



# 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





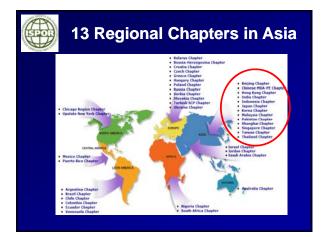






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# **Asia Consortium Committees**

#### 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



## Asia Consortium HTA Committee Initiative

# Asia HTA Agency Network [ASIAnetHTA]

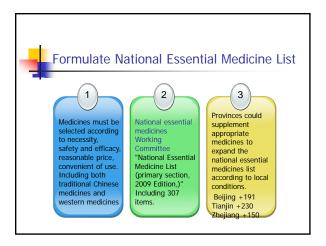
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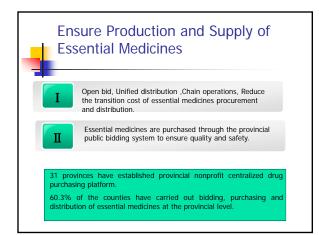


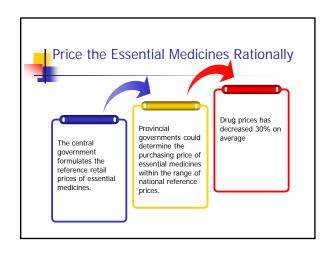




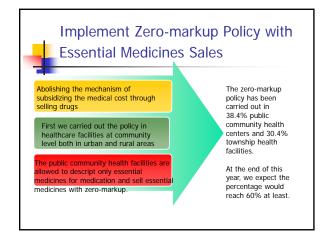


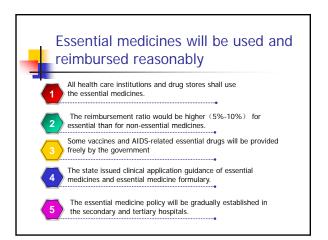




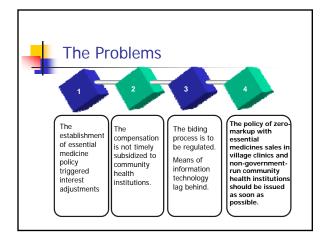


Province	Average Price Drop(%)
Tianjin	10.3
Neimenggu	32.0
Zhejiang	32.0
Liaoning	34.3
Shanxi	46.1
Jiangsu	47.7
Ningxia	49.2
Anhui	50.0
Hunan	53.2















Intro	oduction
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





#### Medicine Problems in Indonesia

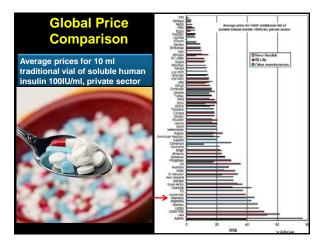
Bizzare drug prices

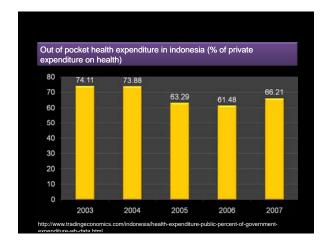
Availability varies (demographic barrier)

Quality varies (GMP issues)

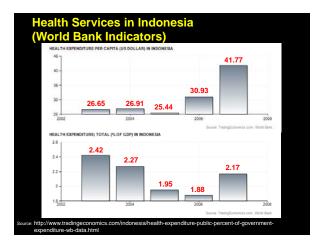
No price control, 62-68% Out of pocket

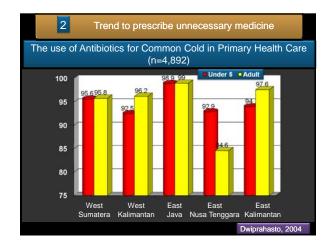
National Clinical practice guideline is only available for primary health care

