



## CHAPTER 1:

# TRACKING GLOBAL HEALTH RESOURCE FLOWS

Given that policymakers, civil society groups, and the larger global health community are all eager to know how much development assistance for health (DAH) is flowing to developing countries and to what end, it is worth investigating why so few have attempted to measure the total envelope of public and private flows systematically on an annual basis. The answer likely lies in the fact that a host of conceptual and measurement challenges make it difficult to implement a comprehensive resource tracking system.

On the conceptual side, clarity on the scope of health resource tracking is needed. What types of institutions should be tracked? What contributions count as health assistance and what may be health-related, such as support for water and sanitation, education, and humanitarian assistance? Should external aid to all countries be counted or only aid to developing countries? Much of health aid takes the form of grants and loans, wherein a donor commits to pay a specified sum of money to the recipient institution over a set duration of time. Should commitments made in a year, which are promises of future payments, or annual disbursements on prior commitments, which represent the actual payments made during the year, count as the flow of development aid for health? Any assessment of levels and trends in global health aid will be sensitive to which of the two quantities is measured.

In addition to these conceptual questions, numerous measurement challenges make global health resource tracking complex, time-consuming, and at times, uncertain. First, the Development Assistance Committee of the Organisation for Economic Co-operation and Development's (OECD-DAC) databases, which are the primary sources of information for development assistance from public sources, rely entirely on data reported by OECD-DAC members. Crucial variables like annual disbursements and institutional recipients of grants have a high degree of incompleteness. Project descriptions are often missing or highly abbreviated. Even when the data are complete, the quality is highly variable across donors.

Second, there are no integrated databases for high-quality data on health disbursements from private foundations worldwide or the health activities of non-governmental organizations (NGOs). Data drawn from their audited financial statements and annual reports, when available, do not always distinguish between commitments and disbursements, or state how much was spent on health versus other sectors, or provide details about the recipient country and institution.

Third, different published sources of information for the same organization are often inconsistent with each other. Careful investigation is required to figure out which is more accurate and identify the differences

## BOX 1

### Summary of research methodology

We measured development assistance for health by tracking all health-related contributions made by key global health actors, whom we refer to as channels of assistance.

For each of these channels, we extracted information on their income and health-related expenditures from existing databases, annual reports, government documents, and audited financial statements.

To estimate the total envelope of development assistance for health in a year, we summed the health-related contributions of all the global health channels of assistance.

To account for the fact that many of the channels transfer funds to other channels also tracked by us, which may result in the same dollar being counted twice, we carefully subtracted these transfers from total development assistance for health.

Using data about the income sources for each of the channels, we disaggregated the total volume of development assistance by the fraction that came from different public and private sources.

For all global health institutions for which we have project- or activity-level information about the nature of health assistance and recipient country, we undertook further analysis of the composition of health aid by disease and by recipient country.

in definition, scope, and duration that account for the inconsistencies. Fourth, organizations use different fiscal years and accounting methods, which complicates the task of developing coherent information over time. Fifth, there is a special challenge in quantifying time trends as the incompleteness and quality of the data are worse further back in time.

Finally, the fact that development dollars flow from primary funding sources through a vast array of financial intermediaries and multilateral agencies to an ever larger set of implementing institutions around the world makes them hard to track. There is considerable risk that the same dollar could be counted multiple times.

In this chapter, we first describe the framework we developed to address the conceptual challenges. We then briefly summarize the data collection and measurement strategies used. The methods annex documents the measurement strategies in detail. The research methodology is summarized in Box 1.

### Conceptual framework for defining development assistance for health

Our approach to measuring DAH is built around tracking flows from key international global health

actors, which we refer to as global health channels of assistance. These channels are institutions and agencies whose primary purpose is providing development assistance (see Box 2 for all definitions). For the purposes of this study, we undertook a literature review to identify all the channels of assistance that make significant contributions to global health. The resulting universe of global health channels of assistance consists of:

- Bilateral donor agencies like the United States Agency for International Development (USAID) and the UK's Department for International Development (DFID) that extend aid directly to other governments and non-governmental actors.
- Private actors involved in development assistance including:
  - Private foundations like the Bill & Melinda Gates Foundation (BMGF) that give donations to global health institutions to undertake health programs and research.
  - International NGOs that receive contributions from donor governments, corporations, and individuals, and use them to finance health programs and health research.

