



A Review of Economic Evaluation Studies in Thailand :

Are the data good enough to be used in decision making?

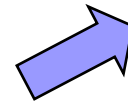
Sitaporn Youngkong, M.Sc.

Health Intervention and Technology Assessment Program (HITAP)
THAILAND

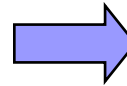
Overview of presentation

- Introduction
- Objectives
- Method
- Results & Discussions
- Conclusions
- Policy recommendations

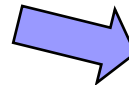
Introduction (1)



**Resources allocation and
priority-setting in healthcare**



Decision criteria



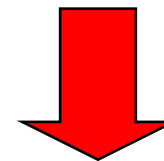
**Economic evaluation
of healthcare interventions**





THAILAND

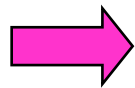
Economic evaluation data



healthcare priority-setting ??

Introduction (2)

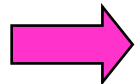
- Teerawattananon Y, et al. : Systematic review of economic evaluation literature in Thailand published in international journals between 1982 and 2005
Pharmacoeconomics (in Press)



In recent years, trends of publications



but poor quality & poor distribution in major health problems in Thailand



Limitation : English literature search by PubMed, EMBASE (Ovid) & Academic Search Elite (EbscoH) only

Objectives

- To analyse and compare the quality, quantity and targeting of economic evaluation published in between international and domestic literature

Method of Review (1)

Literature survey

- It was carried out in February 2006
- The domestic publications were searched by using the following keywords and databases:
 - 'economic evaluation' or
'cost – minimization' or
'cost – effectiveness' or
'cost – utility' or
'cost – benefit' } Both in English and Thai
 - Thai Index Medicus, Thai Journal Online Website &
Thai Research Database

Thai Index Medicus - Microsoft Internet Explorer

Address: http://161.200.96.194/

Thai Index Medicus

Thai Index Medicus Chulalongkorn University Medical Library Powered by WEBSIS30

Thai Index Medicus is a collection of documents published in Thai medical journals from 1918 to current year. It is a bilingual (Thai / English) database and maintained by the Medical Library, Faculty of Medicine, Chulalongkorn University, Bangkok Thailand.

Search Term/รูปแบบคำค้น

- **Author :** จรัส\$ or จรัส สุวรรณเวลา or charas suwanwela
- **Journal :** chula med j
- **Year :** 2005 or 2548
- **Operator and, or , not :** cancer and treatment

Thai Index Medicus
Lecturers' Work
Book List
Journal List
Audio Visual List
WHO Publication
Faculty Lecturer

Chemical Safety [MSDS, SG]
 องค์กรร่วมเครือข่าย
 หน่วยงานที่เกี่ยวข้อง
 Others Thai Index Medicus
 Siriraj Medical Library
 KhonKaen Medical Library

Thai Index Medicus

Thai Journal - Microsoft Internet Explorer

Address: http://161.200.96.194/e-jnal/thaij.htm

Thai Journal Online

MEDICAL LIBRARY Chulalongkorn University Thai Online Journals

link ของวารสารบางรายการได้จากจาก : <http://www.medicine.cmu.ac.th/library/TJ-Online/TJ-Online.htm> , <http://stang.li.mahidol.ac.th/text/thaiweb.htm> , <http://journal.research.chula.ac.th/> **หมดชุด ๓ ขอขอบคุณไว้ ณ โอกาสนี้ ปรมปร่งล่าสุด มิถุนายน 2549**

ใกล้เคียง (Family Health Magazine) www.ipersonalmd.com

ข่าวสารห้องสมุดในจุฬาลงกรณ์มหาวิทยาลัย <http://www.car.chula.ac.th/car-journal/>

คลินิก www.clinicmagazine.go.th
www.doctor.or.th

จดหมายเหตุทางแพทย์ (Journal of the Medical Association of Thailand) www.medassocthai.org/journal

กิจกรรมศาสตร์เวชสาร <http://rcopt.org/journal/thammasat.html>

Thai Journal Online

Thai Theses Search Form == English Version - Microsoft Internet Explorer

Address: http://server2.tiac.or.th/thesis/form.htm

Search guide

1. Type word(s) in blanks ***English Only.**
2. Select institute and year.
3. Then submit.
4. [Register here](#) (free) to display abstracts.
5. [Help](#)
6. [CD-Rom subscription](#)

Last Update: 10/01/2005
 Thesis Total: 63,840 Records

Institute: All
 Major Author
 Title
 Advisor keyword
 Year: All

Submit / Reset

[Click here for Thai Version](#)

