

# Benefit-Cost Analysis Stakeholder Survey Results

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## Introduction

Investing in global health and development requires making difficult choices about what initiatives to fund and what level of resources to devote to each initiative. Benefit-cost analysis supports these decisions by evaluating the consequences of alternative investments. To increase the comparability of these analyses, enhance their quality, and expand their use, the Bill and Melinda Gates Foundation (BMGF) is supporting the creation of guidelines that include principles, methodological specifications, and reporting standards. In combination, they provide a reference case to encourage the completion of high-quality, transparent, and consistent evaluations that address the needs of decisionmakers and other stakeholders.

As part of the initial scoping phase of this effort, we conducted an online survey to collect information on the current use of benefit-cost analysis and related challenges and opportunities for improvement. The survey was posted on the project website from April 17, 2017 through July 5, 2017. In addition to an announcement on the website itself, we solicited responses through a series of emails to our project list (which includes over 1,000 members) and during our May 11, 2017 scoping workshop at the Gates Foundation in Seattle, Washington. We received a total of 70 responses; the survey itself is replicated in the appendix.

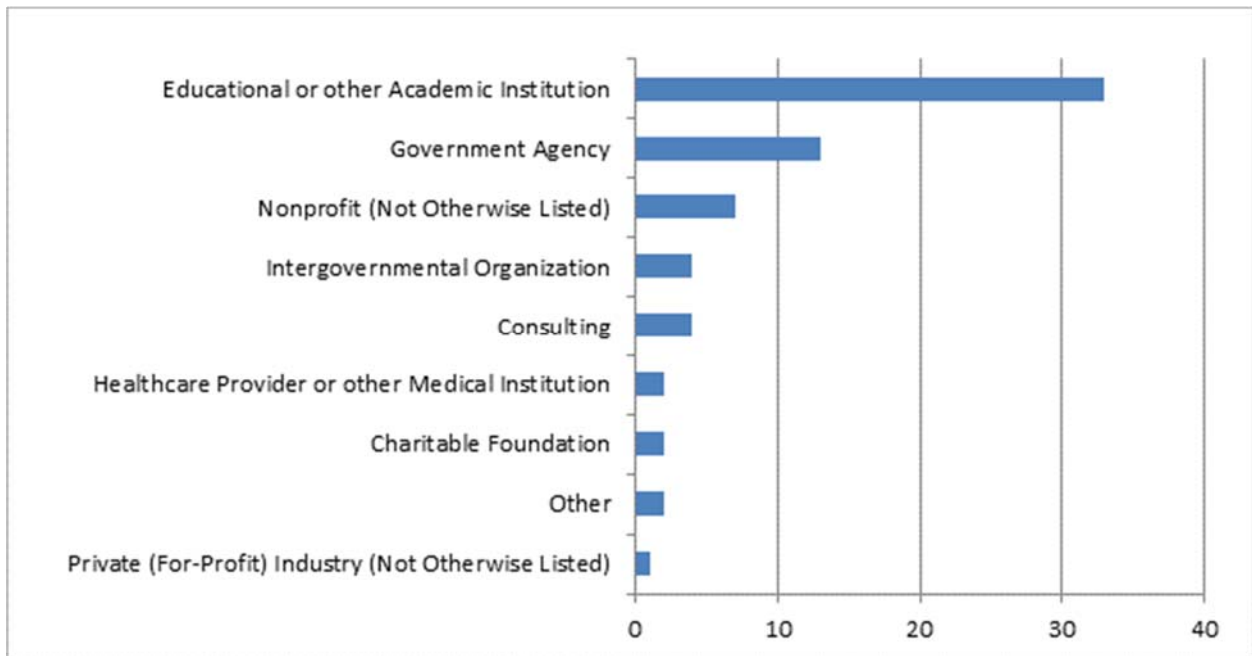
The survey included 13 questions: two (optional) questions identifying the name and affiliation of the respondent; six multiple choice questions related to respondent characteristics and use of benefit-cost analysis; four open-ended questions on advantages, limitations, barriers, and opportunities for improvement; and a final open-ended question asking for any additional comments. It also offered opportunities for respondents to provide links to or upload copies of guidance documents and analyses.

