

HTA & Pharmaceuticals Reimbursement Decision Under Taiwan's National Health Insurance Program



Mao-Ting Sheen

Director

National Health Insurance Administration,
Taiwan



Curriculum Vitae

Sheen, Mao-Ting 沈茂庭

★ **Present Position:**

Director, Taipei Division,
National Health Insurance Administration
(NHIA), Taiwan

★ **Education:**

1991~1992 MSC in Health Economics, University of York, U.K.

1985~1986 M.A in Hospital Administration, China Medical University, Taiwan

1981~1985 B.A in Pharmacy, Kaohsiung Medical University, Taiwan

★ **Working Experiences :**

2009,4~2014,3 Director, Dept. of Medical Review and Pharmaceutical Benefit,
NHIA

2006,1~2009,4 General Manager, Dept. of Medical Affair, BNHI

2005,2~2005,12 General Manager, Dept of Planning, BNHI

2003,2~2005,1 Deputy General Manager, Dept. of Medical Affair, BNHI

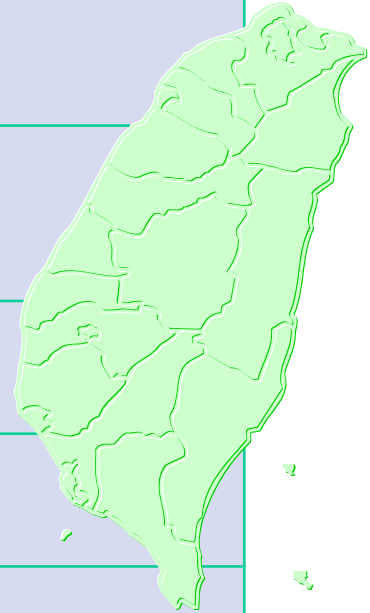
2001,8~2003,1 Deputy General Manager, Center Branch office ,BNHI





Taiwan

Population	23 million
Land area	36,191km ²
Ageing	11.15%
GDP (2011)	US\$ 37,737 per capita (PPP) US\$ 20,006 per capita
NHE(2011)	US\$ 2,499 per capita (PPP)
NHE to GDP (2011)	6.62%
Life expectancy (2011)	76 (M) / 82.6 (F)



