AUDIT SYSTEM

FOR THE UNIVERSAL COVERAGE SCHEME (UCS) IN THAILAND

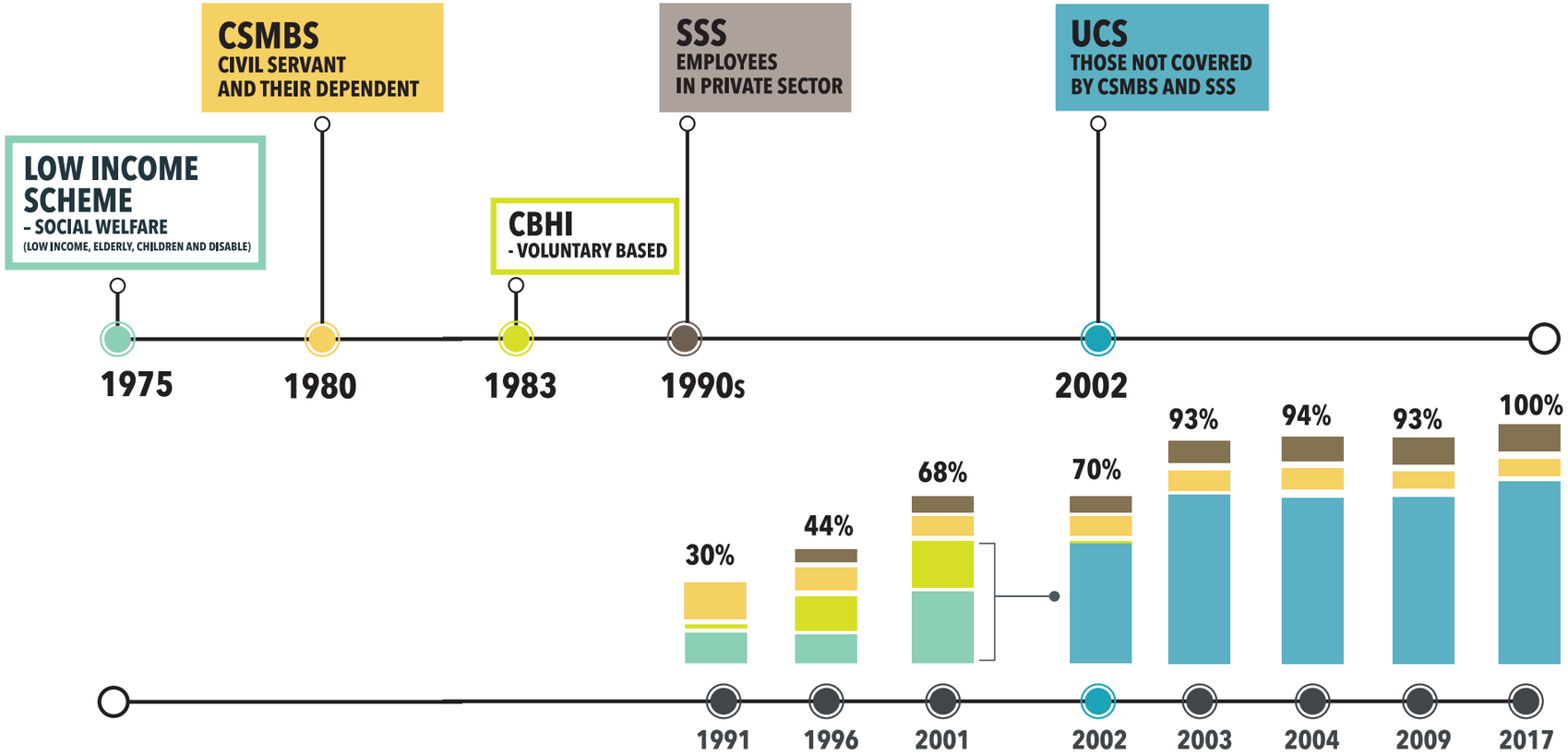
NHSO
National Health Security Office

INCREMENTAL DEVELOPMENT

BUILDING ON STRONG FOUNDATION

The health care insurance system in Thailand has a long history of evolution for three decades to improve equity in health. Thailand established its first welfare scheme in 1972. The Workers Compensation Scheme covers work-related illnesses and injuries. The insurance expanded to cover non-work related illnesses and injuries in 1990 under the Social Security Scheme (SSS). These two schemes are compulsory insurance program for employees of private businesses. For public employees, the Civil Servant Medical Benefit Scheme (CSMBS) was established in 1980 to provide health care to government employees, their dependents and government retirees. SSS and CSMBS are implemented under the Ministry of Labor and the Ministry of Finance respectively.

