

Methods and Case Studies Workshop  
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Session: Day 1, Case Studies session

Stunting: Wong and Orazem  
Education: Pradhan and Jamison

**Discussant comments**

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Cost-Benefit analysis of an early childhood  
nutrition intervention to prevent stunting in  
Haiti  
(Brad Wong and Peter Orazem)

## Cost-Benefit analysis of an early childhood nutrition intervention to prevent stunting in Haiti (Brad Wong and Peter Orazem)

### Overall remarks

- Key finding: Positive NPV and BCR well above unity for the intervention examined, but (much) less good than other available interventions with same objective
  - One minor issues that this raises is that the paper introduces some cost-effectiveness comparisons into an analysis that is primarily a BCA of one specific project; this slightly clouds the central question considered in the paper.
- Very strong paper
- Excellent use of available evidence base
- Seems to be much in line with CBA/BCA best practice guidelines as laid out in BCA Reference Case series to date
  - The use of both CBA (Europe?) and BCA (USA?) is a hassle in the whole literature – but one that will not go away, I suspect

# Benefits

- Paper considers 3 benefit categories of interest to the BCA Reference Case: avoided mortality (both VSL and YLL); avoided morbidity; and changes in lifetime productivity
- US VSL \$9m as basis for benefit transfer. A high basis?
  - Perhaps more importantly, I think it likely that the high value for VSL in USA studies has two main drivers: (i) high real income per capita in USA and (ii) large proportion of studies that use stated preference source data. This leads me to conjecture that it is not ideal to use the USA as the baseline case for benefit transfer calculations, and that it would be wiser to select a different anchoring point, ideally one from a central position in the LMIC set of countries.
- Benefit estimates are very sensitive to choice of estimation method – with range large relative to central estimates.
- Interesting gender differences reported in impacts of reduced stunting on wages and per capita consumption
  - Gender differences are very important. Given the known importance of gender in development paths/processes, it might be sensible for the final BCA Guidelines to urge that gender differences in project impacts are one dimension that should be examined wherever possible.
- Context matters in regard to efficacy of intervention: authors use high and low estimates of efficacy – but if primary estimate is a frontier, why not just two categories of low?

# Choice of discount rate

- Authors use 3, 5 and 12%
- 12% rationale seems somewhat dubious?
  - (Perhaps the 12% value suggested by local officials comes about because of a confusion between real and nominal discount rates)
- Perhaps the BCA Guidelines should avoid trying to specify any particular set of numbers for the real discount rate, but rather should specify a set of **principles** for choice of discount rate (perhaps with suggested values for each principle) – and urge that CBA analysts do their best to make explicit the link between their chosen rate and those principles.
  - It seems to me to not be good practice just to think about different values merely as HIGH, MEDIUM and LOW values.
- This must be an area where the BCA Reference Case lays down standard practice (even if that does not mean same rates in all country contexts)

# Issues that might warrant further consideration

- Sources of finance – and how this might affect estimates of project costs
  - Is project financed by taxation (so possibly reduced consumption); borrowing (so possibly by reduced investment); by external development assistance (so no finance-related impacts on national consumption or investment)
  - Does this matter? I think it matters hugely, particularly where a substantial source of funding comes from international development funding or from agencies such as the Gates Foundation. For such funding the dollars provided but goods and services at spot market exchange rates – not at PPP rates.
  - Even where finance is internal, the opportunity costs of funds raised by borrowing are potentially very different from the OC of funds from personal taxation.
  - There are obvious links here to issues raised in the paper on Discounting by the University of York participant – where he points out that discount rates are potentially problematic in embedding different sets of opportunity costs.

# Currency conversions

- A few queries in my mind that arise from previous slide.
- International dollars and PPP fine for benefits – but does it work without problems for costs (if partially externally financed)?
- Does one 1\$ US buy resources at spot exchange rates (not PPP rate)?
- What does this imply about differences between countries in numbers of lives saved etc?
- Desirable for the BCA Reference Case team to develop specific guidance on this and related questions

# Standardized Sensitivity Analysis in BCA: An Education Case Study

(Elina Pradhan and Dean Jamison)



- Few superficial comments only (some of which apply to many of the papers given at the workshop, not just this one)
- Excellent example of how to go ahead with best practice in sensitivity analysis
- Note: this approach looks at sensitivity in terms of variability in estimation approach (often encompassing conceptual differences in meanings of a term or ethical considerations) **rather than parameter uncertainty per se.**
- Do we want to ignore the latter?
- Probably wise that CBA sensitivity studies should cover BOTH types of uncertainty:
  - 1. Uncertainty about parameter values from any particular chosen method of evaluation of a cost or benefit flow (for which Monte Carlo analysis of findings is appropriate)
  - 2. Uncertainty about values of flows arising from different principles/methods of calculation.
- Choice of reference country: is USA a good choice (what about one other LMIC)?