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How A New Funding Model Will Shift Allocations From The Global Fund To Fight AIDS, Tuberculosis, And Malaria

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ABSTRACT Policy makers deciding how to fund global health programs in low- and middle-income countries face important but difficult questions about how to allocate resources across countries. In this article we present a typology of three allocation methodologies to align allocations with priorities. We then apply our typology to the Global Fund to Fight AIDS, Tuberculosis, and Malaria. We examined the Global Fund's historical HIV allocations and its predicted allocations under a new funding model that creates an explicit allocation methodology. We found that under the new funding model, substantial shifts in the Global Fund's portfolio are likely to result from concentrating resources in countries with more HIV cases and lower per capita incomes. For example, South Africa, which had 15.8 percent of global HIV cases in 2009, could see its Global Fund HIV funding more than triple, from historic levels that averaged 3.0 percent to 9.7 percent of total Global Fund allocations. The new funding model methodology is expected, but not guaranteed, to improve the efficiency of Global Fund allocations in comparison to historical practice. We conclude with recommendations for the Global Fund and other global health donors to further develop their allocation methodologies and processes to improve efficiency and transparency.

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Development assistance for health in low- and middle-income countries has grown to unprecedented levels, from \$10.8 billion in 2001 to \$28.1 billion in 2010.^{1,2} Much of this growth has been directed toward the response to HIV, which accounted for 8 percent of all such assistance in 2001 and 24 percent in 2010.^{1,2} In countries tackling HIV epidemics, donors have played a major role. For example, in 2009 development assistance accounted for 58 percent of total HIV funding in thirty-six sub-Saharan countries.³

All donor agencies face a common core challenge: how to allocate scarce resources across countries and programs. For example, which countries are eligible to receive funding? How

much should each country receive, and why? What requirements should countries have to meet to receive donor funds? Are funding decisions made through transparent and predictable mechanisms, so that they empower countries to forecast their country-level allocations and plan their overall health budgets?

These questions are typically considered at the donor level, by the bilateral donors and multilateral agencies that ultimately control their own purse strings. Each donor's perspective is slightly idiosyncratic. Many goals are shared across the global health community, but each donor will also have its own priorities, goals, and values—which are shaped by the incentive environment, broader political context, and governance structure specific to each organization.⁴ Donors have

the authority to decide the structure of their allocations, and the repercussions of those decisions are widely and deeply felt across low- and middle-income countries.

In this article we present a typology of allocation methodologies that either are already in use or could be used by donors. This typology was developed to help donors better define their goals and priorities, with explicit recognition of relevant trade-offs; determine the feasibility of and data constraints on various allocation options; and decide upon an allocation system according to the donor's specific goals, resources, and expertise. We illustrate the assumptions and implications of each methodology, as well as its benefits and limitations.

Using this typology, we focus on a specific case of allocations of HIV funds from the perspective of a multilateral funder, the Global Fund to Fight AIDS, Tuberculosis, and Malaria. The Global Fund is the second-largest international provider of HIV funds—after the President's Emergency Plan for AIDS Relief (PEPFAR)—and the largest source of HIV funds in many countries. Its allocations have implications for how recipient countries plan their health budgets and for how other donors choose to allocate their monies across countries. The Global Fund has recently adopted new policies that govern the allocation of its funding across countries.⁵ The policies are expected to have a significant impact on how much money each country receives from the Global Fund, which in turn affects coverage of essential services and number of lives saved.

We first review the Global Fund's historical and new policies for resource allocation, including the rationale for its change to the new policy. We then predict and analyze two different allocations of Global Fund HIV funding across countries: its historical portfolio and the expected portfolio under its new policy. In our discussion, we consider ways to further improve the equity and efficiency of the Global Fund's allocations of HIV funding. We conclude with recommendations for global health policy makers on improving funding allocation decisions.

Typology Of Allocation Methodologies

We first present a typology that identifies three different formula-based allocation methodologies. The typology accounts for differences among donors' specific goals, principles, and explicit criteria for determining allocations. Each methodology includes different assumptions that have different ethical consequences. For example, one shared goal is to maximize health outcomes. However, the extent to which

a utilitarian maximization of health outcomes is prioritized vis-à-vis other principles will vary substantially across donors.

METHODOLOGY 1 Methodology 1 places the highest priority on overall health maximization and does not necessarily account for country income differentials or inequalities in health within countries. To achieve the goal of overall health maximization, donors could first assess the historical association between health outcomes (for example, disease incidence) and aid allocations, when other factors are controlled for. By estimating the average relationship between allocations and health improvements for each country, a donor could then redistribute funds to favor countries that produced more optimal health improvement per allocated dollar.

However, this methodology is a health production function (similar to an economic production function that expresses the relationship between production factors and outputs). It is difficult to implement in part because it assumes that a significant association between funding levels and health outcomes can be detected. It also assumes that a counterfactual scenario in which no money was donated can be adequately controlled for.

Another consideration in deciding to apply this methodology is a donor's interest in keeping its funds from becoming fungible in government budgets—that is, not allowing higher donor contributions to lead to a reduction in government spending.⁶ Gains in health might have occurred even in the absence of donor funds, if countries devoted additional domestic resources to the health sector.