For the informal sector, the health insurance implemented under the Ministry of Public Health first introduced the Medical Welfare Scheme (MWF) in 1975 to provide health care to the poor free of charge. The program was later expanded to cover the elderly, children and other underpriviledged groups. The Voluntary Health Card Scheme was introduced in 1983 for families on a voluntary basis. And finally, the Universal Care Scheme (UCS) was established in 2002 which makes health insurance cover all Thai citizens.



MULTIPLE SYSTEMS & MULTIPLE FINANCING

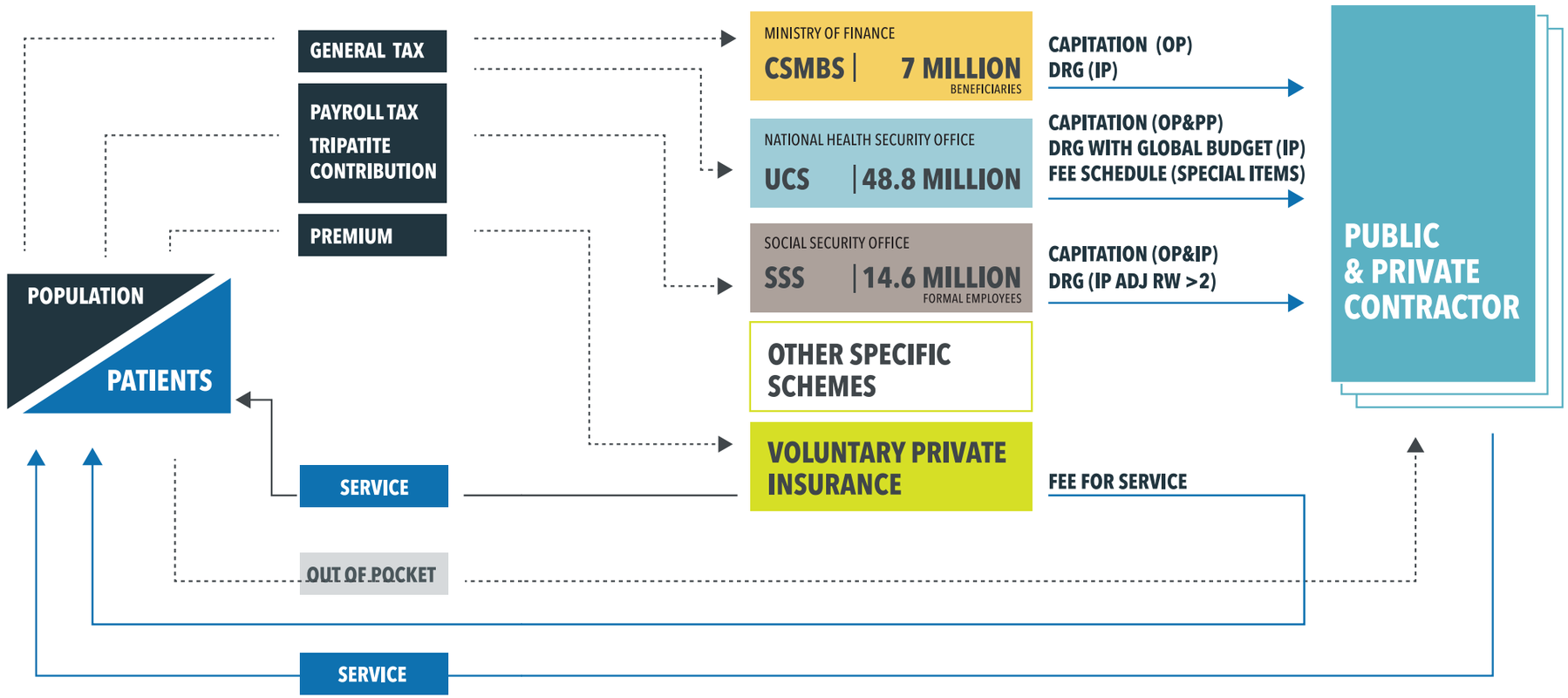
MECHANISMS

CSMBS is financed through general tax revenue with no premium payments from the beneficiaries. Beneficiaries are liable for copayments for the room and board charges associated with inpatient care that is over the set amount. The payment systems for CSMBS use DRG for inpatients and fee for services for outpatients.