Thai Theses Database

Grants Fund Project of NSTDA - Microsoft Internet Explorer

Address: http://www.nstda.or.th/grants/

ค้นหาโครงการวิจัยของประเทศไทย

ปีงบประมาณ: 2549
 ประเภทการวิจัย: วิทยาศาสตร์และเทคโนโลยี
 ทุนวิจัย: 10,000,000 - 20,000,000
 สถานะ: อนุมัติ / ดำเนินการ

ความเป็นมา

งานวิจัยที่สำเร็จแล้วจำนวนสถาบัน

สถาบันวิจัยที่ดำเนินการอยู่จำนวนสถาบัน

งานวิจัยที่กำลังดำเนินการอยู่จำนวนสถาบัน

Thai Research Database

Method of Review (2)

Literature screening

- All publications were excluded if:
 - Editorial or methodological article
 - Presented only one of either the costs or the outcomes
 - Applied to other countries context (not Thai context)
 - No full-text formats available

Method of Review (3)

Literature review


- Two reviewers evaluated the same publications
- The quality of studies were identified in 2 ways

(1) Published recommendations:

- Study perspective
- Description of comparator(s)
- Discounting methods (if the period of study > 1 year)
- Incremental cost-effectiveness ratio (ICER)
- Uncertainty analysis
- Funding sources

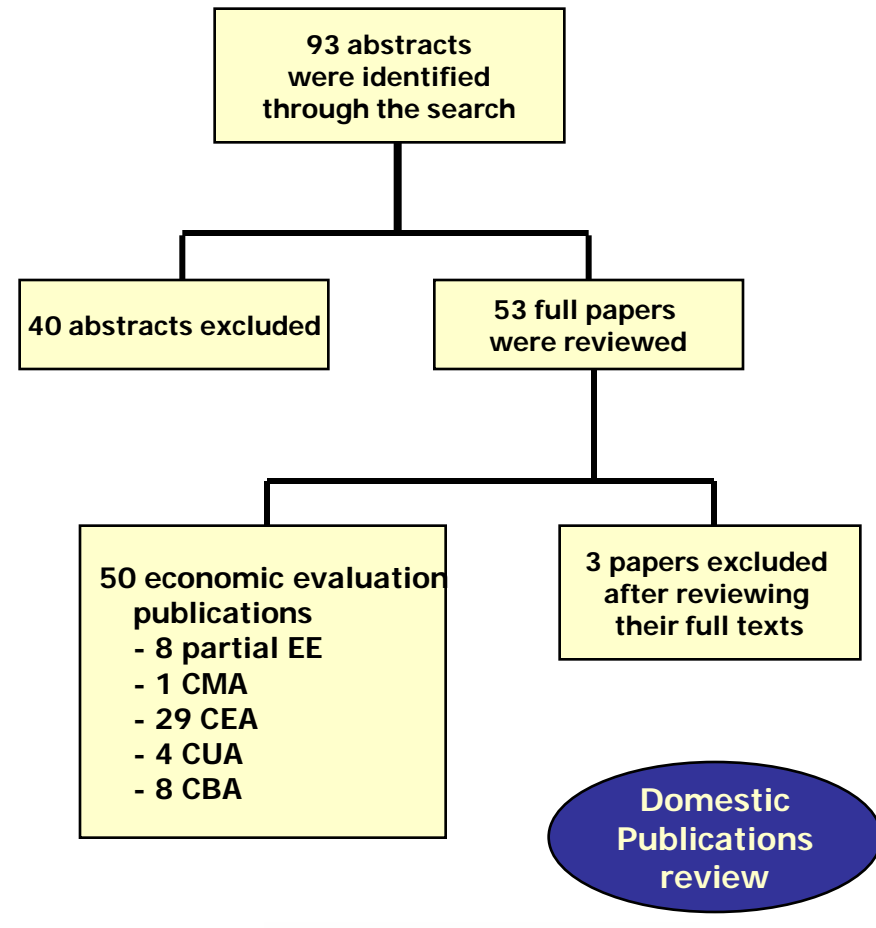
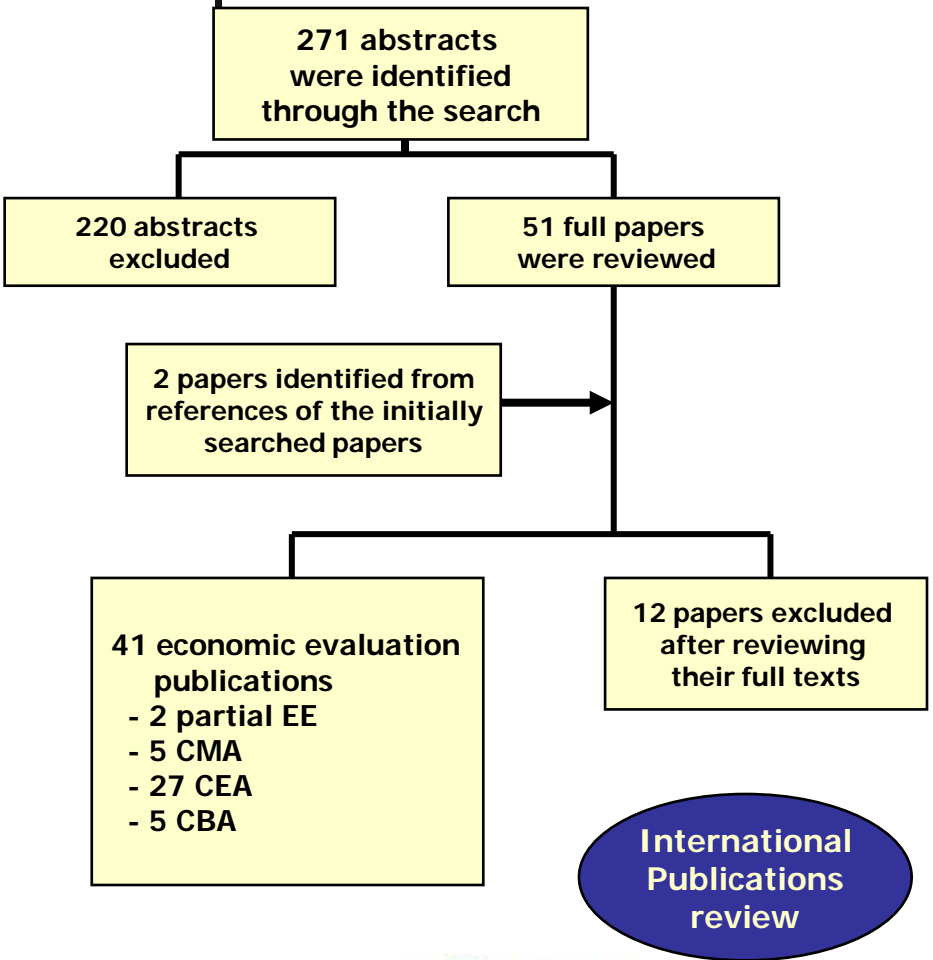
Method of Review (4)