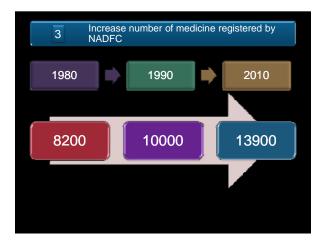




Wh	y we need drug formulary?
	An increased drug expenditure
	Trend to prescribe unecessary medicine
	Increased number of drug registered by NADFC
	Excessive use of medicine
	Uncontrolled drug prices
	Out of pocket





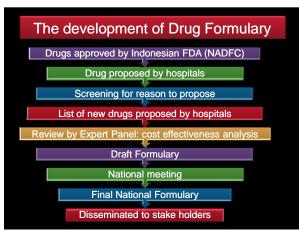


	4 Excessive use of medicine
1.	R/ Bufect susp 60 ml
2.	R/ Luminal 50 mg tab
3.	R/ Nalgestan tab
4.	R/ Mucohexin 8 mg tab
5.	R/ Kenacort 4 mg tab
6.	R/ Codein 20 mg tab
7.	R/ Lasal 4 mg tab
8.	R/ Etaphylline 250 mg tab
9.	R/ Lapicef 500 mg cap
10	.R/Curvit CL emulsion 175 ml
11.	.R/ Pankreoflat tab
12	.R/ Cobazin cap 1000 mcg
13	.R/Lysagor tab

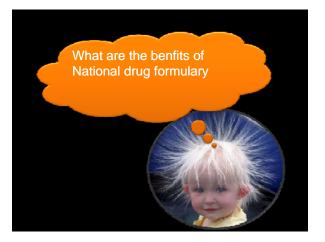
5	Unco	ntrolled d	rug prices		
		Drug	price		
	Ra		als were fro e source	om	
Drug A	Drug B	Drug C	Drug D	Drug E	Drug F
Rp 350,-	Rp 900,-	Rp 1.800	Rp 4.300	Rp 8.200	Rp 22.500

Dru	g Price v	varies ai	mong citie	es
Cities	Mefinal	Aspilet	Accupril	Lapiflox
Jakarta	936	314	11734	8239
Bandung	398*	285	4913	5939
Surabaya	715	175*	4175	9240
Semarang	944*	330	11933*	9009
Medan	405	321	4883	7834
Balikpapan	750	240	4174*	8545
Jayapura	929	375	4856	5134
Palembang	837	360*	4547	7285
Padang	920	322	5475	4985*
Yogyakarta	825	275	4591	12500*

6 Prescribing	g for out of pock	et user
Medicine	Different in prices	Potential saving
	(in million rupiah)	with other
		medicine(%)
2007		
Concor 5mg Tab	15.055	15 - 39.81
Maintate 5mg Tab	10.7	22.3 - 40.99
<ul> <li>Herbesser 30mg Tab</li> </ul>	4.865	21.6 - 62.39
Capoten 12.5mg Tab	15.982	38.4 - 93.89
Captensin 12.5mg Tab	37.021	47.3 - 91.21
Capoten 25mg Tab	75.701	35,6 - 94.67
Capoten 25mg Tab	0.138	41.2 - 92.93
Adalat 10mg Tab	3.734	38.4 - 76.27
TOTAL	Rp 563.1	96 million
Idha	m, At thobari, Kristin, D	wiprahasto, 2007