METHODOLOGY 2 The other two allocation methodologies focus broadly on adherence to a set of multiple goals, principles, and criteria. Methodology 2 is a costing or budget methodology. It calculates each country's expected resource needs (the budget) to achieve a designated level of population coverage for a selected set of services. The donor then chooses to pay some portion of the country's costs, with due consideration to the contributions of other funders. Notably, some donors have extensively estimated the costs of tackling the HIV epidemic. For example, the Joint United Nations Programme on HIV/AIDS (UNAIDS) has made such estimates through the UNAIDS Investment Framework, which is used in part for global fund-raising to combat HIV, without clearly revealing country-level allocations.^{7,8} This methodology can also incorporate ethical considerations, such as those pertaining to inequalities in health within countries, by explicitly accounting for the costs of reaching hard-to-reach or vulnerable populations.

METHODOLOGY 3 Methodology 3 is a multivariable methodology called a spending function, in which funding is allocated exclusively on the basis of a predefined set of criteria. This methodology is used by the World Bank, which allocates its international development assistance funds using a formula based on countries' performance, population, and gross national income per capita.⁹ The spending function is often the most feasible to adopt because of its simplicity and its use of readily available data.

The methodology can also account for concerns about health or income inequalities by, for example, incorporating a variable for the number of people living in absolute poverty or one for the number of people at risk of HIV infection. This methodology may be particularly useful if a donor agency's primary goal is to reward certain policies, because the country's use of those policies can be incorporated into the methodology's formula.

However, in methodology 3 the selection of parameters is highly subjective, and the chosen parameters do not necessarily have a direct relationship to either costs or health outcomes. This is not the case with the other two methodologies.

Global Fund's Historical Allocations, 2002–12

We next review the Global Fund's historical policies for funding allocation decisions in light of our typology. According to its framework document, the Global Fund has long aspired to give "due priority to the most affected countries and communities and to those countries most at risk,"^{10(p92)} while also focusing its resources on countries with "the least ability to bring financial resources to address [the three target diseases]."^{10(p96)} It used an approach to resource allocation driven in large part by demand and country requests, wherein countries independently developed funding proposals to implement particular activities. Because allocations were not determined *ex ante*, countries developed their proposals without knowledge of or deference to a prespecified budget constraint.¹¹ These statements, coupled with other internal and public documents, suggest that the Global Fund embraced, at least theoretically, the use of multiple principles and objective criteria (such as disease burden, national income, and country capacity) to allocate resources.

In practice, the Global Fund was not clearly systematic in applying allocation principles across its whole portfolio of countries. Instead, its High-Level Independent Review Panel on Fiduciary Controls and Oversight Mechanisms observed that the organization's demand-based ap-

proach too often translated into distributing funding on a "first come, first served" basis upon approval of countries' submitted grant proposals.¹² The panel found that funding decisions favored the most ambitious proposals with the largest budgets and generally did not explicitly prioritize grant proposals on the basis of an intervention's effectiveness or cost-effectiveness.¹² Indeed, the Global Fund's historical approach to resource allocation lacked explicit use of a formula and may best be considered outside our typology of formula-based methodologies.

Consistent with the panel's report, several studies that examined the predictors of cross-country funding by the Global Fund reported mixed results. This indicates a limited systematic relationship between allocations and objective criteria. One study found that when all else was held equal, grant disbursement rates were higher in countries with low incomes and low health spending, which suggests that the Global Fund prioritized poor countries.¹³ In contrast, another study found only a low correlation between countries' disease burden and the Global Fund's disbursements, and a weak association between countries' income (or performance) and disbursements.¹⁴

The New Global Fund Model For Allocation Decisions

In 2012 the Global Fund made the important but politically difficult decision to move away from its historical allocation model.¹⁵ As noted above, that model did not systematically determine funding levels across the portfolio of countries.

In contrast, the new funding model explicitly articulates an allocation methodology. It systematically accounts for two factors—countries' disease burden and "ability to pay" for disease control programs—to partially determine potential funding levels for eligible countries.^{16,17} These factors incorporate some but not all of the Global Fund's guiding principles. The new allocation methodology most closely resembles methodology 3 in our typology. The Global Fund's methodology is intended to solve mismatches between disease burdens and allocations so as to make quicker progress against disease.

The new allocation methodology involves first multiplying the number of HIV cases per country by a country's "ability to pay" factor. Linked to a country's income, this factor ranges from 0.20 among the wealthiest of upper-middle-income countries to 0.95 for all low-income countries^{17–19} (for a line graph of this factor, see online Appendix 1).²⁰ The product of HIV cases and the "ability to pay" factor is calculated for each country, which in turn is divided by the sum of the

products for all eligible countries, generating a share of funding for each country.

Because the Global Fund's new funding model is vulnerable to the arbitrary selection and weighting of indicators, and because the Global Fund has multiple (sometimes competing) goals, reasonable people will disagree about whether the model is appropriate. Given the multiple principles expressed in the Global Fund's own strategic documents—such as the need for an “integrated, balanced approach,” “human rights,” and “value for money”²¹—disagreement is expected. Perhaps to reduce these disagreements, the Global Fund's new funding model includes the application of discretionary adjustments based on a variety of qualitative factors similar to those used in the Global Fund's historical approach.¹⁷

As long as discretionary adjustments do not offset the gains from the use of a systematic allocation process, the new funding model is expected to be an improvement over the previous

model for two reasons. First, although funding is not guaranteed, by specifying *ex ante* the amount of HIV allocations per country, the new funding model will increase the year-to-year predictability of funding, which may enhance the recipients' ability to efficiently and equitably deploy Global Fund investments.²²

Second, the new funding model shifts policy attention toward whether agreed-upon principles are being accurately measured and away from the politics of “first come, first served.” The new model has some potential to reduce discretion and shield resource allocation from political pressures.