(2) Quality for data sources used in economic analyses as proposed by Cooper et al*:

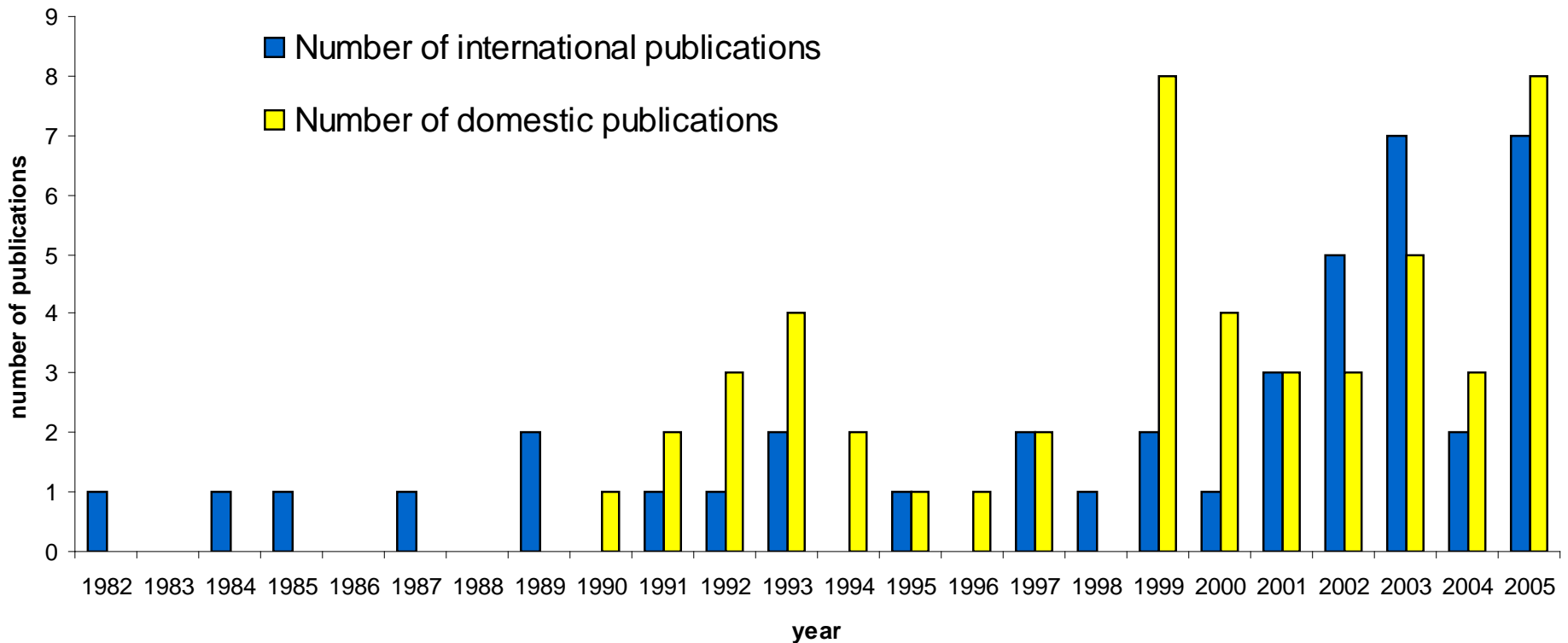
Rank	Clinical effect sizes	Costs
1 (highest) 	Meta-analysis of RCTs, direct comparison, final outcomes	Cost calculation conducted for specific study : same jurisdiction
	Single RCT, direct comparison, final outcomes	
	Meta-analysis of RCTs, direct comparison, surrogate outcomes	Recently published cost calculations : same jurisdiction
	Single RCT, direct comparison, surrogate outcomes	
	Meta-analysis of placebo-controlled RCTs, surrogate outcomes	Unsourced data from previous economic evaluation : same jurisdiction
	Single placebo-controlled RCTs, surrogate outcomes	
	Case control / cohort studies	Using charge rather than cost
	Non-analytical studies (e.g. case reports, case series)	Recently published cost : different jurisdiction
	Expert opinion	Unsourced data : different jurisdiction
	6 (lowest)	Not clearly stated
9		