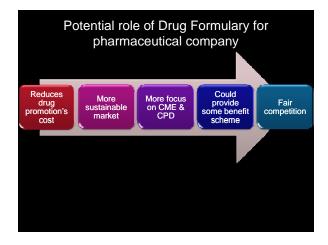






Reduces number of drug items         Reduces variability in prescribing         Reduces unnecessary medicine         Reduces health care cost on medicine         Improving patient compliance         More efficient health care budget         Education for provider (EBM)	Potential role of Drug Formulary
Reduces unnecessary medicine Reduces health care cost on medicine Improving patient compliance More efficient health care budget	Reduces number of drug items
Reduces unnecessary medicine Reduces health care cost on medicine Improving patient compliance More efficient health care budget	4
Reduces health care cost on medicine Improving patient compliance More efficient health care budget	Reduces variability in prescribing
Reduces health care cost on medicine Improving patient compliance More efficient health care budget	+
Improving patient compliance More efficient health care budget	Reduces unnecessary medicine
Improving patient compliance More efficient health care budget	+
More efficient health care budget	Reduces health care cost on medicine
More efficient health care budget	+
+	Improving patient compliance
+	
Education for provider (EBM)	More efficient health care budget
Education for provider (EBM)	+
	Education for provider (EBM)
	*
Education for consumer	Education for consumer

Reduction of drug items				
State owned Enterprise	Number of drug item prescribed			
	Before formulary	After formulary		
1	987	325		
2	1238	511		
3	1389	640		
4	1423	690		
5	1614	620		
6	2164	536		







#### 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

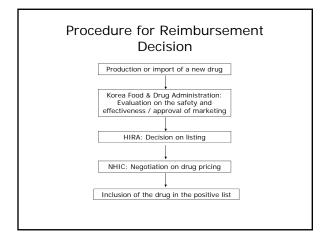
Introduction of Economic Evaluation into Pharmaceutical Reimbursement Decisions: PLS(positive list system) Policy

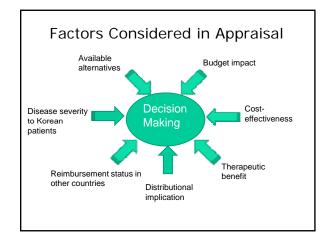
# Policy Change

- 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





# 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 Kongsap 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:

- Drug legislation and regulation
   Drug selection
- Drug selection
   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
- 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 iournal.
- 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:



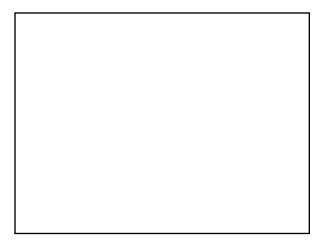
Karolinska Institute (Sweden), International Health Policy Programme, Thailand (IHPP)

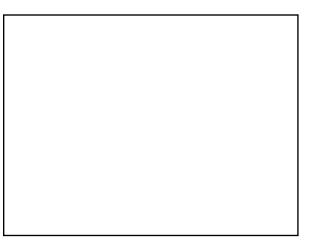


## In summary:

- 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

OHNS HOPKINS

# 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

# JOHNS HOPKINS

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# 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 Keng Ho Pwee.
   Intl. J Tech Asst Health Care, 2009

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# 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)
    - Investmer
  - Comparators: Standard of Care
     BSC
    - Active treatment



JOHNS HOPKINS

# HTA Challenges in Singapore

- TimeInflation
  - Discounting
- Costs
  - DirectIndirect

# 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



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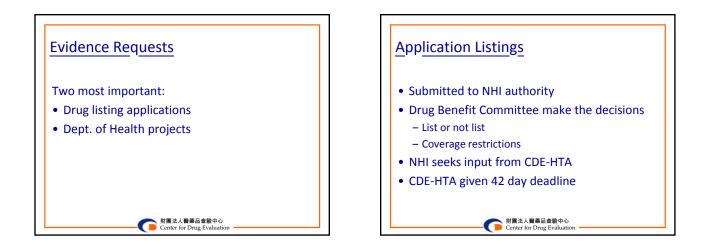
- Stakeholders
  - Ministry of Health
  - Academia
  - Providers
  - Industry
  - Patient Groups
- Help our patients have access to effective medications while efficiently and fairly allocating scarce resources
   JOHNS HOPKINS