Social Insurance Development in Taiwan

1950 Labor Insurance (40.1%)

1958 Government Employee Insurance (8.5%)

1985 Farmers Insurance (8.2%)

1995 National Health Insurance (99%)

*() indicates % of total population insured as of 1995

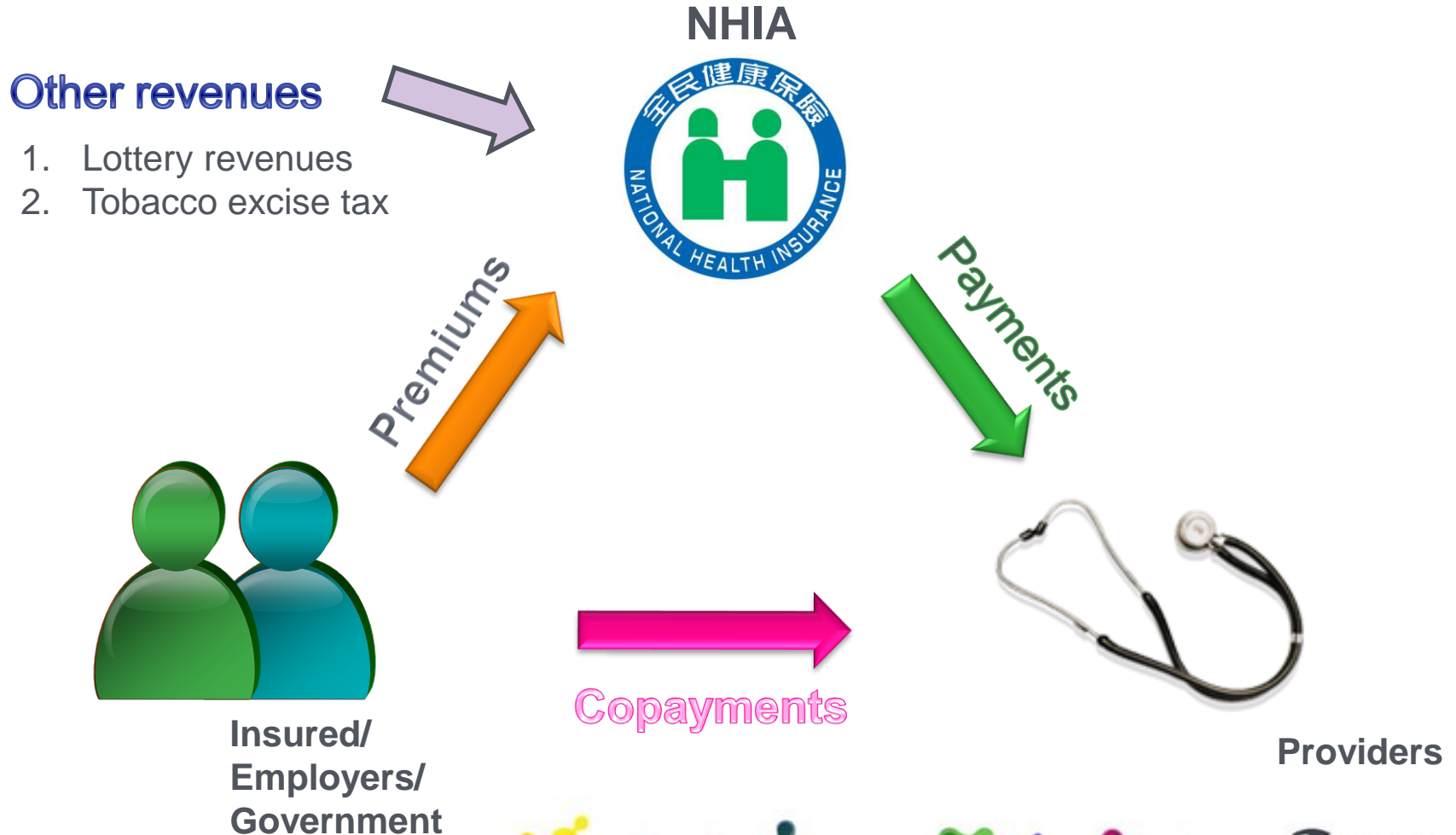


Characteristics of NHI

Coverage	Compulsory enrollment for all citizens and legal residents (99% of the population is covered by the NHI)
Administration	Single-payer system run by the government
Financing	Premiums(including basic and supplementary premiums)
	Premium shared by the employee, employer and government
Benefits	Uniform package, copayment required
Providers	<ul style="list-style-type: none"> •Contract-based •93% of providers contracted with NHI
Payment	Fee for service under sectoral global budgets, piloting DRGs system
Privileges	Premium and copayment subsidies for the disadvantaged



Basic Framework of NHI



Health IT

- The NHIA issued the insured a health IC-Card
- All healthcare providers submit claims electronically
- Patient's profile created to improve the quality of care - for example, the PharmaCloud, to avoid the duplicate prescription.