In this report, we summarize the results, first providing information on the characteristics of respondents and their use of benefit-cost analysis, then providing information on their views on its advantages and limitations as well as barriers and opportunities for improvement. The results of this survey were incorporated into our work on the scoping phase of this project as well as our subsequent work on methods papers and case studies, as discussed on the project website (<https://sites.sph.harvard.edu/bcguidelines/>).

## Respondent Characteristics

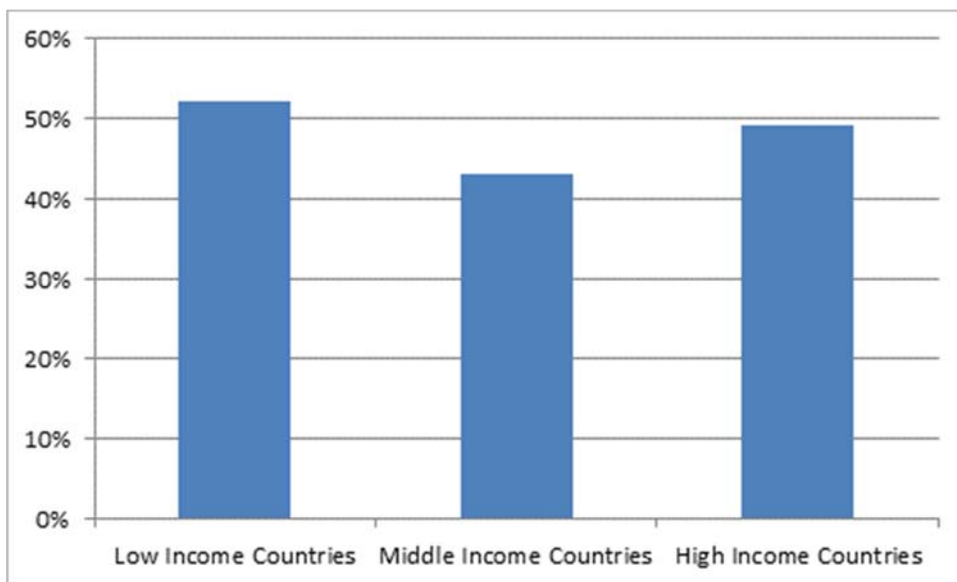
As indicated in Figure 1, of the 68 respondents who reported their affiliation, 33 (49 percent) were associated with an educational or other academic institution, 13 (19 percent) work for a government agency, 7 (10 percent) work for nonprofits (not otherwise listed) and the remainder worked for other types of organizations.

**Figure 1. Type of Organization (n=68)**



Responses were nearly equally split among those whose work primarily addresses low-, middle-, and high-income countries, with slightly more focusing on low-income countries. Because this question allowed multiple responses, the 65 respondents who answered provided 94 responses. Of these respondents, 34 (52 percent) primarily address low-income countries, 28 (43 percent) primarily address middle-income countries, and 32 (49 percent) primarily address high-income countries.

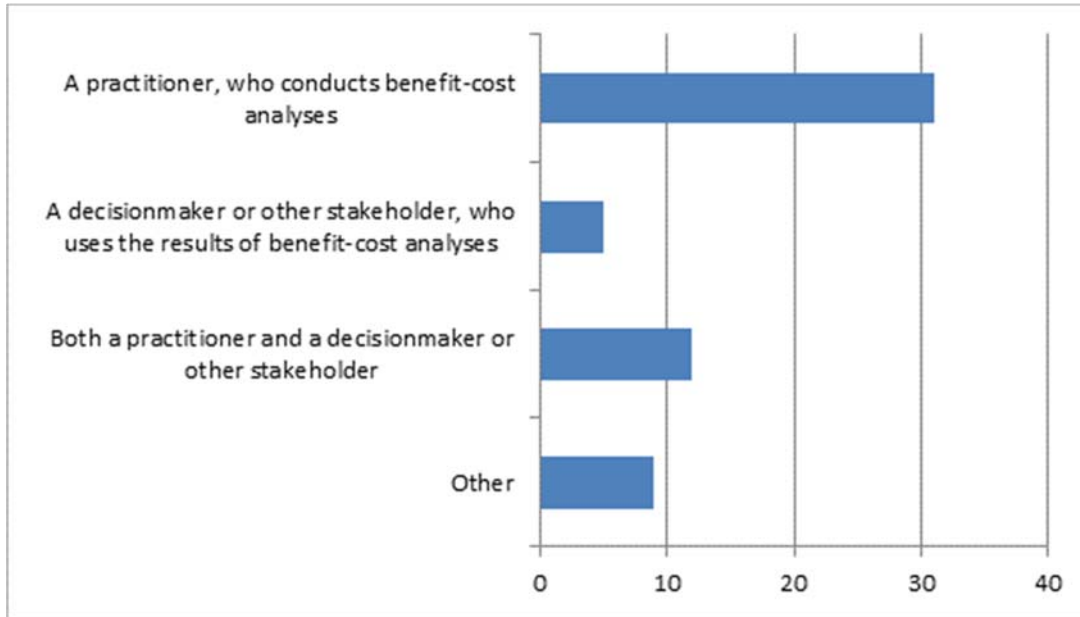
**Figure 2. Income Level of Countries Considered (n=94 responses from 65 respondents)**