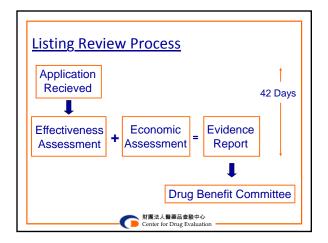


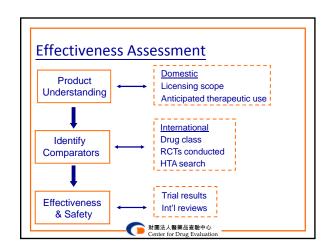


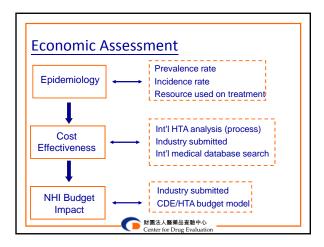




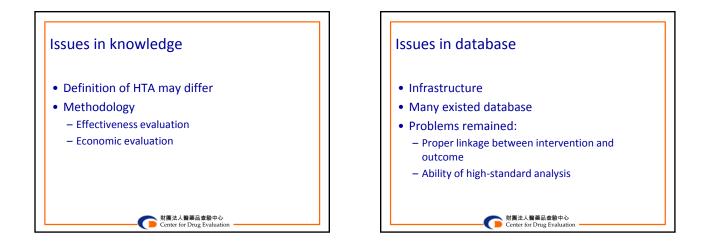


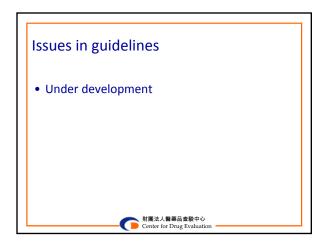


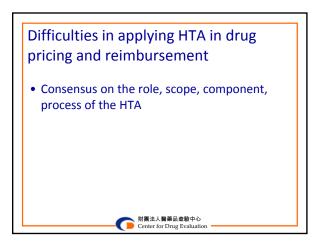
























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## Pharmacy System under NHSO

The National Health Security Office 5 September 2010

#### NHSO

 A Public organisation established under the National Health Security Act 2002 (November) : covers 76% population

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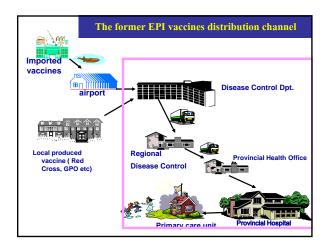
- Government funded 100 %
- Capitation basis inclusive of pharmaceuticals - 2,401 baht per head

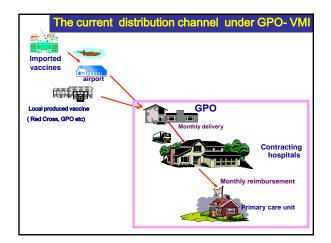
Organisation	Mission
National Drug Committee	Essential Drug List
Thai FDA	Regulator
HITAP	HTA
Gov Pharmaceutical Org	Procurement, Supply
HC providers	CPG, practice
NHSO	Payer

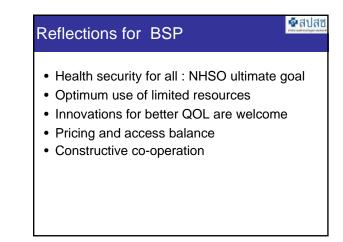
# Accessible care Fair reimbursement (money, products) NHSO central purchasing Agreed specification Efficient administration

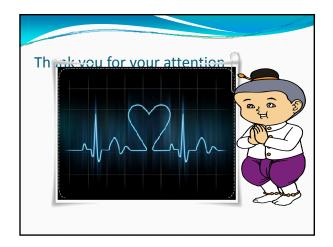
# Administration : examples

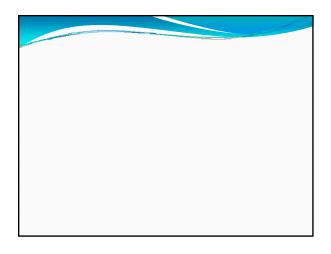
- EPI vaccines (10) : shortened distribution time
- Antidotes (6) : facilitate access
  - Drugs of little volume and value
  - Life saving drugs
  - Establish pooled demand
  - Negotiate with local producers
  - Negotiate with GPO for imported products
- Pharmacy services : P4P mechanism for ADR, DUE,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