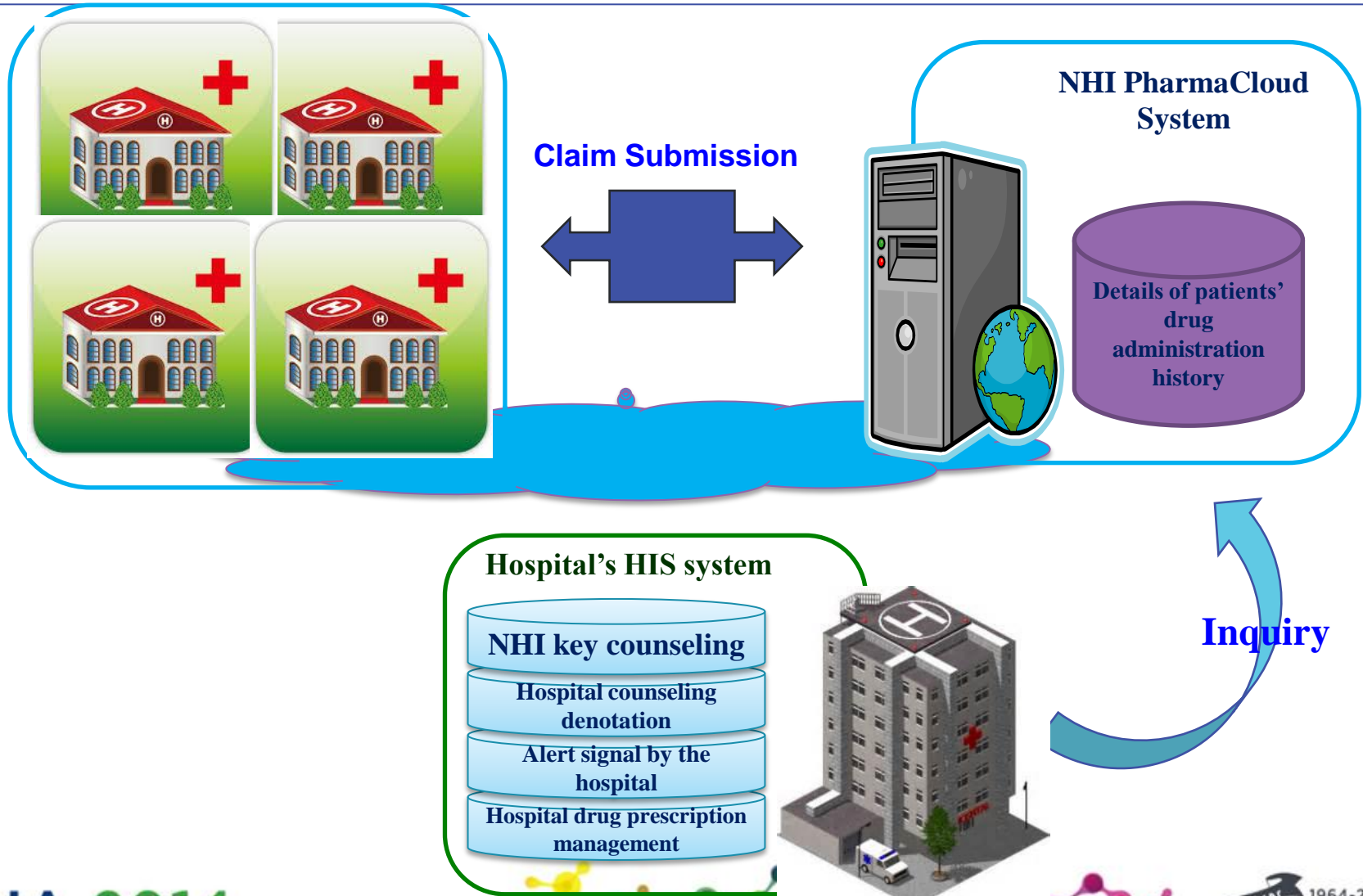
NHI IC Card



Functions of NHI IC Card

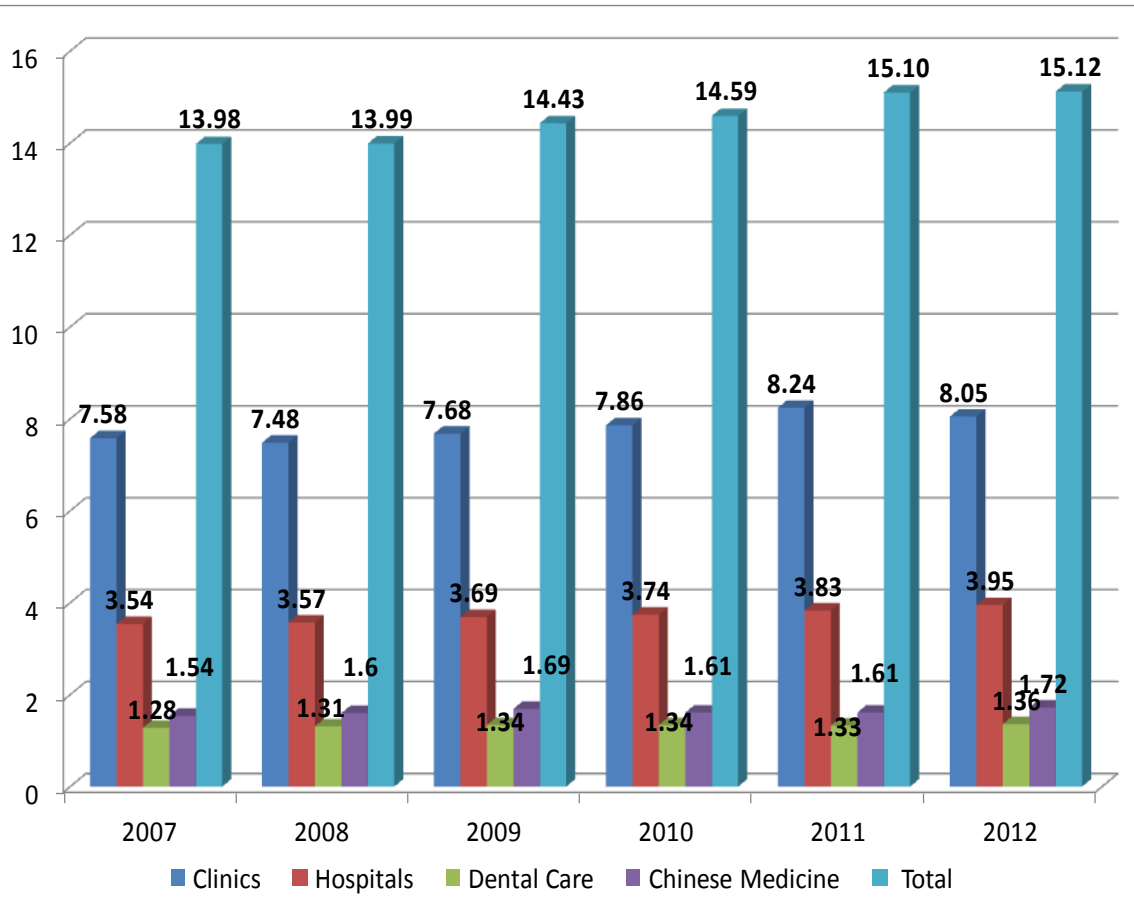


NHI PharmaCloud System

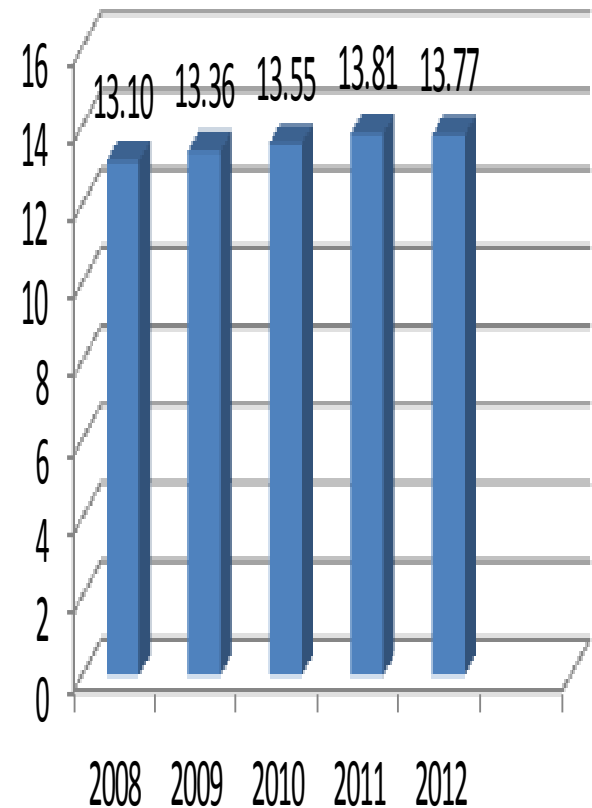


NHI Medical Utilization

Outpatient visits per person per year



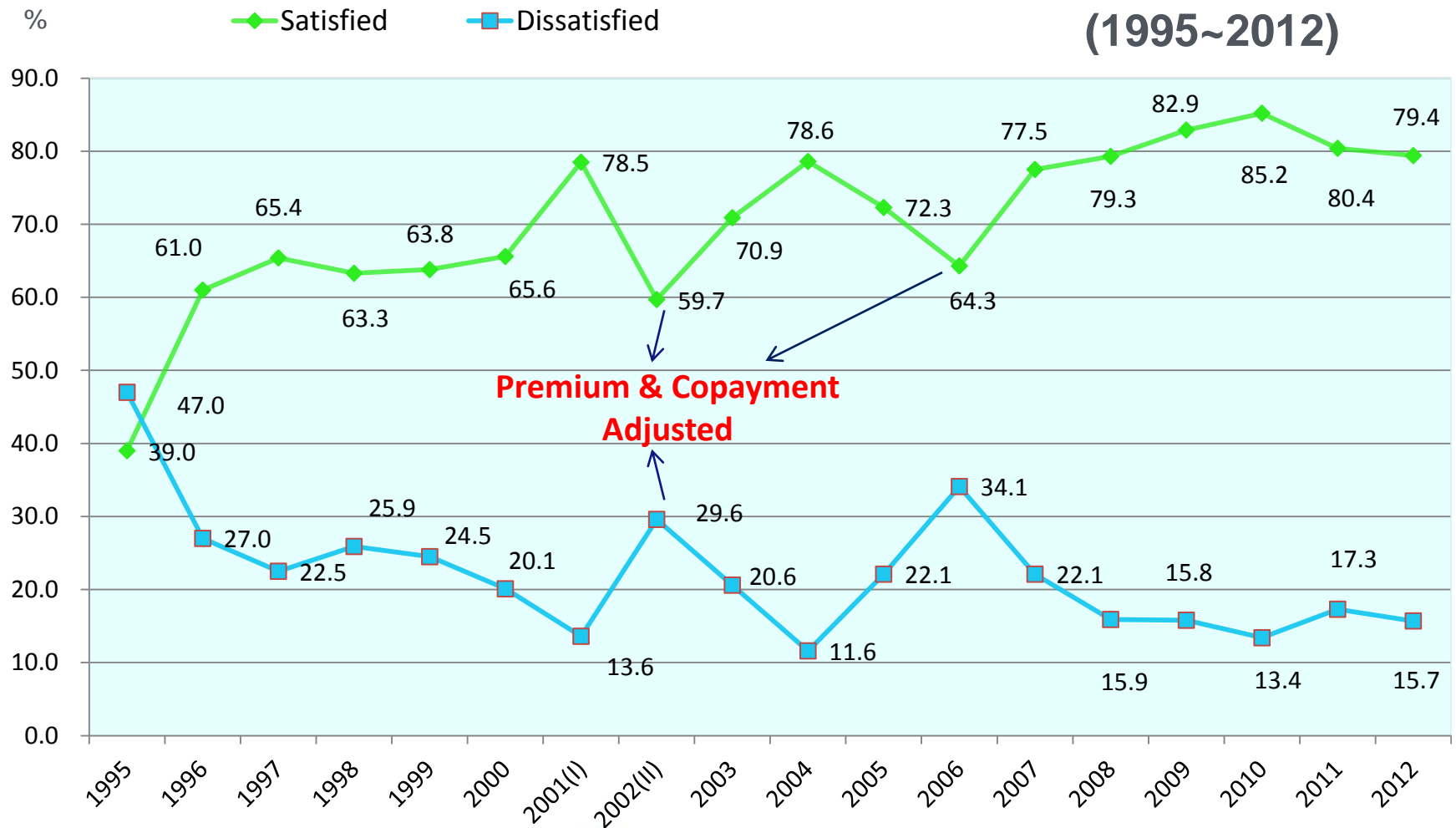
No. of hospital admissions per 100 persons



Mixed Healthcare providers to balance equity & efficiency

	Public	Private	Total
No. of Hospital	81 (16%)	414 (84%)	495 (100%)
No. of Clinic	416 (2%)	19,404 (98%)	19,820 (100%)
No. of Bed	43,799 (30%)	102,812 (70%)	146,611 (100%)

