The IDSI Reference Case:

an aid to thought

Benefit-Cost Analysis Reference Case
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Scoping Workshop

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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?

<table>
<thead>
<tr>
<th>Decision makers</th>
<th>Investment types</th>
<th>Constituencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Governments (MoH, MoF)</td>
<td>• Medical technologies (e.g. HIV treatments, vaccines)</td>
<td>• Global</td>
</tr>
<tr>
<td>• BMGF (investment decisions)</td>
<td>• Public health initiatives</td>
<td>• Regional</td>
</tr>
<tr>
<td>• Partners of BMGF (e.g. Global Fund)</td>
<td>• Program Evaluations</td>
<td>• National</td>
</tr>
<tr>
<td>• Other global or regional funders</td>
<td></td>
<td>• Provincial</td>
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<tr>
<td></td>
<td></td>
<td>• Local</td>
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Who is funding economic evaluations in LMIC?

- **Funder not stated** 16%
- **BMGF** 21%
- **non-BMGF** 63%

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

**Funders:**
- HIC governments 12%
- Pharma Industry 7%
- US CDC 5%
- WHO 5%
- USAID 5%
- LMIC governments 6%
- Wellcome Trust 4%
- GAVI 5%
- DFID 4%
- NIAID 3%
- TDR 2%
- World Bank 2%

**Publication details:**
The IDSI Reference Case

Building blocks:

- **Eleven Principles** [universal]
- **Methodological specifications** [minimum standard, decision-dependent, or stated]
- **Reporting standards** [prescriptive]

Ensure clarity and transparency and to improve the comparability of both the content and results.
The IDSI Reference Case

Example: time horizon and discount rate

- Eleven Principles [universal]
- Methodological specifications [minimum standard, decision-dependent, or stated]
- Reporting standards [prescriptive]

Clearly state time horizon and discount rates
Report any additional time horizon and/or discount rates used
If 3% annual discount rate not used, clearly justify reasons to discount cost and effects to present values
### iDSI Reference Case Principles

<table>
<thead>
<tr>
<th>Transparency</th>
<th>An economic evaluation should be <strong>communicated clearly and transparently</strong> to allow the decision maker(s) to <strong>interpret</strong> the methods and results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparator</td>
<td>The <strong>comparators</strong> against which costs and effects are measured should accurately <strong>reflect the decision problem</strong></td>
</tr>
<tr>
<td>Evidence</td>
<td>An economic evaluation should <strong>consider all available evidence relevant</strong> to the decision problem</td>
</tr>
<tr>
<td>Measure of health outcome</td>
<td>The <strong>measure of health outcome</strong> should be <strong>appropriate to the decision problem</strong>, should capture <strong>positive and negative effects on length of life and quality of life</strong>, and should be <strong>generalizable</strong> across disease states</td>
</tr>
<tr>
<td>Costs</td>
<td>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</td>
</tr>
<tr>
<td>Time horizon and discount rate</td>
<td>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</td>
</tr>
<tr>
<td>Perspective</td>
<td>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</td>
</tr>
</tbody>
</table>
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
- Evidence
- Measure of health outcome
- Costs
- Equity
- Impact on constraints
- Uncertainty
- Heterogeneity
- Transparency
- 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 International Decision Support Initiative Reference Case for Economic Evaluation: An Aid to Thought

The International Decision Support Initiative (IDSI) is a sustainable, adaptable international mechanism to provide policymakers at national, regional, and international levels with coordinated support in prioritization 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 prioritization 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 an essential step in attaining and sustaining UHC.

JOURNAL HOMEPAGE: www.elsevier.com/locate/jval

www.idsihealth.org

BETTER DECISIONS. BETTER HEALTH.
NICE’s methods and organisational model have become a beacon to governments wrestling with the issues of efficacy and fairness in healthcare delivery

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Siyabonga - Enkosi - Thanks

www.pricelesssa.ac.za
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)
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