

# The IDSI Reference Case: an aid to thought

Benefit-Cost Analysis Reference Case  
11 May 2017  
Scoping Workshop

**Tommy Wilkinson,**

Senior Technical Advisor

PRICELESS SA, Wits School of Public Health, Johannesburg, South Africa

Email: [tommy.d.wilkinson@gmail.com](mailto:tommy.d.wilkinson@gmail.com)



UNIVERSITY OF THE  
WITWATERSRAND,  
JOHANNESBURG



# Approach to developing the IDSI Reference Case

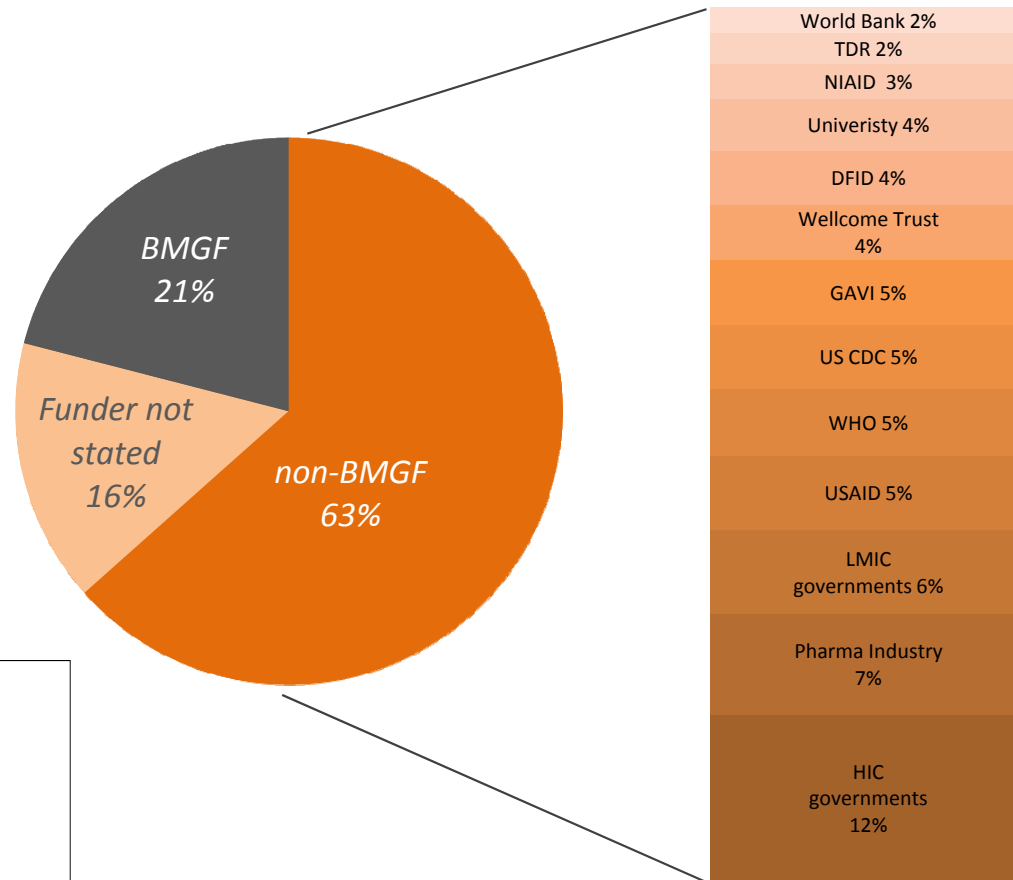
- Initial objective: to explore options for **improving methodological quality** across BMGF-funded economic evaluations (called Methods for Economic Evaluation Project, (MEEP))
- Review of existing economic evaluation literature in LMIC settings, with specific focus on **BMGF-funded publications**
- Workshop in 2013 drawing together researchers, funders, policy makers, development partners
  - Reviewed existing "reference cases" – Washington Panel, NICE, WHO, HITAP
  - Explored **key principles** of an economic evaluation that improve **usefulness** to a decision maker
- Core writing group and series of consultations with wider stakeholders

Washington Panel = Panel on Cost-Effectiveness in Health and Medicine (1996); NICE = National Institute for Health and Care Excellence, UK; WHO = World Health Organization = HITAP = Health Intervention and Technology Assessment Program, Thailand

