

FINANCING GLOBAL HEALTH 2010:

DEVELOPMENT ASSISTANCE AND COUNTRY
SPENDING IN ECONOMIC UNCERTAINTY

INSTITUTE FOR HEALTH METRICS AND EVALUATION

UNIVERSITY OF WASHINGTON



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Institute for Health Metrics and Evaluation
2301 Fifth Ave., Suite 600
Seattle, WA 98121
USA
www.healthmetricsandevaluation.org

To request copies of this report, please contact:
Telephone: +1-206-897-2800
Fax: +1-206-897-2899
E-mail: comms@healthmetricsandevaluation.org

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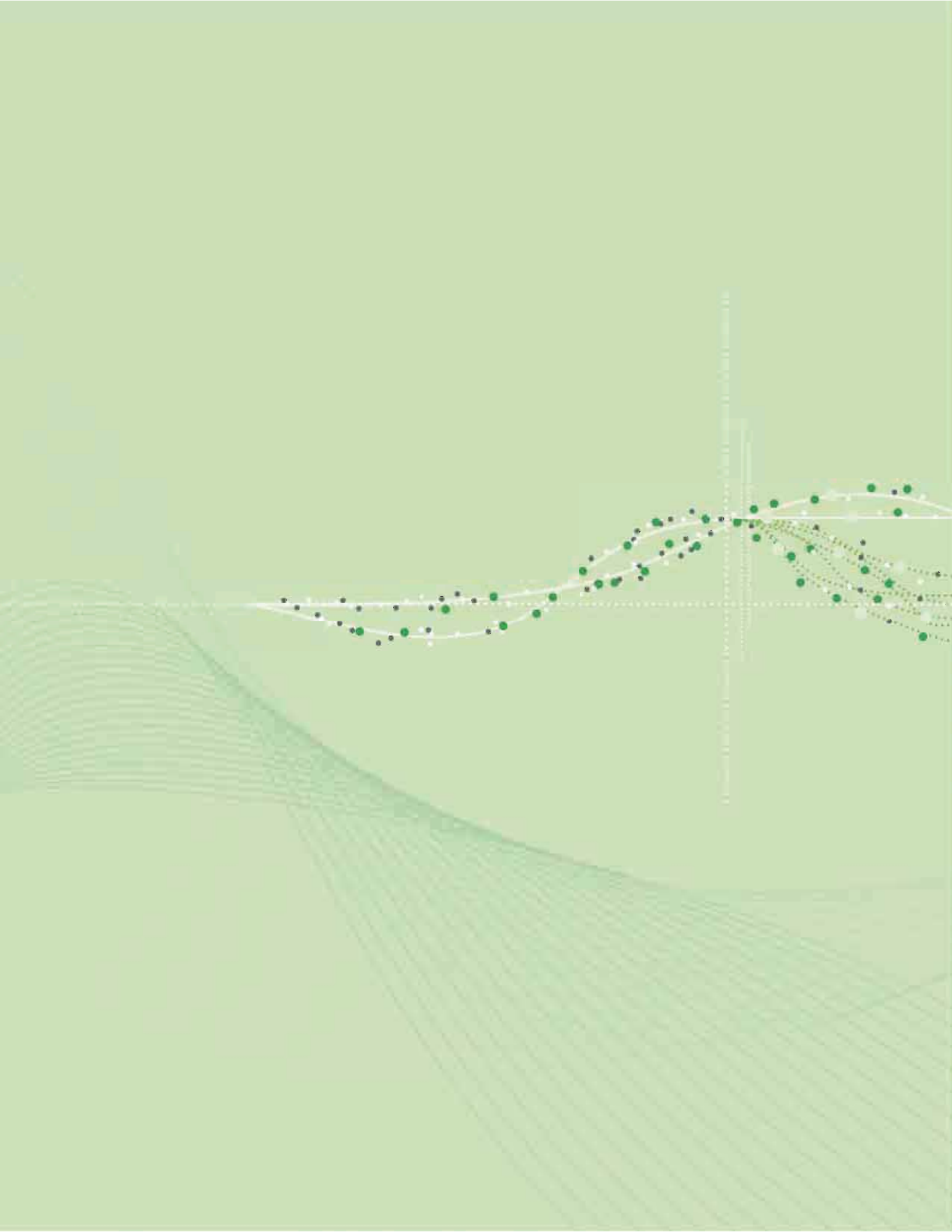
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ABOUT IHME

The Institute for Health Metrics and Evaluation (IHME) is an independent research center at the University of Washington that is rigorously measuring the world's most pressing health issues and providing scientific evaluations of health system and health program performance in order to guide health policy and accelerate global health progress. Our vision is that better health information will lead to more knowledgeable

decision-making and higher achievements in health. To that end, we strive to build the needed base of objective evidence about what does and does not improve health conditions and health systems performance. IHME provides high-quality and timely information on health so that policymakers, researchers, donors, practitioners, local decision-makers, and others can better allocate limited resources to achieve optimal results.

ABOUT *FINANCING GLOBAL HEALTH 2010*

Policymakers at the local, national, and international levels need timely and reliable financial information in order to make informed decisions about how best to deploy scarce resources. To this end, we publish an annual report on the state of global health financing. Now in its second year, *Financing Global Health* is a core part of IHME's mission to measure health, track the performance of societies in meeting health challenges, and maximize the impact of health policies and interventions.

In this year's report, we analyze two key components of the global health financing picture and discuss our findings in the context of economic uncertainty.

