Achieving Universal Health Coverage

lesson learned from Thailand

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Former Deputy Secretary General
National Health Security Office, Thailand
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Health insurance schemes in Thailand

<table>
<thead>
<tr>
<th>Scheme</th>
<th>Civil Servant Medical Benefit Scheme (CSMBS)</th>
<th>Social Health Insurance (SHI)</th>
<th>Universal Coverage (UC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduced in</td>
<td>1960s</td>
<td>1990s</td>
<td>2001</td>
</tr>
<tr>
<td>Beneficiaries</td>
<td>Govt. employees &amp; dependents, retirees</td>
<td>Private sector employees:</td>
<td>Rest of population</td>
</tr>
<tr>
<td>Pop Coverage</td>
<td>5 million (7.66 %)</td>
<td>11.8 million (18.07 %)</td>
<td>48.5 million (74.27 %)</td>
</tr>
<tr>
<td>Funding</td>
<td>Govt. budget</td>
<td>Payroll contribution Tripartite</td>
<td>Govt. budget</td>
</tr>
<tr>
<td>Payment to health facilities</td>
<td>• Fee-for-service for OP • DRG for IP</td>
<td>• Capitation for OP • DRG for IP • on top for high cost drugs (J2) and CA protocol • Fee schedule for special disease mgt.</td>
<td>• Capitation for OP • DRG with global budget for IP • on top for high cost drugs (J2) and CA protocol • Fee schedule for special disease mgt.</td>
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</table>
Proposal for Tourism Insurance Management

- compulsory health insurance only foreign passport holders.
- Proposed collectors design to include private sector by serving as the mission of the agency, such as airport taxes included in the ticket.
- The collection will cover on accident/emergency and also the emergency cases due to unforeseen terrorist insurgency.
- Clearing House may be offered to the private sectors and served by the first withdrawal from tier 1 (on Landed Fee) and then from tier 2 (other insurance, etc.)
Proposed versus approved capitation rate for UCS
Baht per capita nominal term 2002-2010

3109.78 Baht in 2017 equivalent to US$ 94 for a comprehensive package

Comprehensive design for UC fund

1. OP
2. IP
3. High cost Accident Emergency DMIS
4. PP
5. The disabled rehabilitation
6. Traditional Medicine
7. Depreciation cost
8. No fault liability
A. Renal failure
B. AIDS
C. Hardship
D. 2nd prevention For metabolic disease
E. Human Resource support
How to increase the value of money?

**Policy**:
- HTA → NLEM, price control, std. protocol
- Procurement: central purchasing, logistic by VMI (vendor managed inventory), quality assurance

**Information**:
- National code for medicine, instrument and diagnosis

**Safety**:
- Rational use of medicines
- Medication error
- Drug-related problems
- Drug adherence etc.

**NLEM = National list of essential medicines**
**HTA = Health technology assessment**

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Platforms and mechanisms

**Non-Pharmaceutical products**
- NHSB
- Sub-committee For Benefit package & Service delivery dev.

- Working group on proposing topics
- Working group on selecting topics
- HITAP
- Others
- IHPP

**Pharmaceutical products**
- Committee - NLEM
- Subcommittee - NLEM
  - 21 working groups based on specialty
  - Working group on economic evaluation
  - Working group on price negotiation

**NHSB = National Health Security Board**, **SC= Sub-committee**, **NLEM= National List of Essential Medicine**, **UCBP = UC Benefit Package**, **HITAP = Health Intervention and Technology Assessment Program**, **IHPP = International Health Policy Program**
Reimbursement system

- Cash
- Material
  - Medicine
  - Instrument

Routine services data
- Hospital Profile Data
- Beneficiary Registration Data
- Medical Records
- Health Promotion / Prevention
- Financial / Accounting Data

Overview of Data Flow
Special management for medicines with access problems in Thailand

- Orphan drugs
  - Antidotes
  - Serums
  - Rare diseases → included in high cost med. management

- Vaccines

- High cost medicines
Routine service: capitation for OP, PP
DRG with global budget for IP

Reimbursement design for special access items in high cost or rare diseases medicines

Central Bargaining

Central procurement

Local purchasing

Medicine case management with on top medicine cost

Set up criteria for prescribing

- By using HTA
  - More Literatures review
  - Clinical guideline review
  - experts’ opinions