## Who will use it, what will they use it for, and who will be affected by the decision?

Decision makers	Investment types	Constituencies
<ul style="list-style-type: none"><li>• Governments (MoH, MoF)</li><li>• BMGF (investment decisions)</li><li>• Partners of BMGF ( e.g. Global Fund)</li><li>• Other global or regional funders</li></ul>	<ul style="list-style-type: none"><li>• Medical technologies (e.g. HIV treatments, vaccines)</li><li>• Public health initiatives</li><li>• Program Evaluations</li></ul>	<ul style="list-style-type: none"><li>• Global</li><li>• Regional</li><li>• National</li><li>• Provincial</li><li>• Local</li></ul>

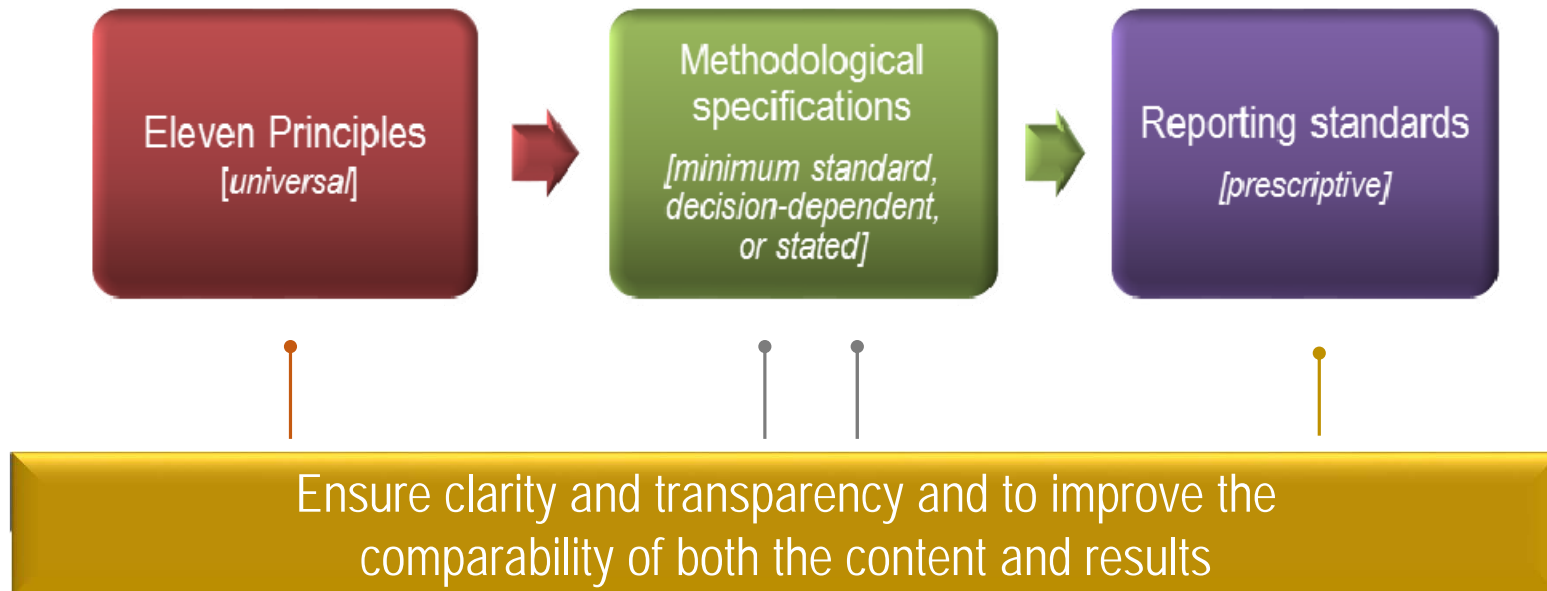
# Who is funding economic evaluations in LMIC?