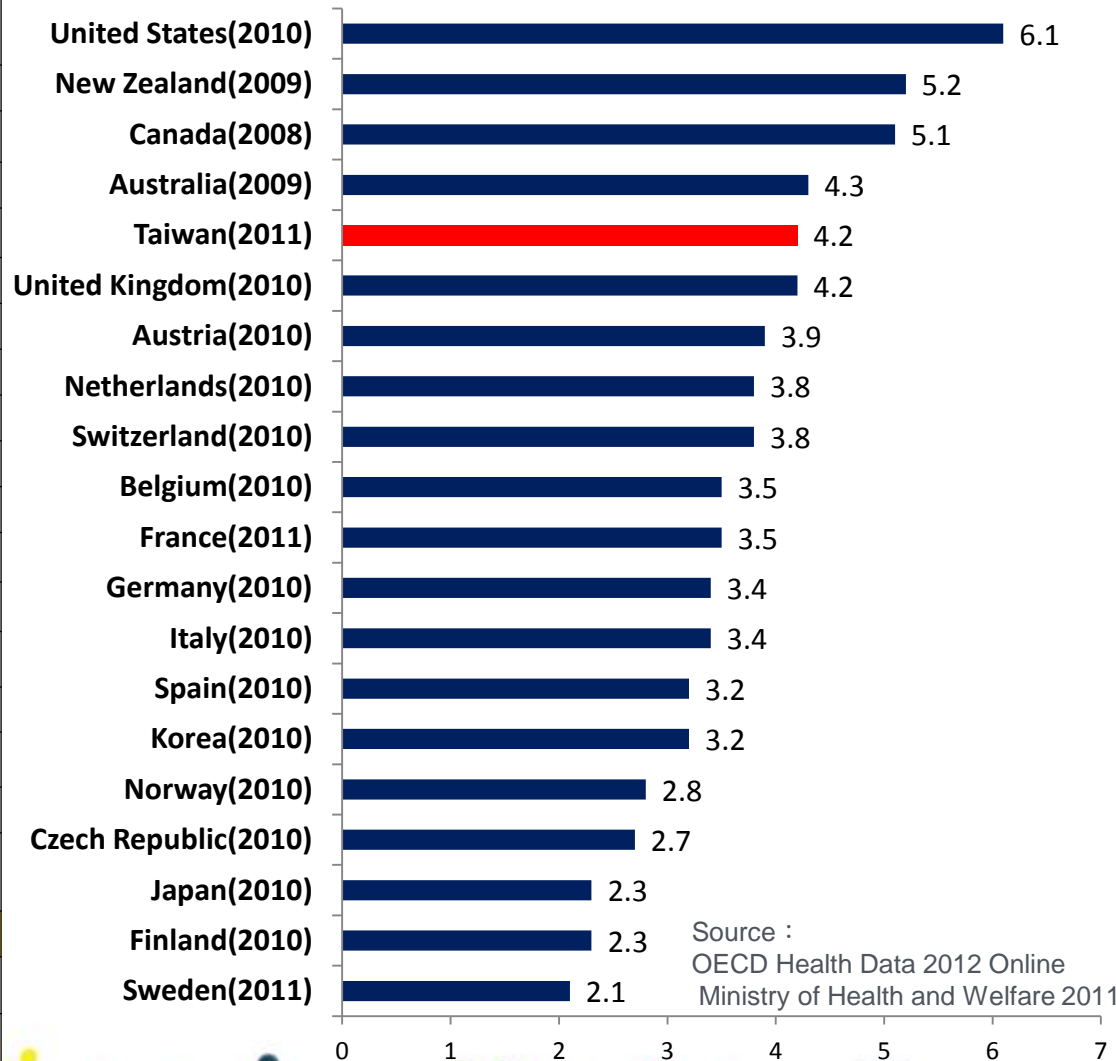
High Public Satisfaction



Assured Quality of Care

	Life Expectancy	
	Female	Male
Japan (2010)	86.4	79.6
Spain (2010)	85.3	79.1
Switzerland (2010)	84.9	80.3
Italy(2009)	84.6	79.4
France (2011)	84.8	78.2
Australia (2010)	84.0	79.5
Korea(2010)	84.1	77.2
Finland (2010)	83.5	76.9
Sweden (2011)	83.7	79.8
Norway (2010)	83.3	79.0
Austria (2010)	83.5	77.9
Canada(2008)	83.1	78.5
Germany(2010)	83.0	78.0
Belgium (2010)	83.0	77.6
New Zealand (2010)	82.8	79.1
Netherlands (2010)	82.7	78.8
United Kingdom (2010)	82.6	78.6
Taiwan (2011)	82.6	76.0
United States (2010)	81.1	76.2
Czech Republic(2010)	80.9	74.5
Mexico(2011)	77.9	73.2