SSS is financed equally by employers, employees and the government. Beneficieries are liable for copayments for some services. SSS pays a fixed capitation rate per enrollee. Additional payments are made for certain high cost services with budget capped.

UCS is fully funded through general tax with no premium payments from the beneficiaries. UCS captitation payments cover outpatient services, disease prevention and health promotion. Inpatient services are paid prospectively using DRGs with global budget.

USC
FINANCING SYSTEMS



AUDIT SYSTEM

WHY WE NEED AUDIT SYSTEM

Benefits of auditing can be classified into 3 groups.

IMPROVE OPERATIONAL EFFICIENCY.

Auditing identifies all types of errors and directs to the root of any coding problems. The auditing will make physicians and staff perform with higher degree of effectiveness and efficiency. The audit should identify underpayments as well as overpayments and ensure accurate reimbursement.

IMPROVE DATA QUALITY.

With the necessary feedback, training and follow up, it will result in improved data quality. More reliable data will be available for reporting and research.

IMPROVE QUALITY OF MEDICAL SERVICES.

Quality audits will ensure medical services are according to standard.

ACCOUNTABILTY

EQUITY

TRANSPARENCY

EVOLUTION

OF AUDITING SYSTEMS IN THAILAND

2016
Develop **ONLINE SYSTEM** using Electronic Medical Audit (eMA)

2010
Guideline for Medical Audit

2009
START BILLING AUDIT

2008
Establishment of Bureau of Claim and Medical Audit (BCMA)
START QUALITY AUDIT

2006
Standardize Auditing System across country (Auditor Training, Develop Curriculum and Guidelines, Improve Claim System)
Start using Auditogram

2005
Decentralize Audit System to north-eastern region

2002
DEVELOP E-CLAIM SYSTEM
Transfer data through Central Office for Health Care Information (CHI)
Manage data using Visual Fox Program
Audit Management by NHSO Central Office focusing on on-site Coding Audit

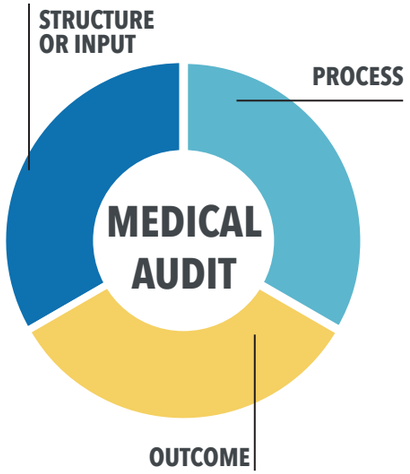
1998
Audit Reinsurance System for high cost items in Low Income Scheme
Reorganize CSMBS

