

# Adapting Pharmacoeconomic Data or Analyses from Overseas for Decision-Making in Middle Income Countries

Michael Drummond  
Centre for Health Economics,  
University of York

THE UNIVERSITY *of York*



## Workshop Leaders

- *Michael Drummond*  
Professor, Centre for Health Economics, University of York
- *Bong-Min Yang*  
Professor, School of Public Health, Seoul National University
- *Raoh-Fang (Jasmine) Pwu*  
Senior Investigator, Health data Research Center,  
Taiwan National University
- *Nathorn Chaiyakunapruk*  
Professor, School of Pharmacy, Monash University  
Malaysia

## Purpose of the Workshop

- Decision-makers in middle income countries are increasingly using economic evaluations in pricing and reimbursement decisions for pharmaceuticals and other health technologies
- Jurisdictions have local submissions guidelines and local expertise, but the studies submitted often use economic models developed elsewhere and elements of data from other countries
- This workshop will discuss the challenges faced by decision-makers in the Asia-Pacific region and local practices for adapting data or analyses from overseas

## Factors Likely to Differ from Place to Place

- Demography and epidemiology of disease.
- Relative price levels.
- Clinical practice/conventions.
- Health care resource distribution/availability.
- Incentives to professionals/institutions.
- Patients' values of health outcomes.

# Evidence of Variability in Cost-Effectiveness Estimates

- Study of 44 drugs in Western Europe where methodologically-equivalent cost-effectiveness estimates existed for more than one country
- ‘High variability’ was found in 17 cases out of 44
- The level of variability in C-E estimates depended on the analyst’s approach (eg pooling of resource use estimates across countries in a trial)
- The differences in C-E estimates between countries were not generally systematic

Barbieri *et al* *Value in Health* 2005;8:10-23

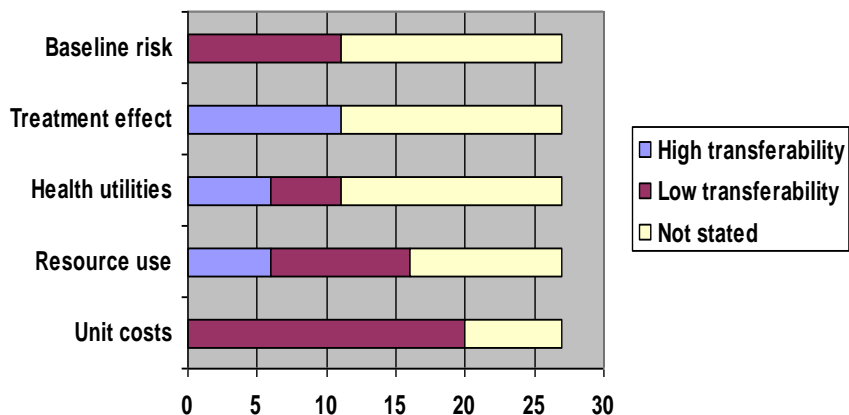
## What Do International Pharmacoeconomic Guidelines Say About Economic Data Transferability?

Barbieri M, Drummond MF, Rutten FFR *et al* for the ISPOR Good Research Practices Task Force on Economic Data Transferability  
*Value in Health* 2010; 13(8): 1028-1037

## Methods

- Analysis of 27 international pharmacoeconomic guidelines on the ISPOR website
- Documentation of comments made regarding five categories of data (baseline risk, treatment effect, health utilities, resource use, unit costs)
- Classification of the comments into ‘high transferability’ and ‘low transferability’

### Level of Transferability of Data Elements (27 Guidelines)



## CHALLENGES FACED IN TRANSFERRING ECONOMIC EVALUATIONS TO MIDDLE INCOME COUNTRIES

Michael Drummond  
University of York  
[mike.drummond@york.ac.uk](mailto:mike.drummond@york.ac.uk)

Federico Augustovski  
Institute for Clinical Effectiveness and Health Policy, University of Buenos Aires

Zoltán Kóli  
Syreon Research Institute, Department of Health Policy and Health Economics, Eötvös Loránd University, Budapest

Bong-Min Yang  
School of Public Health, Seoul National University

Andrés Pichon-Rivière  
Institute for Clinical Effectiveness and Health Policy, University of Buenos Aires

Eun-Young Bae  
College of Pharmacy, Gyeongsang National University

Sachin Kamal-Bahl  
HTA Strategy, Global Market Access, Merck and Co.

**Background:** Decision makers in middle-income countries are using economic evaluations (EEs) in pricing and reimbursement decisions for pharmaceuticals. However, whilst many of these jurisdictions have local submission guidelines and local expertise, the studies themselves often use economic models developed elsewhere and elements of data from countries other than the jurisdiction concerned. The objectives of this study were to describe the current situation and to assess the challenges faced by decision makers in transferring data and analyses from other jurisdictions.

**Methods:** Experienced health service researchers in each region conducted an interview survey of representatives of decision making bodies from jurisdictions in Asia, Central and Eastern Europe, and Latin America that had at least 1 year's experience of using EEs.

**Results:** Representatives of the relevant organizations in twelve countries were interviewed. All twelve jurisdictions had developed official guidelines for the conduct of EEs. All but one of the organizations evaluated studies submitted to them, but 9 also conducted studies and 7 commissioned them. Nine of the organizations stated that, in evaluating EEs submitted to them, they had consulted a study performed in a different jurisdiction. Data on relevant treatment effect was generally considered more transferable than those on prices/unit costs. Views on the transferability of epidemiological data, data on resource use and health state preference values were more mixed. Eight of the respondents stated that analyses submitted to them had used models developed in other jurisdictions. Four of the organizations had a policy requiring models to be adapted to reflect local circumstances. The main obstacles to transferring EEs were the different patterns of care or wealth of the developed countries from which most economic evaluations originate.

