

Justice and Allocation in International Health Aid

IS THE ECONOMIC JUSTIFICATION RATIONAL?

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Imagine you are in charge of creating health policies in a small country with binding resources. Suppose that you have been granted a fixed amount of assistance, which may be applied to one of two medical programs. Program A, by focusing on those at-risk for a disease, will spare one million people by preventing them from acquiring the disease in the future. Program B focuses on those who have already contracted the virus and are therefore suffering from severe health problems. Should most of the funding be allocated to Program A, where the effects would be greater? Or should they be allocated to Program B, since it focuses on individuals who currently are severely ill? Should the funds be evenly divided? Trying to decide on the best resource allocation mechanism for international health aid will force one to examine the issue from both efficiency and ethical perspectives.

While this may be a hypothetical example, many development and health practitioners in Africa face a similar trade-off when allocating limited resources between HIV prevention and anti-retroviral treatment.

Developed, middle-income, and even many low-income countries around the world can finance both prevention efforts and anti-retroviral treatment for HIV/AIDS, but countries with very low incomes face binding resource limitations. In these countries, the issue is to what extent the international community should fund anti-retroviral therapy. ... [I]f the goal is to maximize

the health benefits produced, developing-country governments and international institutions should focus their health spending first on the prevention of HIV transmission, before moving on to treatment. The opportunity cost of emphasizing HIV/AIDS treatment before undertaking prevention in a resource-constrained environment is measured in millions of lives needlessly lost.¹

Views such as these underline the challenges involved in determining what constitutes a viable policy for international health aid, while neglecting the ethical implications of reliance on the primacy of the economic cost-effectiveness perspective. Given the funding limitations for international health projects, when should society allocate resources to produce “best outcomes” and when should it give the severely ill a fair chance to benefit?

Methods

The economic perspective on which the above argument is grounded is consistent

with the views of many economists. All scholarship in the social sciences, however, cannot help but reflect the values and biases of its authors or their disciplines. Do others find this economic focus on health benefits maximization convincing when human lives are at stake?

Much of the debate among social scientists focuses on three characteristics: equity, efficiency, and impact. Let us consider a hypothetical set of life-saving interventions—programs A, B, C. Cost effectiveness analysis (CEA) and benefit cost analysis (BCA) are two traditional economic cost-benefit tools. Cost effectiveness is a method that favors interventions which minimize cost per life saved—Program C in Table 1. Benefit cost analysis, on the other hand, selects those interventions with the highest dollar benefits of lives saved/cost per intervention ratio—Program B in Table 1. Both health economists and public health practitioners employ a system for selecting the policy

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TABLE 1: Hypothetical Set of Life-Saving Interventions

Program	A	B	C
Cost	800	240	150
Total Lives Saved	32	30	30
Lives Saved I	16	30	0
Lives Saved II	16	0	30
\$ Benefit of Lives Saved	640	900	300
Cost per Life Saved	25	8	5
Benefit-Cost Ratio	0.8	3.8	2

TABLE 2: Hypothetical Set of Life-Saving Interventions

Program	A	B	C
Cost	800	240	150
Total DALYs Gained	32	30	30
DALYs Gained I	16	30	0
DALYs Gained II	16	0	30
\$ Benefit of DALYs Gained	640	600	600
Cost per DALY Gained	25	8	5
Benefit-Cost Ratio	0.8	2.5	4

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which produces the most health per dollar spent; though some economists prefer to maximize social welfare per dollar spent.

Another technical concept, burden of disease, has gained momentum in measuring a society's health gap: the gap between society's health under ideal and actual conditions. A cost-effectiveness analysis may also be conducted in terms of disability-adjusted life years (DALY), rather than in lives saved, as in Table 1. It is important to note, however, that health interventions often have meaningful non-health ramifications—increased income, savings, school attendance, etc. In such cases, cost effectiveness alone is insufficient, and BCA must be used.

This observation creates an important question. If benefit of lives is at stake, how should it be measured? Perhaps more importantly, what are the ethical values embedded in the measurement? Economists prefer two broad methods to assign value: willingness to pay and human capital.

Policy Challenges

Valuing human life through only an economic lens can entail some challenges. During his service as vice president and chief economist of the World Bank, Lawrence H. Summers was dogged by a memo bearing his name, purporting to advocate exportation of polluting industries to poor nations and dumping toxic wastes there. The memo, dated December 12, 1991, found its way to the press, and circulated widely on the Internet. In it, Summers wrote:

Just between you and me, shouldn't the World Bank be encouraging MORE migration of the dirty industries to the LDCs? I can think of three reasons: (1) the measurements of the costs of health impairing pollution depends on the foregone earnings from increased morbidity and mortality. From this point of view a given amount of health impairing pollution should be done in

the country with the lowest cost, which will be the country with the lowest wages.² ... I think the economic logic behind dumping a load of toxic waste in the lowest wage country is impeccable and we should face up to that.

Many international development practitioners sympathized with the following response offered by Brazil's then-Secretary of Environment, Jose Lutzenburger:

Your reasoning is perfectly logical but totally insane... Your thoughts [provide] a concrete example of the unbelievable alienation, reductionist thinking, social ruthlessness and the arrogant ignorance of many conventional 'economists' concerning the nature of the world we live in.

Summers' memo misses an important consideration of how policy is made. It is not the economic logic of his argument that is at fault—despite requiring a few strong assumptions but rather that Summers tries to give a static interpretation to a dynamic process. The economic perspective is just one tool in the dynamic policy-making kit. A policy is by definition a political process, an equilibrium produced by the assorted ethical valuations of numerous policy stakeholders.