- **Development assistance for health (DAH):** IHME tracked every available financial stream to update our estimates of DAH from 1990 to 2010. We used data that are current as of 2008, and we developed models to generate preliminary estimates for 2009 and 2010. In addition, preliminary estimates of DAH for 2009 and 2010 reflect data obtained directly from channels of assistance. As with last year's report, we estimate aggregate flows by source and channel. This year, we have been able to more completely identify recipients of DAH because of improvements in transparency made by several donor governments, including the US, France, and Japan. We also have been able to collect data from new channels of assistance, including the Pan American Health Organization, and from new donors, including South Korea. In addition, we adjusted our estimates of the value of in-kind donations, revising downward our estimates for spending by non-governmental organizations. With more complete data, we have examined whether the distribution of global health

resources aligns with current global health priorities. We also have started tracking funding for two additional health focus areas: maternal, newborn, and child health and noncommunicable diseases.

- **Government health expenditure:** Using data provided by the International Monetary Fund and the World Health Organization, we analyzed how much money governments allocate to health, how health sector budgets have changed over time, and how changes in government spending on health in developing countries relate to incoming DAH. We also examined how much money for health comes directly from a government's domestic revenue versus how much that government receives from an external funder to spend on health. Understanding how country spending on health is affected by DAH is particularly important to funders, civil society organizations, and citizens and ministries of health in developing countries. The core findings in this report regarding country health spending were originally published in *The Lancet* in April 2010, prior to the updated analysis of DAH detailed in the first two chapters of this report. As a result, Chapters 3 and 4 include DAH data based on our 2009 report.

IHME's global health financing work highlights the importance of transparency in health funding and the need for data sharing, as well as the need for a closer look at disparities in global health funding. In future years, we intend to expand the scope of our research to examine private health expenditure, including out-of-pocket payments by households, and the relationship between health spending and health outcomes.

RESEARCH TEAMS

(Listed alphabetically)

DEVELOPMENT ASSISTANCE FOR HEALTH

Brent Anderson, BA

*Data Analyst
IHME*

Katherine Leach-Kemon, MPH

*Data Development Manager
IHME*

Christopher JL Murray, MD DPhil

*Institute Director and Professor, Global Health
IHME*

Matthew Schneider, BA

*Post-Bachelor Fellow
IHME*

Annette Tardif, BA

*Data Analyst
IHME*

Raymond Zhang, BA

*Post-Bachelor Fellow
IHME*

GOVERNMENT HEALTH EXPENDITURE

Paul Gubbins, BA

*Post-Bachelor Fellow
IHME*

Dean T Jamison, MS PhD

*Professor, Global Health
IHME*

Katherine Leach-Kemon, MPH

*Data Development Manager
IHME*

Chunling Lu, PhD

*Instructor, Department of Global Health and Social Medicine
Harvard Medical School*

Christopher JL Murray, MD DPhil

*Institute Director and Professor, Global Health
IHME*

Matthew Schneider, BA

*Post-Bachelor Fellow
IHME*

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Finally, we would like to extend our gratitude to the Bill & Melinda Gates Foundation for generously providing core grant funding for IHME.

ACRONYMS

ADB	Asian Development Bank
AfDB	African Development Bank
BMGF	Bill & Melinda Gates Foundation
CRS	Creditor Reporting System
DAH	Development assistance for health
DALY	Disability-adjusted life year
DFID	UK Department for International Development
EC	European Commission
G8	Group of Eight
GAVI	GAVI Alliance (formerly the Global Alliance for Vaccines and Immunisation)
GDP	Gross domestic product
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GGE	General government expenditure
GHE-A	Government health expenditure as agent
GHE-S	Government health expenditure as source
HIV/AIDS	Human immunodeficiency virus/acquired immune deficiency syndrome
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IDB	Inter-American Development Bank
IGO	Intergovernmental organization
IHME	Institute for Health Metrics and Evaluation
IMF	International Monetary Fund
MNCH	Maternal, newborn, and child health
NCDs	Noncommunicable diseases
NGO	Non-governmental organization
OECD	Organisation for Economic Co-operation and Development
OECD-DAC	Organisation for Economic Co-operation and Development's Development Assistance Committee
PAHO	Pan American Health Organization
PEPFAR	US President's Emergency Plan for AIDS Relief
UK	United Kingdom
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
US	United States
USAID	United States Agency for International Development
WHO	World Health Organization

