Asia Delegation Roundtable
Health Technology Assessment and Its Application in Asia

Presentation & Reference

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ISPOR HTA Initiatives in Asia

Marilyn Dix Smith RPh, PhD
ISPOR Founding Executive Director

ISPOR promotes outcomes research and its use in evidence-based health care decisions in Asia and around the world.

Strategic Outreach

Tools for Decision-makers

www.ispor.org

Tools for Decision-makers
Global Health Care Systems Road Map

Overview of country specific health systems and reimbursement processes

Tools for Decision-makers
Pharmacoeconomic Guidelines

Comparative table of key attributes for country specific pharmacoeconomic guidelines
**Tools for Decision-makers**

**HTA Directory**
Centralized information on worldwide organizations engaged in Health Technology Assessment

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**Asia-Pacific Region Conferences**

- September 2003: Kobe, Japan
- March 2006: Shanghai, China
- September 2008: Seoul, South Korea
- September 2010: Phuket, Thailand
- September 2012: Taipei, Taiwan
- September 2014: Singapore

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**13 Regional Chapters in Asia**

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**Asia Consortium**

Asia Consortium develops initiatives in the region

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**Asia Consortium Committees**

- Task-related Committees
  - Asia-Pacific Conference Program Planning
  - Education = Short Courses, Distance-learning
  - Publication = *Value in Health* Special Issue
- Work-Environment Committees
  - HTA Committee
  - Clinician Committee
  - Decision-maker Committee
  - Industry Committee

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**Asia Consortium HTA Committee Initiative**

Asia HTA Agency Network [ASIAnetHTA]
similar to:
Essential Medicine Policy in China

Hongli Niu
Department of Health Policy and Regulation, MOH
2010.9.5

The background of China's Essential Medicine Policy

The fundamental value is to take the equitable access to a package of essential health service as public goods and all Chinese people have rights to get them.

Establish National Essential Medicine Policy
Public health system
Medical service system
Health insurance system

The main content of Chinese Essential Medicine Policy

II. The main content of Chinese Essential Medicine Policy

Formulate National Essential Medicine List

1. Medicines must be selected according to necessity, safety, and efficacy, reasonable price, convenient of use. Including both traditional Chinese medicines and western medicines.
2. National essential medicines must be selected according to local conditions.
   - Beijing +191
   - Tianjin +230
   - Zhejiang +150
3. Provinces could supplement appropriate medicines to expand the national essential medicines list according to local conditions.

Ensure Production and Supply of Essential Medicines

I. Open bid, unified distribution, chain operations, reduce the transition cost of essential medicines procurement and distribution.
II. Essential medicines are purchased through the provincial public bidding system to ensure quality and safety.

31 provinces have established provincial nonprofit centralized drug purchasing platform. 60.3% of the counties have carried out bidding, purchasing and distribution of essential medicines at the provincial level.

Price the Essential Medicines Rationally

The central government formulates the reference retail prices of essential medicines.
Provincial governments could determine the purchasing price of essential medicines within the range of national reference prices.

Drug prices have decreased 30% on average.
Implement Zero-markup Policy with Essential Medicines Sales

Abolishing the mechanism of subsidizing the medical cost through selling drugs.

Firstly, we carried out the policy in healthcare facilities at community level both in urban and rural areas.

The public community health facilities are allowed to prescribe only essential medicines for medication and sell essential medicines with zero-markup.

At the end of this year, we expect the percentage would reach 60% at least.

The zero-markup policy has been carried out in 38.4% public community health centers and 30.4% township health facilities.

Essential medicines will be used and reimbursed reasonably

1. All health care institutions and drug stores shall use only essential medicines.
2. The reimbursement ratio would be higher (5%-10%) for essential than for non-essential medicines.
3. Some vaccines and AIDS-related essential drugs will be provided freely by the government.
4. The state issued clinical application guidance of essential medicines and essential medicine formulary.
5. The essential medicine policy will be gradually established in the secondary and tertiary hospitals.