Infant Mortality Rate: 4.2 per 1,000



Source :
 OECD Health Data 2012 Online
 Ministry of Health and Welfare 2011

Up-to-standard Quality

Five-year Survival Rates for Cancer

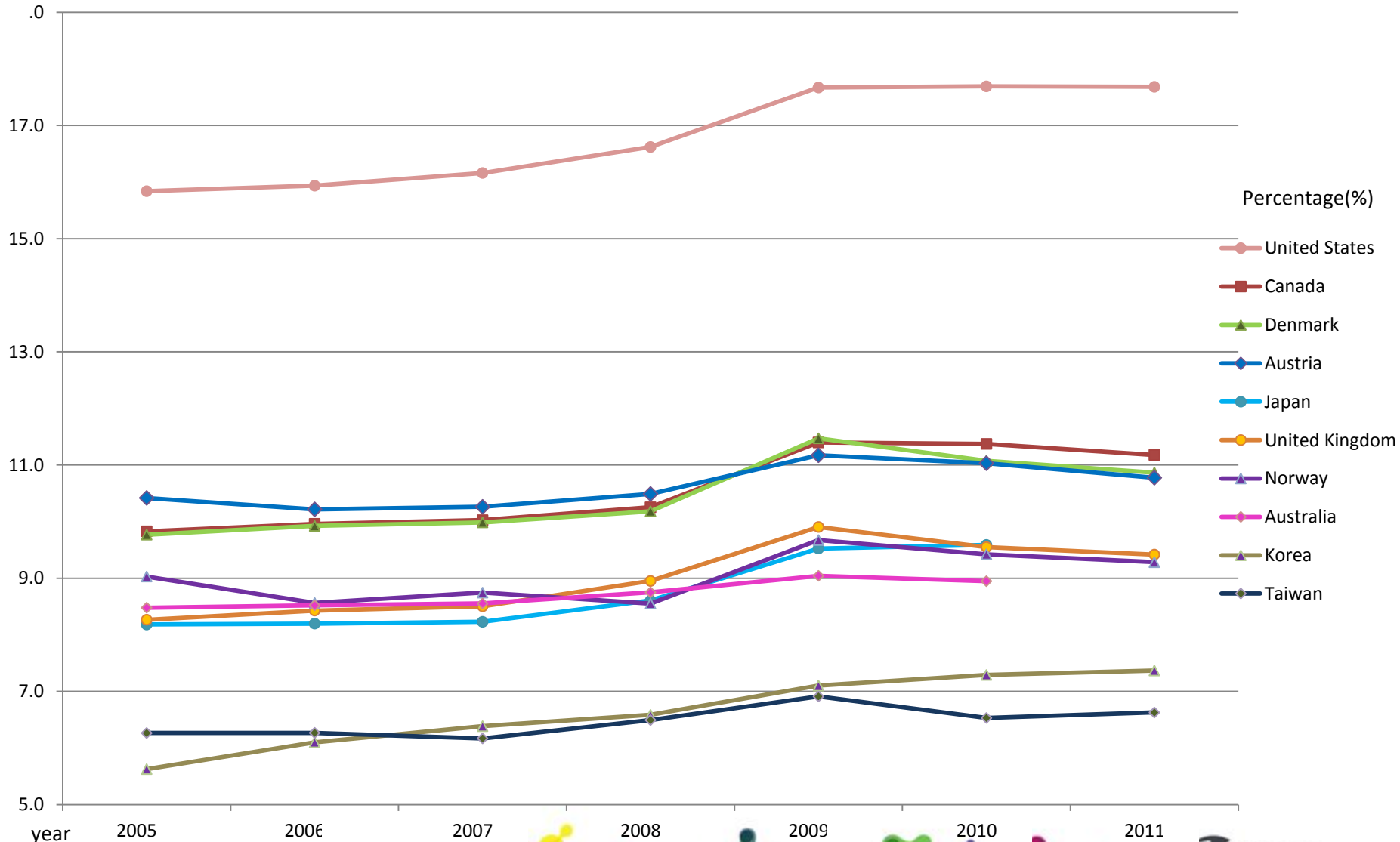
Unit: %

	Colon Cancer		Lung Cancer		Breast Cancer
	male	female	male	female	female
Taiwan (2004-2008)	59	61	12	18	86
United States (1999-2005)	65	65	13	18	89
Australia (1998-2004)	61	62	11	14	88

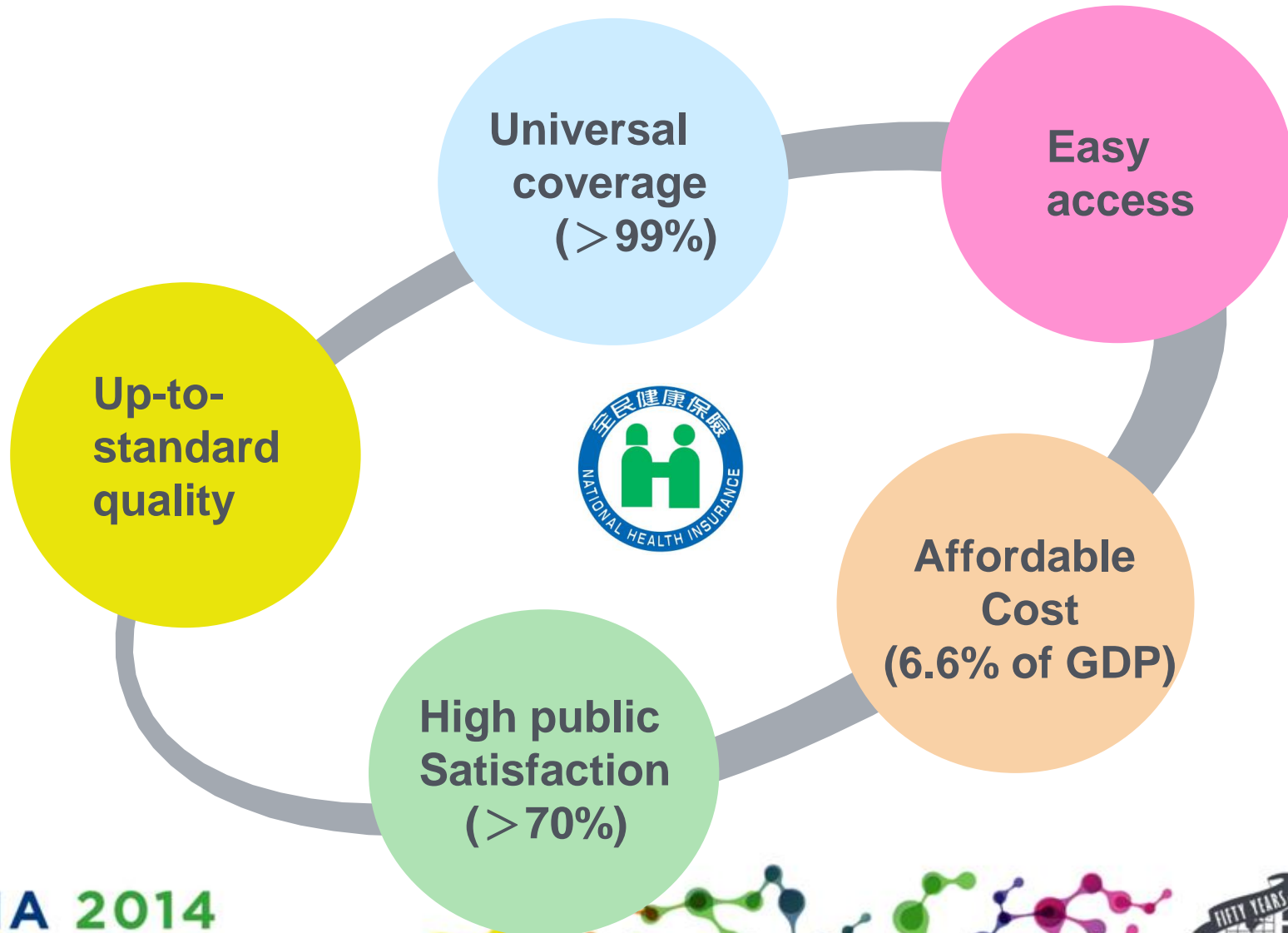
Organ Transplant Patient Survival Rates

	Taiwan No. of Cases (2001- 2011)	3-month Survival Rate			1-year Survival Rate			3-year Survival Rate		
		Taiwan (2008- 2009)	US (2007-2008)		Taiwan (2008- 2009)	US (2007-2008)		Taiwan (2006- 2009)	US (2005-2008)	
			deceased	living		deceased	living		deceased	living
Kidney	2727	98.3%	98.30%	99.50%	96.9%	96.0%	98.6%	94.5%	90.0%	95.8%
Liver	2626	90.7%	94.60%	94.60%	85.6%	88.9%	92.0%	78.3%	79.9%	84.7%
Heart	772	87.2%	93.60%		76.2%	88.9%		68.9%	81.7%	

