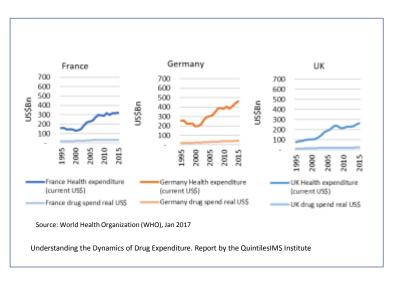


Europe - Reimbursement Environment

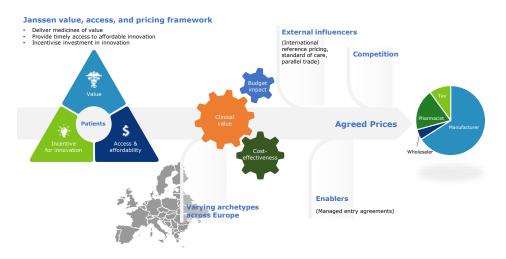
features, observations, evolution

- Markets with established Universal Health Coverage
- Variety of reimbursement models
 - HTA, Evidence, value-informed
- Expenditure/cost increasingly an issue
 - Individual product level rather than system?
- Collaboration seen as option to improve efficiency
 - Eg: HTA clinical evaluations



The European Reimbursement Process

Prices that are set are the outcome of comprehensive processes established by government agencies







ISPOR Asia Pacific 2018 8-11 September 2018, Tokyo, Japan

Current practices and prospects in managing reimbursement in Asia Pacific and Europe: what we can do more to bridge the experience and expectation?

2018 ISPOR Panelist Discussion: Reimbursement Systems

Nathorn Chaiyakunapruk

Center of Pharmaceutical Outcomes Research (CPOR)

Naresuan University, Phitsanulok, THAILAND

School of Pharmacy, Monash University Malaysia, MALAYSIA

Disclaimer

I am an advisor of National List of Essential Medicine
Subcommittee. My comments are not representative of
NLEM or decision makers.





Overall Reimbursement System

- Thailand
 - Semi-reimbursement : 75% UC, 15% SS, and 10% CSMBS
 - NLEM (drug) for all, UC Benefit package (device & program)
 - HTA (efficacy/safety/EE/BIA and other aspects for UHC) for sustainability of healthcare system
- Malaysia: moving toward HTA (CEA and BIA) with limited budget
- Singapore : implementation of HTA (CEA & BIA) for subsidy decision
- Vietnam: Control drug spending & use HTA for reimbursement decision
- Indonesia: UHC implementation & limited public funding
- Philippines: HTA agency was formed and use of HTA for coverage





Thailand: Evolution of reimbursement over time

- With UHC adoption in 2001, Thailand has been trying to balance the access to health services/product, ensuring quality service delivery, optimal financing mechanism, HR, IT development to achieve the goal of UHC
- UHC goal: human right to have access to care with quality for financial risk protection and equity
- Focused on OOP, Impoverishment, equity on PROGRESS (place of residence, race/ethnicity, occupation, gender, religion, education, socioeconomic status, social capital and others)
- Financial sustainability: high level exploration for means to increase resources (VAT and a certain tax to be earmarked to Healthcare)





Thailand: reimbursement system performance

- Overall healthcare access to services has improved with limited budget
- Limited evidence on health outcomes and speed of access to innovative products
- · Key observations specific to reimbursement
 - · Delay access to innovative products
 - With current budget constraints, it is challenging to find ways to ensure access in timely
 fashion unless strong evidence on clinical outcomes and economic value on particular
 subgroups can be demonstrated with affordability
 - Fast and efficient system in making a decision on NLEM





Overall Picture - Future Trend

- Recent development of drive value based-healthcare system which is centered around the concept of "SAFE"---Sustainability, Adequacy, Fairness and Efficiency
- Exploration of cost sharing model for benefit package (essential/complementary/supplementary) with a need to improve health literacy of Thai citizen
- Discussion in ongoing on how to improve the following key areas: preventable illness, rational drug use, chronic disease management, appropriate use of health services, hospital acquired conditions, and preventable disabilities
- Sustainability of healthcare system requires contribution of beneficiaries with sufficient health literacy







Current practices and prospects in managing reimbursement in China:
What we can do more to bridge the experience and expectation

Prof. Zhao Kun

Division Director of Policy Evaluation and Health Technology Assessment
China National Health Development Research Center (CNHDRC)