The Problems

1. The establishment of essential medicine policy triggered interest adjustments.
2. The compensation is not timely subsidized to community health institutions.
3. The bidding process is to be regulated. Means of information technology lag behind.
4. The policy of zero-markup with essential medicines sales in village clinics and non-government-run community health institutions should be issued as soon as possible.

The Achievements

1. The prices of essential medicines fell greatly.
2. The medicines are safer.
3. Drug use is more reasonable. Community health institutions pay more attention to prevention.
4. The expense of outpatients and inpatients decreases. The number of outpatients and inpatients increases.
Evidence-based Health Policy Decision making through Drug Formulary in Indonesia

Prof. Dr. Iwan Dwiprahasto, MMedSc, PhD
Faculty of Medicine, Gadjah Mada University, Indonesia

Introduction

- No. of population: 234,181,400
- No. of Primary Health Centres: 8,737
- No. of hospital (public & private): 1,378 buah
- No. of drug registered by NADFC: 13,432
- No. of registered herbal & supplements: > 3200

Pharmaceutical company in Indonesia

- 33 foreign companies
- 4 state own companies
- 161 local companies
- 198 pharmaceutical companies
- 60 big pharma
- 80% drug market

Ministry of Health of Indonesia

- Regulatory authority for health service accessability, quality, standard, equity, affordability

National Agency of Drug and Food Control

- the regulatory authority for pharmaceuticals

Medicine Problems in Indonesia

- Bizzare drug prices
- Availability varies (demographic barrier)
- Quality varies (GMP issues)
- No price control, 62-68% Out of pocket
- National Clinical practice guideline is only available for primary health care
Global Price Comparison

Average prices for 10 ml traditional vial of soluble human insulin 100IU/ml, private sector

Out of pocket health expenditure in Indonesia (% of private expenditure on health)

Why we need drug formulary?
- An increased drug expenditure
- Trend to prescribe unnecessary medicine
- Increased number of drug registered by NADFC
- Excessive use of medicine
- Uncontrolled drug prices
- Out of pocket

Health Services in Indonesia (World Bank Indicators)

The use of Antibiotics for Common Cold in Primary Health Care (n=4,892)

Increase number of medicine registered by NADFC

Dwiprahasto, 2004
4  Excessive use of medicine

1. R/ Bufect susp 60 ml
2. R/ Luminal 50 mg tab
3. R/ Naigestaan tab
4. R/ Mucohexin 8 mg tab
5. R/ Kenacort 4 mg tab
6. R/ Codein 20 mg tab
7. R/ Lasal 4 mg tab
8. R/ Etaphylline 250 mg tab
9. R/ Lapizel 500 mg cap
10. R/ Curvit CL emulsion 175 ml
11. R/ Pankreoflat tab
12. R/ Cobazin cap
13. R/ Lysagor tab

5  Uncontrolled drug prices

Drug price

Raw materials were from the same source

<table>
<thead>
<tr>
<th>Drug</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Rp 350,-</td>
</tr>
<tr>
<td>B</td>
<td>Rp 900,-</td>
</tr>
<tr>
<td>C</td>
<td>Rp 1.800</td>
</tr>
<tr>
<td>D</td>
<td>Rp 4.300</td>
</tr>
<tr>
<td>E</td>
<td>Rp 8.200</td>
</tr>
<tr>
<td>F</td>
<td>Rp 22.500</td>
</tr>
</tbody>
</table>