*Cooper N, Coyle D, Abrams K, et al. Use of evidence in decision models: an appraisal of health technology assessment in the UK since 1997. *J Health Serv Res Policy* 2005 Oct; 10(4): 245-50.

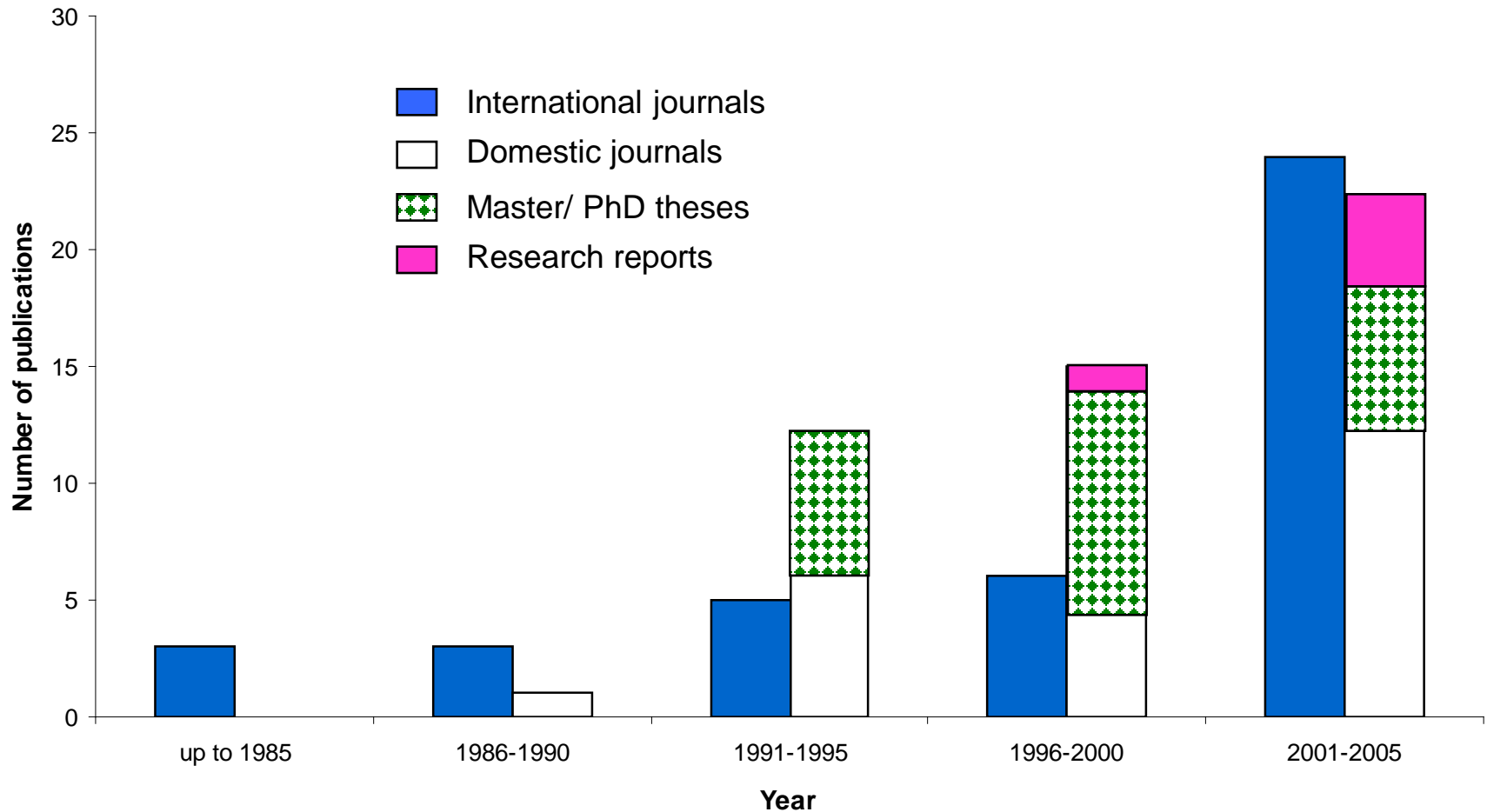