## BOX 2

### Definitions

**Development assistance** is defined as financial and in-kind contributions from external sources for promoting economic, social, and political development in developing countries.

**Developing countries** are defined as low- and middle-income countries, as classified by the World Bank's country groupings.

**Channels of development assistance** are institutions whose primary purpose is providing development assistance. They include bilateral donor agencies, multilateral agencies, public-private partnerships, private foundations, and non-governmental organizations.

**Sources of funding** are revenue streams for the channels of assistance.

**Implementing institutions** are international and domestic actors implementing health programs for improving health in developing countries.

Grant and loan **commitments** are promises of future payments of a specified amount made by donors to recipients.

Annual **disbursements** on grants and loans are the actual payments made against a prior commitment.

Development assistance loans are **concessionary** in that they are either interest-free or charge an interest rate that is below the prevailing market rate.

**Gross disbursements** are the actual outflow of resources in a given year while **net disbursements** refer to the gross amount minus repayments on previous loans.

**Development assistance for health** is defined as financial and in-kind contributions made by channels of development assistance to improve health in developing countries. It includes all disease-specific contributions as well as general health sector support, and excludes support for allied sectors.

**Financial contributions** are gross disbursements on health grants and concessionary loans.

**In-kind contributions** are costs incurred from delivering health services, drug donations, providing technical assistance, and administering grants and loans.

## BOX 3

### Global health channels of assistance tracked

Bilateral aid agencies in 22 member countries of the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD-DAC)

European Commission (EC)

The World Health Organization (WHO)

The United Nations Children's Fund (UNICEF)

The United Nations Population Fund (UNFPA)

The Joint United Nations Programme for HIV/AIDS (UNAIDS)

The World Bank, including the International Development Association (IDA) and the International Bank for Reconstruction and Development (IBRD)

The Asian Development Bank (ADB)

The Inter-American Development Bank (IDB)

The African Development Bank (AfDB)

US-based private foundations, including the Bill & Melinda Gates Foundation (BMGF)

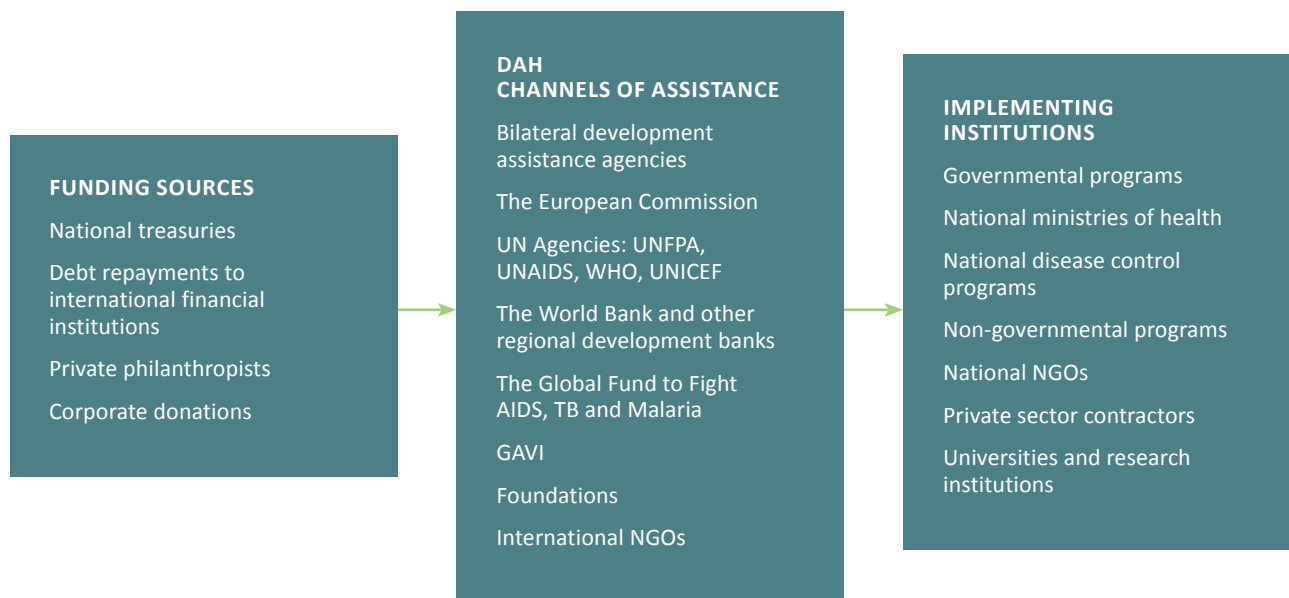
US-based non-governmental organizations (NGOs)