6  Prescribing for out of pocket user

Drug Price varies among cities

<table>
<thead>
<tr>
<th>Cities</th>
<th>Mefinal</th>
<th>Aspilet</th>
<th>Accupril</th>
<th>Lapilox</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jakarta</td>
<td>936</td>
<td>314</td>
<td>11734</td>
<td>8239</td>
</tr>
<tr>
<td>Bandung</td>
<td>398*</td>
<td>285</td>
<td>4913</td>
<td>5939</td>
</tr>
<tr>
<td>Surabaya</td>
<td>715</td>
<td>175*</td>
<td>4175</td>
<td>9240</td>
</tr>
<tr>
<td>Semarang</td>
<td>944*</td>
<td>330</td>
<td>11933*</td>
<td>9009</td>
</tr>
<tr>
<td>Medan</td>
<td>405</td>
<td>321</td>
<td>4883</td>
<td>7834</td>
</tr>
<tr>
<td>Balikpapan</td>
<td>750</td>
<td>240</td>
<td>4174*</td>
<td>8545</td>
</tr>
<tr>
<td>Jayapura</td>
<td>929</td>
<td>375</td>
<td>4856</td>
<td>5134</td>
</tr>
<tr>
<td>Palembang</td>
<td>837</td>
<td>360*</td>
<td>4547</td>
<td>7285</td>
</tr>
<tr>
<td>Padang</td>
<td>920</td>
<td>322</td>
<td>5475</td>
<td>4985*</td>
</tr>
<tr>
<td>Yogyakarta</td>
<td>825</td>
<td>275</td>
<td>4591</td>
<td>12500*</td>
</tr>
</tbody>
</table>

Prescribing for out of pocket user

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Different in prices (in million rupiah)</th>
<th>Potential saving with other medicine(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concor 5mg Tab</td>
<td>15.055</td>
<td>15 - 39.81</td>
</tr>
<tr>
<td>Maintate 5mg Tab</td>
<td>10.7</td>
<td>22.3 - 40.99</td>
</tr>
<tr>
<td>Herbesser 30mg Tab</td>
<td>4.865</td>
<td>21.6 - 62.39</td>
</tr>
<tr>
<td>Capoten 12.5mg Tab</td>
<td>15.982</td>
<td>38.4 - 93.89</td>
</tr>
<tr>
<td>Captensin 12.5mg Tab</td>
<td>37.021</td>
<td>47.3 - 91.21</td>
</tr>
<tr>
<td>Adalat 10mg Tab</td>
<td>3.734</td>
<td>38.4 - 76.27</td>
</tr>
<tr>
<td>TOTAL</td>
<td>Rp 563.196 million</td>
<td></td>
</tr>
</tbody>
</table>

The development of Drug Formulary

Drugs approved by Indonesian FDA (NADFC)
Drug proposed by hospitals
Screening for reason to propose
List of new drugs proposed by hospitals
Review by Expert Panel: cost effectiveness analysis
Draft Formulary
National meeting
Final National Formulary
Disseminated to stake holders
What are the benefits of National drug formulary

Potential role of Drug Formulary
- Reduces number of drug items
- Reduces variability in prescribing
- Reduces unnecessary medicine
- Reduces health care cost on medicine
- Improving patient compliance
- More efficient health care budget
- Education for provider (EBM)
- Education for consumer

Reduction of drug items

<table>
<thead>
<tr>
<th>State owned Enterprise</th>
<th>Number of drug item prescribed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before formulary</td>
</tr>
<tr>
<td>1</td>
<td>987</td>
</tr>
<tr>
<td>2</td>
<td>1238</td>
</tr>
<tr>
<td>3</td>
<td>1389</td>
</tr>
<tr>
<td>4</td>
<td>1423</td>
</tr>
<tr>
<td>5</td>
<td>1614</td>
</tr>
<tr>
<td>6</td>
<td>2164</td>
</tr>
</tbody>
</table>

Potential role of Drug Formulary for pharmaceutical company

- Reduces drug promotion’s cost
- More sustainable market
- More focus on CME & CPD
- Could provide some benefit schemes
- Fair competition

Welcome to Indonesia

Thank You!
HTA under Korea’s NHI: Background and Issues

for Networking RoundTable
on the 5th of September, 2010
by
Yang, Bong-min, PhD
Seoul National University
Seoul, South Korea

Mounting Pressure on Financial Sustainability of KNHI

• Demand and supply factors
  – Continuous expansion of coverage
  – Population aging
  – New technologies
  – Growing demand for and expectation of quality health care by consumers
• Structural factor: Fee-for-service

NHI Reforms Considered
source: Health Insurance Reform Committee (2004)

• Triggered by financial instability of NHI system, the following changes were suggested
• Change in reimbursement method
  – FFS → DRG → Global Budgeting
• Design a separate elderly care system
• Introduction of economic evaluation into health care delivery on
  – device
  – pharmaceuticals
  – procedures

