

Beyond primary education: COD Aid for other development goals

Throughout this book we have used primary education to illustrate the possible use of Cash on Delivery Aid (COD Aid). The previous chapter extended the example to look at the potential for a COD Aid program in upper secondary education between different levels of government in one country. This brief chapter explores other examples, considering the possibilities for foreign assistance along the principles of COD Aid in other areas of education and in health, infrastructure, environment, and information. On any issue for which shared goals and measurable progress can be defined, aid can be linked to outcomes. Indeed, funders could offer a menu of COD Aid agreements that recipients could choose from.¹

For any COD Aid program, the main challenges are to reach agreement on a shared goal, identify an appropriate outcome measure, set a fee per unit of progress, and establish a way to report and verify progress. For each example discussed here, we suggest strategies to meet these and other challenges.

Education

In the education sector, COD Aid could be applied for goals beyond primary completion. In countries where access to primary school is already widespread, quality improvement could be the goal. The initial efforts could focus on introducing testing. Once reliable standardized testing is in place, improvements in average scores would be rewarded directly. Another option would be to reward secondary school completion in much the same way as the primary completion payment proposed above. Or as for Mexico (chapter 6), the reward could be for a combination of enrollment and test scores in the final year of secondary school.

Health

In the health sector, the Global Alliance for Vaccines and Immunisation (GAVI) already operates a program that is in many ways similar to COD Aid (box 7.1). GAVI's Immunization Services Support program works with countries that are eligible because they have low immunization coverage and a plan to expand that coverage. The program provides upfront grants along with a reward of \$20 per additional child vaccinated.

COD Aid could also be useful for improving the effectiveness of funds addressing a single disease, such as the U.S. President's Emergency Plan for AIDS Relief

BOX 7.1

The Global Alliance for Vaccinations and Immunisation and its audit requirements

The Global Alliance for Vaccines and Immunisation (GAVI) requires that countries pass a data quality audit before receiving reward shares under its Immunization Support Services scheme. The audit assesses the country's capacity to collect accurate data. It then identifies areas needing improvement and assigns a score. GAVI requires that countries pass an audit with a score of 0.80 to receive reward shares, but countries can continue to receive basic funding as they improve their data on immunization coverage.

The audit includes an interview and survey component with officials, and a component similar to an accounting audit. Districts to be audited are chosen randomly, and a team of external and national auditors checks the consistency of the record books of the clinics with regional data. Over the course of the program, several of the countries significantly improved their data collection. The GAVI evaluation notes that reward shares are an incentive that "appears to have had significant impact in motivating countries to address the problem of data quality," an important objective of our COD Aid proposal as well.

While GAVI has achieved many goals, it has also illustrated what occurs when baseline

data are overestimated and outcome-oriented programs rely on the implementing agency to report progress. In Kenya, officials decided to use government estimates to establish the baseline of immunization coverage, even though population surveys indicated that coverage rates were lower. With this higher initial baseline, subsequent measures of progress have probably underestimated the true expansion of coverage. Kenya may thus have received fewer reward shares than it might have. The program evaluation recommended establishing an appeals process of some kind to address such situations. A similar proposal is contained in the sample COD Aid contract in the appendix.

A more common problem appears to be overestimating progress. A recent study compared officially reported coverage rates to estimates from other data sources. While the official report indicated 13.9 million additional children had been immunized with diphtheria, tetanus, and pertussis (DTP-3), other sources estimated the number at 5.7–9.2 million children. The study concluded that independent monitoring of health indicators is necessary, especially when foreign assistance is being disbursed against performance. The requirement in a COD Aid agreement that a third party independently verify progress explicitly addresses this concern.

Source: Chee and others 2004; Lim and others 2008.

(PEPFAR). PEPFAR's focus on results is troubling to many AIDS experts because the indicators chosen by the fund are considered to be off the mark. The number of patients receiving treatment, for example, is an inadequate and misleading indicator for the actual goal: reduced morbidity and mortality.² Rewards based on other indicators, such as reduced incidence of HIV from a baseline, would provide better incentives for prevention. Better indicators and other improvements following the principles of the COD Aid approach could be incorporated into PEPFAR and other HIV/AIDS programs (box 7.2).