Research and Development of **DRGs**

1993

COMPONENT

OF MEDICAL AUDIT

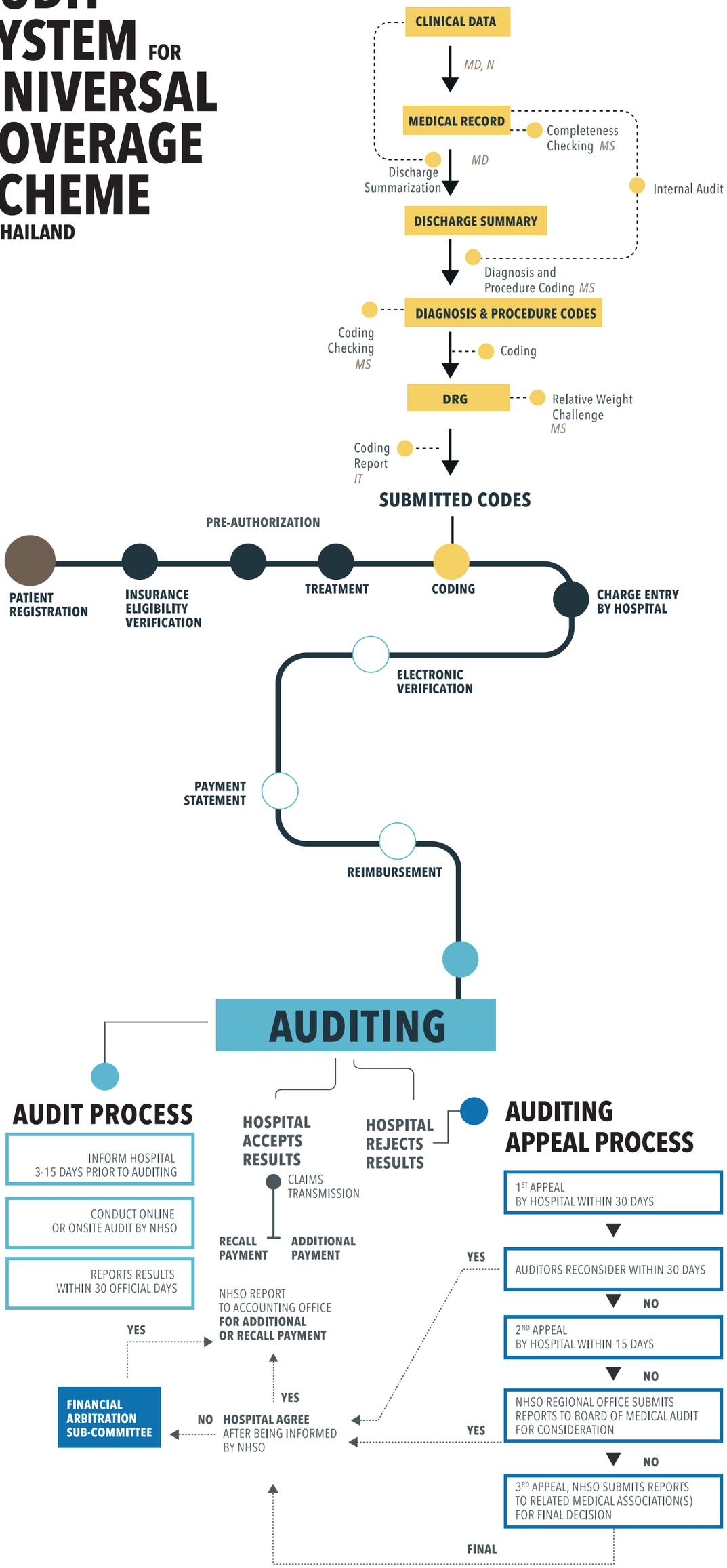


DIFFERENT

AUDIT FOR DIFFERENT PAYMENT

FINANCIAL MECHANISM	SERVICE	AUDIT	
CAPITATION	OP/PP (GENERAL)	NO AUDIT	QUALITY AUDIT & MEDICAL RECORD AUDIT
CASE BASE PAYMENT (DRG WITH GLOBAL BUDGET)	IP (GENERAL)	CODING AUDIT	
FEE SCHEDULE	OP/IP/PP (SPECIAL SERVICE)	BILLING AUDIT	
FEE FOR SERVICE	OPAE	BILLING AUDIT	