Introduction of Economic Evaluation into Pharmaceutical Reimbursement Decisions:
PLS(positive list system) Policy

Policy Change
• As a measure of getting value for money in drug expenditures, the government introduced a “Positive List System” in December 2006, which was characterized as
  – Selective listing of drugs
    • Enhanced importance of cost effectiveness in addition to clinical effectiveness
  – Separation of decision on listing from pricing
    • New procedure for price negotiation

Korean HTA Framework
• HTA data prepared by technology manufacturer
• HTA performed by HIRA, a public body
• Reimbursement decisions made by HIRA as well, by government appointed committee members (external plus internal): both HT assessment and appraisal done by HIRA
• When reimbursement decision made in favor of the proposed technology, pricing is done by price negotiations between manufacturer and NHIC, another public body
### Procedure for Reimbursement Decision

<table>
<thead>
<tr>
<th>Production or import of a new drug</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea Food &amp; Drug Administration: Evaluation on the safety and effectiveness / approval of marketing</td>
</tr>
<tr>
<td>HIRA: Decision on listing</td>
</tr>
<tr>
<td>NHIC: Negotiation on drug pricing</td>
</tr>
<tr>
<td>Inclusion of the drug in the positive list</td>
</tr>
</tbody>
</table>

### Factors Considered in Appraisal

- Available alternatives
- Budget impact
- Disease severity to Korean patients
- Cost-effectiveness
- Therapeutic benefit
- Distributional implication
- Reimbursement status in other countries

### Implications of Recent Policy

- **Economic effects**
  - Possible to utilize drugs with similar therapeutic effects at lower costs
- **Access to new drugs**
  - Delayed due to the fourth hurdle and two-tier process for listing and pricing
  - Enhanced access to cost-effective quality drugs
- **Dynamic efficiency**
  - Industry R & D may be affected
  - May look at incentive compatible pricing

### Issues

- **Harmonization of evidence requirement: from Korean perspective**
  - The issue of transferability of clinical data remains as an important HTA issue in Korea
- **Measurement of Preference**
  - Tools such as EQ-5D and HUI developed in Europe and North America, when used as they are, may fail to reflect preference of Asian cultural aspects
  - Need own preference index
- **Value-based pricing**
  - Good price for cost-effective innovative drugs
- **Weak manpower infrastructure**

### Comment

- Under many constraints, Korea’s PLS Policy started
- We expect refinements and improvements of the system over the years as it goes

### Thank You
Health System Research training to support the National Drug Policy (NDP) implementation in Lao PDR

Presented by: Assoc Prof Kong sap Akkhavong
Deputy Director of National Institute of Public Health, Ministry of Health – Lao PDR

Introduction

• Swedish International Development Agency (Sida) supported the implementation of the National Drug Policy (NDP) in Lao PDR during 1993-2003

• Contributing to the improvement the quality of life of Lao people, through:
  – Improving the quality assurance system, including policy, law and regulation development and enforcement
  – Improving rational use of drugs (RUD), as well as raising professional competence in the public and private sector
  – Strengthening capacity building of health staff in terms of research through different health system research projects.

Composition of Lao NDP

There are Thirteen elements:
1. Drug legislation and regulation
2. Drug selection
3. Drug nomenclature
4. Drug registration and licensing
5. Drug procurement
6. Financial resources
7. Drug distribution and storage
8. QA of drug substances and pharmaceutical
9. Rational Use of Drug
10. Drug advertising and promotion
11. International technical cooperation
12. Traditional Medicine
13. Drug monitor and evaluation

National Drug Policy (NDP) in Lao PDR

NDP has divided in 3 phases for its implementation 1993-2003 (10 years).

