National Health Insurance & Elderly Care in Taiwan

International Conference
On the Policies & Regulations of Health and Long-Term Care Costs of the Elderly

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VP & CFO,
Bureau of National Health Insurance, Taiwan
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The State of Care in Taiwan
Profile of Taiwan (2007)

- Population: 23.0 million
- Land area: 36,190 km² (14,000 mile²)
- Population density: 634 per km²
- Population aged over 65: 10.2%
- GDP per capita: US $16,855
- NHE as % of GDP: 6.13%

Sources: Ministry of Interior, Directorate-General of Budget Accounting and Statistics, Department of Health
Health Indices (2007)

- Crude Birth Rate: 8.9‰
- Crude Death Rate: 6.2‰
- Infant Mortality Rate: 4.7‰
- Natural Increase Rate: 2.8‰
- Maternal Mortality Rate: 6.9 per 10,000
- Life Expectancy: 75.1 Male
  81.9 Female

Sources: Ministry of Interior, Department of Health
Public/Private Mix of Providers (2006)

<table>
<thead>
<tr>
<th></th>
<th>Public</th>
<th>Private</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hospitals</strong></td>
<td>79 (15%)</td>
<td>463 (85%)</td>
<td>542 (100%)</td>
</tr>
<tr>
<td><strong>Clinics</strong></td>
<td>427 (2%)</td>
<td>17,311 (98%)</td>
<td>17,738 (100%)</td>
</tr>
<tr>
<td><strong>Beds</strong></td>
<td>33,875 (30%)</td>
<td>78,098 (70%)</td>
<td>111,973 (100%)</td>
</tr>
</tbody>
</table>
Milestones Toward a Welfare State

- 1950  Labor Insurance (Lump-sum payments)
- 1958  Government Employee Insurance
- 1985  Farmer Insurance
- 1990  Low-income Household Insurance
- 1995  National Health Insurance
- 2008.10.1  National Pension
- 2009.1.1  Labor Insurance (Superannuation)
The Accomplishments of NHI: A Program that Defies the “Conventional Wisdom”
Key Features of Taiwan’s NHI

- Mandatory and universal enrollment
- Government as the Single-payer
- Premium based on payroll, shared by the employer, the employee and the government
- Comprehensive and uniform benefit package for all
- Fee-for-service and case payment under the global budget payment scheme
- Very low administrative cost (1.6% of medical cost)
The “Conventional Wisdom”

- You can not have these things in one program:
  - Universal coverage
  - Comprehensive benefits
  - Freedom of choice
  - Cost containment
Major Accomplishments of NHI

- Universal coverage
- Full-range benefit package reaches every corner
- Freedom of choice on providers
- Affordable cost
- Assured quality of care
- State-of-the-art managerial capabilities
- High satisfaction rates
- Worldwide reputation
Universal Enrollment: Assistance to the Disadvantaged

NHI protecting umbrella for the disadvantaged

- Premium subsidies
- Assistance measures for overdue payments
- Medical Assistance

Statutory Subsidies
- From Central government
- From Local governments

Relief Fund Loans
Payment Installments
Premium sponsorship referrals

Guaranteed emergency medical care service
Co-payment Exemption
Comprehensive & Uniform Benefit package

- Inpatient care
- Ambulatory care
- Laboratory tests
- Prescription drugs and certain OTC drugs
- Dental services
- Traditional Chinese medicine
- Day care for the mentally ill
- Home care
Development of Payment System

1995 - Fee for Service
1997 - Case Payment, currently 53 items
1998 - Global Budget Payment Scheme
2001 - Quality Based Payment Scheme
2004 - Resource-Based Relative Value Scale System (RBRVS)
In the pipeline – Tw-DRGs
Care that Reaches out to Every Corner

- 48 IDS (Integrated Delivery System) plans to improve services in remote mountainous areas and offshore islands.
- Telemedicine & helicopter service in virtually every islet
Freedom of Choice

- Single payer – no choice of the carrier, yet…
- Unlimited choice of providers – 18,000 facilities to choose from, little barriers to specialists and medical centers.
No waiting lines as defined in other (western) countries…Only “frictional waiting time.”

People tend to rush to the ER of the major medical centers, and those major hospital won’t turn them away.

May have to stay in the ER for a couple of days.

Physicians and surgeons work very long hours.
Rationing of Care?