Programme areas:  
Vaccines (n=110)  
HIV/AIDS (n=58)  
Malaria (n = 41)  
Tuberculosis (n = 15)

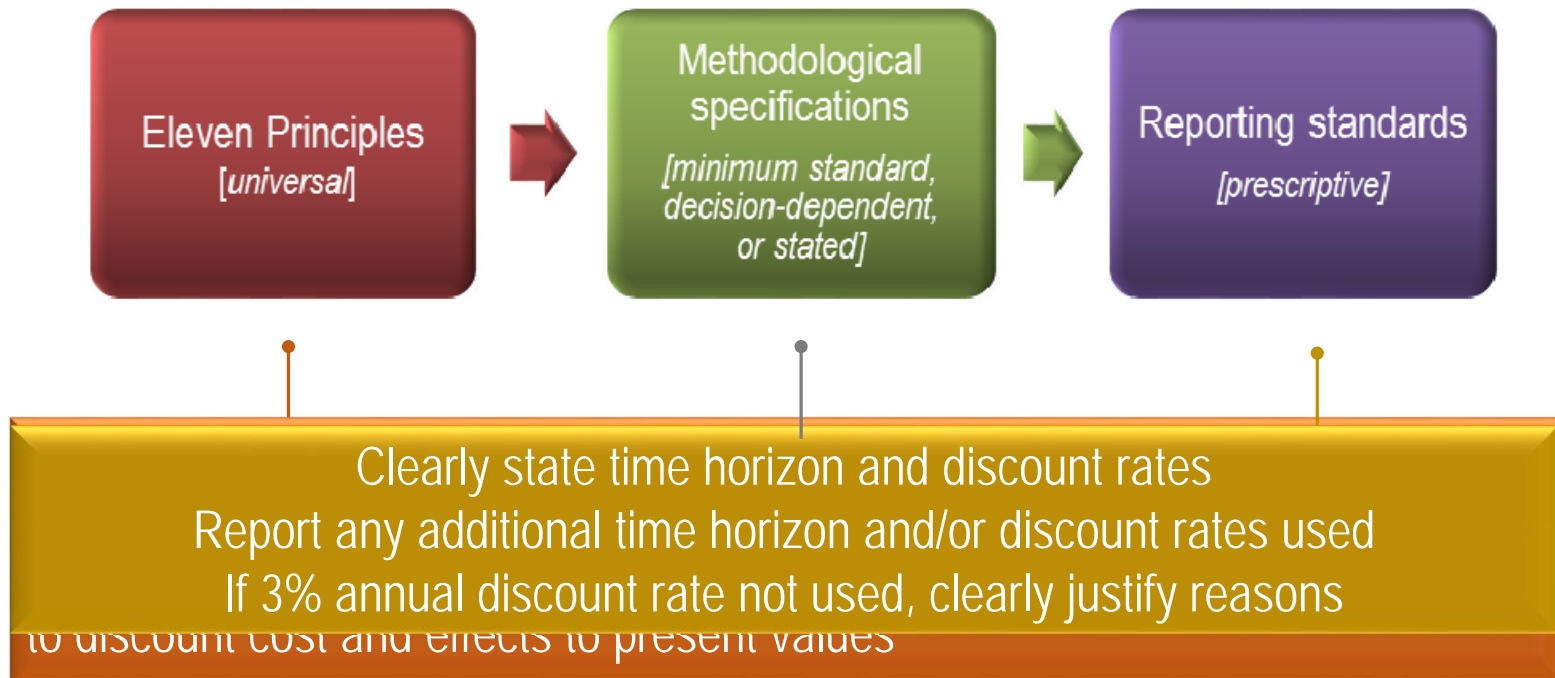
# The IDSI Reference Case

Building blocks:



# The IDSI Reference Case

Example: time horizon and discount rate



## iDSI Reference Case Principles

### Transparency

An economic evaluation should be **communicated clearly and transparently** to allow the decision maker(s) to **interpret** the methods and results

### Comparator

The **comparators** against which costs and effects are measured should accurately **reflect the decision problem**

### Evidence

An economic evaluation should **consider all available evidence relevant** to the decision problem

### Measure of health outcome

The **measure of health outcome** should be **appropriate to the decision problem**, should capture **positive and negative effects on length of life and quality of life**, and should be **generalizable** across disease states

## iDSI Reference Case Principles

### Costs

All **differences** between the intervention and the comparator in **expected resource use and costs** of delivery to the target population(s) should be incorporated into the evaluation