• Phase 1: 1993-1995
• Phase 2: 1996-1999
• Phase 3: 2000-2003

Phase 1 of NDP (1993-1995)

• A comprehensive National Drug Policy (NDP) was developed in a participatory process involving many stakeholders from different sectors of Ministry of Health:
  – Food and Drug Department (FDD): main coordinating role
  – Curative department
  – National Institute of Public Health (NIOPH)
  – Food and Drug Quality Control Center
  – Medical Supply Center

Phase 2 & 3 of NDP (1996-2003)

• During phase 2 & 3 of NDP, HSR training was implemented and strengthened in collaboration with Karolinska Institute, Sweden:
  – Research methodology training to participants from central and provincial level was organized step by step
  – 11 research projects on priority topics in the pharmaceutical sector were conducted
  – The activities within the HSR have strengthened human resources and provided an evidence based for decision makers
Achievements of NDP implementation in Lao PDR:

• Through NDP implementation, we have established and disseminated the drug law
• Establishment of new Drug therapeutic Committee (DTC) in the hospitals
• Training on Good Manufacturing Practice (GMP)
• Development of standard treatment guidelines (STG)
• Increasing the number of researchers in the countries.

Title of the 6 research projects for NDP implementation in phase II:
1. Can health messages reduce irrational use of antibiotics
2. Use of Trad. Med. In Champassack province
3. Knowledge, attitudes and perception about quality of drugs
4. Effectiveness of “feedback” for improving quality of treatment based on STG: A randomized trial at provincial hospitals
5. Towards an effective NDP implementation
6. Regulation of private pharmacies in Savannakhet province

Title of the 5 research projects for NDP implementation in phase III:
1. Self-medication with antibiotics for reproductive tract infection in 2 provinces in Laos
2. Drug information in private pharmacies: a descriptive study in Vientiane province
3. Accessibility of essential drugs in remote areas of Lao PDR
4. Improving Performance of Drug Therapeutic Committee (DTC) in Lao PDR
5. Developing Tools for Information on Population Drug Use in Lao PDR

Strength of HSR in Lao PDR

• There is clear policy of the government to support research. Many ministries have established their own research institutes
• Research health master plan has been developing
• Numbers of researchers who have been conducted their research in NDP, some of them have continued for higher education abroad like master and Ph D degree.

Strength of HSR in Lao PDR (cont’d)

• Among 11 research topics of HSR for NDP, 7 have been published in international journal.
• Policy makers have translated the research results into policy and regulation in the hospitals. For instance:
  – The Rational Use of Drug (RUD)
  – The Drug Therapeutic Committee (DTC)
  – The Standard Treatment Guideline (STG)

Constraints:

• Language barrier especially English language
• The dedication of time to learn language and time allocated for research is not their habit
• The funding sustainability for continuing research after research training for capacity building
• Lack of regular information on HSR to Policy makers
• Limitation of linkage between policy makers and researchers
Institutional collaboration:

National Health Research Forum

In summary:
- The case of NDP programme achievement was from the evidence of health system research (HSR) using by policy makers.
- The translation of the research outcome into drug law in Lao PDR can be a good model for NDP implementation of some countries.

Thank You
Health Technology and Outcomes Research in Singapore
Gilberto de Lima Lopes, Jr., M.D., M.B.A
Assistant Director for Clinical Research
Assistant Professor of Oncology
Johns Hopkins Singapore International Medical Centre
Johns Hopkins University School of Medicine

The Singapore Health Care System: Philosophy
- Individual and Family Responsibility
- Community and Government Support
- Medisave – Health Savings Account Scheme
- Medishield – Catastrophic opt-out insurance
- Medifund – Endowment Fund

Pharmacoeconomics and Outcomes Research in Singapore
- Ministry of Health
- National Health Care Group
- Singhealth
- Duke/NUS
- Johns Hopkins Singapore

MOH: Health Services Research and Evaluation Division
- Has done HTA since 1995
  - EDTA in Atherosclerosis
  - PET scan
  - Cytokines in the treatment of cancer
- In 2008:
  - Pneumococcal vaccine
  - AEDs
- Very Active in EBM Guidelines

Singhealth: Center for Health Services Research
- HTA
  - Proton Beam therapy
  - Endoscopic ultrasound guided bronchoscopy biopsy
  - Hyperbaric oxygen for diabetic ulcer
- Outcomes Research
  - Public survey on perceptions health care
  - Assessment of health literacy
www.singhealth.com.sg