It may also be possible to link funding directly to outcomes for other more general goals in the health sector, such as reducing the disease burden or reducing morbidity or mortality.³ Again, the outcome indicator is crucial and would require careful background work to ensure accurate measurement, avoid perverse incentives, and reduce

BOX 7.2**A COD Aid approach to treating and preventing HIV/AIDS**

After 30 years and billions of dollars spent combating AIDS, the rate of new infections remains higher than the rate of placing new patients in treatment. In countries where incidence has declined, it remains difficult to attribute the decline to interventions funded by governments or foreign assistance. The combination of high rates of new infection and increasing numbers of people on lifetime treatment means that even when programs like PEPFAR are successful, they may coexist with a growing number of people living with HIV.

The COD Aid approach could be applied both to treating HIV/AIDS and preventing its spread. For treatment, a COD Aid agreement would reward programs that not only identify newly infected individuals and initiate treatment but also ensure that an individual remains in treatment. A payment formula that successively increases the size of the reward for each year that an individual maintains treatment would be one way to do this.

Applying the COD approach to HIV prevention is more challenging—for at least two reasons. First, a prevention program

needs to reach a much larger population. Second, an appropriate unit of progress for such a program is more difficult to design. Change in the prevalence rate (the share of people living with HIV/AIDS) is not a good measure because it is affected both by new infections (which raise the rate) and by deaths (which lower it). Instead, an appropriate indicator might be the rate of new infections over a defined period (such as the annual incidence rate).

But directly measuring the annual incidence rate is challenging. It requires an effective system for selecting a random sample of people from the same cohort and then contacting and testing them annually for HIV infection over several years. Such data collection is feasible at a reasonable cost, especially relative to the substantial funding going to AIDS prevention and treatment in recent years. In addition to providing information to calculate COD Aid payments, this survey information would be extremely useful for identifying specific groups and geographic areas where the epidemic is spreading quickly, for managing the epidemic, and for assessing the effectiveness of different strategies.

Source: Institute of Medicine 2007; Bongaarts and others 2008; Hallet and Over forthcoming.

Expanding and improving infrastructure could also be funded through a COD Aid arrangement

the lag from government interventions to observed changes in the indicator. As in any COD Aid arrangement, however, the payment would give both funder and recipient a reason to improve outcome data, which are useful for many purposes besides administering aid.

Infrastructure

Expanding and improving infrastructure could also be funded through a COD Aid arrangement. As with other sectors, a key issue would be the design of an appropriate indicator. Most infrastructure projects measure progress in outputs, such as the number of water connections or kilometers of roads, when the true ends of these investments are such outcomes as improved health (from drinking safe water), higher household income in outlying areas, and economic growth (through more reliable and less costly transportation).

The World Bank and several bilateral agencies have financed a large number of infrastructure programs under the Global Partnership on Output-Based Aid, which has done a good job of creating programs that provide payments only after the infrastructural investments are complete and delivered. A water program in Mozambique, for example, pays for water connections only after they have been operating for three months. A program in Ghana to subsidize solar photovoltaic electric systems in rural areas pays the implementing agency only after an independent agent has verified delivery.

The Global Partnership on Output-Based Aid approach could be taken closer to the outcome by creating a COD Aid agreement that pays for potable water consumption from in-house water connections as verified by a household survey. The ease of verifying the presence and quality of physical infrastructure sometimes obscures the fact that maintenance, operation, and use of infrastructure are essential if outputs are to continue providing real benefits.

Environment

The COD Aid concept could also be applied to improving and preserving the environment. For example, it could be used to encourage reductions in carbon emissions. Aid for reducing carbon emissions faces the challenge of identifying and measuring marginal improvement through individual projects. This creates a perverse incentive for countries to allow the design of highly polluting facilities and then seek payments for blocking their completion or upgrading them to greener technology.⁴ A COD approach would be compatible with recent proposals for an updated international agreement, which may eventually link funding to the total carbon emissions in a country by paying developing countries per ton of emissions below a baseline or trend.

A program with many similarities to COD Aid has been launched in Brazil. The Amazon Fund was created to raise funds based on measurable reductions of emissions

from deforestation in the Amazon (box 7.3). The funding is allocated to projects that combat deforestation and promote conservation.