Most respondents described themselves as practitioners. Of the 57 who responded, 31 (54 percent) identified themselves as practitioners, 12 (21 percent) identified as both a practitioner and a

decisionmaker or other stakeholder. Of the remainder, most of those who identified themselves as “other” reported that they were researchers.

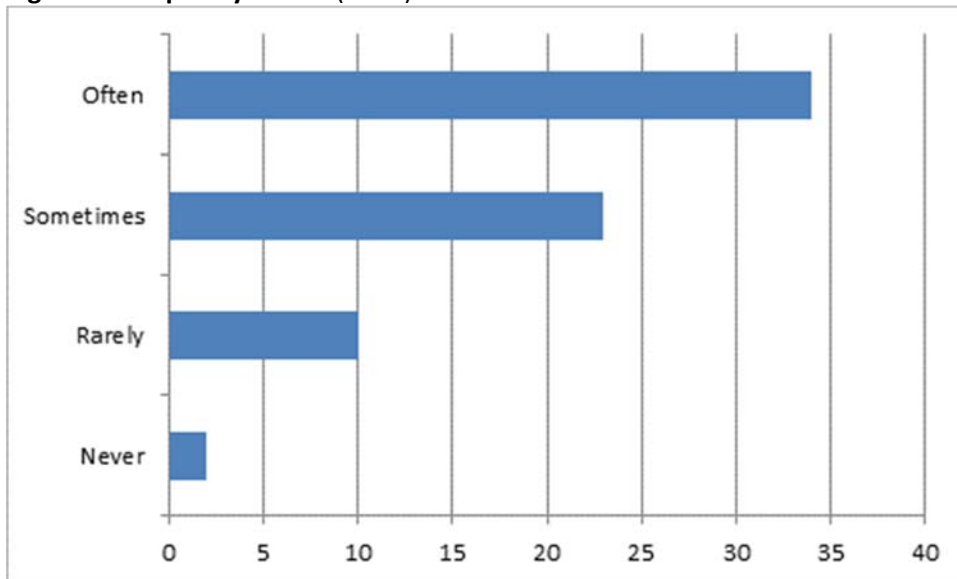
**Figure 3. Type of Involvement (n=57)**



### Use of Benefit-Cost Analysis

Many respondents use benefit-cost analysis relatively frequently. Of the 69 respondents, 34 (49 percent) reported using it often, 22 (33 percent) reported using it sometimes, the remainder used it rarely or never.

**Figure 4. Frequency of Use (n=69)**



Of the respondents who answered both questions, those working in high-income countries were more likely to report using benefit-cost analysis often compared to those working in low- and middle-income countries.

