue to increase, and since elders tend to prefer less aggressive treatment, costs may not increase so much.
Health care and Long-term care

Physicians are not only well paid, but they also prescribe expensive drugs and order tests.

Care workers are not only paid less, but their services also do not lead to additional costs.
In ancient Egypt, pharaohs believed in eternal life. Do we?
Ageing has had little impact on the share of health expenditures.

Source: OECD Health Data 2009
Lessons for the US

• How to achieve universal coverage: Government takes a more proactive role
  – Either by allocating more funds from taxes, or making plans contribute to a central pool that adjusts for their risk profile

• How to contain costs: Nationally uniform fee schedule applied to all physician and hospital services
  – Policy, not “cost”, directed price setting
  – The bottom line issue is how much should physicians be paid for doing what

•Containing costs may have led to inadequate measures to monitor quality
  – But macro health indices continue to be excellent in Japan

• Aging will have major impact on healthcare, if not on costs
The real question

- Question often posed in US: Why can’t US have universal coverage when we spend 17% of our GDP?
- The answer: It is because you spend 17% and made healthcare so expensive that it has made it difficult to have universal coverage
- The real question: Do you want an explicitly tiered system as in Singapore, or an egalitarian system as in Japan and Europe?
- If egalitarian, then costs must be contained to the level that the nation can afford
- The primary goal of health policy should not be placed in improving health, but in avoiding financial impoverishment for the patient, and for the nation