- Multilateral development agencies including:
  - United Nations (UN) agencies like the World Health Organization (WHO), the United Nations Children’s Fund (UNICEF), the Joint United Nations Programme on HIV/AIDS (UNAIDS) and the United Nations Population Fund (UNFPA) that receive funds from both public and private sources and provide financial assistance, technical assistance, program coordination, disease surveillance and policy guidance in the health domain.
  - The World Bank and regional development banks that receive contributions from donor countries around the world and raise funds in capital markets and in turn use these resources to extend financial and technical assistance to developing countries.
  - The European Commission (EC), which is the executive arm of the European Union (EU) and extends aid to developing countries.
- Global health initiatives like the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and

the Global Alliance for Vaccines and Immunization (GAVI) that function as public-private partnerships for delivering disease-specific support to developing countries using new and innovative financing mechanisms.

Figure 1 shows the institutional landscape of DAH and how resources flow to and from these channels. This is undoubtedly a very simplified representation of what in practice is a very complex system. The global health channels receive funds from sources, which can be broadly categorized as national treasuries in donor countries, charitable donations from private philanthropists, corporate donations from companies, and debt repayments on previous development assistance loans. The channels transfer funds to implementing institutions that in turn use them to finance health programs and research. These recipients of global health funds run the gamut from national health ministries and local NGOs in developing countries to universities and research institutions in high-income countries that undertake global health research. The

**FIGURE 1**  
Channels of development assistance for health



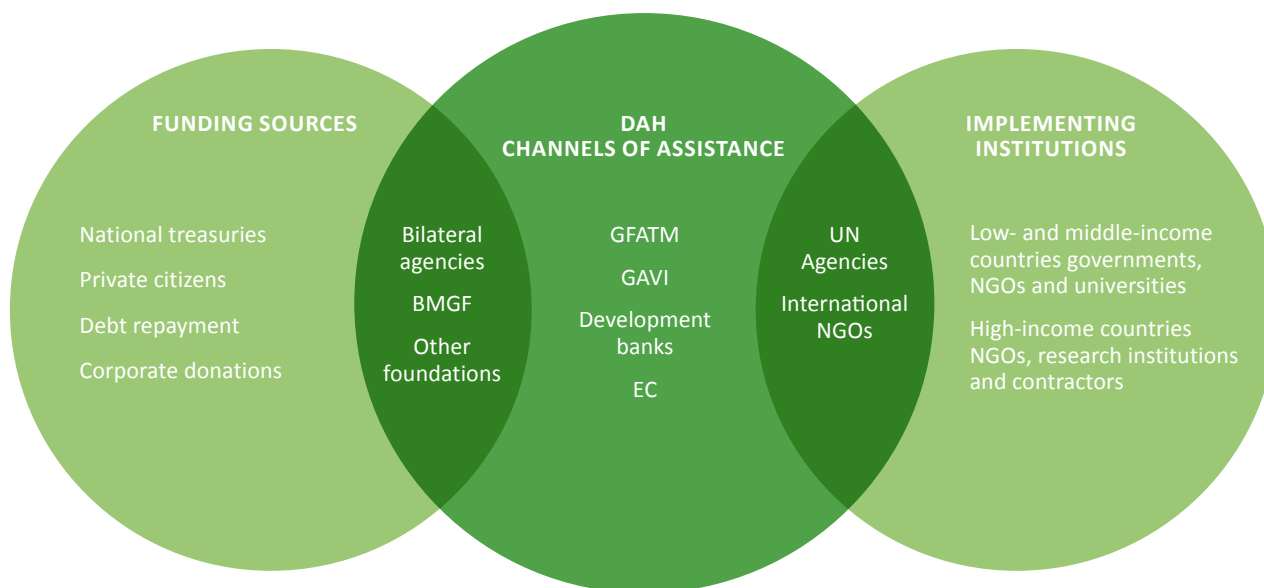
channels also spend some of their funds to implement programs themselves, for example, providing technical assistance, undertaking disease surveillance, or managing loan- and grant-making. Lastly, the channels give resources to other channels of assistance that in turn use the funds in the ways described above.