**Figure 5. Frequency of Use by Country Income Level** (n=94 responses from 65 respondents)

		To what extent do you conduct or otherwise use benefit-cost analysis in your work?				Total
		Often	Sometimes	Rarely	Never	
Does your work primarily address (check all that apply):	High-Income Countries	23	6	3	0	32
	Middle-Income Countries	10	11	6	1	28
	Low-Income Countries	10	14	8	2	34
	Total	43	31	17	3	94

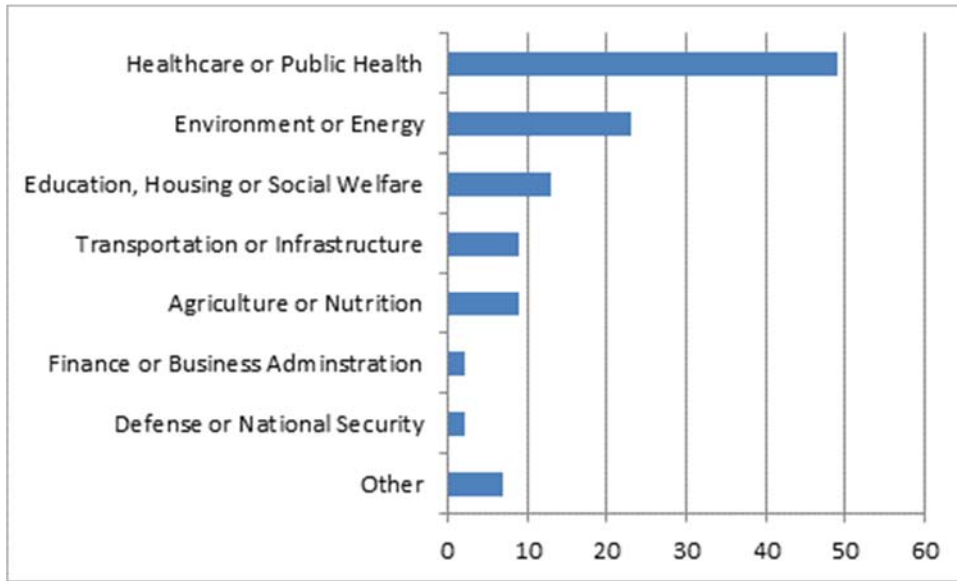
Of those responding to both questions, respondents working for government agencies and educational or other academic institutions used benefit-cost analysis relatively often.

**Figure 6. Frequency of Use by Organization Type** (n=68 responses from 65 respondents)

		To what extent do you conduct or otherwise use benefit-cost analysis in your work?				Total
		Often	Sometimes	Rarely	Never	
Type of organization:	Government Agency	10	2	0	0	12
	Intergovernmental Organization	3	1	0	0	4
	Educational or other Academic Institution	14	13	7	0	34
	Healthcare Provider or Other Medical Institution	1		0	1	2
	Consulting	2	1	0	1	4
	Charitable Foundation	0	2	0	0	2
	Private (For-Profit) Industry (Not Otherwise Listed)	1	0	0	0	1
	Nonprofit (Not Otherwise Listed)	2	2	3	0	7
	Other	0	2	0	0	2
Total	33	23	10	2	68	

In describing the types of policies or interventions for which they most often use benefit-cost analysis, respondents could check multiple options, leading to a total of 114 responses from 58 respondents. The most common policies or interventions reported were healthcare or public health, with 48 responses (43 percent), and environment and energy, with 23 responses (20 percent). The responses listed in the “other” category included injury and violence prevention; agricultural water management technologies; consumer products; and chemicals.