Literature review



Thai economic evaluation publications

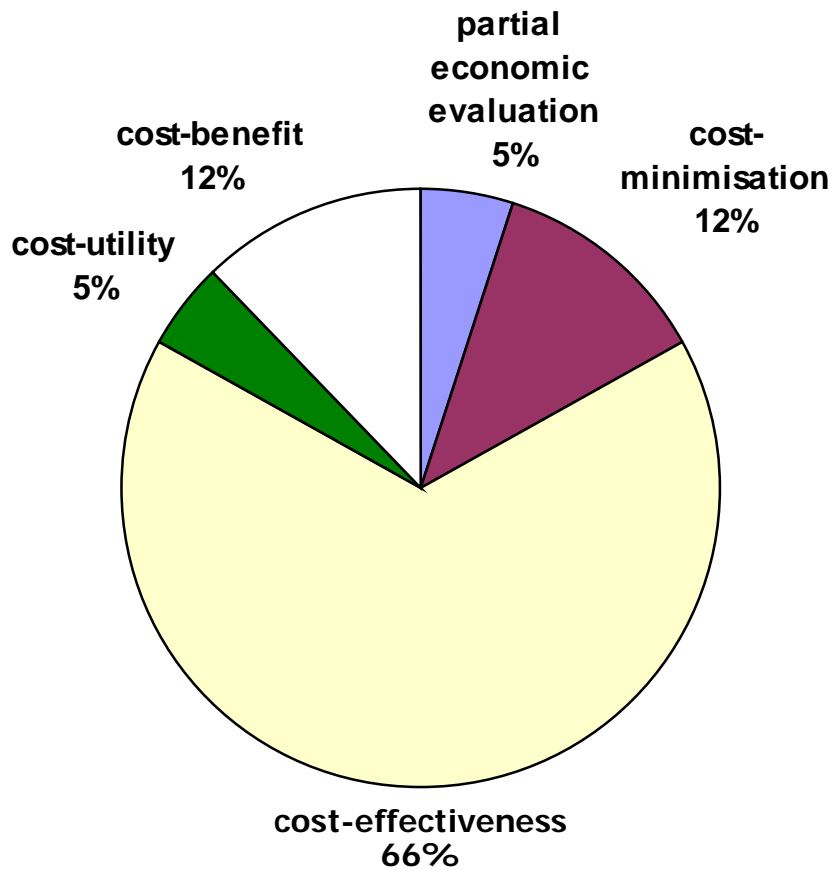


Type of publications

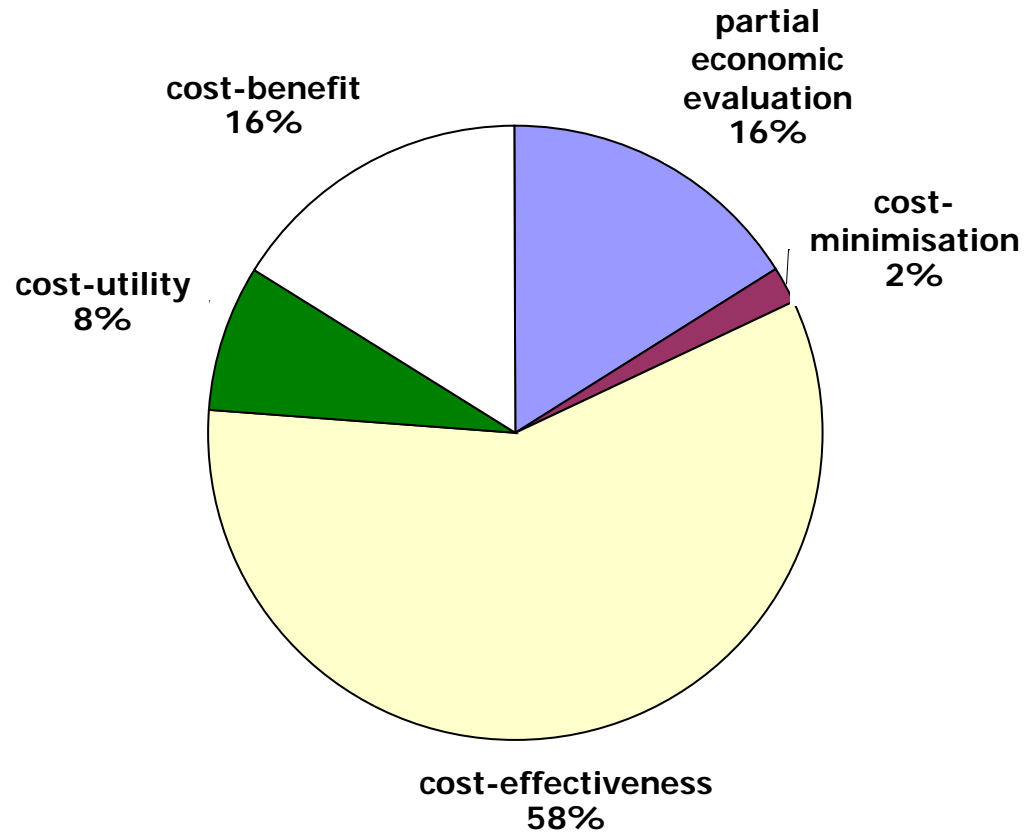


Type of economic evaluation