- Restrict for indications and hospital capacity
### NLEM’s criteria for Trastuzumab prescribing

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Policy</th>
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<tbody>
<tr>
<td>Cover as an adjuvant therapy in the treatment of early breast cancer</td>
<td></td>
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#### Prescriber
- Oncologist
- Radiologist
- Surgical Oncologist

#### Patient status
- Eastern Co-operation oncology group (ECOG) performance = 0 - 1
- Already tumor excision by curative breast surgery, Ultrasound of liver and bone scan
- Her-2 over expression at 2+ or 3+ and FISH test or DISH test positive
- Left ventricular ejection fraction at least 50% confirm by 2-D echocardiogram or MUGA

#### Plan for radiotherapy

**Patient status**

- **1. in combination with paclitaxel weekly**
  - Initial dose of 4 mg/kg as an intravenous infusion over 90 minutes then at 2 mg/kg as an intravenous infusion over 30 minutes weekly during chemotherapy for the first 12 weeks and then 6 mg/kg as an intravenous infusion over 30 minutes weekly during chemotherapy for every 3 weeks until 1 year

- **2. in combination with paclitaxel every 3 week**
  - Initial dose at 8 mg/kg as an intravenous infusion over 90 minutes
  - Subsequent doses at 6 mg/kg as an intravenous infusion over 30-90 minutes every three weeks. 18 cycle/years

#### Monitoring Parameter
- Left ventricular ejection fraction at least 50%
- confirm by 2-D echocardiogram or MUGA

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**NLEM’s criteria for Trastuzumab prescribing**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Dose &amp; Duration</th>
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<tr>
<td>1. in combination with paclitaxel weekly</td>
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<td>Initial dose of 4 mg/kg as an intravenous infusion over 90 minutes then at 2 mg/kg as an intravenous infusion over 30 minutes weekly during chemotherapy for the first 12 weeks and then 6 mg/kg as an intravenous infusion over 30 minutes weekly during chemotherapy for every 3 weeks until 1 year</td>
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<thead>
<tr>
<th>Monitoring Parameter</th>
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<td>Left ventricular ejection fraction at least 50% confirm by 2-D echocardiogram or MUGA</td>
</tr>
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</table>
Pre-authorization form

Pre-authorization form of trastuzumab

Indication: Breast cancer in early stage

Date: __/__/20__

Patient’s information:
1. First Name: ___________________________ Surname: ___________________________
2. Sex: M / F
9. Health Scheme: Others: ___________________________

Clinical Data:
1. Date: _______________ weight: ___________ kg Height: ___________ cm
2. ECG: 01234 01234 01234 01234
3. Echocardiogram: Date: _______________ Result of LVED: ___________%
4. Regimen of Trastuzumab:
   - Weekly regimen
   - Every three weeks
5. Dose of Trastuzumab: ___________________________
6. Clinical outcome: Date: ___________________________
   - Disease free
   - Relapsed disease

Doctor: ___________________________ Doctor’s licensing No. ___________________________

Smart vendor managed inventory (VMI)

Application for med. Reimbursement

Project A
Project B
Project C
JMS
NHSO
VMI GPO

Tracking process application
## The access to high costly medicines

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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<tr>
<td>Bones</td>
<td>6</td>
<td>1,505</td>
<td>1,429</td>
<td>1,316</td>
<td>1,302</td>
<td>458</td>
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<tr>
<td>Benralid</td>
<td>221</td>
<td>587</td>
<td>479</td>
<td>4,894</td>
<td>1,647</td>
<td>479</td>
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<tr>
<td>Lipogesic</td>
<td>771</td>
<td>679</td>
<td>970</td>
<td>1,089</td>
<td>1,138</td>
<td>718</td>
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<tr>
<td>Antineoplastic</td>
<td>502</td>
<td>587</td>
<td>784</td>
<td>677</td>
<td>372</td>
<td>718</td>
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<tr>
<td>Lipogesic</td>
<td>646</td>
<td>1,485</td>
<td>208</td>
<td>309</td>
<td>204</td>
<td>117</td>
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<tr>
<td>L. antibiotica II</td>
<td>6</td>
<td>48</td>
<td>139</td>
<td>244</td>
<td>252</td>
<td>275</td>
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<tr>
<td>Vincristine</td>
<td>6</td>
<td>9</td>
<td>58</td>
<td>22</td>
<td>61</td>
<td>9</td>
</tr>
<tr>
<td>Risperidone</td>
<td>1,094</td>
<td>1,892</td>
<td>1,094</td>
<td>1,892</td>
<td>1,094</td>
<td>1,892</td>
</tr>
<tr>
<td>Vincristine</td>
<td>71</td>
<td>6</td>
<td>71</td>
<td>6</td>
<td>71</td>
<td>6</td>
</tr>
<tr>
<td>Risperidone</td>
<td>509</td>
<td>511</td>
<td>509</td>
<td>511</td>
<td>509</td>
<td>511</td>
</tr>
<tr>
<td>AUC</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
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<tr>
<td>Lenital</td>
<td>4</td>
<td>7</td>
<td>4</td>
<td>7</td>
<td>4</td>
<td>7</td>
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<tr>
<td>Arhigenine</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TOT</td>
<td>1,546</td>
<td>3,289</td>
<td>6,630</td>
<td>6,747</td>
<td>6,773</td>
<td>5,981</td>
</tr>
</tbody>
</table>