### Time horizon and discount rate

The **time horizon** used in an economic evaluation should be of sufficient length to capture all costs and effects **relevant to the decision problem**; an appropriate **discount rate** should be used to **discount cost and effects to present values**

### Perspective

**Non-health effects and costs associated with gaining or providing access to health interventions that don't accrue to the health budget** should be identified where **relevant to the decision problem**; all costs and effects should be **disaggregated**, either by sector of the economy or to whom they accrue



## iDSI Reference Case Principles

### Heterogeneity

The **cost and effects of the intervention on sub-populations** within the decision problem should be **explored** and the **implications** appropriately **characterized**

### Uncertainty

The **uncertainty** associated with an economic evaluation should be appropriately **characterised**

### Impact on constraints

The **impact** of implementing the intervention on the **health budget and on other constraints** should be **identified clearly and separately**

### Equity

An economic evaluation should explore the **equity implications** of implementing the intervention

## iDSI Reference Case Principles

Comparator

Equity

Impact on constraints

Evidence

Transparency

Uncertainty

Measure of health outcome

Heterogeneity

Costs

Time horizon and discount rate

Perspective

# Where to for the IDSI Reference Case?

## BMGF:

- Proposed - incorporation into BMGF grant applications involving an economic evaluation component
- Explore applicability to upstream research and development for product development partnerships

## IDSI planned and potential future RC collaborations:

Universities of Imperial, Glasgow, Erasmus, York, Wits, Mahidol, Uni of Indonesia, Fudan, Chandigarh, to:

- Conduct country-specific case studies in: China, India, Ghana, and South Africa, Vietnam and Indonesia
- Continue methodological research eg cost effectiveness thresholds, perspectives, application to epidemiological models, and RC principle-based frameworks
- Work with global development partners UNITAID/Global Fund to consider the applicability of RC principles to analytical processes – in particular market shaping and pricing
- Coordination with other initiatives to strengthen methodological quality and consistency:
  - Global Health Costing Consortium
  - Benefits Cost Analysis Reference Case

# The IDSI Reference Case for Economic Evaluation

ARTICLE IN PRESS

VALUE IN HEALTH ■ (2016) ■■■■■

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

**ScienceDirect**

journal homepage: [www.elsevier.com/locate/jval](http://www.elsevier.com/locate/jval)



## The International Decision Support Initiative Reference Case for Economic Evaluation: An Aid to Thought

Thomas Wilkinson, MSc<sup>1,2</sup>, Mark J. Sculpher, PhD<sup>3</sup>, Karl Claxton, PhD<sup>4</sup>, Paul Revill, MSc<sup>3</sup>, Andrew Briggs, DPhil<sup>5</sup>, John A. Cairns, MPhil<sup>6</sup>, Yot Teerawattananon, PhD<sup>7</sup>, Elias Asfaw, MSc<sup>8</sup>, Ruth Lopert, MD, MMedSc<sup>9,10</sup>, Anthony J. Culyer, BA, Hon DEcon<sup>11</sup>, Damian G. Walker, PhD<sup>12</sup>

<sup>1</sup>NICE International, National Institute for Health and Care Excellence, London, UK; <sup>2</sup>PRICELESS SA, Wits Rural Public Health and Health Transitions Unit, School of Public Health, University of Witwatersrand, Johannesburg, South Africa; <sup>3</sup>Centre for Health Economics, University of York, York, UK; <sup>4</sup>Department of Economics and Centre for Health Economics, University of York, York, UK; <sup>5</sup>Institute of Health and Wellbeing, University of Glasgow, UK; <sup>6</sup>Department of Health Services Research & Policy, London School of Hygiene & Tropical Medicine, UK; <sup>7</sup>Health Intervention and Technology Assessment Program (HITAP), Ministry of Public Health, Bangkok, Thailand; <sup>8</sup>Economics department, University of KwaZulu-Natal, Durban, South Africa; <sup>9</sup>Department of Health Policy and Management, George Washington University, Washington DC, USA; <sup>10</sup>Management Sciences for Health, Arlington VA, USA; <sup>11</sup>Department of Economics & Related Studies and Centre for Health Economics, University of York, UK; <sup>12</sup>Global Development Program, Bill & Melinda Gates Foundation, Seattle, USA

