

ANNEX A: METHODS

IHME relies on a variety of data sources and methods to produce the *Financing Global Health* report. Accounting methods and statistical models are used to generate our annual database and to estimate the most up-to-date financing levels and trends. In this annex, we briefly describe those data and methods. For further information about the sources and methods used in this report, please refer to our online Methods Annex, available at: http://www.healthmetricsandevaluation.org/sites/default/files/policy_report/2012/FGH_2012_methods_annex_IHME.pdf

Data compilation and collation is a yearlong effort. Our objective is to track all health-related contributions to developing countries made through public and private channels for the period of 1990 to 2012. IHME analysts collect government documents, annual reports, audited financial statements, datasets from public and private organizations, and tax forms. For several channels, publicly available information is supplemented by private correspondence. Table A1 summarizes the sources used in this year's report.

These data allow IHME to generate estimates of DAH by channel, country (recipient and source), and health focus area. A significant hurdle to estimating DAH in recent years is the lag between the disbursement of funds and the publication of spending figures. Few organizations publish comprehensive financial data concurrent with the disbursement of funds. All available data are used to approximate spending for 2011 and 2012. While IHME's estimates of DAH are preliminary, they are also valuable, as they supply policymakers with access to timely data.

Our estimates account for transfers between the channels to avoid double counting. For example, BMGF is a large funder of both GAVI and the GFATM. Yet in this report, funds from BMGF to those channels are assigned to GAVI and GFATM (BMGF remains the source of those funds, but DAH is assigned to the channel based on who is directly distributing funds to recipients). To generate estimates of the expenditure by NGOs, we collected financial data on health expenditure from the largest NGOs and a random sample of smaller NGOs in

TABLE A1:
Sources of DAH data

Source	Data
Bilateral agencies in 23 OECD-DAC member countries and the EC	OECD-DAC aggregate database and the Creditor Reporting System, budget documents, annual reports, and correspondence
UN agencies: PAHO, UNAIDS, UNFPA, UNICEF, and WHO	Financial reports and audited financial statements, annual reports, budget documents, and correspondence
World Bank, Asian Development Bank, African Development Bank, and Inter-American Development Bank	Online project databases and compendium of statistics
GAVI	GAVI annual reports, country fact sheets, OECD Creditor Reporting System, and correspondence
GFATM	Online grant database and pledges
NGOs registered in the US*	USAID Report of Voluntary Agencies, tax filings, financial statements, annual reports, <i>RED BOOK Drug References</i> , WHO's Model List of Essential Medicines, and correspondence
BMGF and other private US foundations*	Foundation Center's grants database, tax filings, and correspondence

*Non-US private foundations and NGOs were not comprehensively tracked due to lack of data.

the US. We do not comprehensively track private donations from countries outside of the US due to the lack of standardized and complete reporting. Studies have indicated non-US countries in the OECD's DAC provided 60% as much private contributions as the US in 2008. As the quality, comparability, and availability of data for private DAH outside of the US improves, IHME aspires to track these contributions as well.

To identify the amount of DAH allocated to different health focus areas, we used project codes, titles, and descriptions reported by channels of funding. For the World Bank's expenditure, we used project-level sector and theme codes to allocate funds. We classified all DAH from UNAIDS as DAH for HIV/AIDS and all expenditures by GAVI, UNICEF, and the UNFPA to MNCH. For those projects targeted toward multiple health focus areas (such as a project for both HIV/AIDS and TB), we assume those projects are divided equally among these areas.

Last year, our preliminary estimates of total DAH for 2010 and 2011 were \$26.7 and \$27.7 billion, respectively (measured in 2010 US dollars). This year, we report \$28.2 billion of DAH in 2010 and revised our preliminary estimate for 2011 to \$27.4 billion. Large projects can be disbursed over many years, and there are lags in obtaining project-level disbursement data. We typically rely on statistical modeling to determine which fraction of a project's budget is disbursed in the most recent years. In response to the financial crisis, organizations like the World Bank altered their operating practices to "front load" disbursements (prioritizing projects that released funds quickly). Last year, our models failed to anticipate that change. As a result, funds we had previously assigned to 2011 were actually disbursed in 2010.

We estimate government health spending through 2010, as data for more recent years are incomplete. The WHO is the only organization to regularly publish estimates of GHE in their National Health Accounts database. However, a large quantity of data were either missing or created by WHO using modeling techniques that could not easily be replicated by others (in 2009, 53% of the data were either missing or modeled). Furthermore, the WHO data report government health

expenditure as agent (GHE-A), which is government health spending financed by both domestic sources and foreign donors. In order to obtain government health expenditure as source (domestically generated expenditure, or GHE-S) from the WHO data, IHME subtracts its estimates of DAH channeled to governments (DAH-G) from GHE-A provided by WHO. While this process is conceptually simple, a number of statistical issues exist in reality, such as measurement error, currency conversions, and missingness.