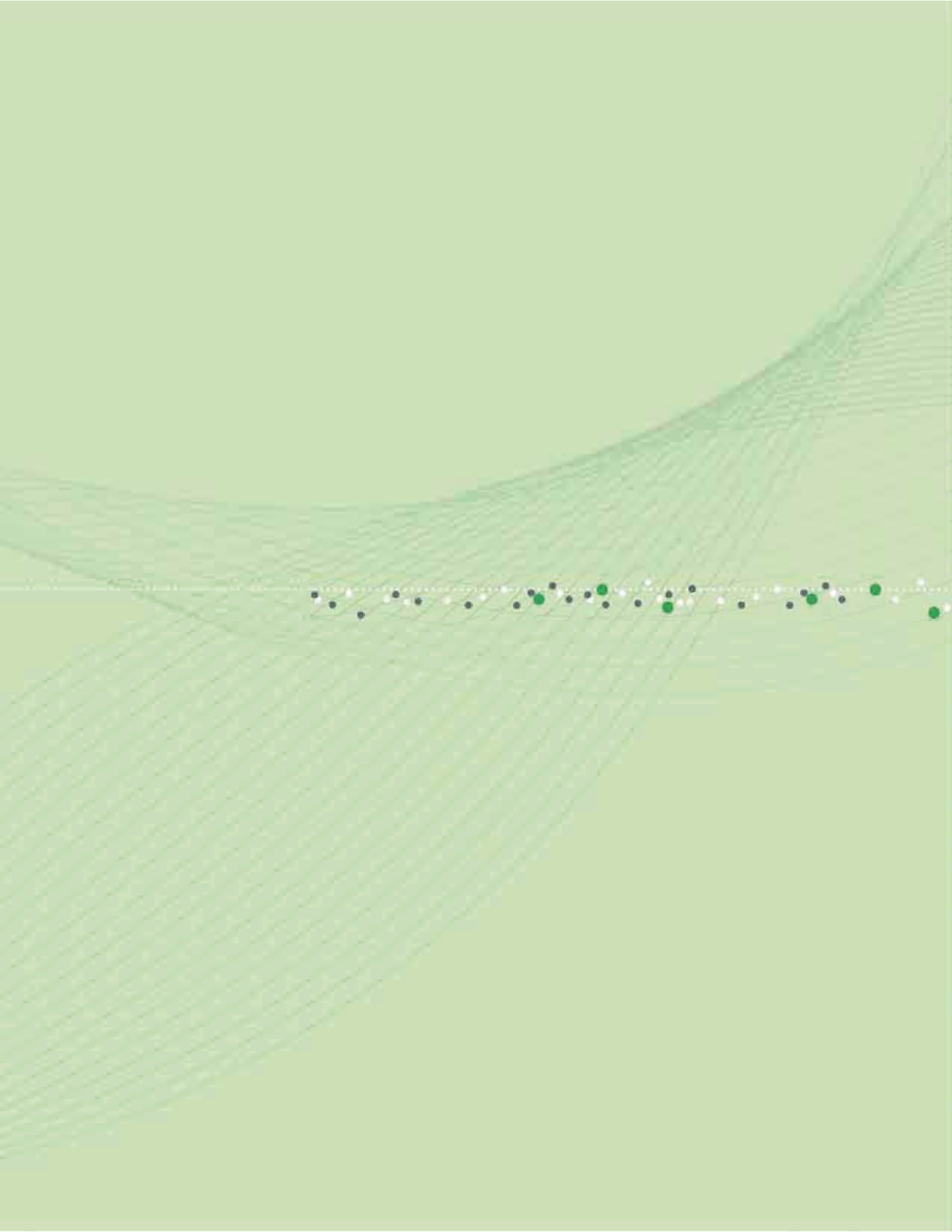
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EXECUTIVE SUMMARY

The global economic crisis that started to unfold in 2008 has raised serious concerns about the ability of developing countries to meet international targets for improvements in population health outcomes and about the ability of developed countries to meet their commitments to fund health programs in developing countries. Time lags in official data reporting have made real-time analysis of changes in economic trends for funding of global health priorities nearly impossible until recently.

Both donors and recipients of development assistance for health (DAH) will benefit from more up-to-date information about global health funding. This year's *Financing Global Health* report offers a comprehensive view of trends in public and private financing of health assistance with preliminary estimates of how the economic downturn is affecting health financing in 2010. In addition, to see how DAH is affecting spending on health by governments in developing countries, researchers at the Institute for Health Metrics and Evaluation and collaborators analyzed data from the World Health Organization (WHO) and the International Monetary Fund (IMF) to bring greater clarity to a subject that had not been thoroughly examined.

Key findings of this research include:

Development assistance for health

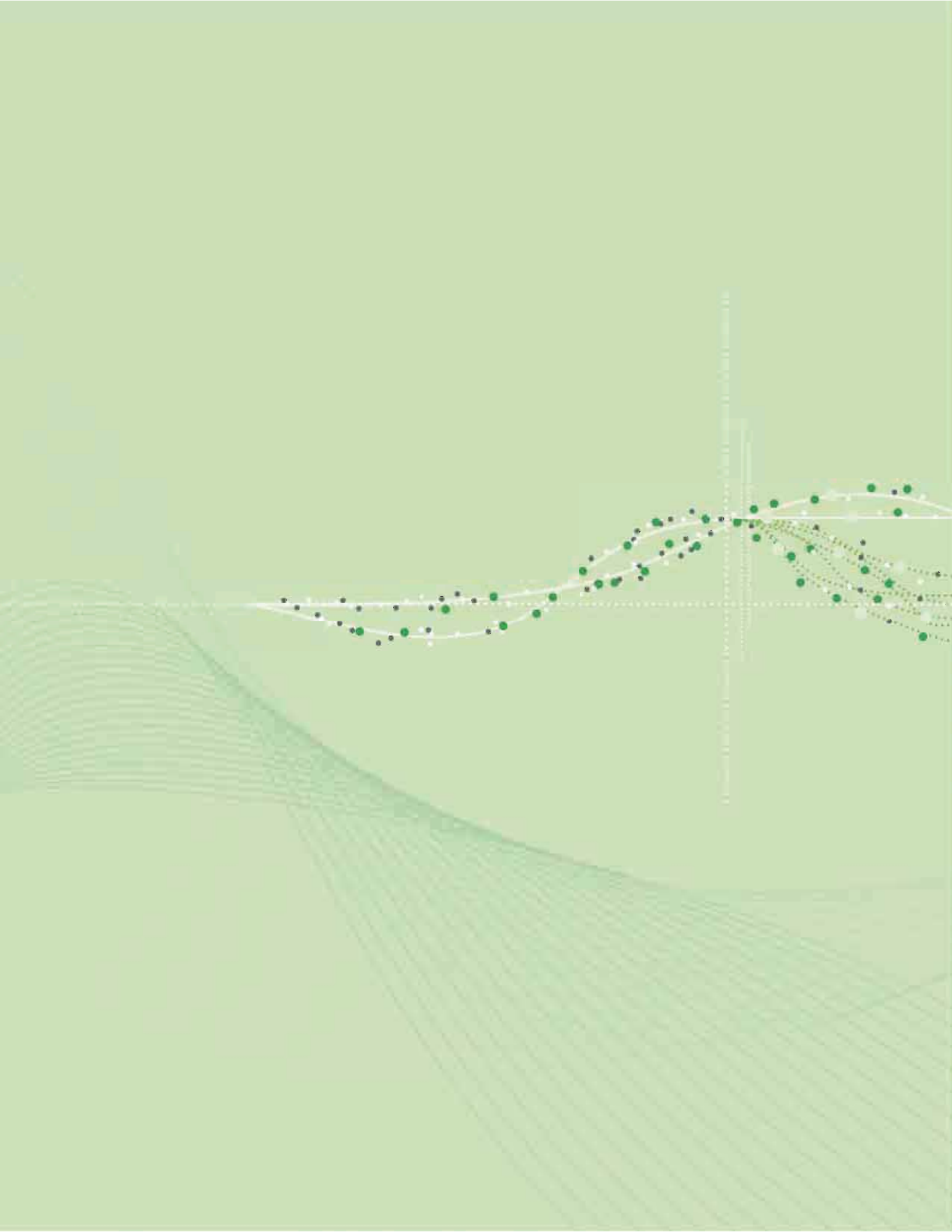
- The fiscal crisis and ensuing economic slowdown appear to be contributing to a slowing of the rate of growth in DAH. Our preliminary estimates show continued growth through 2010 to a total of \$26.87 billion by year's end, but the rate of growth was cut by more than half from an annual average of 13% between 2004 and 2008 to 6% annually between 2008 and 2010.
- Donor governments continue to drive the increase in DAH. The US government alone made up nearly one-third of all donor funding in 2008.
- A decline in private funding drove DAH channeled through non-governmental organizations (NGOs) to its lowest point since 2004. In addition, estimated spending on health by NGOs has been revised downward following our adjustment of the value of in-kind donations based on updated analytical methods.
- Tracking health aid spending improved significantly due to enhanced government transparency. In 1990, 65% of public sector DAH from donor countries was "unspecified," with no information about the primary aid recipient. In 2008, that dropped to 1%.

- DAH from UN agencies has been nearly constant since 2008, but the agencies' year-end fund balances have climbed to new heights, reaching a combined total of \$5.66 billion in 2009 – more than the UN agencies spent together on DAH that year.
- There is a wide range of funding levels among different health focus areas. Spending on HIV/AIDS programs continued to rise at a strong rate, making HIV/AIDS the most funded of all health focus areas. Maternal, newborn, and child health received about half as much funding as HIV/AIDS in 2008. Tuberculosis funding grew steadily from 1990 through 2008. Malaria funding rose more dramatically than any other health focus area between 2007 and 2008. Despite much discussion about the need for general health sector support, funding for that area has grown slowly since 2006. Noncommunicable diseases receive the least amount of funding compared with other health focus areas.
- The distribution of DAH across countries continues to correspond, for the most part, with disease burden, but there remain strong exceptions. Eleven of the 30 countries with the highest disease burdens do not appear among the 30 countries that receive the most DAH.

Government health expenditure

- The commitment to health in the developing world grew dramatically over the past two decades. Governments of developing countries increased spending on health, including both domestic spending and DAH.
- In countries whose governments receive significant DAH, health aid appears to be partially replacing domestic health spending instead of fully supplementing it. Conversely, in countries that receive health aid mainly through NGOs, government health spending appears to increase.
- Data on government health spending are poor, with wide variation between the two primary data sources: the IMF and WHO.

This report documents the rise in DAH, the effects of DAH on spending for health by governments in developing countries, and signs of a slowdown in the growth of DAH. Uncertainty about the future of DAH underscores the importance of tracking global health spending to ensure resources are directed as efficiently as possible to the world's most pressing health needs.



INTRODUCTION

In 2009, we reported that global health financing was reaching new heights, but the news was tempered by the appraisals of economists who found ample reason in the worldwide economic crisis to be pessimistic about the prospect of sustained growth in health aid.¹

The effects of economic downturns on charitable giving by individuals and on development spending by governments are often not felt immediately. Despite a global recession that some economists have likened to the deep economic stagnation of the late 1920s, charitable giving only dropped by 3% in 2009, according to the Center on Philanthropy at Indiana University.² More troubling, perhaps, is the news that GuideStar, the nonprofit charity research organization, surveyed charities and found that 40% of respondents had witnessed declining contributions in 2010.³ Still, other reports have shown signs of recovery. According to a survey conducted by *The Chronicle of Philanthropy*, fundraising figures for major non-governmental organizations in the US show much higher growth for the first quarter of 2010 compared to the first quarter of 2009.⁴ This may be related to the lag time associated with multiyear commitments made in stronger economic times.