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A policy stakeholder like Summers—relying on assumptions about best aggregate outcomes only and without distributional considerations—is likely to assume too much about the other stakeholders in the policy process. Either he incorrectly assumes common rationality for all policy stakeholders or he faces uncertainty regarding the ethical valuations of those stakeholders who favor fair chances in the HIV debate, or who see the policy debate as both health problem and development issue. The ability to understand various perspectives and account for them in the policy proposal process is a trademark of an effective leader.

Ethical Perspective

Although there is no single theoretical basis for CEA, BCA, and related techniques, utilitarian considerations have been an important factor in the ethical analysis and justification of such practices.

Following Jeremy Bentham, John Stuart Mill proposed an intuitively straightforward standard to decide whether actions were right or wrong. According to Mill, actions are right in proportion as they tend to promote happiness, and wrong as they tend to produce unhappiness, pain, and the privation of pleasure. Because utilitarians believe that both happiness and unhappiness can be measured in discrete units, this theory is particularly well-suited to a mathematical analysis in which the 'utility' of any given action can be determined by subtracting the pain it causes from the happiness it brings about. The goal of moral conduct is the production of the greatest social happiness or social welfare utility.

Health interventions chosen to minimize the disease burden will inevitably lead to ethical challenges. For example, many multilateral organizations, such as the World Bank, analyze cost-effectiveness in terms of DALYs. This

tool, however, assigns value differently to individuals of different ages; DALYs for infants and the elderly are given less weight than adolescents and those of working age. DALYs also place less weight on the lives of the disabled. This type of analysis places policy makers in a complicated position, where they may feel as if they must choose between cost-effective outcomes and equitable, ethical treatment.

This type of priority saving creates a major ethical dilemma between best outcomes versus fair chances with respect to age and disability/illness

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severity. Utilitarian partialists argue that most people—if placed in an “original position” in which they were unaware of their future economic and social circumstances—would elect to have resources distributed according to a utilitarian calculus, thereby maximizing the average utility over the whole of society, hence their own expected utility.

Limited surveys indicate a sharp difference between health professionals and the general public.

In contrast to this utilitarian application of the veil of ignorance, which places equal value on the preferences—utilities—of every member of society, other theorists argue that, when placed in the original position, rational individuals would seek to maximize the prospects of the least well-off member of society. According to this ‘maximin principle,’ the primary goal of any social policy should be to maximize the welfare of persons most in need.

However, many development practitioners are dedicated to helping the worst off, not to making utilitarian calculations. Bioethicists, such as Norman Daniels and Paul Menzel, favor the use of equity weights in addition to consideration of health utility calculus.^{3,4} They argue that CEA calculations should incorporate severity of illness, level of health potential, maintenance of hope, age, and assurance of treatment. Equity weights permit the formalization of “fair chances” considerations in the allocation of healthcare.

Gender Perspective

While gains have been made, gender inequalities in health and education are still striking. Two-thirds of the 800 million people in the world who lack basic literacy skills are female. Girls are twice as likely as boys to die from malnutrition and preventable diseases,

and half a million women die each year from complications during pregnancy, ninety-nine percent of whom live in developing countries.⁵ Investments in women’s and girls’ education and healthcare yield some of the highest returns of all development investments, including reduced rates of maternal mortality, better educated and healthier children, and increased household incomes.⁶

Modern cost-effectiveness mechanisms do not incorporate broader gender equity considerations *per se*. The striking absence of gender inequality from most aid-allocation tools suggests it is unlikely to be addressed in health treatment—a fact that is particularly worrisome due to higher prevalence of HIV for females in sub-Saharan Africa.⁷

What is the Best Policy Decision?

Drafting health policy involves making tough decisions between best outcomes and fair chances. Economic cost-effectiveness would favor prevention efforts coupled with distribution of antiretrovirals only to economically productive individuals. Such a strategy would increase economic prosperity and government funds, allow time for replacement labor to be trained, and reduce the overall impact of the pandemic. But it also involves difficult ethical decisions for government leaders. It is also bound to be politically unfeasible given the varying preferences of development stakeholders and the ethical principles that underlie them. Bioethicists, development workers, and public health practitioners have raised objections to the use of CEA for prioritization in the health sector, and it has been shown that most people’s healthcare priorities diverge from those

recommended by CEA.

This is a complex issue, on which there are conflicting considerations and little consensus. Limited surveys indicate a sharp difference between health professionals, who tend to favor the more cost-effective alternative, and the general public, who favor giving all those in need a chance to obtain the necessary treatment or prevention.⁸ This division of opinion goes to the heart of the debate over CEA and BCA, creating a dilemma for those health professionals who maintain that health policy should be based on the values of the affected population.

Endnotes

1. Canning, D, “The Economics of HIV/AIDS in Low-Income Countries: The Case for Prevention,” *Journal of Economic Perspectives*, Vol. 20, No. 3, Summer 2006.
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4. Menzel, Paul, Gold, M.R., Nord, E., Pinto-Prades, J.L., Richardson, J., and P. Ubel, “Toward a Broader View of Values in Cost-Effectiveness Analysis of Health.” *Hastings Center Report*, 29(3): 7-15.
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8. Nord, Erik, J. Pinto, J. Richardson, P. Menzel and P. Ubel, “Incorporating Societal Concerns for Fairness in Numerical Valuations of Health Programmes,” *Health Economics* 8 (1999): 25-39.