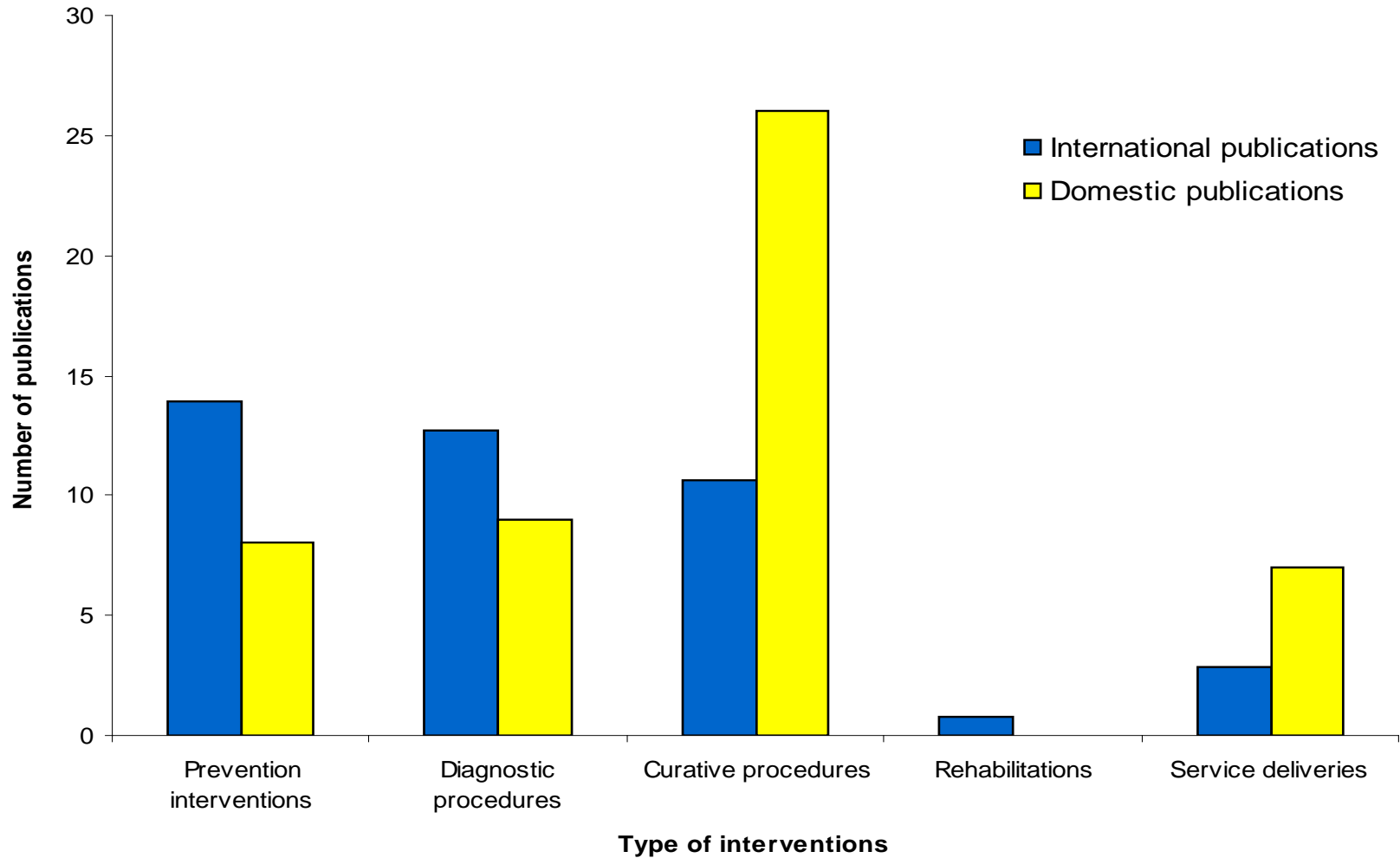
International publications



Domestic publications



Type of intervention



Extent to which Thai economic evaluations published between 1982 and 2005 met recommendations for good reporting