**Conclusions:** In middle-income countries it is commonplace to deal with the issue of transferring analyses or data from other jurisdictions. Decision makers in these countries face several challenges, mainly due to differences in current standard of care, practice patterns, or gross domestic product between the developed countries where the majority of the studies are conducted and their own jurisdiction.

**Keywords:** Cost-effectiveness analysis, Health technologies, Reimbursement

## Background to the Research

- Decision makers in middle income countries are using economic evaluations in pricing and reimbursement decisions for pharmaceuticals
- The studies used by manufacturers often use data or economic models from other countries
- The objectives of the study were to assess the challenges faced by decision-makers in transferring data and analyses from other jurisdictions

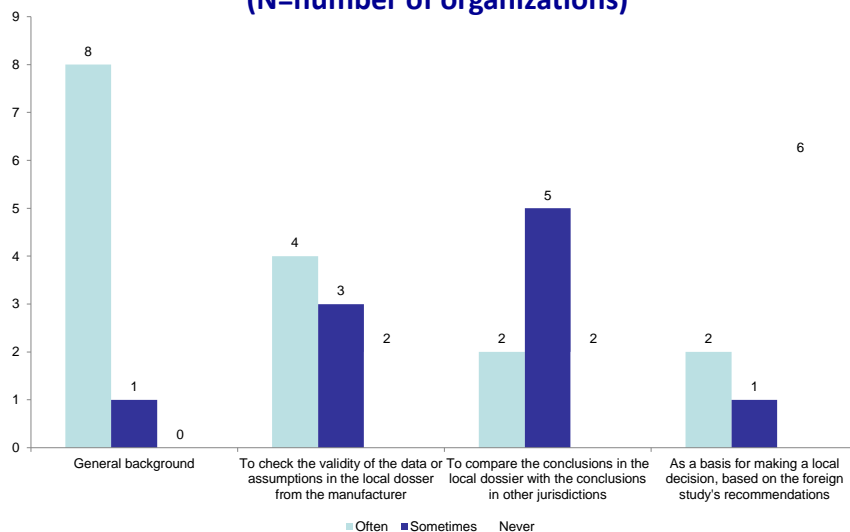
## Study Sample

- Middle income countries having at least one year's experience of using economic evaluation in reimbursement decisions
- Asia: *South Korea, Taiwan, Thailand*
- Eastern Europe: *Croatia, Hungary, Poland, Slovakia*
- Latin America: *Argentina, Brazil, Colombia, Mexico, Uruguay*

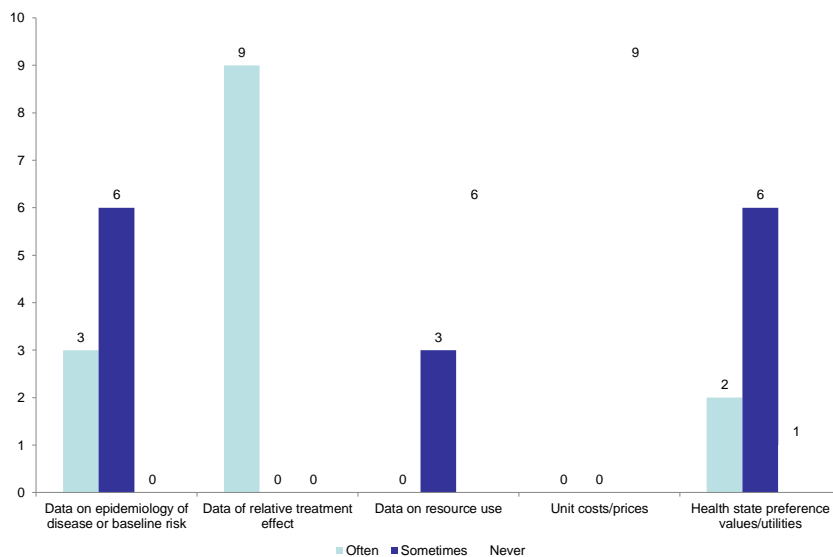
## Survey Questions

- Organizational roles
- Use of economic evaluations
- Available skills and expertise
- Ways in which foreign studies are used
- Views on the transferability of foreign data and models
- Main obstacles to transferring studies from other jurisdictions

## Ways in which the results from studies conducted in other jurisdictions are used? (N=number of organizations)



## Categories of foreign data used when conducting local studies (N=number of responses)



<b>OBSTACLES TO TRANSFERRING ECONOMIC EVALUATIONS FROM OTHER JURISDICTIONS</b>	<b>Number of times mentioned</b>
Other practice patterns, or the availability of facilities, are often different in my jurisdiction	10
The current standard of care/ relevant comparator is often different in my jurisdiction	9
Studies are often conducted in countries with a higher GDP, so the results do not apply in my jurisdiction	8
Studies are often badly reported, or not enough details are given	8
It is often difficult or impossible to obtain an electronic copy of the model	7
The patient population is often different in my jurisdiction	6
Often, it is not possible to find local data to re-populate the model	6
Studies often have methodological deficiencies	5
Decision-makers in my jurisdiction much prefer a locally designed study	5
Studies often use methods that are too advanced for decision-makers in my jurisdiction	4
Other obstacles (please list and rank)	3
Lack of local technical capability	1
Decision-makers in my jurisdiction much prefer non-data driven arguments	1
Different resources & costs used in other jurisdictions	1

## Country Presentations

- Is the experience in your country similar to that presented in the survey?
- Are there any examples in your country of using data or analyses from overseas in local decisions?
- What do you see as the major challenges and how are they resolved in your country?

**Followed by:** interactive session with workshop participants