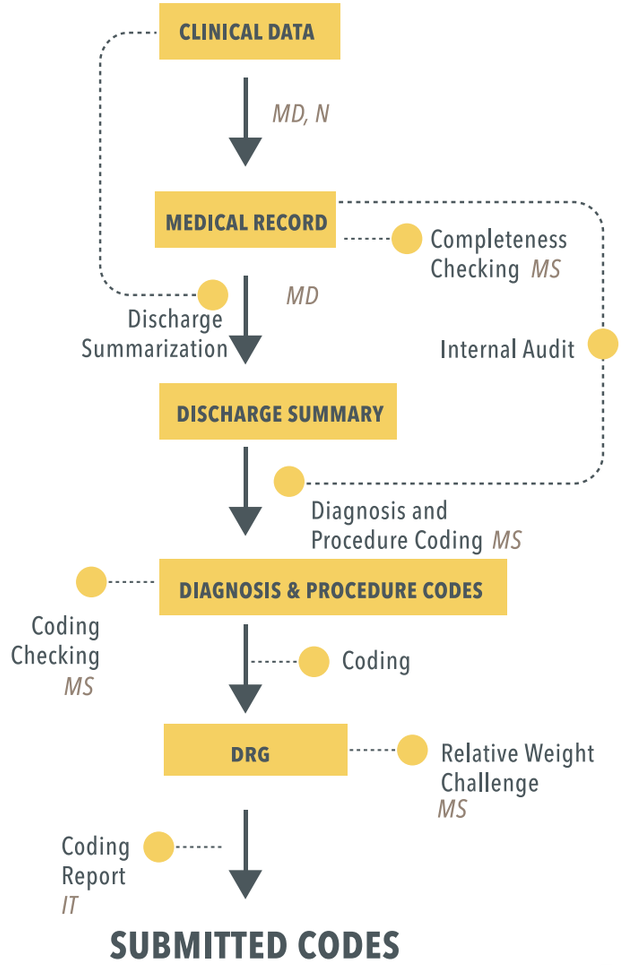
AUDIT SYSTEM FOR UNIVERSAL COVERAGE SCHEME IN THAILAND



CODING AUDIT

WHAT IS DRGs

Diagnosis-related groups (DRGs) is a way of categorizing inpatient hospital visits, severity of illness and resource utilization. It originated in New Jersey, developed by Prof. Fetter and his team at Yale University in the1970s. Each medical procedure will determine the code and will be converted into a monetary amount for claiming.



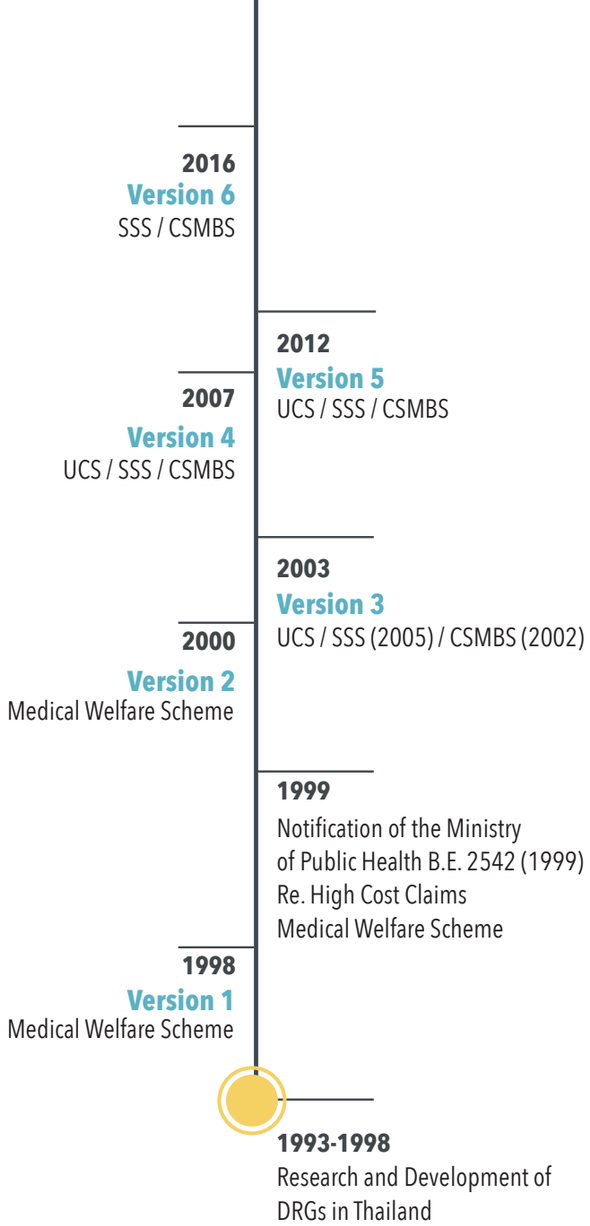
Actors

MD	Physician
N	Nurse
MS	Medical Statistician
IT	Information Technology
FA	Finance / Accounting

DEVELOPMENT OF DRGs

IN THAILAND

Thailand has developed the Thailand Diagnosis-Related Group (TDRG) since 1993 when the Road Accident Victims Protection Act was enacted in 1992. The first phase during 1993-1997 was the research phase to develop TDRG. The first version of TDRG was introduced and implemented in 1998 for the Low Income Card Scheme and later for CSMBS in 2002, USC in 2003 and for SSS in 2005. TDRG advanced to version 6 in 2016.