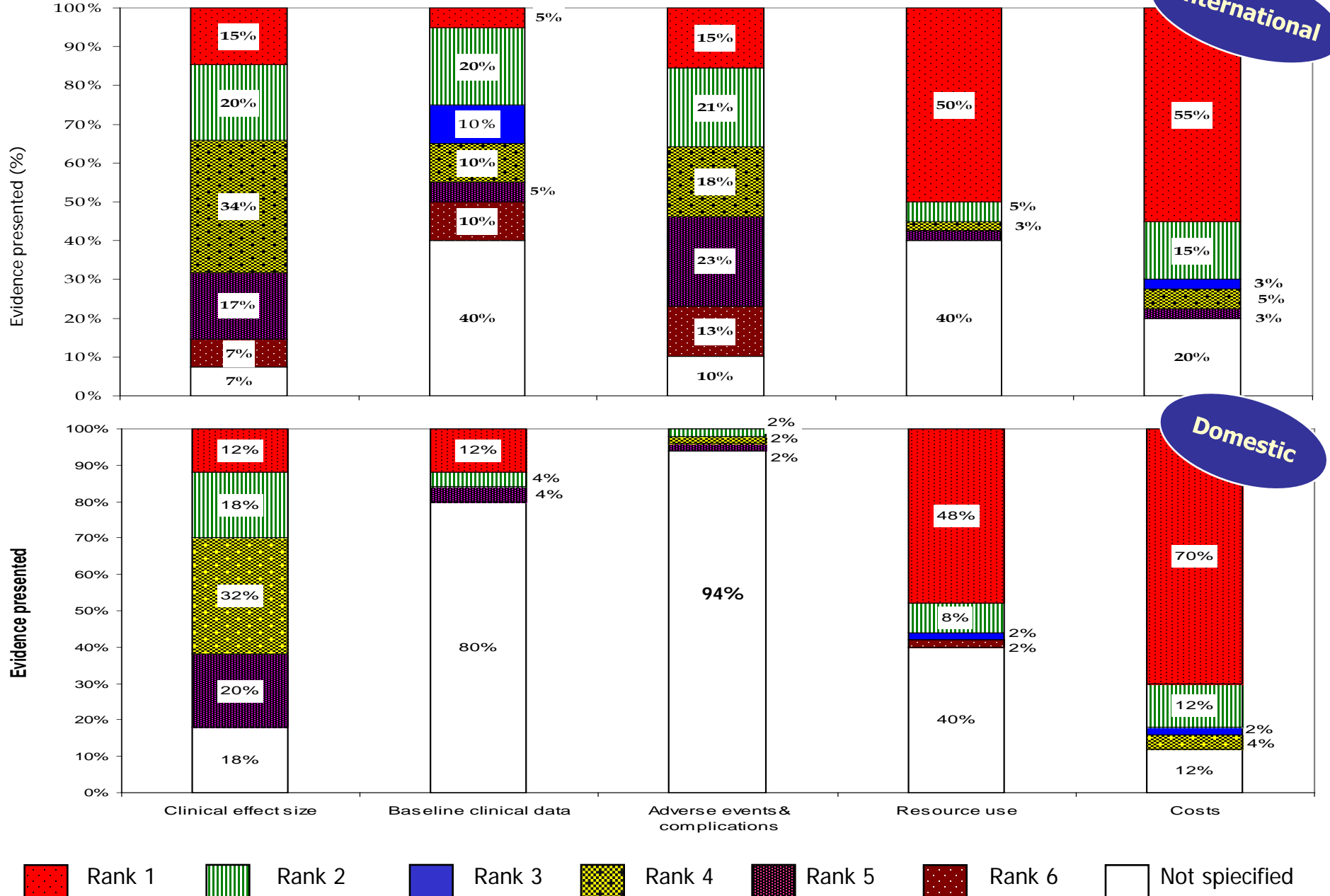


Recommendations	International publications		Domestic publications	
	Number of studies fulfilling recommendation	%	Number of studies fulfilling recommendation	%
Perspective specified	22/41	54	30/50	60
Description of comparator (s)	33/39	85	40/50	80
Used discounting for costs or/and outcomes (if study period was >1 yr)	5/16	31	15/24	63
Calculated and reported ICER	16/39	41	15/50	30
Performed uncertainty analysis	13/41	32	28/50	56
Disclosed funding sources	28/41	68	16/50	32