Academic Research
- Duke, NUS, LKYSPP
- Johns Hopkins Singapore
  - Medical Oncology Center
  - Focused HTA and Outcomes Research in Oncology:
    - Trastuzumab in early breast cancer
    - Sorafenib in HCC
  - Aprepitant in prevention of nausea/vomit
  - Oncotype Dx
  - Outcomes of colorectal cancer
HTA Challenges in Singapore

Study Perspective and Comparators
- Perspective:
  - Societal
  - Payer (third party or otherwise)
  - Investment?
- Comparators: Standard of Care
  - BSC
  - Active treatment

Challenges to Implementation
- Most health care expenditure is private
  - As such individual patients decide on what interventions they will take and pay for after discussion with their physicians

Opportunities for Collaboration
- Stakeholders
  - Ministry of Health
  - Academia
  - Providers
  - Industry
  - Patient Groups
- Help our patients have access to effective medications while efficiently and fairly allocating scarce resources

Thank You!
Johns Hopkins Hospital, Baltimore, MD, USA
Health Technology Assessment in Taiwan

Role is to provide evidence for public health policy decisions

Evidence Requests
Two most important:
• Drug listing applications
• Dept. of Health projects

Application Listings
• Submitted to NHI authority
• Drug Benefit Committee make the decisions
  – List or not list
  – Coverage restrictions
• NHI seeks input from CDE-HTA
• CDE-HTA given 42 day deadline

Listing Review Process
Application Received
Effectiveness Assessment + Economic Assessment = Evidence Report
42 Days
Drug Benefit Committee

Effectiveness Assessment

- Product Understanding
  Domestic Licensing scope
  Anticipated therapeutic use

- Identify Comparators
  International
  Drug class
  RCTs conducted
  HTA search

- Effectiveness & Safety
  Trial results
  Int'l reviews
Economic Assessment

Epidemiology
- Prevalence rate
- Incidence rate
- Resource used on treatment

Cost Effectiveness
- Int'l HTA analysis (process)
- Industry submitted
- Int'l medical database search

NHI Budget Impact
- Industry submitted
- CDE/HTA budget model

Features – initial stage
- Painless induction
- Capacity built-up
- Trust gaining
- International connection
- System building

Issues in knowledge
- Definition of HTA may differ
- Methodology
  - Effectiveness evaluation
  - Economic evaluation

Issues in database
- Infrastructure
- Many existed database
- Problems remained:
  - Proper linkage between intervention and outcome
  - Ability of high-standard analysis

Issues in guidelines
- Under development

Difficulties in applying HTA in drug pricing and reimbursement
- Consensus on the role, scope, component, process of the HTA
Positive experiences

• System introduced in a steady pace
• Use of international HTA reports
  – On value of products
  – To learn their HTA process

Thank you for your attention!
Pharmacy System under NHSO

The National Health Security Office
5 September 2010

NHSO

• A Public organisation established under the National Health Security Act 2002 (November) : covers 76% population
• Government funded 100 %
• Capitation basis inclusive of pharmaceuticals – 2,401 baht per head

Stakeholders involvement

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Mission</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Drug Committee</td>
<td>Essential Drug List</td>
</tr>
<tr>
<td>Thai FDA</td>
<td>Regulator</td>
</tr>
<tr>
<td>HITAP</td>
<td>HTA</td>
</tr>
<tr>
<td>Gov Pharmaceutical Org</td>
<td>Procurement, Supply</td>
</tr>
<tr>
<td>HC providers</td>
<td>CPG, practice</td>
</tr>
<tr>
<td>NHSO</td>
<td>Payer</td>
</tr>
</tbody>
</table>

Issues of interests

• Accessible care
• Fair reimbursement (money, products)
  – NHSO central purchasing
  – Agreed specification
• Efficient administration

Administration : examples

• EPI vaccines (10) : shortened distribution time
• Antidotes (6) : facilitate access
  – Drugs of little volume and value
  – Life saving drugs
  – Establish pooled demand
  – Negotiate with local producers
  – Negotiate with GPO for imported products
• Pharmacy services : P4P mechanism for ADR, DUE, services at Primary care unit, RUD (antibiotic smart use) etc.
The current distribution channel under GPO-VMI