DRGs

Using DRG with global budget can help control costs of medical treatment. However, use of DRG can lead to coding adjustment or manipulations as been called "DRG creep" which is "a deliberate and systematic shift in a hospital's reported case mix in order to increase reimbursement". The coding audit is designed to minimize the coding errors, both intentional and unintentional, and to ensure reimbursement of the services are accurate. In Thailand, the coding audit is retrospective which is to review submitted claims.

SAMPLING METHODS

Auditing all coded records would be expensive and inefficient, so the best approach is to perform audits on a sample of accounts. The most efficient sample size is the smallest one that best reflects an accurate representation of the coding accuracy and risk. In Thailand, we sample up to 3 percent of inpatient charges.

Thailand uses two sampling methods:

1. TARGETED SAMPLING

Targeted sampling is to select the charges from high probability of having coding and documentation errors or high-risk areas and high-cost charts.

2. RANDOM SAMPLING

Random sampling is to select the charges from the total charges without any condition.

TARGETED SAMPLING

The conditions used for targeted sampling
are divided into 2 categories:
data category and hospital category.

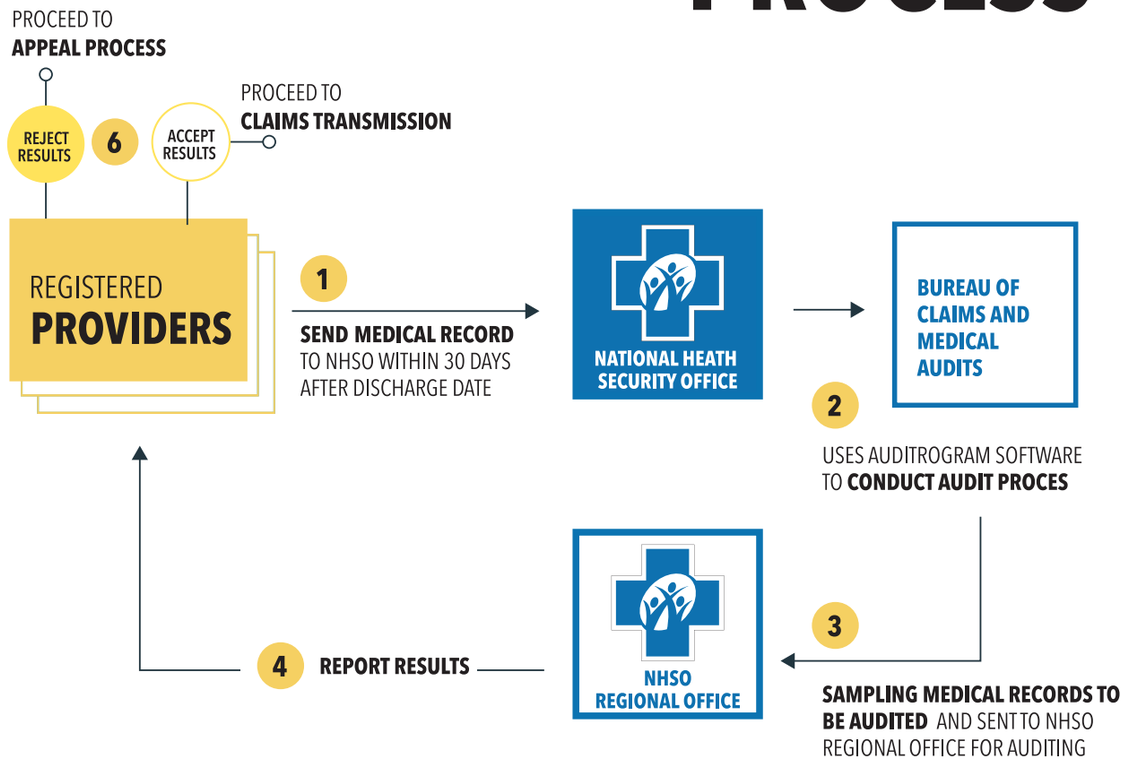
DATA SELECTION CRITERIA

- Top 20 diseases ranked by number of admission
- Top 20 diseases ranked by reimbursement
- Unrelated procedures with principle diagnosis
- High RW point but low admission days and low cost
- Patients with SDx or severe complication but low admission days and discharged stutus as "cured"
- Sepsis (PDx or CC) with few admission days and discharged stutus as "cured"
- Shock with many causes for short admission length
- Appendectomy with co-morbidity or severe complications
- etc.

