

CHAPTER 4:

IMPACT OF DEVELOPMENT ASSISTANCE FOR HEALTH ON COUNTRY GOVERNMENT SPENDING

Given the urgency of attaining the Millennium Development Goals (MDGs) by 2015, it has become even more important to identify the factors that influence governments' domestic health spending in addition to measuring its volume. A review of the scientific literature revealed multiple factors: total government spending (also known as general government expenditure, or GGE), gross domestic product (GDP), forgiveness of debt incurred by the government, the percentage of people living with HIV, and development assistance for health (DAH).⁹⁹⁻¹⁰⁷

Since DAH has risen rapidly over the past decade, we were particularly interested in studying how it affects government health expenditure as source (GHE-S). For over 30 years, many economists have concluded that sector-specific foreign assistance to governments tends to cause recipient countries to shift their own spending away from the sector that receives the aid.^{102,108-112} Similarly, recent studies have found that recipient governments, on average, spend less of their own money on health if they receive health assistance.^{89,103,113,114} DAH that goes to the non-governmental sector (DAH-NG) in a country is another factor that influences GHE-S.⁸⁹

Last year, we studied the relationship between DAH and public domestic health spending. We found that for every \$1 of DAH channeled through government (DAH-G) that flowed to a country, governments on average took \$0.43 to \$1.14 of their own money away from the health sector. We call this phenomenon "subadditionality," which occurs when DAH to government partially or fully substitutes for public domestic health spending. The opposite phenomenon, or "additionality," happens when DAH-G fully supplements GHE-S.

This year, we updated our research and reached similar findings. We used the baseline methods from *Financing Global Health 2010* and incorporated minor improvements such as including time trends and employing two-step estimation process.^{115,116} Our results indicate that subadditionality continued to occur when governments in developing countries received DAH. After adding data for years 2007 through 2009 to our dataset, we found that as a whole, governments tend to take \$0.56 out of the health sector for every \$1 of DAH that they receive with a 95% confidence interval of \$0.34 to \$0.78. The fact that we obtained similar results with the addition of new data suggests that governments, on average, react to DAH in a manner that is consistent over time. This does not mean that these findings apply to all nations, as averages mask important variations across countries.¹⁶ We are in the process of updating country-level estimates of additionality, which we plan to publish in the future.

Other factors that we found to be significantly related to governments' domestic health spending in our analysis included DAH to non-governmental sectors and government size. Since government size is relatively constant over time, DAH-G and DAH-NG have unique roles as primary determinants of fluctuations in GHE-S. This allows us to observe the impact of DAH to governmental and non-governmental sectors on public domestic health spending over time.

To illustrate the important and dynamic effects of DAH to governmental and non-governmental sectors on public domestic health spending, we consider the region that received more DAH-G and DAH-NG than any other, East sub-Saharan Africa. As shown in Figure 30, from 2006 to 2007, DAH to governmental sectors increased

by \$324.44 million, while DAH to non-governmental sectors rose by \$204.22 million. These two forms of DAH had opposite effects on public domestic health spending during this period: DAH-G led to decreases in GHE-S, while increases in DAH-NG led to increases in GHE-S. Still, the upward pressure that DAH to non-governmental sectors has on governments' domestic health spending is smaller in magnitude than the downward pressure of DAH to governmental sectors. Estimates show that it takes an increase of \$2 in DAH to non-governmental sectors to balance out the downward impact that \$1 of DAH to governmental sectors has on governments' domestic spending on health.

Our statistical analysis suggests that governments in this region reacted to inflows of DAH-G by shifting money away from the health sector into other sectors, resulting in a \$182.36 million decrease in GHE-S. As these funds are shifted away from the health sector, it is important for the global health community to understand where these funds end up. Does the money go to health-enhancing sectors such as education, water

and sanitation, or food security, or does it go to expenditures that may not improve health, such as military spending? Unfortunately, lack of detailed government spending data by sector prevents us from answering this question.