11th September
Tokyo, Japan

China National Health Development Research Center



- Recent governance reform
- HTA intuitional progress
- Current practice
- More need we can do

China Hartamai Health Development Research Centur

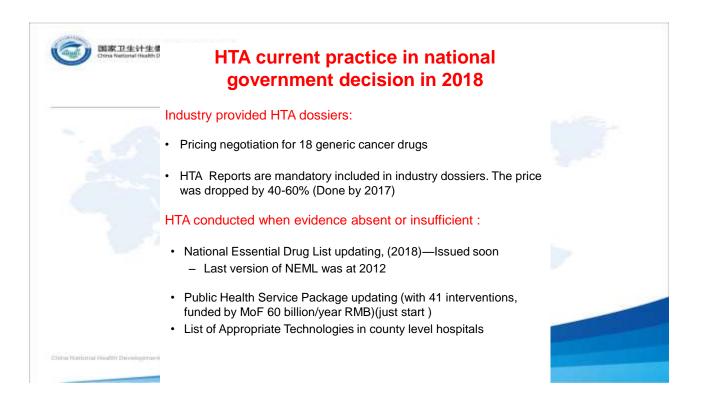


Governance Reform (Recent)

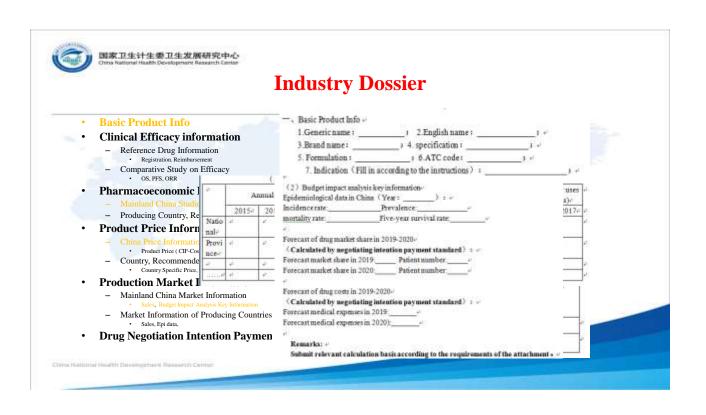
- 13th National People's Congress--5th March, 2018
 - New Payer: National Healthcare Security Administration
 - ✓ Reimbursement access
 - ✓ Pricing (drug, lab test and service)
 - ✓ Procumbent (working with NHC)
 - ✓ Monitory
 - ✓ Merging all Medical Insurance Schemes into One
 - ✓ Covering 97% of Chinese Population
 - ➤ MoH---NHFPC---NHC (National Health Commission)

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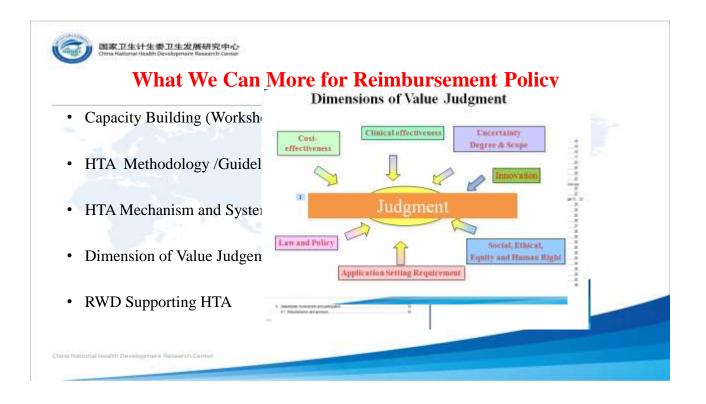


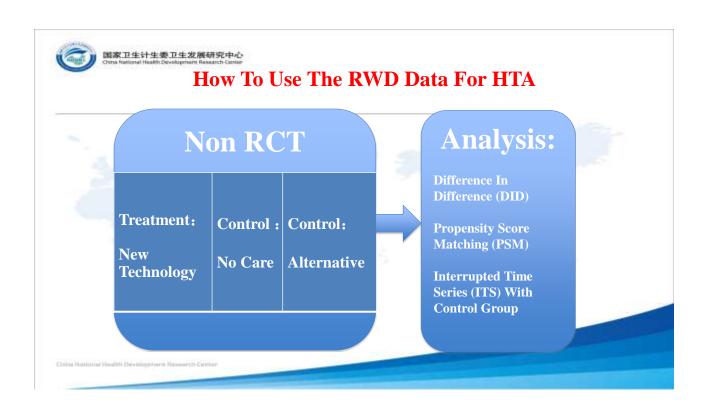


Updated National Essential Drug List

- From 520 (2012) to 685(2018) items
 - Medicine 417 items, TCM 268 items
- Disinvested 22
- · Newly Added:
 - Focus on Cancer (i.e. Antineoplastic Drug-12 items)
 - Pediatric (i.e. High-Demanding -22items)
 - NCD
 - Pan-genotype Hep-C
- Rules in Priority setting
 - Burden of Diseases
 - Clinical Needs and Preferable
 - Clinical Effectiveness
 - Cost Effectiveness
- Consistency Evaluation for Generic Drug