- No discrimination based on age or anything. (Everyone in need gets a dialysis regardless of the age.)
- What matters is the core value of taking care of the fragile and the elderly, and leave the financial matter with us.
Total Health Expenditure as % of GDP (2005)

Sources: OECD Health Data 2007, Taiwan DOH
### Acceptable Quality

*(Comparison of Organ Transplant Survival Rate, 2001-2004)*

<table>
<thead>
<tr>
<th></th>
<th>No. of Cases</th>
<th>3 Months Survival Rate</th>
<th>1 Year Survival Rate</th>
<th>3 Years Survival Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Taiwan dead</td>
<td>Taiwan living</td>
<td>US dead</td>
</tr>
<tr>
<td>Kidney graft</td>
<td>686</td>
<td>98%</td>
<td>97%</td>
<td>99%</td>
</tr>
<tr>
<td>Liver graft</td>
<td>402</td>
<td>91%</td>
<td>92%</td>
<td>93%</td>
</tr>
<tr>
<td>Heart graft</td>
<td>212</td>
<td>87%</td>
<td>91%</td>
<td></td>
</tr>
<tr>
<td>Lung graft</td>
<td>45</td>
<td>58%</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td>Kidney and heart graft</td>
<td>7</td>
<td>71%</td>
<td>98%</td>
<td></td>
</tr>
</tbody>
</table>
State-of-the-art Managerial Capabilities: The Smart NHI IC Card
State-of-the-art Managerial Capabilities: Applications of IC Card

- Utilization monitoring
- Surveillance of public hazards, such as epidemics
- Prediction of point values
- Anti-fraud profile analysis
High Satisfaction

(1995〜2007)
Reputation Worldwide

- Academic journal articles and Media coverage worldwide
- ABC prime time news covered as the title “A Health Utopia”
- Nobel Laureate in Economics Professor Paul Krugman published an article “Pride, Prejudice, Insurance” in New York Times
- Recently featured by the “Frontline” of PBS – “Sick Around the World”
- Training programs for Indonesia, Mongolia, Saudi Arabia, Thailand.
Single-Payer System—

- Serves as a platform for pooling all risks, and is conducive to social justice, which then serves as the cornerstone of solidarity.
- Serves as a platform for pulling together dollars of various sources, and is facilitative for income redistribution
- Generates a single data warehouse for further applications
- Very low administrative cost
- State as a monopolistic buyer to co-opt the medical profession
Trend of NHI Financial Status

Unit: NT$bn

Insurance Cost  Average growth rate : 5.49%

Insurance Revenues Average growth rate : 4.40%
Making Both Ends Meet

- Raise the tobacco surtax from NT$10 to NT$20;
- The 1.5 Generation of NHI: Go after all of your incomes: Payroll-based premiums won’t grow as the economy does.
- Would it be possible to part with services of LTC nature?
Aging in Taiwan
Percentage of people aged 65+

Data Source: Taiwan Ministry of the Interior
Fertility Rates of Selected Countries
Future Population of Taiwan by Age

- Age <15: 17%, 12%, 12%, 10%
- Age 15-64: 73%, 67%, 57%, 52%
- Age 65+: 10%, 20%, 30%, 38%

Years:
- 2008: 17yrs, 15yrs, 16yrs
- 2025: 17yrs, 15yrs
- 2040: 15yrs
- 2056: 16 yrs
Average Life Expectancy

- Women: 82.3 yrs in 2008, 89.0 yrs in 2056
- Man: 75.6 yrs in 2008, 82.2 yrs in 2056
Percentage of population aged 65+ in Selected Countries

The NHI & Elderly Care in Taiwan
Medical Expenditure Per Capita by Age Groups (2000 Vs. 2007)

Data Source: National Health Insurance Annual Statistical Report
# Prevalence of Selected Chronic Diseases

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Hypertension 401-405</td>
<td>44%</td>
<td>46%</td>
<td>50%</td>
<td>52%</td>
<td>8%</td>
</tr>
<tr>
<td>Arthritis 714,715</td>
<td>14%</td>
<td>22%</td>
<td>26%</td>
<td>26%</td>
<td>12%</td>
</tr>
<tr>
<td>Diabetes 250</td>
<td>18%</td>
<td>19%</td>
<td>21%</td>
<td>22%</td>
<td>5%</td>
</tr>
<tr>
<td>Heart Problems 410-414,4151,420-422,425</td>
<td>22%</td>
<td>21%</td>
<td>21%</td>
<td>20%</td>
<td>-2%</td>
</tr>
<tr>
<td>Dementia 330,331,290</td>
<td>3%</td>
<td>4%</td>
<td>5%</td>
<td>5%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Data Source: National Health Insurance Annual Medical Statistical Report, Department of Health.
# Prevalence of Selected Chronic Diseases