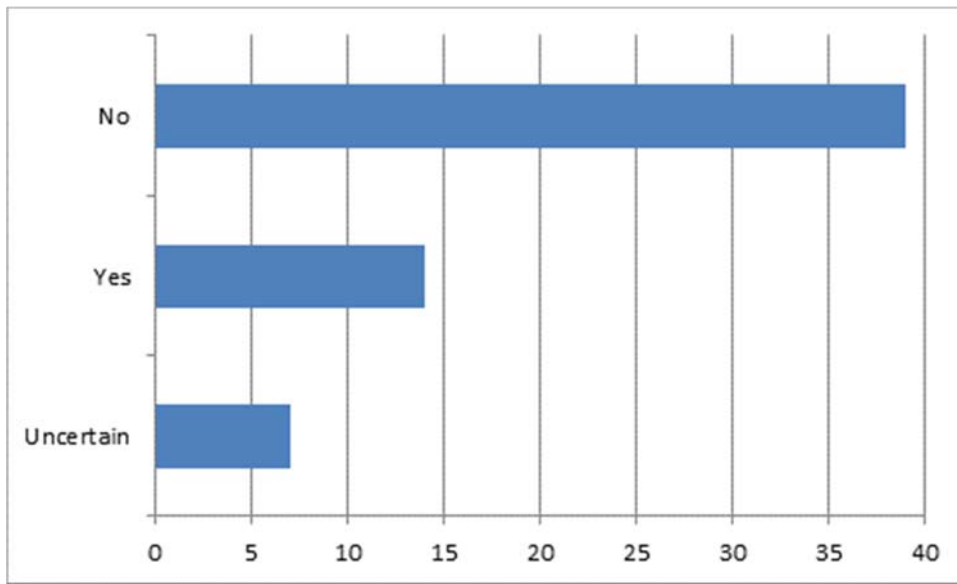
**Figure 7. Types of Policies and Interventions (n=58)**



Many respondents work in organizations that lack official benefit-cost analysis guidance. Of the 60 respondents, 39 (65 percent) reported that their organization does not have such guidance.



**Figure 8. Official Guidance (n=60)**



Respondents whose work addresses high income countries were more likely to report that their organizations had official BCA guidance than those whose work addresses low or middle income countries.

**Figure 9. Availability of Guidance by Country Income Level (n=85 responses from 58 respondents)**

		Does your work primarily address:			Total
		High Income Countries	Middle Income Countries	Low Income Countries	
Does your organization have official guidance for conducting benefit-cost analysis?	Yes	12	3	3	18
	No	14	18	23	55
	Uncertain	2	5	5	12
	Total	28	26	31	85

### Advantages, Limitations, Challenges, and Opportunities

The survey included open-ended questions regarding the advantages and limitations of benefit-cost analysis, as well as challenges and opportunities for improvement. Below, we summarize the responses to each question, and replicate selected comments.<sup>1</sup>

**Advantages:** The advantages of using benefit-cost analysis were addressed by 51 respondents. They include:

<sup>1</sup> The survey also included a final question allowing respondents to provide additional comments. We do not summarize the results here because they duplicate points raised in the responses to other questions.

- Applies a comprehensive, structured approach.
- Explores the evidence on the positive and negative consequences of policy options.
- Identifies the trade-offs associated with different policy choices.
- More inclusive than cost-effectiveness analysis; includes both health and nonhealth impacts across healthcare and other sectors.
- Increases rigor and decreases opportunities to introduce bias.
- Assists in understanding feasibility and implementation issues.
- Expresses impacts using a common, comparable method.
- Promotes clear and transparent communication.
- Aids in identifying areas of agreement and disagreement and in building consensus.
- Provides information of interest to policymakers and other stakeholders

For example:

“I've found BCA's [benefit-cost analysis]' greatest advantage to be in providing practical information to aid in investment decisions, especially when offered as a complement to evidence of impact. Lately I've found a large demand for high-quality cost information among those who want to implement effective programs--so important in helping to ensure a level of investment that has a chance of achieving impact. Disaggregating cost (and benefit) information across key program components, as well as stakeholder perspectives, helps in this task. I do feel this work is well-aligned with the increasing demand for accountability and evidence-based policy and decisionmaking, particularly in light of constrained public resources. Making sure high-quality economic evaluation evidence is available for a range of programs can facilitate investing in them.”

“Three main types of benefit: decision quality benefits (e.g. by increasing analytical rigor and reducing opportunities for bias); democratic benefits (e.g. by improving the transparency of decisionmaking); and efficiency benefits (e.g. by improving the efficiency of how scarce resources are used to promote public welfare).”

“The advantage of using BCA lies in the structure that it provides for the analysis, laying out the various elements in a logical manner. Stakeholders can disagree with the conclusions reached, but should be able to pin down any disagreement to particular elements (if the work is properly described). This can, in turn, improve the quality of discussion and in some cases has led to far better agreement than originally thought possible. It also provides a structure against which uncertainty can be properly evaluated. Most things are uncertain to a degree, but many of these uncertainties are not policy relevant, in the sense that they will not change the conclusions reached.”