HOSPITAL SELECTION CRITERIA

- High-level trend in adjusted RW-per-admission (Case Mixed Index), compared year to year
- More-than-average claims RW>3
- More-than-average claims in Accidental and Emergency
- Coding diagnosis and procedure in excess of hospital capacity
- High-level PCCL (Patient Clinical Complexity Level), compared with other hospitals of similar level
- Random auditing with number of mistakes above the mean
- etc.

CODING AUDITING PROCESS



BILLING & QUALITY AUDIT

BILLING AUDIT

- Sampling health facilities to be audited
- Select medical records to be audited according to payment condition of the special projects
- Claims transmission will be made after the auditing same as in the coding audit

QUALITY AUDIT PROCESS

- Sampling health care facilities to be audited according to the services specified in that year
- Sampling cases of treatment of specific diseases in the selected health facilities
- Medical record will be audited in terms of process of treatment according to standard of care

GRADING SYSTEM

A SYSTEM FOR PROVIDING SCORES TO HOSPITALS USING 8 CRITERIA

1. Percent of medical records that are correct
2. Percent of medical records impact on the RW value
3. Percent of correct disease and surgery summaries (SA0)
4. Percent of excess disease summaries without evidence (SA2D)
5. Percent with correct disease codes (CA0)
6. Percent with excess disease codes without evidence (CA2D)
7. Number of relative weight units that have changed
8. Percent of change in relative weight units

All 8 criteria are sumed to produce a mean (X) score. Each group of data are compared with the mean score and ranked from 0-4.

4 GROUPS OF DATA

Scores from all 8 criteria will be calculated and ranked from 0-4 where score 0 indicates the best performance and score 4 means the lowest performance. According to the comparative scores from current and previous years, hospitals will be divided into different grades which are represented by different colors.

		0	1
GRADING	TOTAL SCORE OF 8 **CRITERIA**	**> MEAN**	**< MEAN**
SELECT	PERCENTAGE CHANGE **AdjRW**	**< MEAN**	**> MEAN**
SELECT 2	NUMBER CHANGE **AdjRW**	**< MEAN**	**> MEAN**
CA2D	HOSPITALS WITH THE AUDIT RESULTS **CA2D**	**< MEAN**	**> MEAN**
EXCELLENT 0 POINT << ---------- << 4 POINTS POOR			

Red
Score of current year = 4 /or change from 3 to 4

Pink
Score increased from previous year to 1 or 2

Orange
No change of score (except for 4)