<table>
<thead>
<tr>
<th>Country</th>
<th>Period Covered</th>
<th>Arthritis</th>
<th>Heart Problem</th>
<th>Dementia</th>
<th>Diabetes</th>
<th>Hypertension</th>
<th>Obesity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taiwan</td>
<td>98-07</td>
<td>+12.2%</td>
<td>-2.1%</td>
<td>+2.6%</td>
<td>+4.6%</td>
<td>+7.9%</td>
<td>..</td>
</tr>
<tr>
<td>Austria</td>
<td>98-03</td>
<td>+0.3%</td>
<td>+0.9%</td>
<td>-1.4%</td>
<td>+6.8%</td>
<td>+3.3%</td>
<td>..</td>
</tr>
<tr>
<td>Belgium</td>
<td>97-04</td>
<td>+0.1%</td>
<td>+0.3%</td>
<td>..</td>
<td>+5.1%</td>
<td>+3.2%</td>
<td>+1.1%</td>
</tr>
<tr>
<td>Canada</td>
<td>96-03</td>
<td>+1.6%</td>
<td>+3.0%</td>
<td>..</td>
<td>+3.7%</td>
<td>+3.9%</td>
<td>+2.9%</td>
</tr>
<tr>
<td>Denmark</td>
<td>87-05</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>+3.3%</td>
<td>..</td>
<td>+1.6%</td>
</tr>
<tr>
<td>Finland</td>
<td>80-00</td>
<td>-0.6%</td>
<td>..</td>
<td>..</td>
<td>+0.4%</td>
<td>+0.7%</td>
<td>+1.4%</td>
</tr>
<tr>
<td>Italy</td>
<td>91-00</td>
<td>+2.3%</td>
<td>+1.1%</td>
<td>..</td>
<td>+0.6%</td>
<td>+6.3%</td>
<td>+3.0%</td>
</tr>
<tr>
<td>Japan</td>
<td>89-04</td>
<td>+1.4%</td>
<td>+2.4%</td>
<td>+5.4%</td>
<td>+5.3%</td>
<td>+1.0%</td>
<td>..</td>
</tr>
<tr>
<td>Netherlands</td>
<td>90-00</td>
<td>+1.8%</td>
<td>+3.0%</td>
<td>..</td>
<td>+1.2%</td>
<td>+1.8%</td>
<td>+3.8%</td>
</tr>
<tr>
<td>Sweden</td>
<td>80-04</td>
<td>..</td>
<td>..</td>
<td>+1.3%</td>
<td>+0.9%</td>
<td>+0.9%</td>
<td>+2.0%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>94-03</td>
<td>..</td>
<td>0.0%</td>
<td>..</td>
<td>+7.4%</td>
<td>..</td>
<td>+3.2%</td>
</tr>
<tr>
<td>United States</td>
<td>92-02</td>
<td>+0.6%</td>
<td>-0.3%</td>
<td>..</td>
<td>+2.2%</td>
<td>+1.5%</td>
<td>+3.5%</td>
</tr>
</tbody>
</table>

*Data Source: Taiwan Department of Health and OECD*
Ambulatory Utilization Per Capita by Age Groups (2000 Vs. 2007)
Inpatient Utilization Per Capita by Age Groups (2000 Vs. 2007)

Data Source: National Health Insurance Annual Statistical Report
Medical Expenditure Per Capita by Age Groups (2007)

Data Source: National Health Insurance Annual Statistical Report
### Medical Expenditure on Age 65+

<table>
<thead>
<tr>
<th>% of age 65+</th>
<th>% of medical cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.0%</td>
<td>32.7%</td>
</tr>
</tbody>
</table>

- **Persons of age 65+ (10 thousand):**
  - 1996: 169
  - 1997: 173
  - 1998: 175
  - 1999: 182
  - 2000: 187
  - 2001: 195
  - 2002: 200
  - 2003: 206
  - 2004: 215
  - 2005: 219
  - 2006: 226

- **Medical expenditures (NT$100 million):**
  - 1996: 160
  - 1997: 300
  - 1998: 1218
  - 1999: 1389
  - 2000: 1443
  - 2001: 1480
  - 2002: 800
  - 2003: 1000
  - 2004: 1200
  - 2005: 1400
  - 2006: 1600

- **Growth:**
  - From 1996 to 2000: +138%
  - From 2000 to 2006: +33.7%
## Ratio of Per Capita Medical Expenditure
### (age 65+/ age 0-64)

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical expenditure on Age 65+ (RVU/per person)</td>
<td>49,504</td>
<td>59,889</td>
<td>65,974</td>
<td>67,183</td>
</tr>
<tr>
<td>Medical expenditure on Age 0-64 (RVU/per person)</td>
<td>11,767</td>
<td>13,033</td>
<td>15,145</td>
<td>15,338</td>
</tr>
<tr>
<td>Ratio (Age 65+/Age 0-64)</td>
<td>4.21</td>
<td>4.60</td>
<td>4.36</td>
<td>4.38</td>
</tr>
<tr>
<td>Korea</td>
<td></td>
<td>3.16</td>
<td>3.37</td>
<td></td>
</tr>
</tbody>
</table>

*Data Source: S Kwon, Introduction of Long-term Care (LTC) Insurance in Korea National Health Insurance Annual Statistical Report*
NHI & LTC in Taiwan: It’s about Time to Part, Dear!