Differences In Global Fund Allocations

To illustrate the impact of the new allocation methodology on the distribution of country-level financing, we investigated the extent to which expected Global Fund allocations to countries under the new model would differ from historical allocations. We first considered the historical allocations alone.

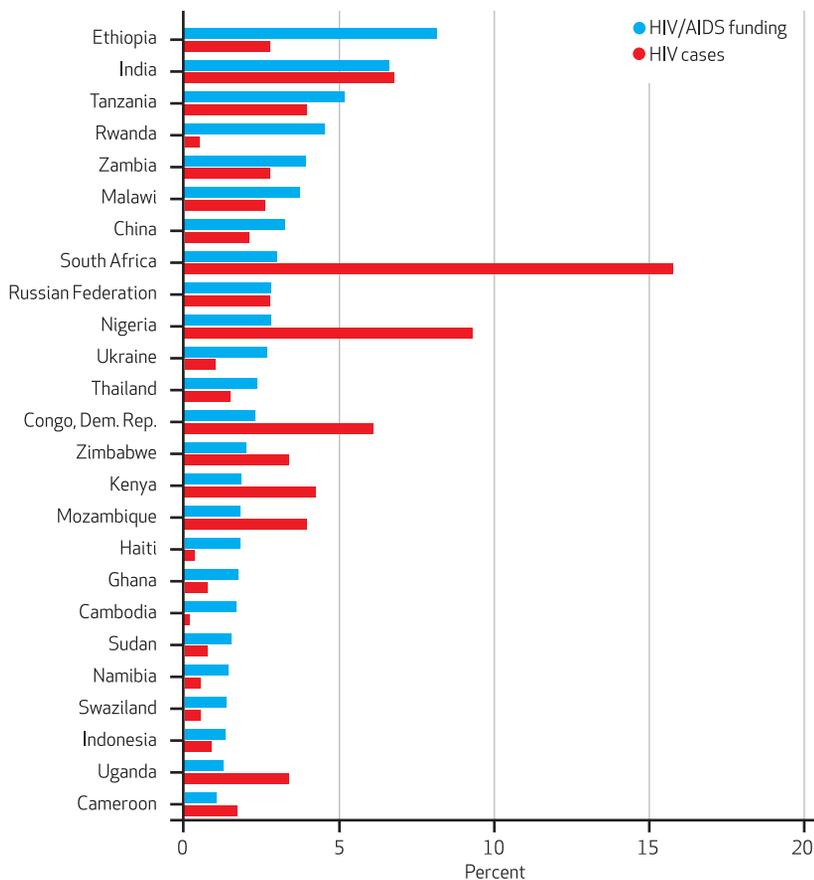
Exhibit 1 shows that of the twenty-five countries that received the most HIV funding from the Global Fund in the period 2002–12, Ethiopia received 8.2 percent of the funding, India 6.6 percent, and Tanzania 5.2 percent. As a crude indicator of the extent to which allocations matched the countries' burden of disease—a stated goal of the Global Fund—Exhibit 1 also shows each country's share of global HIV cases. For example, Nigeria had 9.3 percent of the HIV cases and received 2.8 percent of the funding. This suggests that Nigeria was given lower allocation priority than, for example, Ethiopia (which received 8.2 percent of the funding but had 2.8 percent of the HIV cases).

Nonetheless, we detected a correlation between allocation shares and HIV case shares. For each country, having an additional 1 percent of total HIV cases was crudely associated with a 0.38 percent increase in Global Fund HIV allocations to the country. This explains some of the variation observed in allocations (for crude correlation estimates of HIV allocations with other factors, see online Appendix 2).²⁰

Given the importance of accounting for multiple factors, a simple comparison of allocation shares and disease burden is insufficient, particularly because it ignores countries' ability to pay. Hence, we also examined the correlation between historical allocation shares and per capita income (and, separately, gross national income). Unlike disease burden, however, neither income measure had any significant association with historical allocation shares (Appendix 2).²⁰

EXHIBIT 1

Historical Global Fund Allocation Of HIV Funding To The Twenty-Five Countries Receiving The Most Funds And Those Countries' HIV Cases



SOURCE Authors' analysis. **NOTE** The percentages shown are of Global Fund HIV funding for the period 2002–12 and of HIV cases in the world in 2009.

It is also possible to consider historical allocations relative to the expected population served—for example, using the Global Fund’s spending per HIV case. Such an approach crudely mimics the budget methodology (methodology 2 in our typology) of assigning a cost, or a measure of the Global Fund’s willingness to pay, per HIV case.