Yellow
Score decreased to 1 or 2

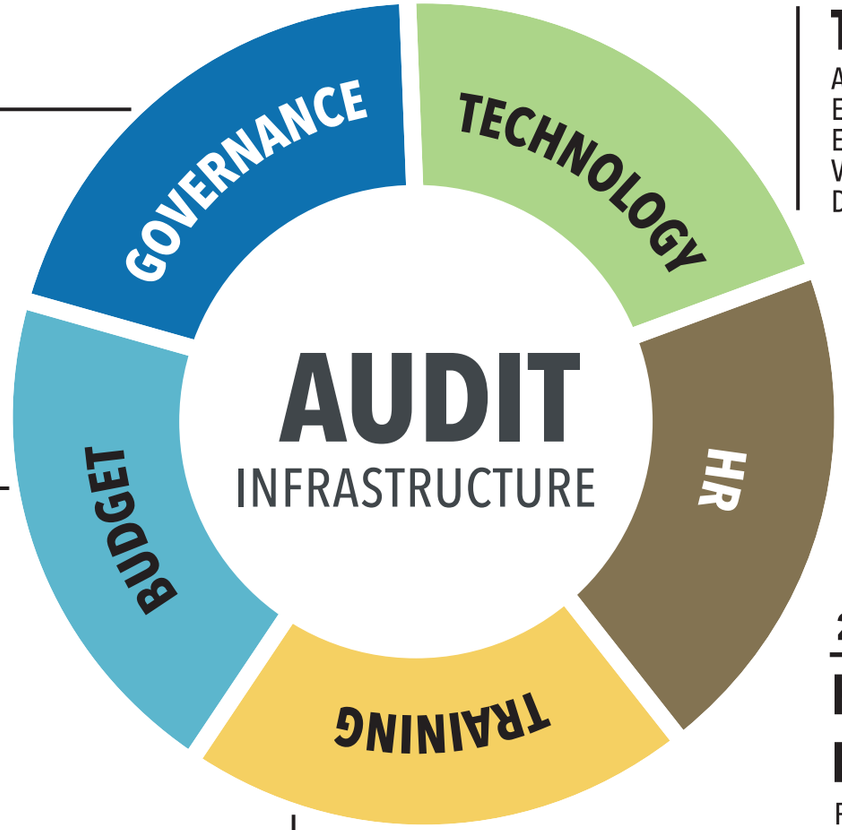
Green
Score decreased to 0

White
Previous Score = 0, audit is not required

AUDIT
INFRASTRUCTURE

GOVERNANCE
Code of conduct
Organization Structure

BUDGET



TECHNOLOGY
AUDITOGRAM
Electronic Medical Audit (EMA)
E-Claim
Visual Fox
DRGs

2,272 AUDITORS

HUMAN RESOURCES
Physician
Nurse
Medical Statistician
Information Technology
Finances / Accounting

TRAINING
Personnel Training
Database Development

CASE STUDIES

CASE 1
CODING AUDIT

BACKGROUND
In the regular coding audit in 2012, the regional office found Hospital A case mix index increased substantially in the past 3 years from 1.3 to 2.3 without evidence to show increase in hospital capacity.

AUDIT PROCESS
- Regular audit process found CMI increased from 1.3 to 2.3 within 3 years
- Found errors of medical records in specific diseases
- Audited all medical records of those diseases and found errors in 2152 records
- NHSO sent 2152 records to the hospital to correct the errors in coding
- Hospital corrected only 420 records, leaving 1732 records unchanged
- NHSO recalled payment for 16,618,079 Baht or 52%

HOSPITAL APPEALED

1st appeal >
Subcommittee confirmed the decision to recall payment and charge fines

2nd appeal >
Board confirmed the decision to recall payment and charge fines

LESSONS LEARNED
- NHSO can only recall payment but cannot charge fines of misconduct according to the Act.
- Recall payment alone is not enough to provide incentive to make accurate coding since recall payment can be made only on selected records that have been audited which was only 1% of total records.
- Other systems need to be developed to improve the accuracy of the coding system. NHSO has developed the "Grading System" to improve the coding system of the hospital.

CASE 2

BILLING AUDIT

BACKGROUND

Background: In 2013 NHSO regional office found claim payment of contraceptives of Hospital B was too high. They performed billing audit retrospectively during 2011–2012.

AUDIT PROCESS

- Audit list of women who received contraceptives during this period and found some errors:
  - List of women were employees of factories in the area in which Hospital B sent contraceptives to the factories to distribute to women without checking the patient condition
- List of women who received contraceptives have some errors:
  - High number of women who received contraceptives were aged over 49 and under 15 years
  - Some women who received contraceptives were during pregnancy
  - Records and signature of women who received contraceptives were similar which seems to come from the same person

NHSO regional office recalled payment of 20,694,360 Baht from Hospital B and canceled payment of 800,240 Baht

HOSPITAL APPEALED

Hospital B appealed >
Subcommittee confirmed the decision to recall the payment

Hospital B took legal action of this case to Administrative Court >
After internal discussion with the Director of the Hospital, the Director withdrew the case

LESSONS LEARNED

From this case, NHSO has developed the criteria for health promotion and prevention to be clearer. The age of women who receive contraceptives has been set to be between age 15-49.

CASE 3

IMPROVE QUALITY OF MEDICAL RECORDS

BACKGROUND

Hospital C found that RW was lower than other hospitals with similar level of care. They found problems in quality of coding and delay in sending medical records for claiming. They developed the coding system in the hospital.

AUDIT PROCESS

- Set up committee to review coding and diagnosis
- Sent staff to attend training from NHSO and MOPH
- Provide incentive to doctors to send summary record on time
- Set monitoring system to monitor coding and RW

RESULTS

- Hospital C received higher additional payment due to correct coding
- They received the Claim Award from NHSO as Best Practice in Coding
- Grading of Hospital C is in "Green"

LESSONS LEARNED

- Hospitals that have good attitude toward auditing and use feedback from auditing to improve the coding system in the hospital can improve both its financial status and quality of care
- The success comes from leadership of the administrative team and collaboration of all staff.

National Health Security Office