The first official vote of confidence in the future of spending for development assistance for health (DAH) came in October 2010 with the talks surrounding the replenishment of the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM). Donors pledged \$11.7 billion over three years toward combatting these three major public health threats, continuing a steady upward trend with a 21% increase over the \$9.7 billion pledged for 2008 to 2010.⁵ United Nations Secretary-General Ban Ki-moon said: “At a time when so many governments are tightening their belts at home, these commitments send a powerful message. It shows how seriously world leaders want to do the right thing beyond their borders, too.”⁶ Yet aid observers had been hoping for a much larger commitment to allow GFATM to expand its reach and fund new programs. GFATM Executive Director Michel Kazatchkine said the pledges will not be enough to meet expected demand, leading to difficult decisions in the next three years that could slow efforts to fight the three diseases.⁷

Compounding questions about the future of global health financing is an intensified focus on certain health issues now emerging as areas of concern. New demands for funding have started to make headway from advocates for maternal and child health programs. More recently, a consensus has started to build around the need for better funding of programs to combat noncommunicable diseases (NCDs) such as diabetes, heart disease, and cancer.

It is no exaggeration to call 2010 the year of maternal and child health. The need to reduce maternal and child mortality was the subject of high-level discussions around the world in 2010, with more planned in 2011. The US government, which has driven the rapid acceleration in funding for HIV/AIDS programs since 2003, signaled in 2010 that maternal and child health programs would be among competing priorities for a promised \$63 billion in new funding under President Obama’s Global Health Initiative.⁸ In June 2010, the Group of Eight nations committed \$5 billion in new funding to address maternal and child health.⁹ Rising interest in addressing NCDs in developing countries is likely to generate similar demands for funding. The United Nations General Assembly called for a September 2011 meeting with global heads of state to create the same sense of urgency around NCDs that helped motivate governments and donors in other arenas.¹⁰ A drop in global health funding would likely magnify the competition for limited resources among advocates for these various health focus areas.¹

Because of the economic uncertainty and the growing competition for scarce resources, the experts who comprise our Financial Flows Advisory Panel, chaired by Sir Richard Feachem, Professor of Global Health at the University of California, San Francisco, recommended that we provide more details about the types of projects being funded by DAH and that we make our estimates more current.

In response, we developed new analytical tools to update our global health financing estimates for 2008 and make preliminary estimates for 2009 and 2010. In the past, we based our estimates on the most recent data available, which often are at least two years old. To make the estimates more current, we studied

government budgets and patterns of expenditures to tease out the relationship between budgetary allocations and future expenditures. In some cases, funders gave us data on actual spending for 2009 and their estimated spending for 2010. We tested several statistical models before finding one that allowed us to, essentially, forecast from the historical data into the present day while taking into account current data as well as concerns about the current economic situation. To better track the projects receiving funding, we measured funding for NCDs and for maternal, newborn, and child health programs for the first time. We were greatly aided in our efforts by significant improvements in transparency in the reporting of DAH.

To address the panel's recommendation for greater clarity about country spending on health programs, we published a research study, "Public financing of health in developing countries: a cross-national systematic analysis," in *The Lancet* in April 2010. To coincide with the publication, we participated in a symposium at Imperial College London where researchers, development agencies, and government representatives gathered to discuss our research.

Here, too, the economic crisis was of paramount concern. As Julian Schweitzer, formerly of the World Bank, explained at the London symposium, 12% of total health spending in low-income sub-Saharan African countries came from external sources in 1995.¹¹ By 2006, that percentage had climbed to 31%.¹¹ This trend led Schweitzer and others to express concern that the impact of the economic crisis in donor countries could lead to reductions in DAH that would leave budgets in low-income countries woefully short.¹²

We were unable to make preliminary estimates for country spending on health for the most recent years, as we were with DAH, but we believe that by documenting connections between DAH and country spending on health, we have provided an important tool for policymakers. This report integrates the country spending findings with our DAH work to give the global health community the most complete picture available of the state of global health financing, both by developing countries and through DAH.

In Chapter 1, we update our 2009 work by creating a new time series of DAH for the years 1990 to 2008, with preliminary estimates for 2009 and 2010. We then examine the funding picture by channel, by source, by country of origin, and by type of funding. In Chapter 2, we explore the distribution of DAH by focus region, by recipient country, and by health focus area, including the longstanding focus areas of HIV/AIDS, tuberculosis, and malaria, as well as the emerging health focus areas of maternal, newborn, and child health and noncommunicable diseases. In Chapter 3, we explain our approach and the methodology behind our research into country financing for health programs and discuss the trends in health spending by developing countries. Finally, in Chapter 4, we connect our DAH research to our research on health spending by developing countries, show the impact of DAH on government spending, and discuss the implications of these findings.

PART ONE:

DEVELOPMENT ASSISTANCE FOR HEALTH

CHAPTER 1:

TRACKING DEVELOPMENT ASSISTANCE FOR HEALTH

Global health lacks a single data repository that would allow policymakers and researchers to have an accurate picture of donations, spending, and the complex relationships between them. Figure 1 shows a simplified representation of the three basic categories of actors in the funding of development assistance for health (DAH) – funding sources, channels of assistance, and implementing institutions – as well as how resources flow through these actors. 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, 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. The recipients of global health funds run the gamut from national health ministries and local non-governmental organizations (NGOs) to universities and research institutions in high-income countries that undertake global health research. The channels also spend some funds to implement programs themselves, providing technical assistance, undertaking disease surveillance, or managing loan- and grant-making. In addition, the

FIGURE 1:
Resource flows for DAH



BOX 1:
Summary of Financing Global Health 2009

How we conducted our analysis:

- To provide policymakers and the global health community a better picture of DAH flowing to developing countries, the Institute for Health Metrics and Evaluation and its collaborators tracked, where possible, all health-related contributions made through public and private channels of assistance for each year between 1990 and 2007.
- We reviewed both the income and expenditure data for each of these channels. The data came from annual reports, government documents, audited financial statements, tax forms, and databases provided by public and private donors.
- To make sure we did not double-count the same DAH dollars flowing through several channels, we subtracted transfers between channels tracked by our study from the total DAH envelope. In effect, we counted health aid dollars from the channel closest to the destination of the funds.
- We separated the DAH total into subtotals for sources, channels, and types of funding.
- For a subset of total DAH, we were able to gather project-level or activity-level information. Through this, we analyzed the composition of DAH by health focus area and by recipient country.
- For more information about our methods and key definitions, please visit our online Methods Annex at: http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_methods_IHME.pdf

Key findings:

- DAH quadrupled from \$5.59 billion in 1990 to \$21.79 billion in 2007 (in 2007 US\$).
- Private citizens, corporations, and foundations have funded an increasingly large share of DAH, making up 27% in 2007.
- DAH growth was driven largely by donations from the US government and US-based private charitable organizations. The US accounted for more than 50% of total DAH in 2007. But in terms of the fraction of national income that becomes health aid, the US trailed Sweden, Luxembourg, Norway, and Ireland.
- In general, poor countries received more money than countries with more resources, but there were anomalies. Sub-Saharan Africa received the highest concentration of funding, but some African countries received less aid than South American countries with lower disease burdens.
- HIV/AIDS received at least 23 cents out of every DAH dollar in 2007. Tuberculosis and malaria received less than one-third of that, even though the combined burden from those diseases was greater than that from HIV/AIDS. About one nickel out of every DAH dollar went to health sector support.

channels give resources to other channels of assistance that in turn use the funds in the ways described above.

In last year's report, we established the foundation for tracking global health resource flows. That work and our key findings are summarized in Box 1. This year, we strengthen our estimates by broadening our base of data sources and improving our analytical methods. The result is a year-by-year estimate of the total volume of DAH from 1990 to 2010. Though data challenges remain, a significant increase in transparency by donor governments in how DAH is being spent also helped us improve our estimates.

In this chapter, we analyze DAH by channel, by funding source, by country of origin, and by type of funding. Our primary sources of data are found in Table 1, including new sources of data added this year. All estimates are presented in 2008 US dollars. Average growth rates are calculated using compound annual growth rates.

By channel of assistance

DAH has steadily increased since 2001, reaching an estimated \$26.87 billion in 2010. For each channel, Figure 2 shows the total financial and in-kind contributions to DAH, after subtracting transfers to other channels.

From 1990 to 2001, DAH increased nearly 86% from \$5.66 billion in 1990 to \$10.51 billion in 2001. Over the next nine years, though, the pace accelerated even more quickly, with DAH growing by 124%.

While DAH has continued to rise, it's clear the growth curve for DAH is starting to flatten. Beginning in 2004, DAH increased annually by more than 8%, reaching a peak of 17% annual growth between 2007 and 2008. Between 2008 and 2009, though, the growth rate slowed dramatically to just 6% before rising slightly to 7% between 2009 and 2010.

In attempting to discern the drivers of this trend, we found that bilateral development agencies and the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) had continued channeling significantly higher contributions of DAH from 2008 to 2010, helping to fuel the overall rise in total DAH. DAH disbursed by the GAVI Alliance (GAVI) dropped significantly in 2009, but then doubled in size in 2010. Funding through bilateral agencies, which include the United States Agency for International Development (USAID) and others, grew

from \$9.55 billion in 2008 to \$12.16 billion in 2010, a 27% increase. Other channels – the World Bank, regional development banks, United Nations (UN) agencies, the European Commission (EC), the Bill & Melinda Gates Foundation (BMGF), and other foundations – either saw a slight increase or a slight decrease in funding between 2008 and 2010. US-based NGOs have been hit hard by the economic downturn, and the amount of DAH disbursed by them decreased 24% from 2009 to 2010.

This flattening of the growth curve highlights the shift in the balance of contributions among different channels. Bilateral agencies are now more significant as channels of DAH, making up 45% of all DAH in 2010, up from 30% in 2001. Similarly, GFATM is providing a larger portion of DAH, rising to 11% in 2010 from 1% in 2002. However, the percentage of DAH from UN agencies has declined sharply – 14% in 2010, down from 24% in 2001. And the World Bank's role as a channel for DAH also shrank, representing 5% of all DAH in 2010, down from 17% in 2001.

TABLE 1:
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 (CRS), budget documents, and correspondence
UN agencies: WHO, UNICEF, UNFPA, PAHO, and UNAIDS	Financial reports and audited financial statements, annual reports, budget documents, and correspondence
World Bank, ADB, AfDB, and IDB	Online project databases and compendium of statistics
GAVI	GAVI annual reports, country fact sheets, OECD-CRS, and correspondence
GFATM	Online grant database and pledges
NGOs registered in the US*	USAID Report of Voluntary Agencies, tax filings, financial statements, RED BOOK Drug Reference, WHO's Model List of Essential Medicines, and correspondence
BMGF	Online grant database, tax filings, and correspondence
Other private US foundations*	Foundation Center's grants database

*Non-US private foundations and NGOs were not included due to a lack of comprehensive data.

Note: For more information about these sources, please visit our online Methods Annex at:
http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_methods_IHME.pdf

By source of funding

Even as the share of health aid provided by various channels of assistance has been shifting, our research has identified another interesting trend: signs that the rate of growth in DAH from some donors began to slow in 2007. Some of the most important sources of DAH funding – including the US and many European governments – continued to significantly increase spending on DAH through 2008. But the growth in DAH from governments such as Canada, Sweden, and Norway either plateaued or slowed. In Figure 3, we detail the percentage share of DAH attributable each year to specific governments and other sources. We also include debt repayments to the International Bank for Reconstruction and Development (IBRD) because, as IBRD receives repayments, they are reinvested as DAH. We were unable to generate preliminary estimates of DAH funding by source separated by recipient country for 2009 and 2010 because of limitations in the available data.