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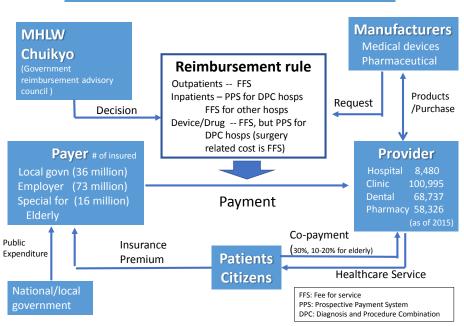




Reimbursement Policy in Japan -Challenges and future-

Makoto Tamura Ph.D
International University of Health and Welfare
Healthcare System Planning Institute (HSPI)

Overview of Japan Healthcare System



Key Characteristics of Japan NHI system



Universal health insurance scheme

Covering all citizens (combination of different insurers)

Comprehensive healthcare coverage



Medical expenditure/GDP

10.9%: the sixth highest among OECD countries



Substantially Single payer

The government and its advisory council, Chuikyo, decide reimbursement tariff, though there are formally more than a thousand payers



Mostly FFS except DPC (Diagnosis Procedure Combination) hospitals

Per diem payment is applied to 1730 DPC hospitals out of 8500 hospitals

Even for DPC hospitals, surgery is reimbursed based on FFS



Lower copayment

30% copayment in addition to about 80,000 yen Max-Out-of-Pocket cap [US\$ 770] for monthly health expenditure



Regulatory approved technologies are generally reimbursed

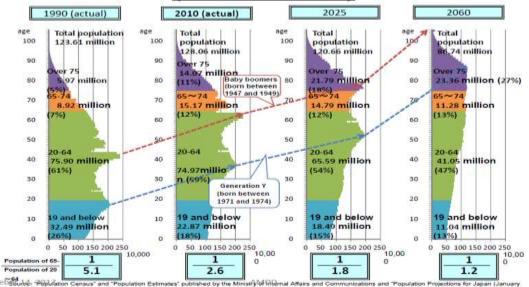
In most cases, reimbursement listing 2-3 months after approval for drug (5-6 months for devices)

Brief history of NHI around healthcare technology

Event/Reform	Background
Establishment of universal coverage (1961)	Demand for healthcare Direction to welfare state
Zero copayment for elderly people (1972)	• Direction to wenare state
Increase copayment for elderly people and others (1981-)	Healthcare expenditure growth
DPC (diagnosis-procedure combination) payment is introduced (2003)	growth
Shared billing scheme (regulated mixed payment) is extended (2006)	Drug lag, Device lag
New drug development promotion premium (Price Maintenance Premium: 2010)	
Early introduction premium for medical devices (2012)	
HTA trial (2016)	Emergence of expensive technology
Fundamental reform of drug pricing rule (2018)	teciniology

Key Challenges

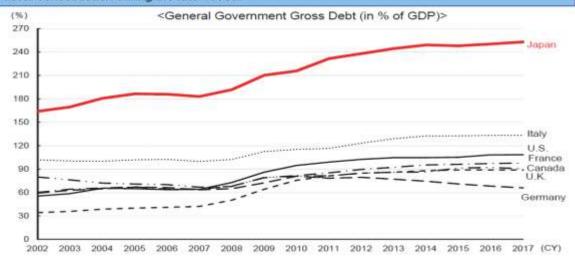
Changes in Population Pyramid (1990 to 2060)



Septime (Sound): Population Census' and Population Estimates' published by the Ministry of Mildmal Affairs and Communications and Population Projections for Japan Ganuary 2012: Medium-famility/medium-mortality assumptions' (based on the population as of October 1 each year) published by the National Institute of Population and Social Security Research

International Comparison of General Government Debt (in % of GDP)

In GDP terms, the Japan's gross general government debt condition has rapidly deteriorated and now stands at the highest level among major advanced countries, which steadily proceeded with fiscal consolidation during the late 1990s.