Access to quality information

The COD Aid approach could also improve the quality of statistics in developing countries. Basic data on population size, health, and education are essential for

BOX 7.3

The Amazon Fund

Global warming is accelerating because of both the increased emissions of carbon dioxide and the reduced ability of the earth to absorb carbon dioxide from the environment. The latter results from the vast amounts of deforestation that take place annually. Deforestation in developing countries alone accounts for almost 20 percent of global greenhouse gas emissions, which is equivalent to almost all emissions due to transportation.¹ Three-quarters of the emissions from Brazil, the fourth greatest carbon emitter in the world, are a result of deforestation.²

The Brazilian government has taken several measures to curb deforestation. It has drafted and enacted the Action Plan for the Prevention and Control of Deforestation in the Amazon and has set a goal of stopping the loss of forest cover by 2015. The federal government is investing roughly \$500 million (for 2008–11) in initiatives to reduce deforestation and promote conservation in the Amazon, but it estimates that it will need an additional \$1 billion annually to achieve the goals outlined in the plan.³

To raise additional funds to achieve these goals, the government launched the Amazon Fund in 2006. The Amazon Fund is a private fund managed by the Brazilian Development Bank that raises funds based on measurable reductions in deforestation. The data and calculations of deforestation rate reductions and avoided emissions are

attested by a scientific board and audited by an international third party. Contributions from official donors, corporations, and individuals in and outside Brazil are allocated to projects that combat deforestation and promote conservation and sustainable use of the Amazon biome. The first contributor to the fund was the Norwegian government, which committed up to \$1 billion (for 2008–15) to be disbursed based on verified reductions in deforestation against a 10-year baseline.

While the fund differs from COD Aid in several respects, the role of the Norwegian government and other contributors mirrors the role of funders in a COD Aid program because they commit a certain amount of funding for verified results. The Brazilian Development Bank, by contrast, may incur higher transaction costs than a recipient government that launches a COD Aid program because the bank is required to raise funds every year commensurate with verified progress. In other words, a single set of donors is not required to enter a multiyear commitment.

Despite this and other differences, the Amazon Fund provides a real-world example of linking cash to delivery of an environmental good and demonstrates how a funder can make a substantial contribution to a global problem by providing financial resources and allowing recipient countries to determine how to make progress toward a shared goal.

Notes

1. Commission on Climate and Tropical Forests 2009.
2. Norwegian Office of the Prime Minister 2008.
3. Brazilian Ministry of Environment 2006.

In sum, the COD Aid approach can be applied to many different development objectives

managing and evaluating public services, yet are generally very low in quality and infrequently updated. International agencies commonly aggregate such data despite the inconsistencies. Foreign funders often bypass national data collection systems altogether, commissioning completely separate surveys such as the Demographic and Health Surveys. These parallel efforts do not directly enhance countries' capacity to gather their own quality data.

A COD Aid approach could give countries an incentive to improve their data by linking payments to this outcome. For example, a COD Aid agreement aimed at improving vital statistics could pay countries for more accurately registering births and deaths. The independent audit would provide information that could be used both to calculate the COD Aid payments and to assess and improve the country's data-collection system. A reliable and accurate vital registration system is not trivial. Vital registration is important for demographic research. It can also have a profound impact on the allocation of government funds to different communities, and it can even affect individuals' voting rights and access to public services.

Increasing transparency and promoting democracy

To support increased transparency and the development of civil society, funders could also make incentive payments to countries for making data—such as budget information, health status, or educational attainments—publicly available. Payments could be linked to the share of people who have accessed public information or who are informed about particular facts, verified through surveys. This would encourage governments to make data available and promote its dissemination. This would probably be more effective than current approaches emphasizing particular inputs (producing brochures or radio advertisements) or specific policy changes (freedom of information legislation).⁵

In sum, the COD Aid approach can be applied to many different development objectives. In each case, the specific nature of the objective or the particular institutional setting will present different challenges. Solutions can come from consulting with experts and applying basic principles to identify appropriate units of progress, payment structures, and verification processes.

Notes

1. Barder and Birdsall (2007). This is similar to the principle of the European Community's MDG Contracts, but they are linked to threshold goals rather than incremental progress, and are linked to outcomes only in small part in order to reduce volatility.
2. Hallet and Over forthcoming.
3. Staff at the Bill and Melinda Gates Foundation are exploring "results-based" approaches for their health sector grants (Kress and Shaw 2008). They discuss grants that would pay for key outputs, such as bednets distributed and births attended, with payments at the

level of individual providers and households as well as at local and higher governments. These outputs are related to, but not the same as, the health status outcomes (reduced malaria prevalence, fewer incidents of infant and maternal trauma) that are the true objective of these programs.

4. Greiner and Michaelowa 2003; Grubb, Vrolijk, and Brack 1998; Thorne and Lèbre La Rovere 1999.
5. Hubbard 2007; McIntosh 2006.