Total health expenditure As a percentage of GDP

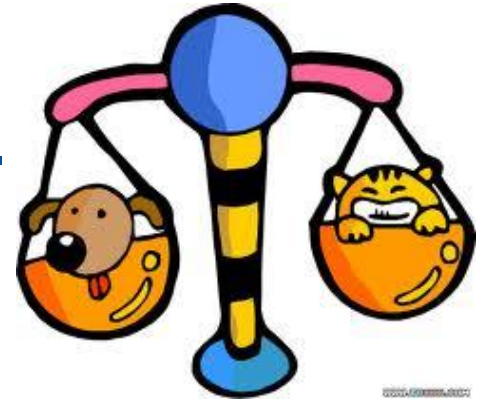


Major NHI Achievements



NHI Reform in 2013

- **Fairness in contribution – supplemental premium**
- **HTA as a basic element in healthcare reimbursement decision making**



NHI Financing

Basic Premium

+

Supplementary Premium

Calculated on payroll-related income

Imposed on non-payroll incomes

Premium Rate
Reviewed by the
NHI Supervisory Board

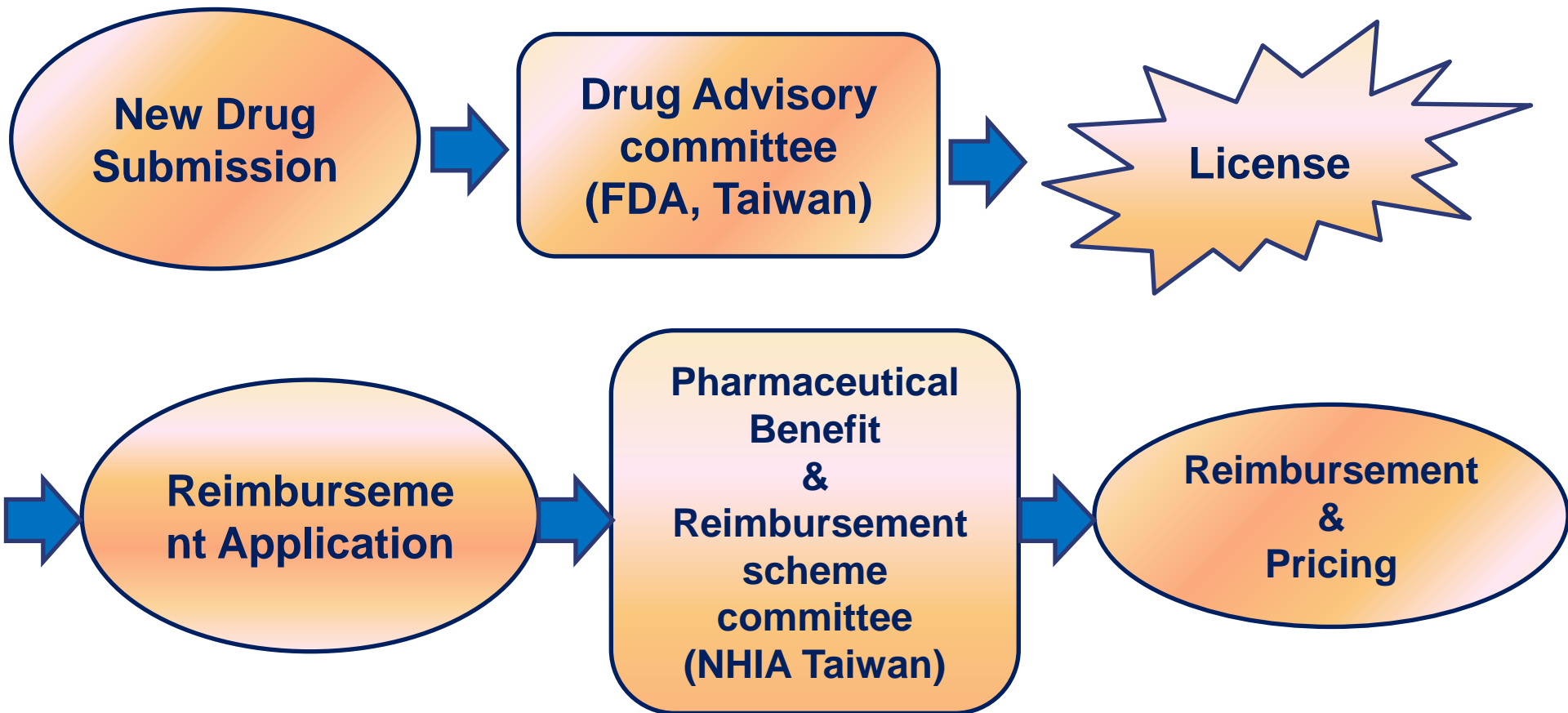
Insurance Revenue

Pay-As-You -Go
Maintain financial
balance

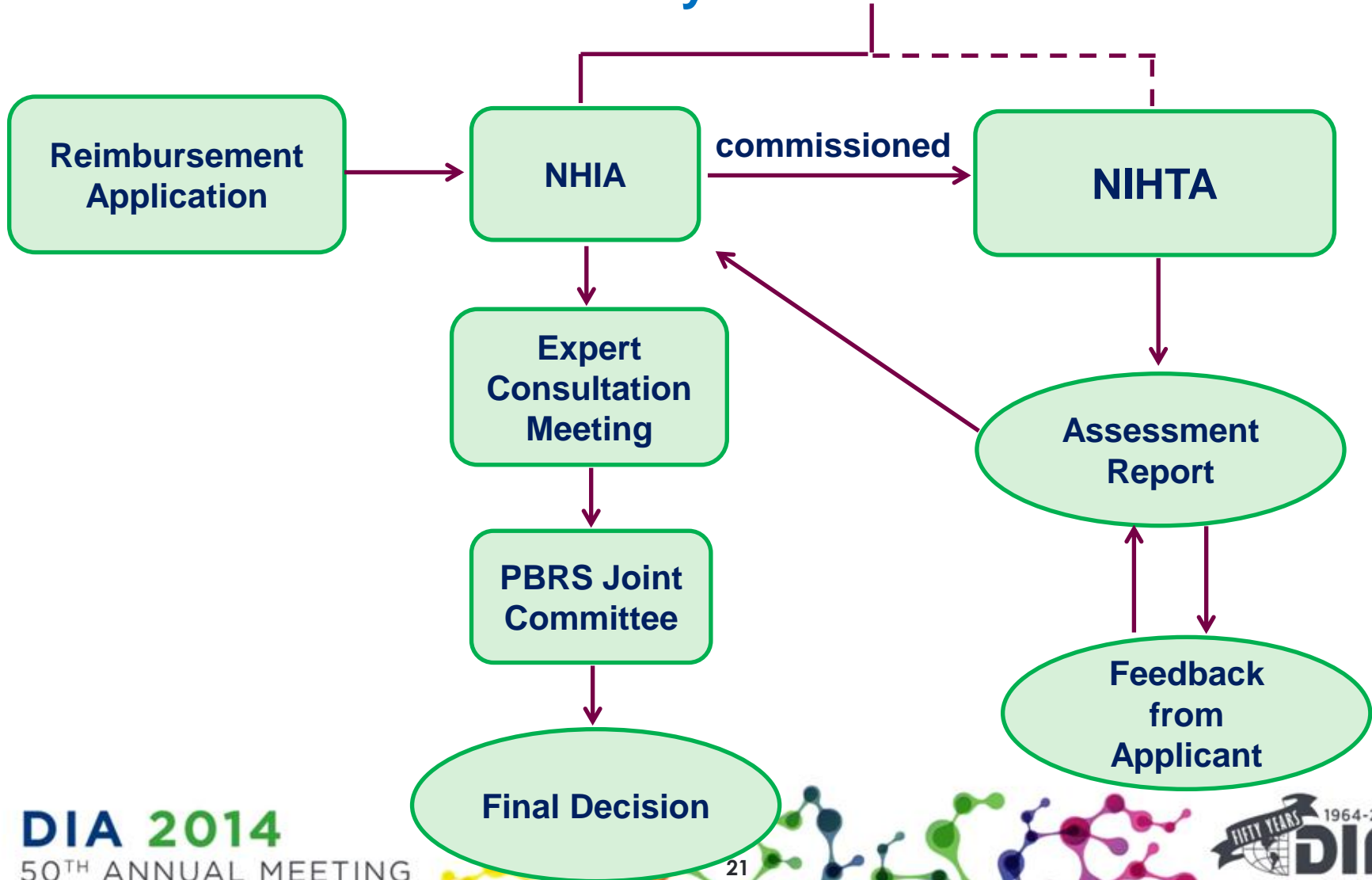
Other Revenues

Lottery revenues , Tobacco excise tax

Licensing & Reimbursement process



Ministry of Health & Welfare



HTA Development Process in Taiwan

The Drug Benefit Committee (DBC) evaluated whether new drugs were suitable for reimbursement under the NHI system, but no formal HTAs were performed.

National Institute of Health Technology Assessment (NIHTA)