Among the countries receiving Global Fund HIV grants, the average annual Global Fund spending per HIV case was \$358, with a standard deviation of \$1,081. The five countries with the highest spending per case were Timor-Leste (\$9,562), the West Bank and Gaza (\$5,225), the Maldives (\$3,360), Mongolia (\$2,994), and Cape Verde (\$2,057) (for average Global Fund spending per HIV case, ranked in descending order, listed for all countries tracked, see online Appendix 3).²⁰ The countries with spending below \$10 per case were Malaysia (\$1.85), Botswana (\$2.56), Panama (\$2.98), South Africa (\$4.54), Nigeria (\$7.18), Uganda (\$8.91), the Democratic Republic of the Congo (\$8.91), Mexico (\$9.34), and Uruguay (\$9.46).

In terms of the Global Fund’s per case spending, the country with the highest spending per case had more than 5,000 times the Global Fund allocations than the country with the lowest spending per case. What might explain this tremendous variation in Global Fund spending per HIV case?

Countries with low Global Fund spending per case, might have received funds from other payers. Similarly, countries with high Global Fund spending per HIV case might lack other funding sources, an absence that is an important ethical consideration in allocation decisions. Low Global Fund spending per HIV case might also reflect the targeting of a smaller total number of HIV cases (for example, in Malaysia) or lower service delivery costs per HIV case (for example, in Myanmar).

Separately, we considered the expected HIV portfolio under the new allocation methodology. Exhibit 2 shows Global Fund allocation shares for the twenty-five countries predicted to be the largest recipients. Under the new methodology, countries’ allocation shares are more consistently matched to their share of HIV cases. Disease burden explained only 35 percent of the variation in historical allocations (Appendix 2).²⁰ In contrast, under the new methodology, disease burden is expected to account for about 89 percent of the variation in allocations, with the remainder linked to the “ability to pay” factor.

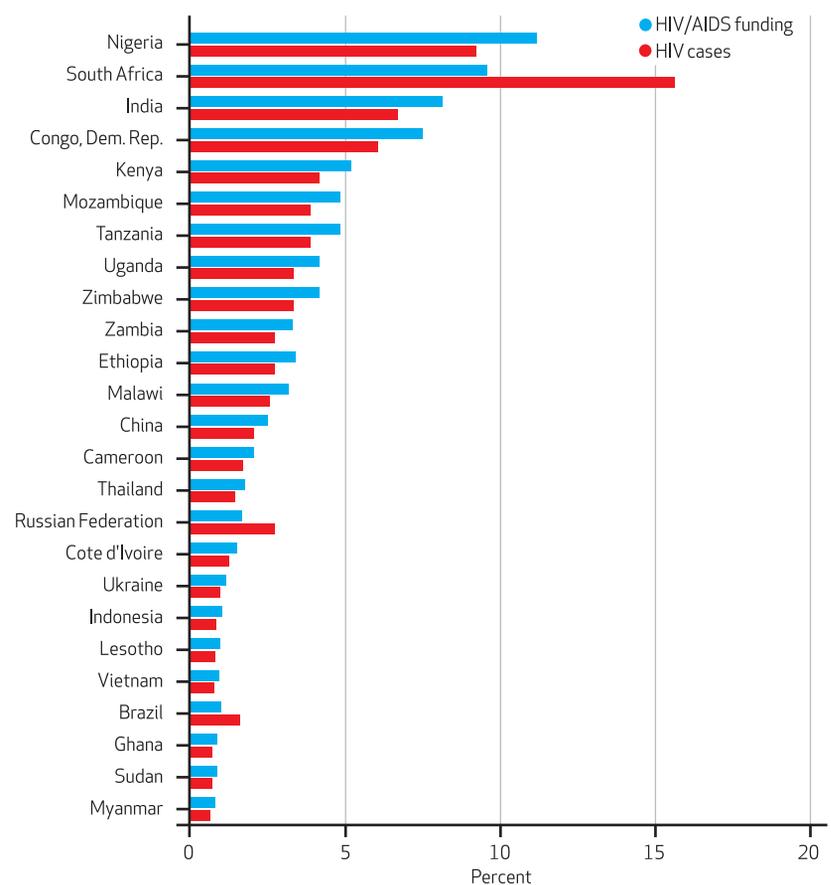
Next, we explicitly compared the allocation portfolios to each other. Exhibit 3 plots each country’s historical allocation portfolio on the horizontal axis and the expected new funding

model allocation on the vertical axis. Overall, compared to the historical allocation, ninety-three countries are expected to have a lower allocation share, whereas twenty-nine countries will probably have a higher share (for the full list of country allocation shares, see online Appendix 4).²⁰

To see which countries which would be most affected by this new policy, we subtracted countries’ historical allocation shares from their predicted new allocation shares. Exhibit 4 shows the countries with the most extreme predicted differences between historical and new allocation shares. Under the new methodology, countries such as Ethiopia and Rwanda would be allocated a lower share, whereas countries such as Nigeria, South Africa, and the Democratic Republic of the Congo would see increased funding.