### The accumulated patients

**28,783 persons**

### Special management for medicines with access problems in Thailand

- **Orphan drugs**
  - Antidotes
  - Serums
  - Rare diseases → included in high cost med. management
- **Vaccines**
- **High cost medicines**
Collaboration among other organizations

Procured by GPO
- Dimercaprol inj.
- Glucagon inj.
- Succimer capsule

Manufactured by Red cross
- Sod. Nitrite inj.
- Sod. Thiosulfate inj.
- Methylene blue inj.

Antidotes distribution management
(by life saving time and price criteria)

Cyanide antidotes
Dimercaprol
Botulinum antitoxin
### The antidote program impact

<table>
<thead>
<tr>
<th>Outcome</th>
<th>None</th>
<th>Minor</th>
<th>Moderate</th>
<th>Major</th>
<th>Death</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>12</td>
<td>46</td>
<td>41</td>
<td>25</td>
<td>123</td>
</tr>
<tr>
<td>Final severity</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>25</td>
</tr>
</tbody>
</table>

100% Recovered
If received Antidote in Time

### Distribution of snakes in Thailand

![Map of snakes in Thailand]

- [Image of snakes from various regions in Thailand]
The selection of new vaccine in EPI program

ACIP: The Advisory Committee on Immunization Practices
NEDL subcommittee: National essential drug list subcommittee
The current distribution channel under GPO-VMI

- **Imported vaccines**
  - Airport
- **Local produced vaccine**
  - (Red Cross, GPO etc)
- **Contracting hospitals**
- **Primary care unit**

New system began in the yr 2554

**Annual purchasing budget (Million THB)**

- 2552: 800
- 2553: 657
- 2554: 619
- 2555: 427
- 2556: 429
- 2557: 869

Vaccines after new warehouse designed

(million Bht.)

New system began in the yr 2554
Closed end payment: utilization outcome
rising health service utilization and low un-met need

<table>
<thead>
<tr>
<th>Prevalence of unmet need</th>
<th>OP</th>
<th>IP</th>
</tr>
</thead>
<tbody>
<tr>
<td>National average</td>
<td>1.44%</td>
<td>0.4%</td>
</tr>
<tr>
<td>CSMBBS</td>
<td>0.8%</td>
<td>0.26%</td>
</tr>
<tr>
<td>SSS</td>
<td>0.98%</td>
<td>0.2%</td>
</tr>
<tr>
<td>UCS</td>
<td>1.61%</td>
<td>0.45%</td>
</tr>
</tbody>
</table>

Concern for consideration

Priority setting for Essential drug consideration
Priority setting step

Life saving intervention
Orphan drug
First line drug
similar or alternative drug in same therapeutic group

Item selections until the accumulative budget meet the threshold of annual affordable budget

Total health expenditure 1994-2008

Source: Thai Working Group on National Health Account 2009, Health Financing 2010

Total health expenditure during 2003-2008 ranged from 3.49 to 4.255% of GDP, THE per capita approx 100 – 171 USD
Matching fund with local authority for P&P service

Challenges

- Expectations for new technologies and medicines.
- Quality assurance for the medicines
- The increasing demand with limited supply and budget need sustainable design
- Poor distribution of Human resource for health esp. in remote areas.
- Increasing the burden for health professionals regarding to the increasing workload and management
- Move forward to aging society.
Thank you for your attention