The global health channels differ from one another in terms of their funding sources. These channels also differ with respect to the fraction of their revenue that they transfer to other channels and implementing institutions versus the fraction that they spend on health-related activities themselves. Some of the channels act predominantly as funding sources, disbursing aid to an array of implementing institutions and other channels of assistance. Bilateral aid agencies, which receive their funds from national treasuries and disburse them to other channels like international NGOs and a variety of implementing institutions, fit this description. So do private foundations. They are endowed through the philanthropic donations of a few wealthy private citizens, and their main role is to

disburse grants to other channels and implementing institutions. In contrast, some channels like the UN agencies and NGOs act primarily as implementing agencies and use the funds they receive to implement global health programs themselves. In the middle are several channels of assistance like the World Bank, GFATM, GAVI, and the EC that receive funds from multiple public and private sources and pass them onto a still more diverse set of implementing institutions. These overlapping roles are depicted in Figure 2.

We defined DAH as all financial and in-kind contributions from global health channels that aim to improve health in developing countries. Since our goal was to measure development assistance for the health sector and not for all sectors that influence health, we discounted assistance to allied sectors like water and sanitation as well as humanitarian aid. We used the World Bank’s classification of low-, middle- and high-income countries to define our universe of developing countries.

**FIGURE 2**  
Overlapping roles of the channels of assistance

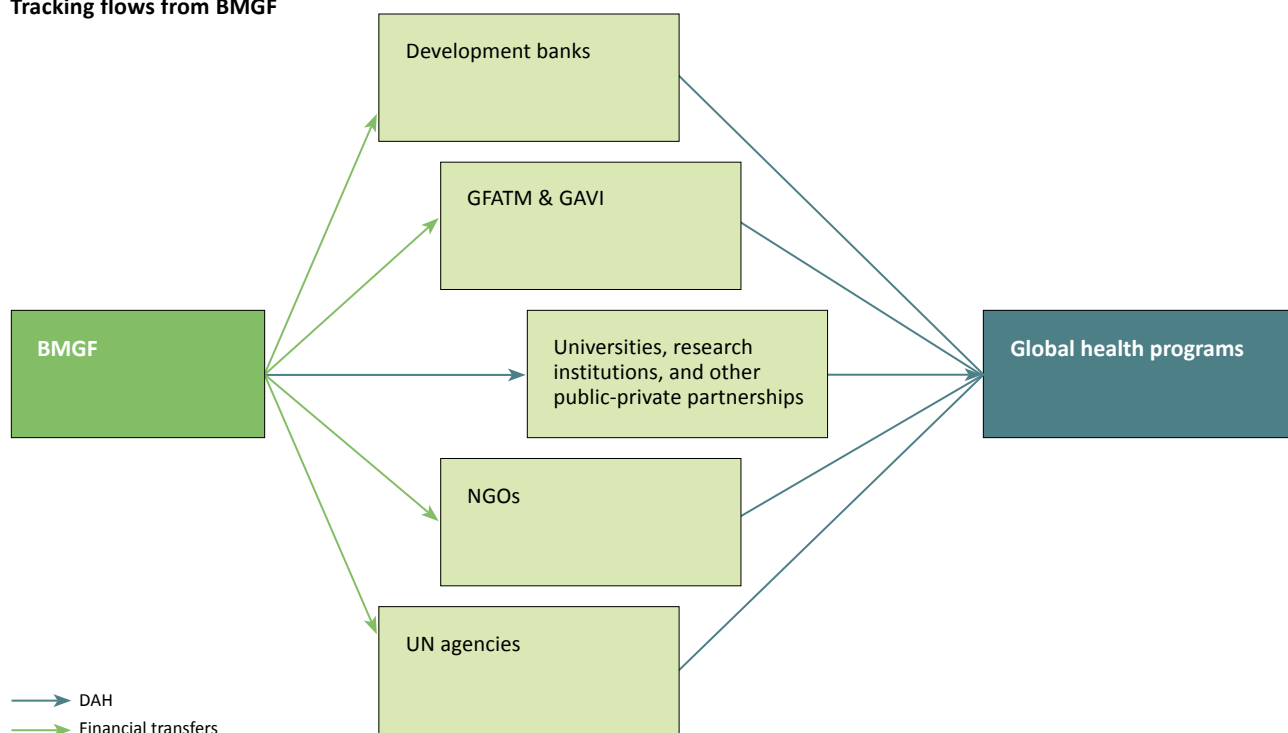


Financial contributions include all disbursements of funds on health grants and loans. We counted disbursements rather than commitments because the former represent the actual funds that flowed from donors to recipient countries, while the latter represent funds that are likely to flow over multiple years in the future. We included all concessionary lending, which charge either no interest or a rate lower than the current market rate. We counted gross disbursements, which is the actual outflow of resources in a given year, rather than net disbursements, which is the gross amount minus repayments for loans in previous years. In-kind contributions refer to the costs