“Cost-benefit analyses have proven to be one of the strongest motivating factors for our LMIC partners to take action and make decisions about implementing interventions, especially policy interventions.”

**Limitations:** The limitations of using benefit-cost analysis were described by 53 respondents, including issues related to both the analysis itself and how it is used in decisionmaking. They include:

- Many outcomes (particularly nonmarket benefits) are difficult to quantify and to value in monetary terms.
- Valuing health and longevity in monetary terms can be controversial.
- Determining how to appropriately discount future effects and monetary values can be challenging.
- Analyses are time- and data-intensive and often high cost; data quality and availability may be limited.
- Often involves a high degree of uncertainty.
- Difficult to determine how to address nonquantified effects, to ensure they receive appropriate attention.
- Reliance on estimates of individual willingness to pay may not be appropriate for collective decisions involving the societal perspective.
- Potential for choosing biased estimates to promote project.
- Need to address distribution, equity, and ethical concerns.
- Lack of adherence to good practices; methodologies and guidance are needed for resource-limited settings, including more standardized procedures.
- Analysis is often developed late in the process, after policies have been largely formulated.
- Lack of a strong connection to the decisionmaking process.

For example:

“[D]ecision-makers don't have enough knowledge of the methodology to (i) demand it, (ii) procure it with proper ToR [terms of reference], (iii) apply enough resources to its implementation, (iv) actually use the findings.”

“(1) The findings are only useful if they can be understood and if they are perceived as credible. Communication standards and long-term relationship building seem key here. (2) There is an increasing attention to standards, to ensure quality and consistency and level the decision-making playing field. We need to make sure professionals know about these standards, and also train more professionals to do high-quality analysis. (3) We need to pay attention to the context in which BCA results are generated and the contexts to which findings apply so that results are used appropriately-- a communication and transparency issue. (4) In spite of growing demand for evidence, we know that stakeholder decisions reflect many factors -- values, political priorities, imperfect information, etc.--other than evidence. We need to keep building relationships with potential users of BCA and make sure that our work is "speaking" to them,

meeting their informational needs and timelines as much as possible. (5) Data quality and availability, a huge issue in the US and probably even more so in LMIC work. What best practices can be developed in the face of limited information? Is it possible to (a) generate a summary of data sources for use in LMIC [low- and middle-income countries], (b) develop user-friendly guides about issues to consider, perhaps conceptually as much as analytically. Even in the relatively high-demand US context, users don't know what types of benefits to expect from certain types of social programs and impact categories, and how long benefits can be expected to flow. (6) The US is so data rich, yet economic values and shadow prices are still complex, hard to do well. Administrative data, and increasing range of shadow prices being developed (e.g., SEL [social and emotional learning] outcomes), are helping to move the work forward here. What are the options (administrative data-wise) and priorities likely to lead to the greatest advances in BCA in LMIC?"

"Three key limitations: identifying useful valuations (i.e. determining when some number is better than no number at all); managing public perception (e.g. by addressing concerns about incommensurability and commodification); and scoping (i.e. determining who, what, where, and when should be included in an analysis)."

"My goal is [to] better understand what improves social welfare, and to design BCA procedures that identify welfare improvements. In that context the greatest limitations of BCA are: - the cost of aligning BCA procedures with market economics is that, counter to moral intuition, the preferences of the well-off are over-weighted systematically, and positive time-preference finds its way into the discount rate - for BCA consistent with a test for welfare improvements, non-market goods and services must be valued, yet genuine difficulties arise in so doing, and people with axes to grind work tirelessly to exaggerate these difficulties - and, of course, there are lots of workaday difficulties in assembling accurate data and interpreting it in BCA terms."

**Barriers and challenges:** The most significant barriers and challenges that need to be addressed to increase the use and improve the quality of benefit-cost analysis were described by 47 respondents. The comments often reference the issues raised above, and include the need for:

- Improving data quality and availability
- Increasing research funding particularly for benefit valuation studies.
- Providing more academic and on-the-job training.
- Promoting greater understanding and better communication of concepts and analytic results.
- Encouraging acceptance by decisionmakers.
- Counterbalancing the tendency to ignore costs paid by donors.
- Developing clear guidance on the application of consistent and rigorous methods, that promote comparability.