EXHIBIT 2

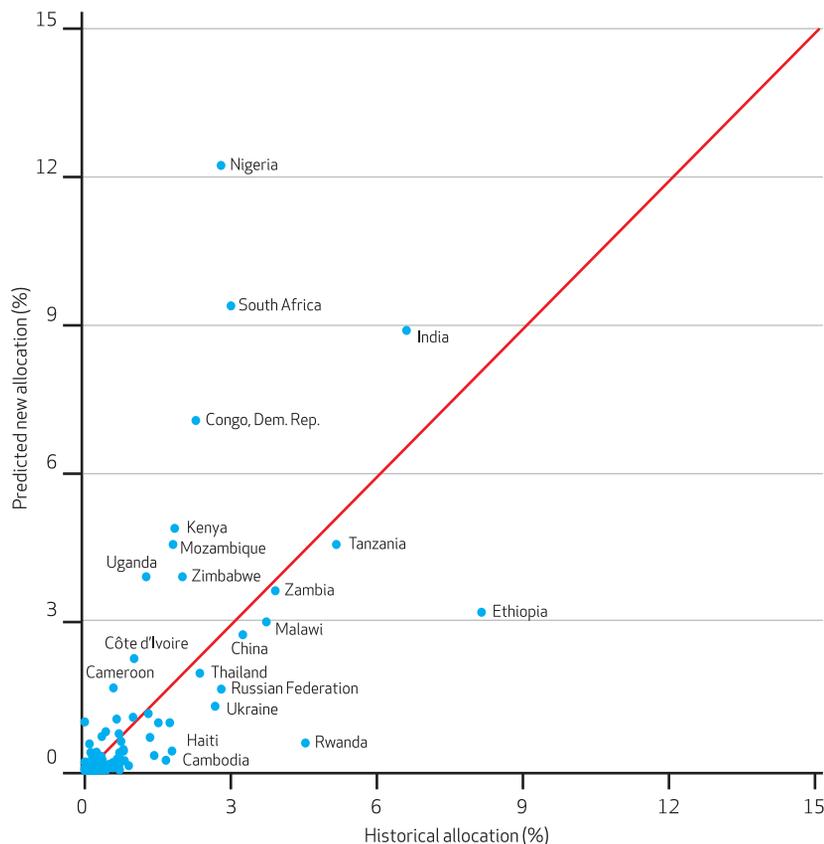
Predicted New Global Fund Allocation Of HIV Funding To The Twenty-Five Countries Receiving The Most Funds And Those Countries’ HIV Cases



SOURCE Authors’ analysis. **NOTES** The percentages shown are of predicted Global Fund HIV funding under the new allocation methodology described in the text and of HIV cases in the world in 2009. The Russian Federation will no longer be eligible for Global Fund HIV funding under the new eligibility rules.

EXHIBIT 3

Differences Between Historical And Predicted New Allocation Shares Of Global Fund HIV Funding



SOURCE Authors' analysis. **NOTES** The line of equality (represented by the red diagonal line) indicates that historical and predicted allocations are the same. If a country is above the line, it is predicted to have a higher allocation share under the new funding methodology than it had in the past. If a country is below the line, it is predicted to have a lower share under the new methodology than it had in the past. The percentages shown are of Global Fund HIV funding. The Russian Federation will no longer be eligible for Global Fund HIV funding under the new eligibility rules.

Discussion

In this article we have presented a typology of methodologies for the allocation of donor resources for health across recipient countries. We examined Global Fund HIV allocations for the period 2002–12, and we found only a limited correlation between countries' allocations and disease burden, and no correlation at all between allocations and per capita income or national income. A 5,000-fold difference was observed between countries with the highest and lowest Global Fund HIV spending per HIV case.

Next, we illustrated the distributional changes that could result from a change in Global Fund allocation methodology. Specifically, we contrasted the allocation portfolios between a scenario without an explicit methodology (the historical allocation) and a scenario with an explicit methodology (the predicted allocation under the new funding model described above). Substan-

tial shifts in the Global Fund's portfolio are expected under the new methodology, because of a concentration of resources in countries with more HIV cases and lower per capita incomes.

There are limitations to systematic methodologies. For example, the simple two-variable formula of the Global Fund's new funding model lacks explicit concern for equity, and its ethical dimensions merit further analysis. Certain people with HIV may be far more disadvantaged than others because of poverty, social marginalization, stigmatization, and even safety or legal concerns related to government policy (such as the criminalization of homosexuality). However, these factors may be accounted for under the Global Fund's discretionary adjustment procedures. Another limitation is that the new funding model methodology lacks transparency in regard to the theoretical justification of weights, particularly in the "ability to pay" factor.

The utility of systematic methodologies can be diminished because of the use of discretionary adjustments and the political economy of allocations. For example, constituencies may insist on special caps or exemptions, as in the case of the World Bank's allocation formula.⁹ Levels of country allocations may also require adjustment because of a concern for continuity of services, according to which the Global Fund is seen as ethically obliged to continue treatment for people with HIV as long as they live.²¹

It is unclear how to weigh countries by governance measures: A funder might prefer to give to countries with better governance, but doing so would systematically disadvantage those countries that may need the greatest attention. Some adjustments to methodologies may be useful and necessary, particularly with respect to factors that are either difficult to quantify or context specific. Nevertheless, better documentation and transparency of those adjustments are needed, particularly given their relevance to the overall allocation of Global Fund financing—and since the Global Fund is primarily financed by public (government) contributions.