associated with delivering health services, supplying drugs, providing technical assistance, generating global public goods like disease surveillance, and administering grants and loans. To the extent that these channels of assistance fund global health research or undertake research themselves, they are included in our estimates. Global health research funded by institutions whose primary purpose is not development assistance was

not tracked by this study. This excludes several major funders of biomedical research, including national health research agencies, pharmaceutical companies, and private foundations like the Wellcome Trust, even though some of the research they fund may have high benefits for developing countries.

In sum, DAH from a particular channel of assistance equals its gross annual disbursements on all health sector grants and concessionary loans as well as health-related program expenditures. For example, the World Bank's DAH in a year includes all disbursements for health sector loans and grants made by it in that year, as well as all costs incurred for managing those health grants, providing technical assistance to developing countries, and undertaking health-related research. Similarly, we counted all UNICEF program expenditure that was related to health as its contribution to the total volume of DAH. Adding the individual contributions of the channels gives us an estimate of total flows for global health in a year.

**FIGURE 3**  
Tracking flows from BMGF



### Data collection

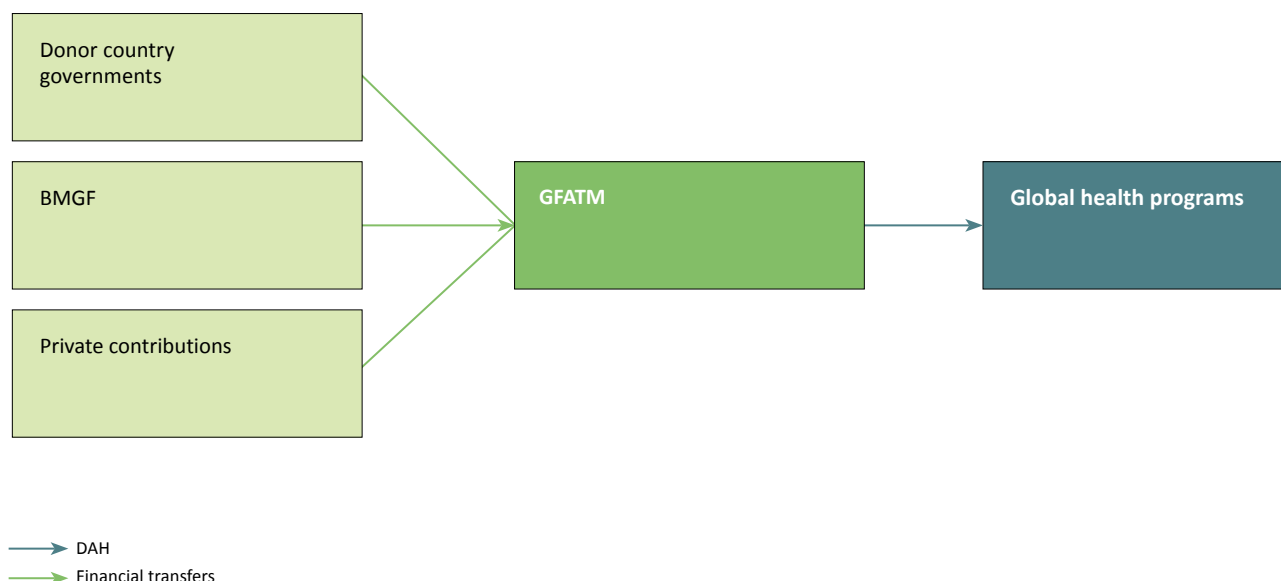
The first step in the data collection stage was to assess data availability for the channels of assistance that met our definition. Channels for which we found no reliable data sources were excluded from the study. For example, there is no central repository for tracking bilateral aid from non-OECD countries. This includes both bilateral aid from non-OECD high-income countries and bilateral flows from developing countries to other developing countries. Data on private foundations and NGOs not registered in the US are similarly hard to find. From existing project databases, annual reports, and audited financial statements, we extracted data on health-related disbursements and expenditures, as well as income from different funding sources for each channel. Some of the channels provided project- or activity-level data, which offered additional information about the purpose of each grant or loan and the recipient of the aid. We constructed two integrated databases from all the data that we collected:

- a database of aggregate flows, reflecting both the income and outflows for each of the channels tracked.
- a project-level database reflecting health grants and loans from the bilateral agencies, the EC, GFATM, GAVI, the World Bank, the Asian Development Bank (ADB), the Inter-American Development Bank (IDB), and BMGF.

### Measuring the total volume of development assistance for health

For each of the channels, we compiled time-series data on their annual health contributions. In the case of grant- and loan-making institutions – namely all the bilateral aid agencies, the development banks, the EC, GFATM, GAVI, and the foundations – we counted both their grant and loan disbursements for health and all program costs associated with administering these grants and providing additional technical support. For the UN agencies and the NGOs, we counted their health-related program expenditures. The specific

**FIGURE 4**  
Tracking flows for GFATM



methodologies adopted for estimating each of these components are described in detail in the methods annex.

To estimate the total envelope, we had to correct for the fact that development assistance from some of the channels tracked by the study flowed to other channels also tracked by the study. A simple summation of all their reported expenditures would result in an overestimate of the total volume of health aid. Figure 3 offers an example. The global health program at BMGF disbursed funds to several channels tracked by this study, each of whom also received funds from elsewhere. If we counted both BMGF's contributions to GFATM as well as GFATM's total global health contributions, it would result in the same funds being counted twice. In order to correct for this problem, we excluded the flows from BMGF to these channels (shown in green) from our estimate of health aid. The blue arrow from BMGF represents health-related flows net of transfers to channels we are tracking. Since these funds flow to channels of assistance and implementing institutions not tracked by our study, we counted them towards DAH.

This example is typical of our strategy to correct for double counting, which was to subtract any flows from the channels in our universe to other channels also tracked by IHME. In effect, we counted health aid dollars from the channel most proximal to the destination of the funds.

### **Disaggregating development assistance for health by funding source**

We collected information on each channel's income and used it to disaggregate its health assistance according to the fraction of income received from different sources. The resulting values for health aid by source were imputed rather than observed and do not reflect the total amount that the channels received from different sources. In the example shown in Figure 4, we counted annual outflows from GFATM, shown in blue, towards DAH and not the sum of the funds it received from different sources shown in green. However, we used the green arrows to calculate the share of revenue that GFATM received from different sources and applied those fractions to its expenditure to estimate the amount of its expenditure that was financed by public versus private sources of funding.

### **Analyzing the composition of development assistance for health**

We used project-level data, when available, to analyze the composition of DAH by recipient country as well as disease focus. For this first report, we focused on contributions towards HIV/AIDS, tuberculosis, malaria, and health sector budget support. We chose to focus on these areas given their relevance to current policy debates about global health finances; we plan to analyze more diseases and interventions in the future. We identified these disease-specific grants and loans using keyword searches within the descriptive fields.