For example:

“(i) Policy makers need to be sensitized and educated into how to demand and use BCA; (ii) academic programs need to include courses or modules on how to carry out BCA; (iii) domestic resource institutes need resources to carry out proper valuation studies on environmental and health damages (that can be used as inputs in BCAs); (iv) environmental legislation should include demands for social BCA for major policies and projects in addition to EIAs [environmental impact assessments] and SEAs [socio-economic assessments].”

“Continued improvement to the three issues I see as most challenging--identifying useful valuations, managing public perceptions, and scoping. On identifying useful valuations, significantly more funding of studies is needed, as is additional research on how valuations that are useful in one context can be meaningfully transferred to another. On managing public perceptions, significantly more research is needed to understand when valuation in a cost-benefit analysis might cause harm (e.g. by commodifying goods in an objectionable way), and/or might be perceived as causing harm (e.g. by breaking cultural and social taboos). On scoping, I hope this [May 11, 2017] workshop will be helpful. At the least, it's important that cost-benefit analyses develop to explicitly identify scoping decisions, so that those decisions can be identified and, if necessary, questioned.”

“As noted above, limited acceptance of the concept of monetisation, and a view that the BCA is appropriate as a tool at the end of the policy development process, rather than throughout. For challenges: \* Extension of work into developing countries \* Development of a universal framework for uncertainty assessment \* Agreement on approaches for dealing with major data gaps (such as the lack of response functions for persistent and bioaccumulative substances).”

“- the need for continued improvement in theory and methods - the need for constant vigilance against attempts to undermine the objectivity of BCA - the need to ensure that BCA reports and conclusions are published completely and transparently.”

“1. The consistency in measuring costs and benefits across studies, because the use of such analyses is almost entirely in the comparing across them 2. The interests (and motivations) for experts to conduct these studies for programs outside the global north (including that it's mostly researchers from the global north doing these analyses). 3. Defining the motivation as to why BCA needs to be conducted and how this data is to be applied to policies and practice.”

**Opportunities for improvement:** The most significant opportunities for increasing the use and improving the quality of benefit-cost analysis were addressed by 40 respondents, and include:

- Focus on sectors where government spending is significant, as well as on its use in litigation.
- Develop relationships with funders and decisionmakers in government agencies and donor organizations.

- Emphasize role in efficient allocation of resources within and across policy sectors.
- Develop guidance, provide training and analytic tools.
- Promote data collection and academic research.
- Improve approaches for benefits valuation.
- Develop methods for extrapolation and for addressing uncertainty.
- Require its use through laws or regulations or as a condition of receiving project funding.

For example:

“(1) Guidelines and standards, addressing analysis and reporting (2) Relationship building and outreach with the user audience to ensure alignment of the work and needs--and also educate both sides (producers and consumers) about the perspective of the other. (3) User friendly tools (where possible), conceptual documents (what is required to carry out an intervention that needs to be considered on the cost side, what types of benefits can we expect to follow from an intervention or type of impact--tough since context dependent but helpful if possible) (4) Identification of and "publicity" about key data sources and/or values for use in LMIC contexts.”

“Training of junior economists and other researchers, in particular in/from low- and middle-income country settings. Establishing working relationships with central decision making facilities (budget office, health technology assessment agencies, etc.) within the governments of low- and middle-income country settings. Establishing working relationships with international donors who fund projects across multiple areas of public policy.”

“Giving clear guidance on which competing assumptions can or can not materially impact the outcome of an analysis. Providing guidance for specifying workable proxy data to help bridge data-gaps. Guidance on producing uncertainty bounds for the outputs of the cost benefit analysis that capture the ramifications of input uncertainty, along with sensitivity analysis for conveying how answers might have changed under different normative assumptions.”

“Academic and independent research institutions often conduct BCAs of controversial project proposals, which can make a difference when the results are reported and make their way into the policy discussion. But nothing would do more to increase the use and the quality of BCAs than laws and regulations requiring the use of BCA in many kinds of decision processes, and the publication and wide availability of the resulting reports. Of course, it is not so simple - one outcome would be proliferating attempts to write rules for doing BCA that would systematically distort the results -- but a transparent process would make it harder to do that.”