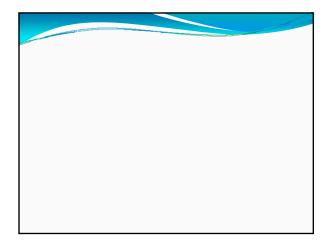


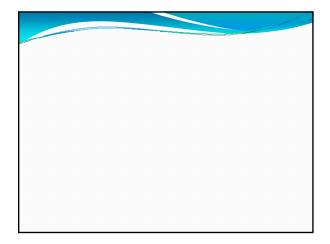
















Executive Committee

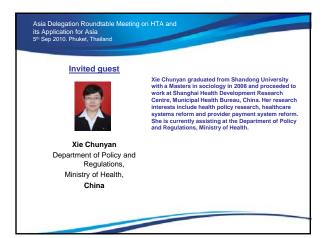




















Gilberto Lopes Founder ISPOR Singapore Chapter and Consultant Oncologist, John Hopkins Singapore International Medical Centre Singapore

The founder of the ISPOR Singapore Chapter, Dr Gilberto Lopes joined the John Hopkins Singapore International Medical Centre in August 2006 as a Consultant Oncologist. Prior to that, he was awarded Fellow of the Year at the Division of Haematology/Oncology, Sylvester Cancer Center, University of Miami Miller School of Medicine. Before his fellowship, Dr Lopes was Chief Medical Resident and Clinical Instructor at the Miami Veterans Affairs Medical Center and Jackson Memorial Hospital in Miami Florida, USA.

Dr Lopes has received awards such as the Amgen Haematology/Oncology Fellowship Award and the Chief Resident Award by the Florida Chapter of the American College of Physicians, and a grant for Scientific Initiation from the Brazilian National Research Council while he worked with the South American Office for new Anticancer Drug Development.











# Asia Delegation Roundtable Health Technology Assessment and Its Application in Asia

# **HTA Reference**

Articles published in HTA Special Issue of *Value in Health*, an official journal of International Society for Pharmacoeconomics and Outcomes Research (ISPOR) <u>http://www.ispor.org/HTAspecialissue/index.asp</u>

- Health Technology Assessment in Evidence-Based Health Care Reimbursement
   Decisions Around the World–An Overview
   Paper Citation: O'Donnell JC, Pham SV, Pashos CL, et al. Health technology assessment
   in evidence-based health care reimbursement decisions around the world: an overview.
- Value Health 2009;12(Suppl. 2):S1-5.
   Health Technology Assessment and Evidence-Based Medicine: What Are We

<u>**Talking About?</u>** Paper Citation: Eddy D. Health technology assessment and evidence-based medicine: what are we talking about? Value Health 2009;12(Suppl. 2):S6-7.</u>

3. <u>Nasty or Nice? A Perspective on the Use of Health Technology Assessment in the</u> <u>United Kingdom</u>

Paper Citation: Drummond M, Sorenson C. Nasty or nice? a perspective on the use of health technology assessment in the United Kingdom. Value Health 2009;12(Suppl. 2):S8-13.

- Health Technology Assessment: A Perspective from Germany Paper Citation: Fricke FU, Dauben HP. Health technology assessment: a perspective from Germany. Value Health 2009;12(Suppl. 2):S20-7.
- Health Technology Assessment: Reflections from the Antipodes Paper Citation: Bulfone L, Younie S, Carter R. Health technology assessment: reflections from the antipodes. Value Health 2009;12(Suppl. 2):S28-38.
- 6. <u>Health Technology Assessment in Health-Care Decisions in the United States</u> Paper Citation: Sullivan SD, Watkins J, Sweet B, Ramsey SD. Health technology assessment in health-care decisions in the United States. Value Health 2009;12(Suppl. 2):S39-44.