Preliminary stage

1st implementation stage

2nd implementation stage

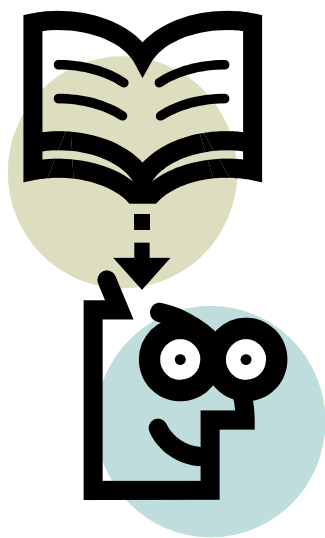
1995-2007

2007-2012

2013-

The DBC evaluated dossiers from drug manufacturers and reports by HTA working groups operating under the Center for Drug Evaluation (CDE).

Focus of Assessment Report

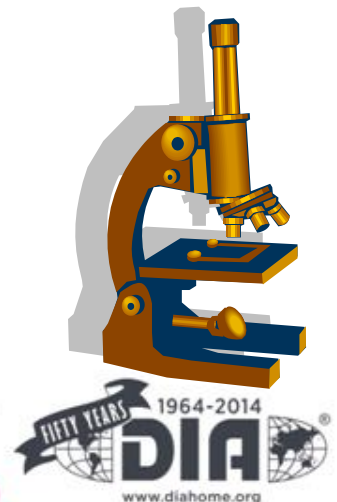


- **Comparative Effectiveness**
- **Cost-effectiveness**
- **Budget Impact**



Incentive for Local Study

- **Up to 10% mark-up for local PE study submission**
- **10% mark-up for local clinical trial**



Future Challenge

- Empowerment of all stakeholders, especially the PBRs members and patient advocate group
- Cooperation with academic institution to produce assessment report using Taiwan health utilization data
- Capacity building
- Facilitate the regional development of HTA



Thank you

Mao-Ting Sheen

Director

National Health Insurance Administration, Taiwan