“If we felt like a BCA framework could capture everything our current cost-effectiveness analysis framework captures, BCA could play a key role in our decision making process. BCA could give us a better way of approaching the trade-offs we make between different types of outcomes we model in our cost-effectiveness analysis.”

“If there was a consistent way to measure benefits and there was consensus on these methodologies, that would be extremely helpful.”

## **Conclusions**

Because this survey did not rely on a probabilistic sample and the responses were entirely voluntary, it is unclear whether the results are representative of the views of those likely to be involved in the application of benefit-cost analysis as analysts, decisionmakers, or other stakeholders. However, it provides a number of useful insights into current practices and areas that need to be addressed.

The respondents came from a range of backgrounds, including the type of organization and the income levels of the countries that are the focus of their work. Many respondents use benefit-cost analysis relatively frequently, particularly those working in high income countries and in government agencies. Respondents were most commonly using benefit-cost analysis in healthcare programs. Most reported that their organizations did not have official benefit-cost analysis guidance, especially those working in lower-income countries.

Respondents highlighted several advantages of benefit-cost analysis, noting that it provides a structured framework for comprehensive assessment of policy impacts. Examples of its limitations relate to the limited research and data available and the lack of understanding of related concepts and analytic results. Some of the limitations mentioned are weaknesses in the way benefit-cost analysis is conducted or used within an organization, that might be overcome through changes in practice. In discussing barriers and opportunities for increasing the use of benefit-cost analysis, respondents noted the need for more guidance to promote high quality, comparable analyses. They also indicated the need for more data collection and research, as well as increased training and improved communications.

## Appendix: Stakeholder Survey<sup>2</sup>

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Q1 Name (Optional)

Q2 Organizational Affiliation (Optional)

Q3 Type of organization:

- Government Agency
- Intergovernmental Organization
- Educational or other Academic Institution
- Healthcare Provider or other Medical Institution
- Consulting
- Charitable Foundation
- Private (For-Profit) Industry (Not Otherwise Listed)
- Nonprofit (Not Otherwise Listed)
- Other (Please Specify): \_\_\_\_\_

Q4 Does your work primarily address (check all that apply):

- High Income Countries
- Middle Income Countries
- Low Income Countries

Q5 To what extent do you conduct or otherwise use benefit-cost analysis in your work?

- Often
- Sometimes
- Rarely
- Never

Q6 Are you primarily...?

- A practitioner, who conducts benefit-cost analyses
- A decisionmaker or other stakeholder, who uses the results of benefit-cost analyses
- Both a practitioner and a decisionmaker or other stakeholder
- Other (Specify) \_\_\_\_\_

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<sup>2</sup> Questions have been renumbered to reflect the order in which they appeared to survey respondents, including skip patterns.



Q7 For which types of policies or interventions do you typically use benefit-cost analysis? (Please check all that apply)

- Healthcare or Public Health
- Environment or Energy
- Transportation or Infrastructure
- Education, Housing, or Social Welfare
- Defense or National Security
- Agriculture or Nutrition
- Finance or Business Administration
- Other (Specify) \_\_\_\_\_

Q8 What are the greatest advantages of using benefit-cost analysis in your work?

Q9 What are the greatest limitations of using benefit-cost analysis in your work?

Q10 Does your organization have official guidance for conducting benefit-cost analysis?

- Yes
- No
- Uncertain

If yes:

Please provide a link or attach a file of the benefit-cost analysis guidance document.

- URL \_\_\_\_\_
- Document

Please provide a file of the benefit-cost analysis guidance document.

Q11 Please identify and submit, if possible, a benefit-cost analysis that you believe is a particularly good example of best practices.

- Full Citation \_\_\_\_\_
- URL \_\_\_\_\_
- Upload Document

Please upload benefit-cost analysis file.

Q12 What are the most significant barriers and challenges that need to be addressed in order to increase the use and improve the quality of benefit-cost analysis?

Q13 Where are the most significant opportunities for increasing the use and improving the quality of benefit-cost analysis?

Q14 Please share any additional comments regarding the use of benefit-cost analysis below.