- Part of the deficit of NHI was contributed by services that are supposed to fall into LTCI or social welfare, such as:
  - Social hospitalization;
  - Renal dialysis above certain age
  - Being on ventilator for an extended period, etc.
- Insufficient coverage for LTC by NHI only exacerbates fragmentation of LTC.
Yet, I shall take good care of you.

- Good care by NHI will alleviate pressure on LTC: P4P for certain chronic illness
  - Hypertension;
  - Asthma;
  - Diabetes;
  - Breast cancer.
LTC in Taiwan: Current Profile
Where the Problems Lie: the Administrative Structure

- Turfs wars between the Department of Health and Ministry of the Interior Affairs;
- Provided by various agencies as well as an uncoordinated private sector.
Where the Problems Lie: the Resources

- Human resources insufficient in quantity as well as in variety;
- Facilities imbalanced, and tilt to institutionalized care.
- Quality is a concern for most private facilities.
Where the Problems Lie: the Financing

- Mostly borne by the family or the individual;
- Limited coverage by the NHI.
Toward an LTC Insurance in Taiwan
“There is no (social) security on this earth; there is only opportunity. – Douglas McArther
Opening and Closing of the Double Windows
The Double Windows

- The medical-burden window;
- The Demographic window.
Future Population of Taiwan by Age

- Age <15: 17%, 12%, 12%, 10%
- Age 15-64: 73%, 67%, 57%, 52%
- Age 65+: 10%, 20%, 30%, 38%

Years:
- 2008
- 2025
- 2040
- 2056
Relationship between health expenditures per capita and GDP per capita (2004)

Source: OECD Health DATA 2006
Head Start? – Percentage of 65+ When the LTCI Implemented

- Germany (1995): 16%;
- Japan (2000): 17%;
- Taiwan (supposedly 2012): 11.2%.
LTC in Taiwan: Recent Major Efforts(I)

- Demonstration Centers for LTC (1998) – Taking inventory on the resources;
- A Program for Developing the Care Industry (2002~2007) – Training human resources;
LTC in Taiwan: Recent Major Efforts (II)

- Taskforce for LTC Programming (2004);
- Demonstration Project for Telehealth (2007~2008) – in search of the application of telehealth for LTC;
Feasibility for an LTC Insurance: the Financing (I)

- Willingness to pay: More than 70% are willing to pay for a LTCI;
- Ability to pay: Premium for NHI, National Pension, and LTCI together amounts to 3.81% of the household income.
Feasibility for an LTC Insurance: the Financing (II)

- LTCI cost as % of GDP: 0.46%~0.56%, or approximately 1/7~1/9 that of the NHI;
- Government’s contribution: 0.97% of the total governmental budget.
Feasibility for an LTC Insurance: the Facilities

- Give priority to the under served areas;
- Give priority to the community-based facilities;
- Transform under-utilized community hospitals into LTC facilities.
Feasibility for an LTC Insurance: the Human Resources

- Still less than 40% of the needed manpower;
- Urgent need for training programs – underway in many of the vocational colleges;
- Licensure system for quality assurance.
Feasibility for an LTC Insurance: the Choice of the Administration

- A stand-alone agency, or
- A separate program administered by Bureau of NHI?
Likely Timetable for an LTC Insurance

- Defining the Policy Parameters in 2009;
- Drafting the legislation in 2010;
- Passing the legislation 2011;
- Implementing in 2012.
Conclusion and Further Considerations on Policy Options
Conclusion Remarks

- Quick aging calls for a systematic financing scheme for LTC;
- NHI has won worldwide reputation, while LTCI has to jump hurdles to come into being;
- Financing is a lesser problem for a LTCI, but infrastructure not quite ready;
- Quick legislation needed to get the resources mobilized.
Multilayer of LTC as Conceived by the Current Taskforce

First layer:
- Public LTCI

Second layer:
- Private LTCI

Third layer:
- Individual or Household Savings

The “Zero” Layer Social Assistance, NPOs, volunteers
Alternative Policy Issues

- Would LTCI crowd out voluntarism?
- How can we best tap the wealth vested in the fabrics of the society?
- Is market mechanism a solution for a “moderately prosperous but aging” society?
- Is social insurance viable in a post-solidarity world?
In Search of a Viable Model on “Fluidarity”

- Solidarity
  - Boundaries well defined
  - Stable employment structure
  - Family well defined

- Fluidarity
  - A flat world
  - Vicissitudes of the labor market
  - Who is whose keeper?