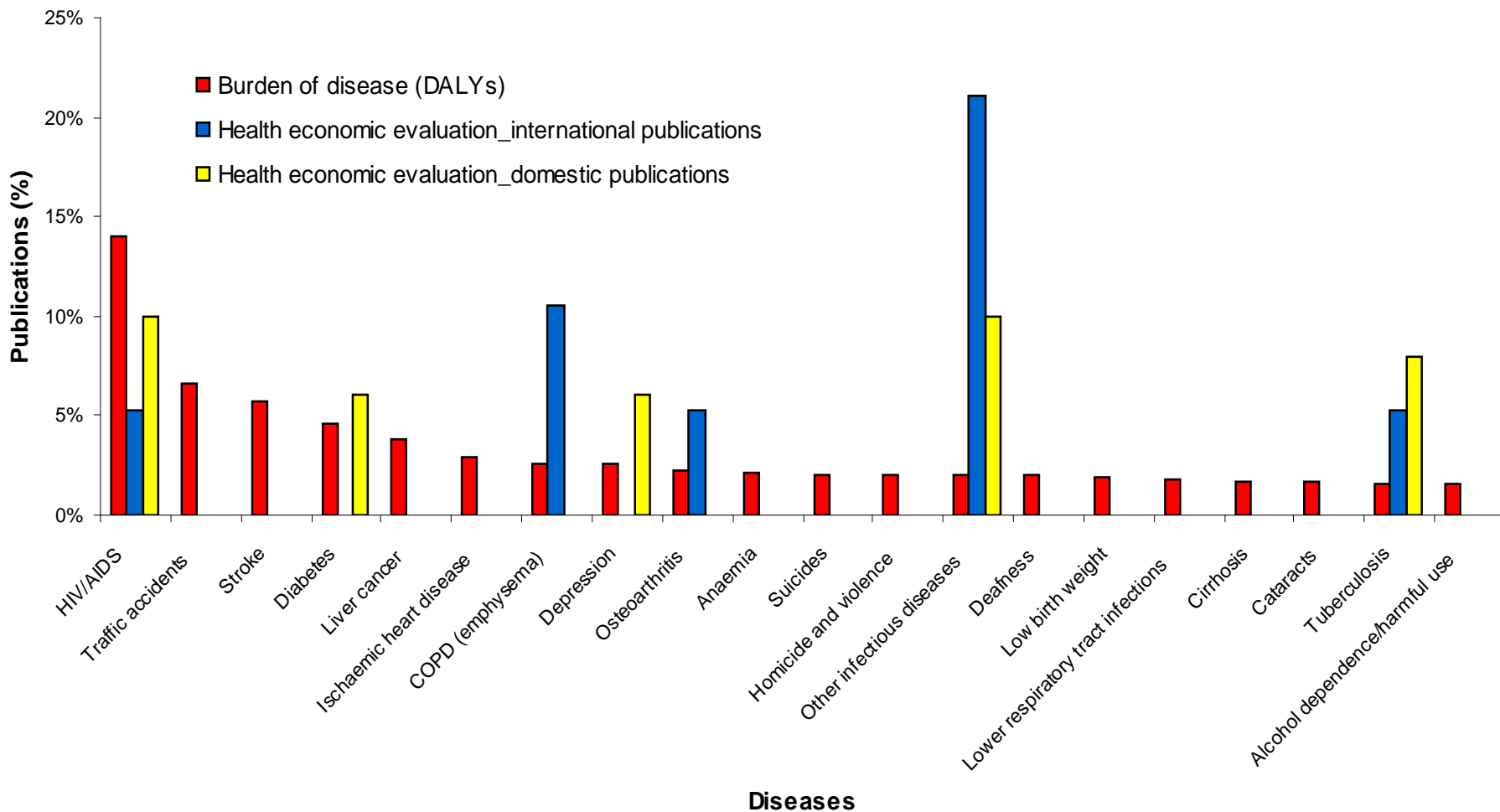
ICER = Incremental cost-effectiveness ratio



The ranks of the evidence used in the economic evaluation studies within a Thai context



Comparison of the proportion of overall disease burden and proportion of economic evaluation publications for the top 20 major healthcare issues in Thailand, 1982 - 2005



Conclusions

- No significant difference in terms of quantity and quality of conducting and reporting economic evaluation published in international and domestic literature
- Two serious methodological pitfalls :
 - The lack of calculation of an ICER
 - Limited use of uncertainty analyses
- Poor distribution of research resources to the determination of cost-effective interventions for major health problems in Thailand

Policy recommendations

- An urgent need for development of national methodological guideline for conducting and reporting economic evaluation in Thailand
- A comprehensive and systematic methods for prioritising topics for future economic assessment in Thailand