

Review of “Assessing the Distribution of Impacts in Global Benefit-Cost Analysis”

Bill & Melinda Gates Foundation/Harvard T.H. Chan School of Public Health Benefit-Cost Analysis Reference Case Guidance Project

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Disclaimer

The views expressed in this presentation reflect those of the presenter and do not necessarily represent the views or policies of the U.S. Environmental Protection Agency

Overview of Feedback

Strengths

- Clearly written and accessible
- Strong empirical basis for recommendations
- Policy question informs the technical approach
- Addresses distribution of both benefits and costs (latter is less common, but no less important)

Additional factors to consider...

- Will a better distributional assessment lead to better decisions?
- How will decision-makers interact with the information?
- What data are available to support the analysis?
- How easy to interpret are the inequality coefficients (see next slide)?

Table III. Primary Atkinson Results and Sensitivity Analysis

	Atkinson Indices						Gini Coefficient	
	Mortality Risk, $\epsilon = 0.75$	Asthma Risk, $\epsilon = 0.75$	Mortality Risk, Age-Standardized, $\epsilon = 0.75$	Mortality Risk, $\epsilon = 3$	Inverse Mortality Risk, $\epsilon = 0.75$	Mortality Risk, Edu-Stratified, $\epsilon = 0.75$	Mortality Risk	Asthma Risk
Baseline	0.437776	0.300454	0.024662	0.776033	0.276517	0.458081	0.633641	0.517979
Status-quo	0.437661	0.300614	0.025006	0.775956	0.276487	0.457960	0.633557	0.518123
% Change from baseline	<i>-0.026%</i>	0.053%	1.394%	<i>-0.010%</i>	<i>-0.011%</i>	<i>-0.026%</i>	<i>-0.013%</i>	0.028%
Multipollutant risk-based	0.436940	0.293722	0.023517	0.773048	0.273343	0.457899	0.633231	0.512064
% Change from baseline	<i>-0.191%</i>	<i>-2.241%</i>	<i>-4.643%</i>	<i>-0.385%</i>	<i>-1.148%</i>	<i>-0.040%</i>	<i>-0.065%</i>	<i>-1.142%</i>

Percentages in italic indicate improvement from the baseline. Percentages in bold indicate greater inequality. Atkinson indices are presented with a large number of significant figures to allow for comparisons between scenarios.

From: Fann, N., Roman, H.A., Fulcher, C. M., Gentile, M.A., Hubbell, B. J., Wesson, K. and Levy, J. I. (2011), Maximizing Health Benefits and Minimizing Inequality: Incorporating Local-Scale Data in the Design and Evaluation of Air Quality Policies. *Risk Analysis*, 31: 908–922. doi:10.1111/j.1539-6924.2011.01629.x