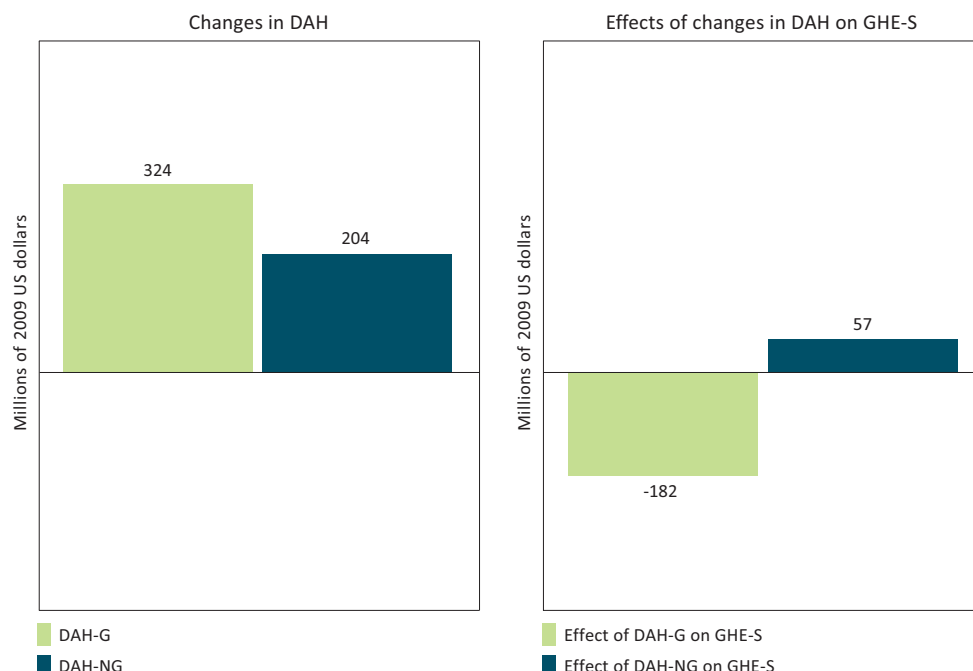
On the other hand, increasing DAH to non-governmental sectors partially counteracted the decreases caused by DAH to governmental sectors by putting upward pressure on public domestic health spending. We estimated the effect of the increase in DAH-NG on GHE-S to be \$57.20 million in East sub-Saharan Africa.

The reasons why increases in DAH-NG cause GHE-S to rise are not well understood. As noted in *The Lancet* last year, many researchers believe that the high salaries that non-governmental organizations (NGOs) tend to pay drive up wages,¹¹⁷⁻¹¹⁹ putting pressure on governments to raise the salaries of civil servants in order to retain them. On the other hand, some have hypothesized that this is evidence that NGOs' efforts to lobby governments to spend more on health is working.¹²⁰ Cautious interpretation of this finding is warranted.

FIGURE 30:
Relationship between GHE-S and DAH-G in East sub-Saharan Africa, 2006-2007

Sources: IHME Government Health Spending Database (Developing Countries) 2011, IHME DAH Database (Country and Regional Recipient Level) 2011, and covariates (GDP, general government expenditure, debt relief, and HIV prevalence)

Notes: DAH and GHE-S regional relationship based on all-region analysis.



Furthermore, few rigorous studies of the overall health benefits of providing DAH to NGOs versus governments have been done. Further research should be conducted to elucidate the reasons why DAH-NG increases GHE-S before drawing the simplistic conclusion that more DAH should be given to NGOs to increase governments' domestic health spending. Researchers should also study the health impact of providing DAH through NGOs.

As discussed in Chapter 2, NGOs generally do not make country-level expenditure data available to the public. This limits researchers' abilities to assess the effectiveness of health interventions that NGOs deliver relative to those delivered by the government. Greater transparency of financial data from NGOs is needed for research that could lead to informed policymaking.

Examining changes in DAH to governmental and non-governmental sectors from 2008 to 2009 in East sub-Saharan Africa, as seen in Figure 31, reveals clues about the relationship between these factors and GHE-S. Similar to 2006 to 2007, DAH-NG continued to

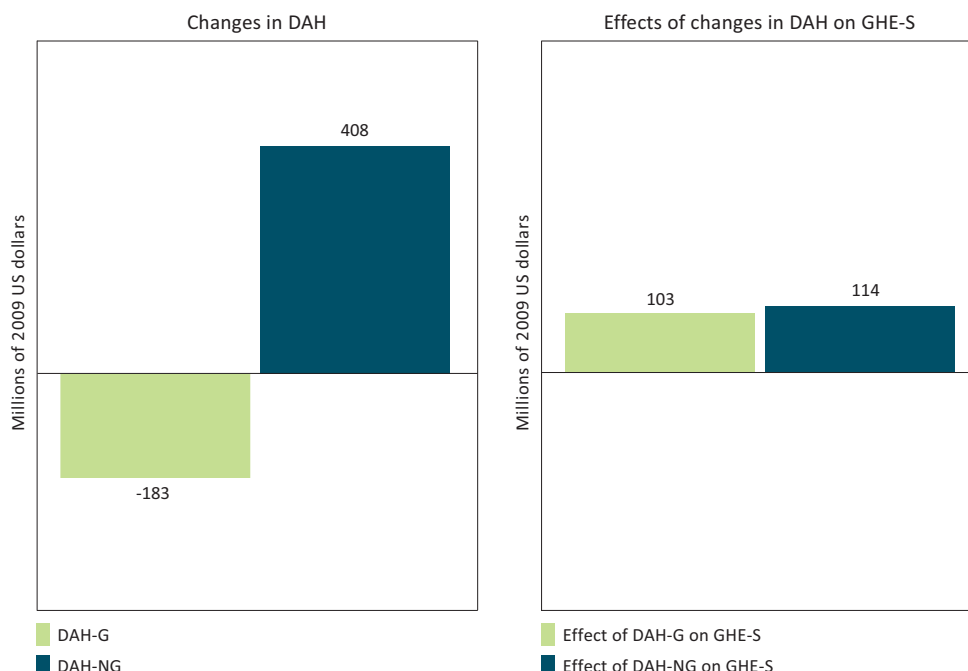
rise from 2008 to 2009 and contributed to an increase in GHE-S. Unlike the previous period, however, DAH-G declined in East sub-Saharan Africa between 2008 and 2009. These declines in DAH-G have occurred alongside increases in public domestic spending. It is plausible that governments in the region may be responding to decreases in DAH-G by channeling more money into the health sector.