### ABSTRACT

**Background:** Policymakers in high-, low-, and middle-income countries alike face challenging choices about resource allocation in health. Economic evaluation can be useful in providing decision makers with the best evidence of the anticipated benefits of new investments, as well as their expected opportunity costs—the benefits

insights from the World Health Organization, the US Panel on Cost-Effectiveness in Health Care, and the UK National Institute for Health and Care Excellence. Comprising 11 key principles, each accompanied by methodological specifications and reporting standards, the IDSI Reference Case also serves as a means of identifying priorities



[www.idsihealth.org](http://www.idsihealth.org)

SEARCH

ABOUT US WHO WE ARE IDSI IN ACTION KNOWLEDGE BASE BLOG CONTACT

## BETTER DECISIONS. BETTER HEALTH.

The International Decision Support Initiative (IDSI) is a sustainable, adaptable, international mechanism to provide policymakers (at sub-national, national, regional and international levels) with coordinated support in priority-setting as a means to Universal Health Coverage (UHC). The initiative shares experiences, showcases lessons learned, and identifies practical ways to scale technical support for more systematic, fair and evidence informed priority-setting processes. Its interventions help to improve access to effective health interventions and the quality and efficiency of health care delivery, and to help elevate the value of priority setting as essential for attaining and sustaining UHC.



READ MORE



IDSI IN ACTION

KNOWLEDGE PRODUCTS

LINKS

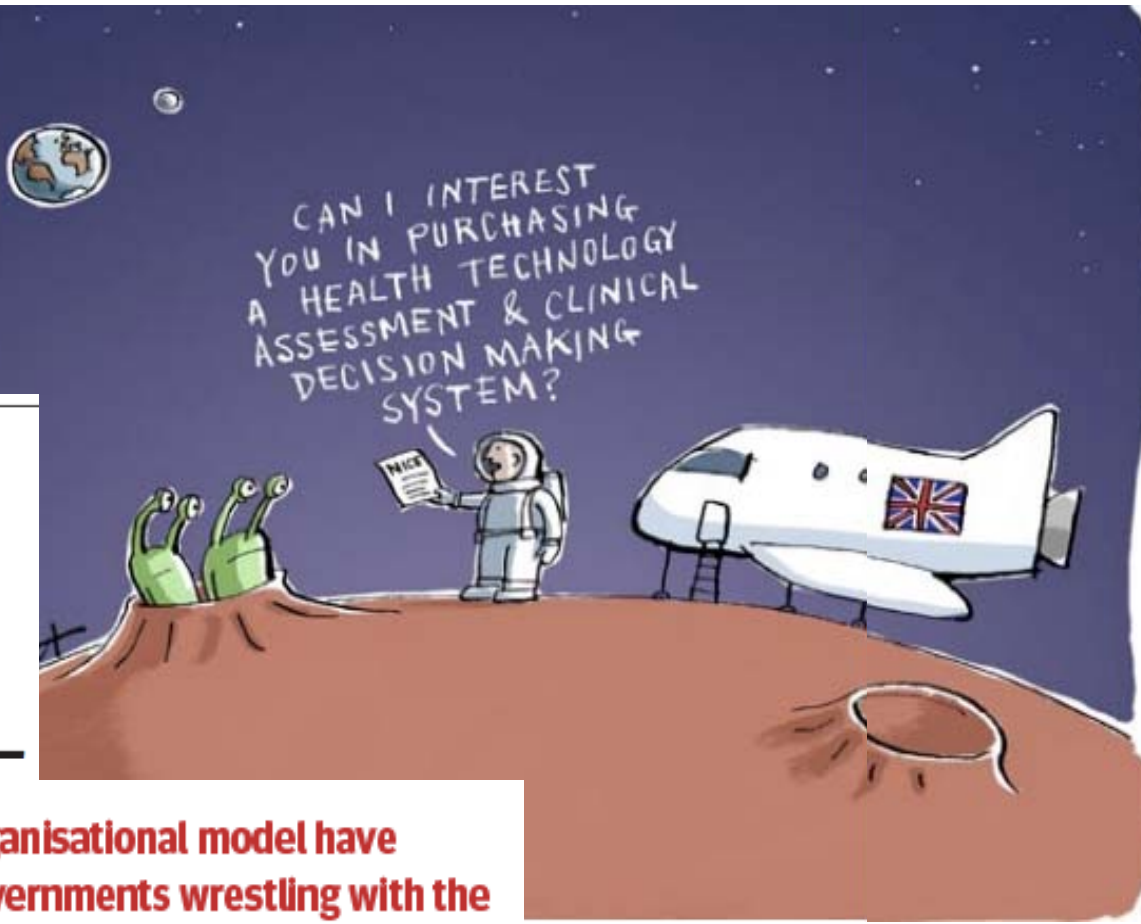
We provide practical support to country decision