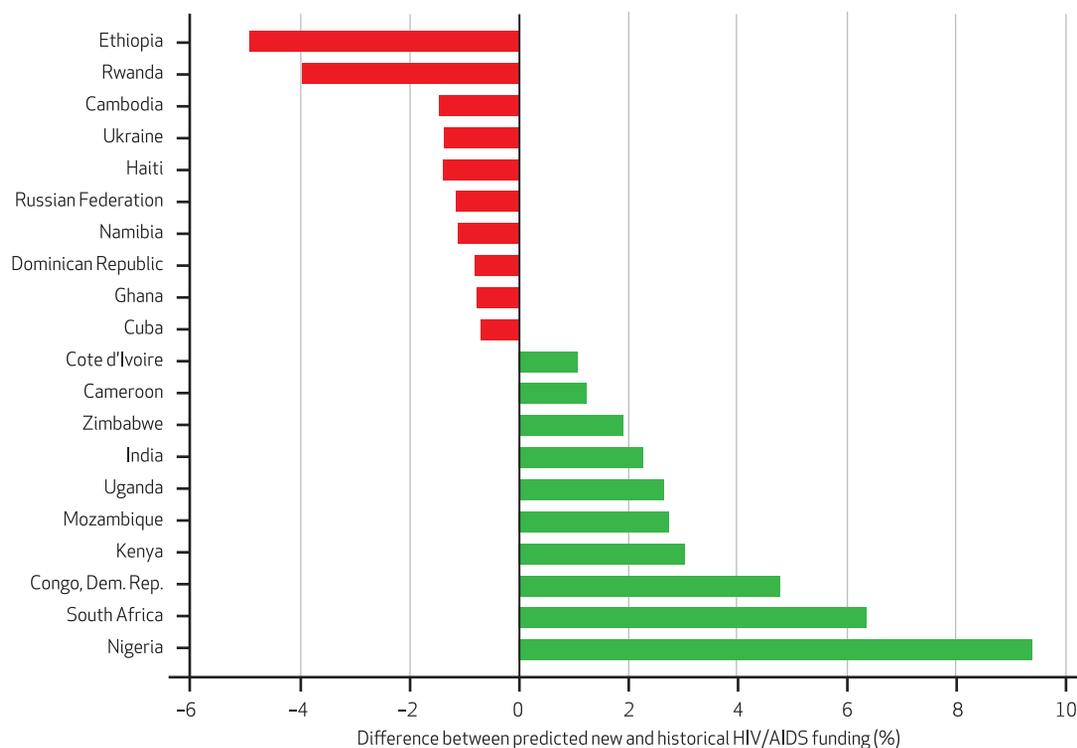
Policy Implications

The lessons gleaned from the typology of methodologies we have presented and the Global Fund analyses are relevant both to international donors and to national governments in their allocation processes to provinces and states.

We observed that the Global Fund's new allocation methodology may better align the distribution of funding with the Global Fund's specified principles. Yet within the context of our typology, the new allocation methodology can be classified as a spending function (methodol-

EXHIBIT 4

Differences Between Predicted New Allocation Shares And Historical Shares Of Global Fund HIV Funding: The Ten Countries With The Largest Expected Gains And Losses



SOURCE Authors' analysis. **NOTES** A negative difference (denoted by red bars) indicates that the country had a larger historical allocation than it is predicted to have under the new methodology. The Russian Federation will no longer be eligible for Global Fund HIV funding under the new eligibility rules.

ogy 3). As a spending function of two factors with weights, the methodology is not designed to maximize health outcomes, nor is it explicitly linked to the costs or budgets required to deliver programs supported by the Global Fund. For example, the formula does not explicitly account for the prevention of HIV (beyond the prevention benefits conferred by treatment). Given these limitations and the Global Fund's recent emphasis on value for money,²³ the new allocation methodology may not achieve all of the Global Fund's goals.

Donors in global health would benefit from carefully examining how the budget and production function methodologies (1 and 2) presented here might be fully developed and operationalized. For example, Bernhard Schwartländer and coauthors⁷ previously estimated country-level costs for HIV programs, and the Global Fund could use these estimates to apply methodology 2. In addition, the Global Fund could also use the budget data that it has collected from countries and incorporate such estimates into an application of methodology 2.²⁴

Allocation formulas must be constantly revis-

ited as disease dynamics, country incomes, and requirements evolve, and as new data and other information become available. Regular and automatic reviews are needed.

Funders should also pay attention to the consistency of policies between ex ante allocations and ex post disbursements. For example, the Global Fund's "ability to pay" measure does not accurately match or reflect the organization's actual counterpart financing policy—that is, its requirements related to the proportion of overall funds for each disease program that countries must finance from their respective national treasuries.⁵

To calculate ex ante allocations, the "ability to pay" indicator used continuous ranges from 0.20 to 0.95. In contrast, the counterpart financing policy specifies ex post country contributions to the national disease program by country income level: 5 percent for low-income, 20 percent for "lower" lower-middle-income, 40 percent for "upper" lower-middle-income (where "lower" and "upper" are divided by the median), and 60 percent for eligible upper-middle-income countries.⁵ In other words, the Global Fund's

“ability to pay” measure does not reflect its own policies of requiring countries to contribute to financing to be eligible to receive Global Fund allocations.