In Figures 2 and 3, two of the same actors appear. BMGF and IBRD are classified as both channels and

sources. Figure 3 includes all their DAH contributed as a channel plus funds transferred to other channels. For example, BMGF acted as both a channel for \$1.43 billion in 2008 and a source for \$1.86 billion that year, meaning that \$426.54 million in BMGF’s spending was channeled through other agents, such as GFATM and GAVI.

Donor governments made up 72% of total DAH flowing to developing countries in 2008 for a total of \$17.12 billion. This is up from \$4.41 billion in 1990, though this was a larger share of DAH that year at 78% of total DAH. The US government has been by far the largest donor of DAH every year since 1990. Cumulatively, the US government contributed \$51.94 billion in DAH between 1990 and 2008.

The United Kingdom (UK) is the second largest government funder of DAH. It showed a significant increase in funding from \$1.58 billion in 2006 to \$2.04 billion in 2007 before dropping its funding to \$1.75 billion in 2008, a decrease of 14%.

FIGURE 2:
DAH by channel of assistance, 1990-2010

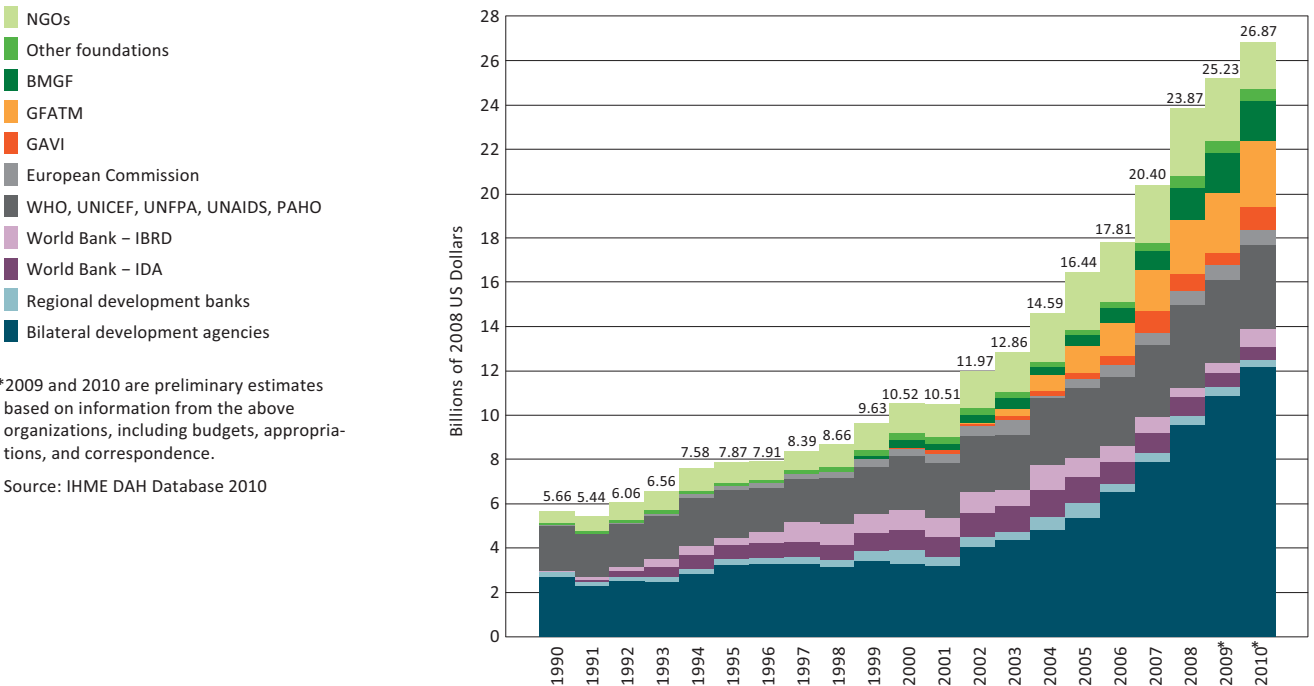


Figure 3 also shows that private sources of funding have been responsible for a growing share of total health assistance, rising from 8% in 1990 to 19% in 2008. These relative shares are smaller than those shown in last year’s report, when we reported private funding sources made up 13% of total health assistance in 1990, rising to 27% in 2007. This is because of a significant change in the way we calculate in-kind donations of medical equipment, pharmaceuticals, and other goods (Box 2).

The corporate donations category includes all in-kind donations from private corporations to US-based NGOs. Generally, corporate donations continued to rise sharply through 2008, from \$187.95 million in 2001 to \$596.21 million in 2008, a 217% increase. All private charitable donations from individuals and US-based foundations besides BMGF as well as cash donations from corporations are included in the “other” category.

In examining the largest private donors, BMGF is the largest single source. It contributed \$1.86 billion in 2008, both directly to developing countries and through other channels, up 292% from \$474.18 million in 2001.

