

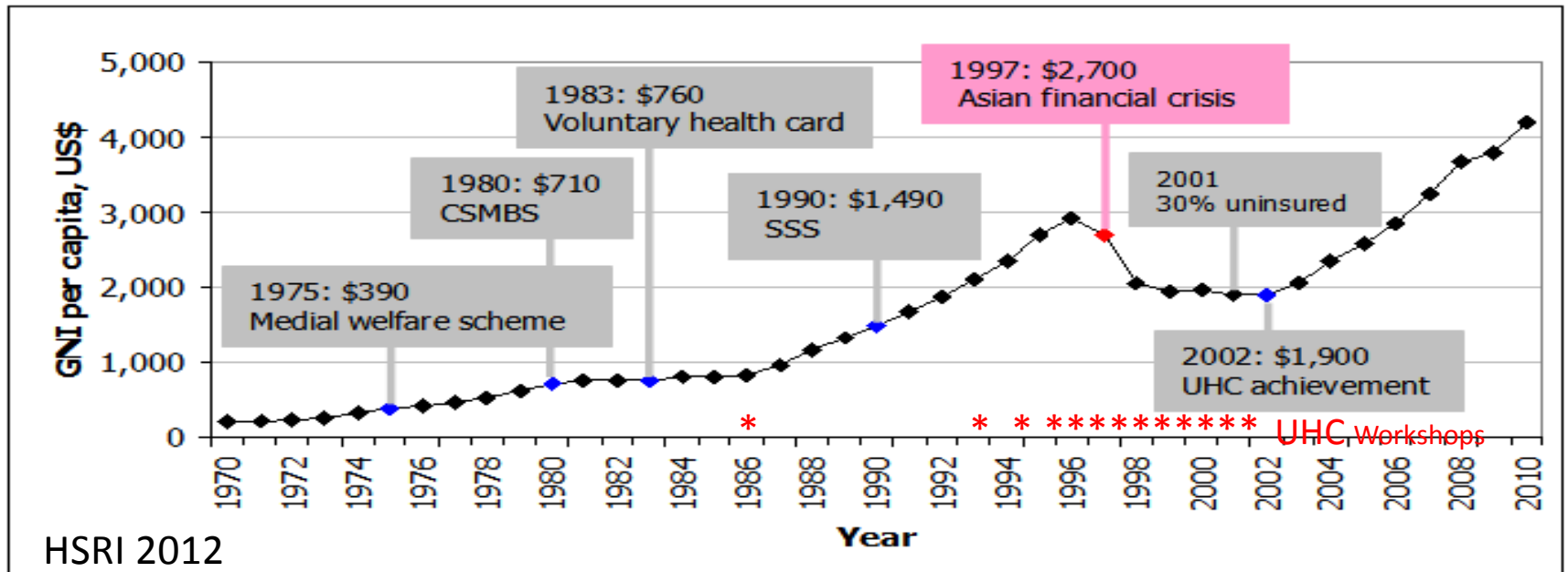
# **Thailand case study: Developer of own DRG (2)**

Supasit Pannarunothai

Health Information system Standard  
and Processing Administration (HISPA)

# Background

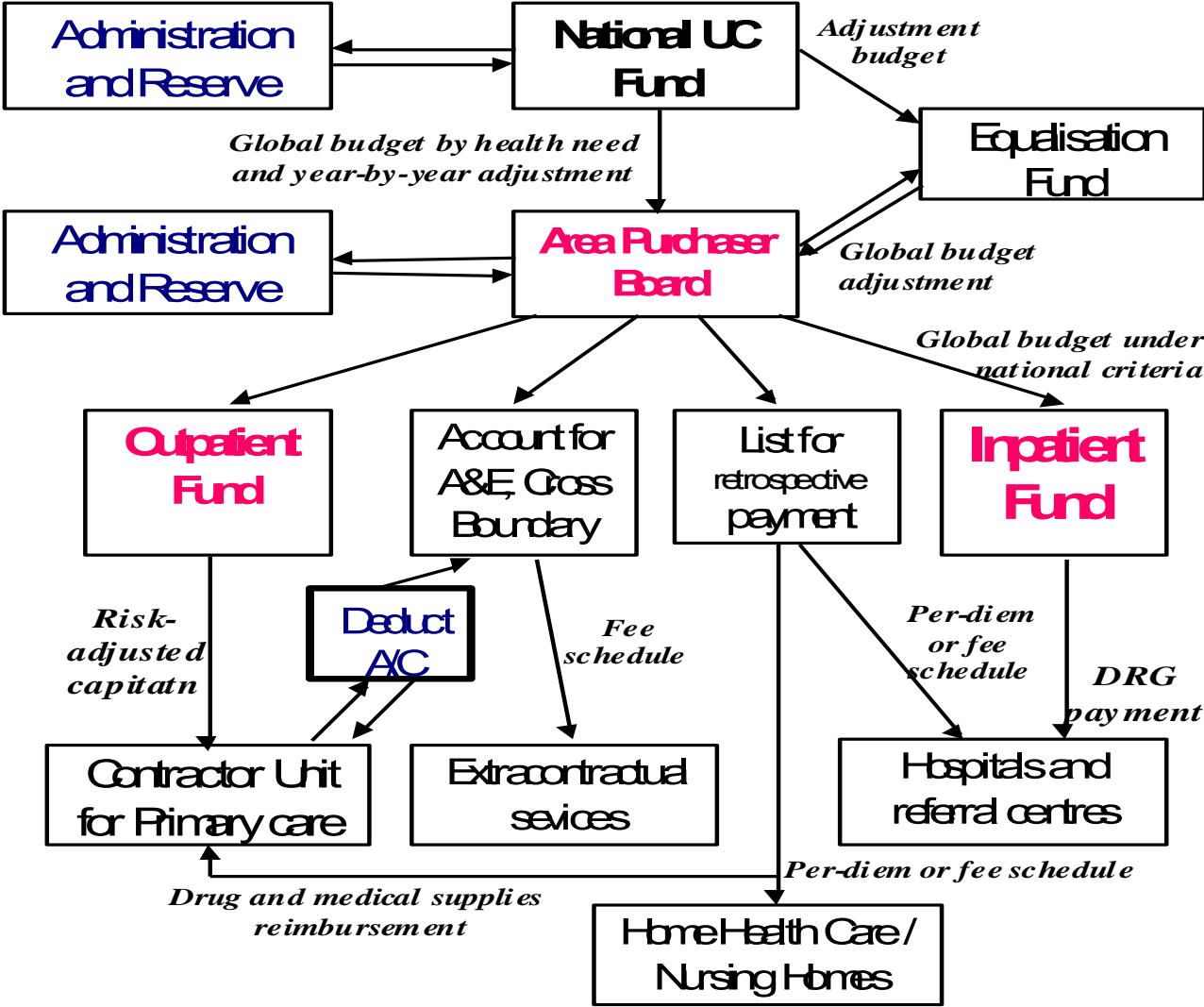
- Thailand's universal health coverage policy had long been discussed with various stakeholders over a decade before becoming real.