Donors also need to be much more explicit about how eligibility policies are consistent with their allocation policies. In the case of the Global Fund, the eligibility policy and the allocation policies merit stronger justification than they receive under the new funding model. The Global Fund’s eligibility policy explicitly shifts funding away from certain upper-middle-income countries based on income level (by World Bank classification), economic power (for example, whether or not the country is a member of the Group of Twenty), and the country’s “severity of disease burden” (according to the Global Fund’s five categories). PEPFAR has not clearly articulated its choice of countries or its allocation methodology, either.²⁵

It can be argued that the eligibility policy, therefore, is very much a crucial component of the Global Fund’s overall new allocation strategy. Whereas the new allocation policy is essentially continuous in funding levels based on income, the eligibility policy is categorical. As a result, allocations to countries such as China and Russia are fixed at zero under the eligibility policy, even though the countries would otherwise be granted funds under the new funding model allocation formula. Moving forward, the Global Fund would be well advised to revise these documents so that allocations are fully determined by a single, theoretically consistent policy.

Conclusion

This article focused on the impact on HIV funding of the allocation methodology in the Global

Fund’s new funding model. Allocation procedures—particularly at the donor level—are often overlooked, yet they affect millions of lives. Donors and beneficiaries alike would benefit from taking a more systematic and transparent approach to cross-country resource allocation. The typology proposed in this article can serve as a useful starting point when undertaking such an endeavor by providing organizations with a menu of options.

Any allocation methodology—be it explicit or implicit, and be it based on formula or on discretion—is ultimately an experiment on a tremendous scale.²⁶ The Global Fund’s historical allocations can be seen as a ten-year experiment in which allocations were carried out implicitly. The new funding methodology is also an experiment on the allocation of billions of dollars. Not only is greater documentation needed to assess the impact of this new methodology (or methodology 3), but the public deserves careful analysis and further research to consider the potential impacts of methodologies 1 and 2.

The article has discussed HIV funding but not tuberculosis or malaria funding, which the Global Fund also provides. Much remains unclear about how the Global Fund obtained its respective weights per case for each of the three diseases.²⁷ The political economy of changing between-disease resource allocation (and the persistence of resource allocation to HIV) among the three diseases deserves further research. The article also did not examine the impact of the new funding model on joint allocation for HIV funding in countries where there are multiple donors. Further research and policy analysis of the complex allocation decisions across diseases and in situations with multiple donors is needed. ■

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Institute for Fiscal Studies seminar, and eight anonymous external reviewers for helpful comments. The Center for Global Development does not take institutional positions; all opinions are the authors’ own. [Published online November 12, 2014.]

NOTES

1 Murray CJL, Heisel W, Leach-Kemon K, Schneider M, Zhang R, Gubbins P. Financing global health 2010: development assistance and country spending in economic uncertainty [Internet]. Seattle (WA): University of Washington Institute for Health Metrics and Evaluation; 2010 [cited 2014 Oct 2]. Available from: <http://www.healthdata.org/sites/default/>

2 Dieleman JL, Graves CM, Templin T, Johnson E, Baral R, Leach-Kemon K, et al. Global health development assistance remained steady in 2013 but did not align with recipients’ disease burden. *Health Aff (Millwood)*. 2014;33(5):878–86.

3 Joint United Nations Programme on HIV/AIDS. Global report: UNAIDS report on the global AIDS epidemic, 2010 [Internet]. Geneva: UNAIDS; 2010 [cited 2014 Oct 2]. Available from: http://www.unaids.org/global-report/documents/20101123_GlobalReport_full_en.pdf