We produce knowledge products robust, freely

We Engage with other networks and initiatives active

B  
P  
I  
E  
S  
T  
E  
A  
V  
H  
M  
I  
r

# NICE GOES GLOBAL



**NICE's methods and organisational model have become a beacon to governments wrestling with the issues of efficacy and fairness in healthcare delivery**

BMJ | 31 JANUARY 2009 | VOLUME 338

# Siyabonga - Enkosi - Thanks

[www.pricelessa.ac.za](http://www.pricelessa.ac.za)



**WITS School of  
Public Health**



**PRICELESS SA**  
Priority Cost Effective Lessons  
for System Strengthening

# Substantive input to the IDSI Reference Case

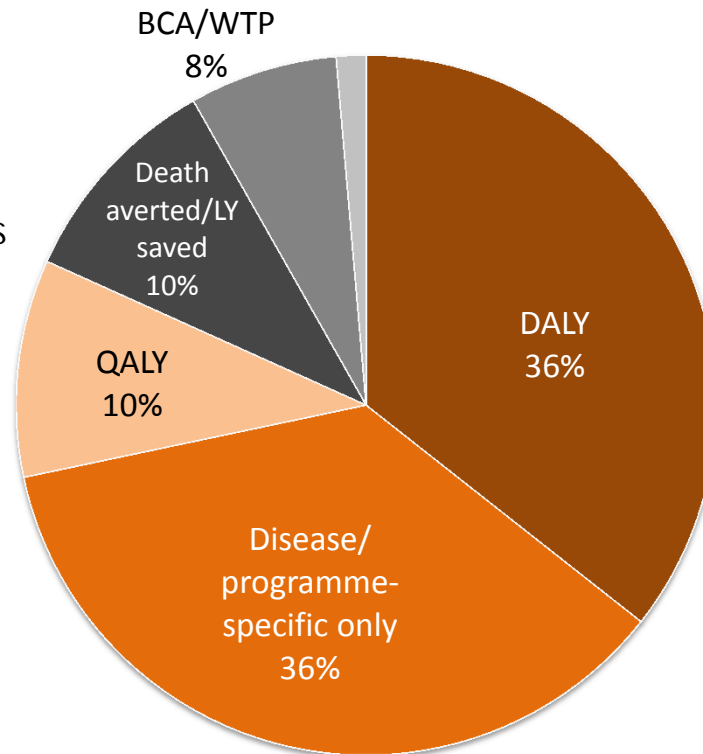
- Andrew Briggs - University of Glasgow
- John Cairns - London School of Hygiene & Tropical Medicine
- Kalipso Chalkidou - NICE International
- Karl Claxton - University of York
- Tony Culyer - University of York; University of Toronto
- Ruth Faden - John Hopkins Berman Institute of Bioethics
- Marthe Gold - Department of Community Health and Social Medicine City College New York
- Carol Levin - University of Washington
- Ruth Lopert - Independent Advisor
- Paul Revill - University of York
- Francis Ruiz – NICE International
- Mark Sculpher - University of York
- Peter Smith - Imperial College of London
- Yot Teerawattananon - Health Intervention and Technology Assessment Program, Thailand
- Anna Vassall - London School of Hygiene & Tropical Medicine
- Damian Walker - BMGF
- Tommy Wilkinson –NICE International

*Affiliations correct as of date of first publication of Methods for Economic Evaluation Report (2014)*

# Which outcome measure?

Outcome measure reported in published EE four programme areas (LMIC setting)

- 28% of all cost-per-DALY studies funded by BMGF
- 43% of all BMGF-funded studies used cost-per-DALY



Programme areas:  
Vaccines (n=110)  
HIV/AIDS (n=58)  
Malaria (n = 41)  
Tuberculosis (n = 15)