Factor Analysis of the Growth of Medical Expenditure

Division of growth of medical expenditure in recent years into factors shows "aging population" pushed up expenditure by around 1.5%.
 "Advancement of medical care, etc." includes influences of advancement of medical care, review of copayment, and other factors.

FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	
1.9%	1.8%	3.2%	-0.0%	3.0%	2.0%	3.4%	3.9%	3.1%	1.6%	2.29	
	-1.0%	×11	-3.16%		-0.82%		0.19%		0.004%		
0.1%	0.1%	0.1%	0.0%	0.0%	-0.1%	-0.1%	0.0%	-0.2%	-0.2%	-0.29	
1.6%	1.5%	1.8%	1.3%	1.5%	1.3%	1.4%	1.6%	1.2%	1.4%	1.39	
0.2%	1.2%	1.3%	1.8%	1,5%	1,5%	2.2%	2.1%	2.1%	0.4%	1.19	
April 2003 30 percent copayment for employees, etc.			30 percent copayment for alderly who earn income equivalent to their		20 percent copsyment for children under compulsory						
	1.9% 0.1% 1.6% 0.2% April 2003 30 percent copayment for employees.	FY2003 FY2004 1.9% 1.8% -1.0% 0.1% 0.1% 1.6% 1.5% 0.2% 1.2% April 2003 30 percent copayment for comployees,	FY2003 FY2004 FY2005 1.9% 1.8% 3.2% -1.0% 0.1% 0.1% 0.1% 1.6% 1.5% 1.8% 0.2% 1.2% 1.3% April 2003 30 percent copayment for employees.	FY2003 FY2004 FY2005 FY2006 1.9% 1.8% 3.2% -0.0% -1.0% -3.16% 0.1% 0.1% 0.1% 0.0% 1.6% 1.5% 1.8% 1.3% 0.2% 1.2% 1.3% 1.8% Agril 2003 30 percent copayment for dataly who arm income equivalent for dataly who arm income equivalent more	FY2003 FY2004 FY2005 FY2006 FY2007 1.9% 1.8% 3.2% -0.0% 3.0% -1.0% -3.16% 0.1% 0.1% 0.0% 0.0% 1.6% 1.5% 1.8% 1.3% 1.5% 0.2% 1.2% 1.3% 1.8% 1.5% April 2003 30 percent copayment for edularly wto earn accompanyment for edularly wto earn income equivalent	FY2003 FY2004 FY2005 FY2006 FY2007 FY2008 1.9% 1.8% 3.2% -0.0% 3.0% 2.0% -1.0% -3.16% -0.82% 0.1% 0.1% 0.0% 0.0% -0.1% 1.6% 1.5% 1.8% 1.3% 1.5% 1.3% 0.2% 1.2% 1.3% 1.8% 1.5% 1.5% 1.5% April 2003 30 percent copsynament for employees. 30 percent copsynament for enderly who earn concent equivalent computatory 30 percent computatory 30 percent computatory	FY2003 FY2004 FY2005 FY2006 FY2007 FY2008 FY2009 1.9% 1.8% 3.2% -0.0% 3.0% 2.0% 3.4% -1.0% -3.16% -0.82% 0.1% 0.1% 0.1% 0.0% 0.0% -0.1% -0.1% 1.6% 1.5% 1.8% 1.3% 1.5% 1.3% 1.4% 0.2% 1.2% 1.3% 1.8% 1.5% 1.5% 2.2% April 2003 30 percent copayusent for elderly who earn more copayusent for elderly who eld	FY2003 FY2004 FY2005 FY2006 FY2007 FY2008 FY2009 FY2010 1.9% 1.8% 3.2% -0.0% 3.0% 2.0% 3.4% 3.9% -1.0% -3.16% -0.82% 0.19% 0.1% 0.1% 0.0% 0.0% -0.1% -0.1% 0.0% 1.6% 1.5% 1.8% 1.3% 1.5% 1.3% 1.4% 1.6% 0.2% 1.2% 1.3% 1.8% 1.5% 1.5% 2.2% 2.1% April 2003 30 percent copayment for didn'ty who sun incoming equivalent for children under comployees.	FY2003 FY2004 FY2005 FY2006 FY2007 FY2008 FY2009 FY2010 FY2011 1.9% 1.8% 3.2% -0.0% 3.0% 2.0% 3.4% 3.9% 3.1% -1.0% -3.16% -0.82% 0.19% 0.1% 0.1% 0.0% 0.0% -0.1% -0.1% 0.0% -0.2% 1.6% 1.5% 1.8% 1.3% 1.5% 1.3% 1.4% 1.6% 1.2% 0.2% 1.2% 1.3% 1.8% 1.5% 1.5% 2.2% 2.1% 2.1% April 2003 30 percent copsystems for eldelty who earn foods to supplice the constraint of copsystems for eldelty who earn foods to supplice the constraint of copsystems for eldelty who earn foods to supplice the constraint of copsystems for eldelty who earn foods to supplice the constraint of copsystems for eldelty who earn foods to supplice the constraint of copsystems for eldelty who earn foods to supplice the constraint of copsystems for eldelty who earn foods to supplice the constraint of company to company t	FY2003 FY2004 FY2005 FY2006 FY2007 FY2008 FY2009 FY2010 FY2011 FY2012 1.9% 1.8% 3.2% -0.0% 3.0% 2.0% 3.4% 3.9% 3.1% 1.6% -1.0% -3.16% -0.82% 0.19% 0.004% 0.1% 0.1% 0.0% 0.0% -0.1% -0.1% 0.0% -0.2% -0.2% 1.6% 1.5% 1.8% 1.3% 1.5% 1.3% 1.4% 1.6% 1.2% 1.4% 0.2% 1.2% 1.3% 1.8% 1.5% 1.5% 2.2% 2.1% 2.1% 0.4% April 2003 30 percent copsyment for elderly who earn copsyment for copsyment for computatory	