4 Fan V, Silverman R, Glassman A. Meet the global health family: a

- cheat sheet [Internet]. Washington (DC): Center for Global Development; 2013 [cited 2014 Oct 2]. Available from: <http://www.cgdev.org/sites/default/files/CGD-Global-Health-Family-Cheat-Sheet-Final.pdf>
- 5 Global Fund to Fight AIDS, Tuberculosis, and Malaria. The Global Fund eligibility and counterpart financing policy [Internet]. Geneva: Global Fund; 2013 Nov [cited 2014 Oct 15]. Available from: http://www.theglobalfund.org/documents/core/eligibility/Core_EligibilityAndCounterpartFinancing_Policy_en/
 - 6 Lu C, Schneider MT, Gubbins P, Leach-Kemon K, Jamison D, Murray CJ. Public financing of health in developing countries: a cross-national systematic analysis. *Lancet*. 2010;375(9723):1375–87.
 - 7 Schwartländer B, Stover J, Hallett T, Atun R, Avila C, Gouws E, et al. Towards an improved investment approach for an effective response to HIV/AIDS. *Lancet*. 2011;377(9782):2031–41.
 - 8 Joint United Nations Programme on HIV/AIDS. A new investment framework for the global HIV response [Internet]. Geneva: UNAIDS; 2011 [cited 2014 Oct 3]. (UNAIDS Issues Brief). Available from: <http://icssupport.org/wp-content/uploads/2012/02/3-Investment-Framework-Summary-UNAIDS-Issues-Brief.pdf>
 - 9 Leo B. Leveraging World Bank resources for the poorest: IDA blended financing facility proposal [Internet]. Washington (DC): Center for Global Development; 2010 Jun [cited 2014 Oct 3]. (Working Paper No. 214). Available from: http://www.cgdev.org/sites/default/files/1424197_file_Leo_IDA_Blended_Financing_Facility_Proposal_FINAL.pdf
 - 10 Global Fund to Fight AIDS, Tuberculosis, and Malaria. The framework document. Geneva: Global Fund; 2012 Feb.
 - 11 Glassman A, Fan V, Over M. More health for the money: putting incentives to work for the Global Fund and its partners [Internet]. Washington (DC): Center for Global Development; 2013 Sep [cited 2014 Oct 3]. Available from: <http://www.cgdev.org/sites/default/files/More-Health-for-the-Money.pdf>
 - 12 Global Fund to Fight AIDS, Tuberculosis, and Malaria. Turning the page from emergency to sustainability: the final report of the high-level independent review panel on fiduciary controls and oversight mechanisms of the Global Fund to Fight AIDS, Tuberculosis, and Malaria. Geneva: Global Fund; 2011.
 - 13 Lu C, Michaud CM, Khan K, Murray CJ. Absorptive capacity and disbursements by the Global Fund to Fight AIDS, Tuberculosis, and Malaria: analysis of grant implementation. *Lancet*. 2006;368(9534):483–8.
 - 14 Fan VY, Duran D, Silverman R, Glassman A. Performance-based financing at the Global Fund to Fight AIDS, Tuberculosis, and Malaria: an analysis of grant ratings and funding, 2003–12. *Lancet Glob Health*. 2013;1(3):e161–8.
 - 15 Global Fund to Fight AIDS, Tuberculosis, and Malaria. Decision points: twenty-seventh board meeting: Geneva, Switzerland, 13–14 September 2012. Geneva: Global Fund; 2012.
 - 16 Global Fund to Fight AIDS, Tuberculosis, and Malaria. Transition manual—for the new funding model of the Global Fund [Internet]. Geneva: Global Fund; [cited 2014 Oct 15]. Available from: http://www.undp-globalfund-capacitydevelopment.org/media/406747/core_newfundingmodeltransition_manual_en.pdf/
 - 17 Global Fund to Fight AIDS, Tuberculosis, and Malaria. Resource book for applicants: the Global Fund's new funding model [Internet]. Geneva: Global Fund; 2014 Feb 10 [cited 2014 Oct 3]. Available for download from: http://www.theglobalfund.org/documents/fundingmodel/FundingModel_ResourceBookForApplicants_Book_en/
 - 18 Garmaise D. SIIC approves parameters for the allocation formula for 2014–2016 [Internet]. Nairobi: Aidspace; 2013 Nov 8 [cited 2014 Oct 3]. Available from: <http://www.aidspace.org/node/1966>
 - 19 Garmaise D. The new funding model allocation methodology explained (version 2) [Internet]. Nairobi: Aidspace; 2013 Nov 11 [cited 2014 Oct 3]. Available from: <http://www.aidspace.org/sites/default/files/publications/NFM%20allocations%20methodology%20explained%20nov11A.pdf>
 - 20 To access the Appendix, click on the Appendix link in the box to the right of the article online.
 - 21 Global Fund to Fight AIDS, Tuberculosis, and Malaria. The Global Fund strategy framework 2012–2016: investing for impact [Internet]. Geneva: Global Fund; 2011 [cited 2014 Oct 15]. Available for download from: <http://www.theglobalfund.org/en/about/strategy/>
 - 22 Over M. Achieving an AIDS transition: preventing infections to sustain treatment [Internet]. Washington (DC): Center for Global Development, 2011 [cited 2014 Oct 3]. Available from: <http://www.cgdev.org/sites/default/files/achieving-an-aids-transition-web.pdf>
 - 23 Global Fund to Fight AIDS, Tuberculosis, and Malaria. News flash special: interview with Mark Dybul [Internet]. Geneva: Global Fund; 2012 Nov 21 [cited 2014 Oct 3]. Available from: http://www.theglobalfund.org/en/blog/2012-11-21_News_Flash_Special_Interview_with_Mark_Dybul/
 - 24 Fan V, Duran D, Silverman R, Glassman A. HIV/AIDS intervention packages in five countries: a review of budget data [Internet]. Washington (DC): Center for Global Development; 2013 Oct [cited 2014 Oct 15]. (Policy Paper No. 033). Available from: <http://www.cgdev.org/sites/default/files/hiv-aids-intervention-packages-five-countries-review-budget-data.pdf>
 - 25 Fan V, Silverman R, Duran D, Glassman A. The financial flows of PEPFAR: a profile [Internet]. Washington (DC): Center for Global Development; 2013 Jul [cited 2014 Oct 15]. (Policy Paper No. 027). Available from: http://www.cgdev.org/sites/default/files/financial-flows-pepfar_.pdf
 - 26 Bump JB, Fan VY, Lanthorn HE, Yavuz EN. In the Global Fund's court: experimentation, evaluation, and the AMFm. *Lancet*. 2012;380(9858):1989.
 - 27 Glassman A, Fan V. Does the money match the message? Current practice in allocation of aid for tuberculosis and implications for the U.S. government [Internet]. Washington (DC): Center for Strategic and International Studies; 2014 Jun [cited 2014 Oct 15]. Available from: http://csis.org/files/publication/140604_Glassman_DoesMoneyMatchMessage_Web.pdf