Imported vaccines

Local produced vaccine
(Red Cross, GPO etc)

GPO

Monthly delivery

Contracting hospitals

Monthly reimbursement

Primary care unit

Reflections for BSP

- Health security for all: NHSO ultimate goal
- Optimum use of limited resources
- Innovations for better QOL are welcome
- Pricing and access balance
- Constructive co-operation

Thank you for your attention
Marilyn Smith received her PhD in Pharmaceutical Science from Ohio State University and was Director of Managed Care Pharmacy, Lederle Laboratories. Being a prominent figure in the industry, Dr Smith was a Technical Review Consultant for the National Cancer Institute and served for 15 years on the Committee of Revision, United States Pharmacopoeia. She was also a co-founder of the American Association for Pharmaceutical Scientists.

Dr Smith has been responsible for implementing the key initiatives of ISPOR, such as ISPOR Research Digest, ISPOR Pharmacoeconomics Guidelines Around the World, ISPOR Managed Care Digest, ISPOR International Digest of Database, ISPOR Good Research Practices and Clinical Outcomes: ISPOR Book of Terms.

Bong-min Yang has a PhD in economics and was former Dean of the School of Public Health at the Seoul National University, South Korea. He has written many papers in health economics and the application of health technology assessment in Asia and the world. He is known for his contribution to the recent The Future of HTA in Healthcare Decision Making in Asia. "PharmacoEconomics" (2002), "Growing Application of Pharmacoeconomics and Outcomes Research in Asia-Pacific Region," Value in Health (2008) and "International price comparisons of Alzheimer’s drugs: a way to close the affordability gap," International Psychogeriatrics (2008).

Prof Yang also has worked as short-term consultant at ADB, UNESCO, and the World Bank. For the Korean government, he served as Chairperson of Health Insurance Reform Committee, and Chairperson of the Drug Pricing and Reimbursement Committee. He currently is serving as President of KAIHTA (Korea Association of Health Technology Assessment), Board of Directors of ISPOR, and Chair of ISPOR-Asia Consortium.

Hong Li Niu graduated from Tongji Medical School, Huazhong University of Science and Technology, majoring in social science and health management. She obtained her Masters in Management in 2006. She has worked in the Department of Health Policy and Regulation, Ministry of Health, China since then, mainly engaging in health policy study. Her current research interests include health system reform and development, health financing and fairness, national drug policy, public hospital administration and reform, and health service quality.

Xiu-ying Liu obtained her Bachelor of Medicine, majoring in preventive medicine from the school of Public Health, Hebei Medical University in 1995. She later completed her Masters in Epidemiology and Health Statistics in 2000, and PhD in Public Health Economics and Social Medicine Studies, Beijing Center for Disease Prevention and Control. Dr Liu is Team Leader of the Evidence-Informed Policy Making network (EIPMnet) in Asia (Beijing team) by the WHO, and played a key role in the 11th Five Years Key Programs for Science and Technology Development of China on Prevention of Major communicable diseases by the Ministry of Science and Technology of the People’s Republic of China from 2006-2011. She was also Project Manager of the Evidence-Based Management Mode of Public Health Events by the Beijing Municipal Health Bureau from 2006-2010 and the Study on Subjects and Resource Development Strategies for Disease Prevention and Control System in Beijing, by the Beijing Health Bureau/ Beijing Center for Disease Prevention and Control from 2005-2007.
Invited guest

Kongsap Akkhavong
Deputy Director, National Institute of Public Health, Laos

Kongsap Akkhavong has been Deputy Director of the National Institute of Public Health since 2000, after a stint as Vice Director de l'Institut de la Santé publique in France. In addition, he is Team Leader of Extrap Lao, Country coordinator of Poverty and Inequality (POVIL) research project in Laos PDR and Team Leader of Quality Assurance/Quality Improvement (QAIQ) of the Ministry of Health. His ongoing research projects not only involve POVIL, but also include a joint project with NHRP-Thailand on "Health Financing Reforms in SEA: Challenges in achieving universal coverage."