# Development of Thai-DRG

- Cost and complexity aspects of inpatient care were the main driver for intensive research on diagnosis related group as a payment reform for inpatient care of the UHC arrangements.
- Thai DRG developer team, since 1993, realized the complexity of multi-payer system of Thai UHC
- A single TDRG system used by multiple funds.

# Design of DRG model within Universal Coverage policy



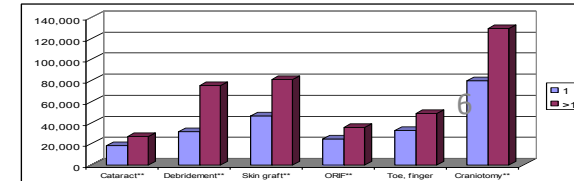
# 6 versions of Thai DRG



# Before DRG Version 4 ('1' vs '>1')

Operating procedures	1	More than 1
Cataract**	18,281	26,751**
Debride**	31,304	75,128**
Skingraft**	46,132	80,950**
ORIF**	24,255	35,329**
Toe finger	32,341	48,782
Haemodialysis**	83,284	45,833**
Craniotomy**	79,537	129,128**

Test significant by F-test \* =  $p < .05$  \*\* =  $p < .01$



# Universal Coverage Scheme

- The National Health Security Office (established by the 2002 NHSA) first adopted TDRG for inpatient payment (by law) to 80% of total population covered by the UCS.
- The UCS applied DRG with global budget (hard control).
- The base rates for 2002 were differential with contingency fund for provinces with great loss.
- Recently, there are 2 base rates: regional rate with global budget and national rate for referrals.

# Civil Servant Medical Benefit Scheme

- In 2004, the CSMBS, the highest health insurance per capita spending required electronic claim submission to pay to hospital on a fee-for-service basis
- In 2007, the scheme officially announced TDRG payment applying own hospital base rate (a soft cost control measure)
- Recently, there are about 10 base rates by hospital groups



# Social Security Scheme

- In 2006, SSS, the first compulsory social health insurance fund since 1990 paid additional capitation by ranking of casemix index (DRG RW); max. of 300 on top of 1,100 baht/cap.
- In 2013, arranged an exclusive payment system for high severity inpatient cases (with DRG relative weight 2 and above) at 15,000 baht/RW.

# The transfers of know-how of TDRG development

**Original**Article ■

## Adopting Thai Diagnosis Related Group for Vietnam Universal Health Coverage: A Case of Ba Vi District Hospital

Pham Le Tuan, M.D., Ph.D.\*, Vu Thanh Nam, M.D., MIT.\*, Tham Chi Dung, M.D., Ph.D.\*, Cao Ngoc Anh, MBA.\*,  
Nguyen Thi Huong, M.D., MPH.\*, Nguyen Nam Lien, MBA.\*, Chairroj Zungsontiporn, M.D.\*\*\*, Orathai Khioacharoen, Ph.D.\*\*\*,  
Supasit Pannarunothai, M.D., Ph.D.\*\*\*\*

*\*Ministry of Health, Vietnam, \*\*Central Office for Healthcare Information, Thailand, \*\*\*Phitsanulok Provincial Health Office, Phitsanulok, \*\*\*\*Faculty of Medicine, Naresuan University and Centre for Health Equity Monitoring Foundation, Phitsanulok, Thailand.*

# Steps in reaching new version

- Reclassification
- Recalibration
- Evaluation of new version
- Implementation support

# Evaluation of new version

- Higher reduction in variance (RIV) for better heterogeneity between groups
  - Higher overall RIV
  - RIV >10% for different DRGs in the same DC
- Lower coefficient of variation (CV) for better homogeneity within groups
- Political acceptability from purchasers and providers

# Implementation support

- Documents
- TDRG Grouper
- TDRG seeker
- Claim data processing and administration contract for purchasers
- Training sessions

# Conclusion

- The transfer process took long time but would be sustainable human resource development
- More data mining from the country claim data has delivered more meaningful cost and clinical complexity table for future casemix developments.