Note 1: Growth of medical expenditure represents growth of national medical expenditure until FY2012 and estimates of medical expenditure for FY2013 (medical expenditure So extellusted by notice) and reimbursement services organization), representing the num of sendicish expenditure paid by medical innurance and public expenditure

2. The influence of aging population in FY2013 is an estimate based on the national medical expenditure by age group (5-year group) in FY2012, and the national by age groups

25

Options for policy reform



Change of copayment

- Introduction of deductible
 - ✓ Such as 10,000 yen for each month
- · Multilevel copayment for drug
 - ✓ Lower copay for serious disease, such as
 - √ Higher copay for light disease
- Macroeconomic slide
 - ✓ Similar to pension macroeconomic slide benefit
 - ✓ When medical expenditure grows significantly fast, copayment rate would be increased

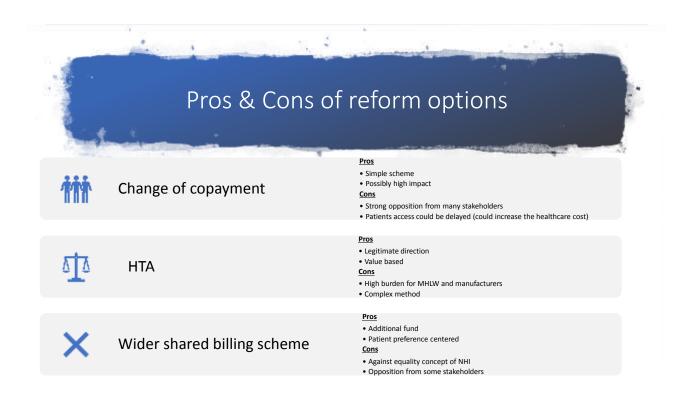


HTA (Cost-Effectiveness analysis)

- MHLW/Chuikyo have seriously discussed the introduction of HTA since 2012
- · Pilot program was done for 7 drugs and 6 devices
 - ✓ The discussion for 4 drugs and 1 device still continues (originally the result should be fixed by the March of 2018)
- Official program would be introduced from 2019
 - ✓ It was agreed at Chuikyo that HTA is used for price adjustment, but MOF is still insisting HTA should be used for judgement whether the product should be reimbursed or not
 - ✓ ICER threshold would be 5 million yen



- · Mixed payment is not allowed in Japan
 - √ Mixed payment means NHI covered technology/service and non-covered are provided under a series of the treatment
 - Existing shared billing scheme (exceptions for the mixed payment)
 - ✓ Elective care (Sentei Ryoyo)
 - ✓ Evaluative care (Hyoka Ryoyo)
 - ✓ Patient requested care (Kanja Moshide Ryoyo)
- Another type of shared billing scheme may be considered
 - ✓ Technologies which do not have enough effectiveness/efficiency evidence would be subject to the new type (not expected to be reimbursed in the future)



Thank you