Invited guest

Herng-Der Chern
Executive Director, Center for Drug Evaluation, Taiwan

Dr. Chern received his MD from National Taiwan University in 1983 and his PhD in pharmacology from the University of Pittsburgh in 1984. Before he joined the Center for Drug Evaluation in 1988, Dr. Chern was the Head of Division of Clinical Pharmacology of National Taiwan University Hospital and Associate Professor at College of Medicine, National Taiwan University. Currently, Dr. Chern is Executive Director of Center for Drug Evaluation and in charge of technical review of NME/NEWARTA for Taiwan’s government. Under his leadership, Center for Drug Evaluation is one of the few regulatory agencies in Asia that can perform in-house reviews based on good regulatory science.

In the last 12 years, Dr. Chern played a very active role in promoting ICH concepts, GAP education, good review practice, bridging study, new drug development and Health Technology Assessment in Asia. He also served on the APEC representative for the ICH-GCP group in ICH S and ICH IL.

Dr. Chern was involved in many regional harmonization initiatives especially the APEC Network of Pharmaceutical Regulatory Science led by Taiwan since 2000. He was the winner of the 2006 Drug Information Association (DIA) Outstanding Service Award for his contribution to DIA.

Invited guest

Raoh-Fang (Jasmine) Pwu
Director, Division of Health Technology Assessment, Center for Drug Evaluation, Taipei, Taiwan

Obtaining her PhD from the College of Public Health, National Taiwan University on "Cost-effectiveness Analysis in Pertussis Vaccination and Treatment of Chronic Viral Hepatitis in Taiwan", A/Prof Pwu's expertise is in economic evaluation, epidemiology, data analysis and biostatistics. She has been a member of ISPOR and the Taiwan Medical Association since 2006 and is currently a Supervisory board member of the Taiwan Society for Pharmacoeconomics and Outcomes (TASPOR).

Invited guest

Iwan Dwiprahasto
Founder, ISPOR Singapore Chapter and Consultant Oncologist, John Hopkins Singapore International Medical Centre, Singapore

Iwan Dwiprahasto obtained his medical degree in 1987 from Gadjah Mada University, Indonesia, and later obtained his Masters in Pharmacology from the University of Newcastle, Australia. He also has a PhD in Epilepsy from the London School of Hygiene and Tropical Medicine.

Currently he is the Chairman of the Indonesian Pharmacological Association, Prof Dwiprahasto has also been on the Board of the International Clinical Epidemiology Network since 2000. He also sits on various national committees, such as on the committee on Drug Information, Traditional Medicine Evaluation, Patient Safety in Hospital, National Essential Drugs, National Health Insurance and Drug Evaluation. Prof Dwiprahasto has presented widely in the international scientific circuit. He has conducted research on patient safety and was Principal Investigator in several World Bank projects.
Netnapis Suchonwanich
Director
Bureau of Fund Administration,
National Health Security Office,
Thailand

Netnapis Suchonwanich is Director of the Bureau of Fund Administration, National Health Security Office, Thailand. Mrs Suchonwanich has held key appointments since the start of implementation of universal coverage in Thailand. She was Director of Information Technology Management, which was involved in establishing the health insurance information system. This will link up databases from other medical care schemes and personal databases from internal ministries. Her next project involves national ID integration into a single smart card.

Luong Chi Thanh
Executive Director
Central Health Information and Technology Institute,
Vietnam

Luong Chi Thanh obtained his Diploma in 1982 from the Medical College of Pirogov, Odessa, Ukraine. He subsequently obtained a PhD from Ha Noi Medical University in Neuropsychology. Dr Luong has published scientific papers covering topics such as hypertension in the elderly, memory impairment in the elderly, depression among the elderly living in communities, and surveys such as the sex life in the elderly, on care needs of the elderly in communities and on the actual situation of medical library services in Vietnam. He has also published books on social gerontology, Alzheimer’s Disease and functional exploration in the elderly.
Asia Delegation Roundtable
Health Technology Assessment and Its Application in Asia

HTA Reference

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