Based on the finding that governments may be reacting to declines in the DAH that they receive by increasing their domestic health spending, some may conclude the logical strategy for donors is to cut DAH-G and give the funds to NGOs instead. Pursuing the exclusive objective of increasing GHE-S without considering other factors could be unwise, however. Further studies should be done to fully understand how the provision of DAH-G and DAH-NG and their effect on GHE-S impacts health in developing countries. Otherwise, donors could spend much time and effort trying to influence governments' domestic health spending while losing sight of the most important issue at stake, which is saving lives.

FIGURE 31:
Relationship between GHE-S and DAH-G in East sub-Saharan Africa, 2008-2009

Sources: IHME Government Health Spending Database (Developing Countries) 2011, IHME DAH Database (Country and Regional Recipient Level) 2011, and covariates (GDP, general government expenditure, debt relief, and HIV prevalence)

Notes: DAH and GHE-S regional relationship based on all-region analysis.



Policy implications

More transparent and high-quality data on governments' domestic health spending are needed to inform the scientific and policy debate on this subject. Citizens of developing countries as well as donors who are sending assistance to these countries would benefit from knowing how much governments are spending on health as well as other sectors. These data are also critical for monitoring the implementation of the Abuja targets. Public expenditure management systems in developing countries need to be strengthened so that countries can produce these data. Furthermore, as the primary provider of data on government health expenditure, the World Health Organization should invest more resources to collect these data through visits to countries. The global health community's understanding of governments' investment in health could be improved by other parties' investment in data collection. Finally, better quality data on government spending in all sectors would help identify which sectors within the government receive additional funding if ministries of finance shift money away from the health budget in response to DAH-G.

A second concern generated by these findings relates to implications for developing countries' efforts to meet MDGs 4 and 5 to reduce maternal and child mortality. Our findings that governments tend to react to receiving DAH by shifting their own resources away from the health sector are worrisome. As we noted last year, it is problematic if governments react to DAH flowing into their treasuries by taking money away from their core health budgets. DAH is not an adequate substitute for government health spending, since donors often earmark these funds for disease-specific programs such as HIV/AIDS. If ministries of finance respond to increased DAH-G by redirecting GHE-S to areas such as water and sanitation, education, or conditional cash transfers to the poor, however, then these funds could complement efforts by ministries of health to meet the MDGs. If domestic funds are freed up by DAH to government for increasing expenditures in other sectors that may not improve health, this could impair a country's ability to attain the MDGs. These findings point to the need for recipient countries and donors to gain a better understanding of each other's priorities as well as the intended objectives of DAH.

Ultimately, while increasing governments' domestic health spending is an important part of attaining the MDGs, additional studies should be done to determine which form of DAH, DAH to governmental or non-governmental sectors, has the greatest impact on health. While DAH to non-governmental sectors increases governments' domestic health spending, it is not clear that this is a positive outcome, as the underlying causal mechanisms have not yet been identified. In addition, it is essential to consider both the short- and long-term health impacts that result from channeling DAH through governmental versus non-governmental sectors. For example, investment in governments may have a longer-lasting impact on health, as it may be used to strengthen the health system, build health facilities, or train staff.¹²¹ In contrast, DAH channeled through NGOs may be used for interventions that have a short-term impact, as NGOs' health work may end when project funding ends or the organizations cease to operate in a particular country.^{122,123} Given the complex relationship between public domestic health spending and DAH to governmental and non-governmental sectors, it is necessary to enhance our understanding of how DAH can be delivered in a way that maximizes its impact on health. This research represents an important step toward attaining that goal.