By country of origin

When donor government and private sources within a country are combined, the US proves to have a dominant role in DAH. Most donor countries tend to contribute DAH through their national treasuries, and this is reflected in Figure 3. In contrast, Figure 4 shows all DAH by country of origin. The US consistently is the biggest contributor to DAH, with a large share of DAH coming from private sources. Beginning in 2004, the US government and private donors based in the US increased spending on DAH by double-digit percentages every year, reaching an annual increase of 33% in 2008 for a total of \$11.71 billion that year, equaling about one-half of all DAH. To simplify Figure 4, we have grouped all European countries outside of the UK into one category. However, it is important to note that private sources from countries other than the US were not systematically tracked due to lack of comprehensive data. In future years, we aim to expand our analysis to private funds flowing through European-based NGOs and foundations.

Continental European countries contributed the second largest share of health assistance, followed by the UK, Japan, and Canada.

FIGURE 3:
DAH by source of funding, 1990-2010

Funds from channels for which we were unable to find disaggregated revenue information as well as interagency transfers from non-DAH institutions are included in “unallocable.” “Other” refers to interest income, currency exchange adjustments, and other miscellaneous income.



Source: IHME DAH Database 2010

Notes: 2009 and 2010 are preliminary estimates based on information from channels of assistance, including budgets, appropriations, and correspondence. Data were unavailable to show total DAH by source of funding for 2009 and 2010.

BOX 2:

Improving the valuation of in-kind donations from pharmaceutical companies

Last year, we found that nearly half of all financial contributions to NGOs came in the form of in-kind donations of pharmaceuticals and other medical supplies. In *Financing Global Health 2009*, we presented our estimates of the value of in-kind donations with two caveats.¹ We said that, because of the methods used to assign values to those contributions, the figures could be inflated and worth less in the developing countries to which they were donated than the value claimed by NGOs.

After that report’s publication, we heard from both donors and recipients of in-kind donations who said our reservations about in-kind donations were justified. Through discussions with them, consultations with members of our Advisory Panel, and a thorough review of the literature on this topic, we have improved our analytical methods to refine the picture of in-kind donations.

For *Financing Global Health 2009*, we relied on values reported by NGOs for in-kind donations.¹ The Internal Revenue Service (IRS) requires NGOs to report the “fair market value” of the donations but says, “There is no single formula that always applies when determining the value of property.”¹³ Our review of IRS 990 forms filed by NGOs shows that the method for valuing drugs differs widely among them, but a substantial number use US wholesale prices.

To create a more accurate picture of in-kind donations, we analyzed the relationship between wholesale prices and the US federal upper limit for valuing donations of drugs on WHO’s Model List of Essential Medicines. We based our estimates of in-kind donations on that relationship. For more information about the methodology used to adjust the value of in-kind donations channeled through NGOs, please visit our online Methods Annex at: http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_methods_IHME.pdf

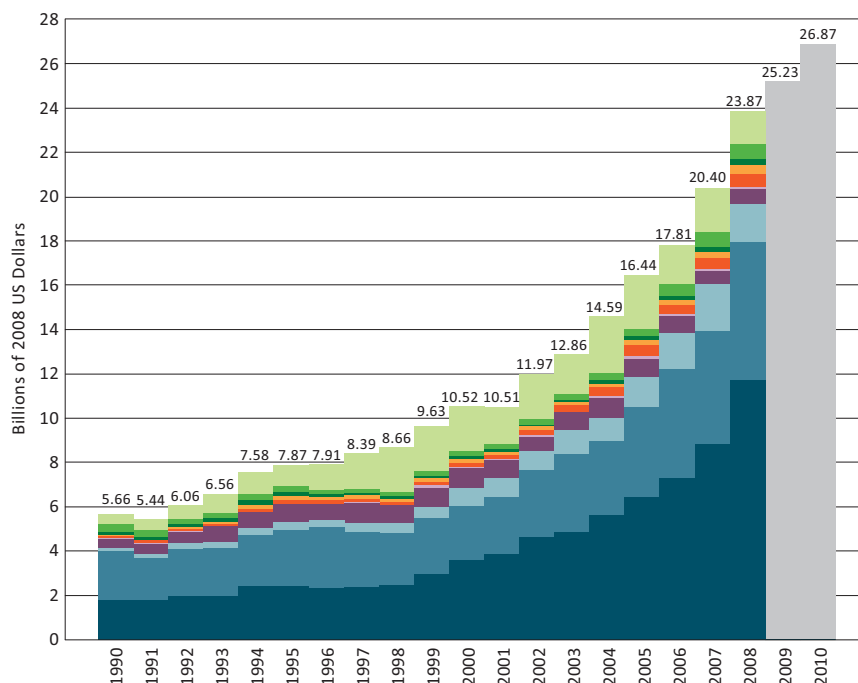
FIGURE 4:
DAH by country of origin, 1990-2010

“Unallocable” includes funds such as interagency transfers from non-DAH institutions, interest income, and miscellaneous income that could not be attributed to countries. Channels for which we had no revenue information are included under “unspecified.”

- Unspecified
- Unallocable by donor
- Other
- Australia and New Zealand
- Canada
- South Korea
- Japan
- United Kingdom
- Europe, excluding UK
- United States
- Preliminary estimates

Source: IHME DAH Database 2010

Notes: 2009 and 2010 are preliminary estimates based on information from channels of assistance, including budgets, appropriations, and correspondence. Data were unavailable to show total DAH by country of origin for 2009 and 2010.



When examined as a fraction of national income, however, the ranking of DAH contributors changes, as seen in Figure 5. Here, we show DAH in 2008 from each of the 23 member countries of the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD-DAC) as a percentage of the country’s gross domestic product (GDP) that same year, ranked from highest to lowest.

In this context, the US no longer claims the top position but instead ranks fourth. Luxembourg spends the largest share of its GDP on health aid, followed by Norway and Sweden. Portugal, South Korea, and Greece spend the smallest percentages.

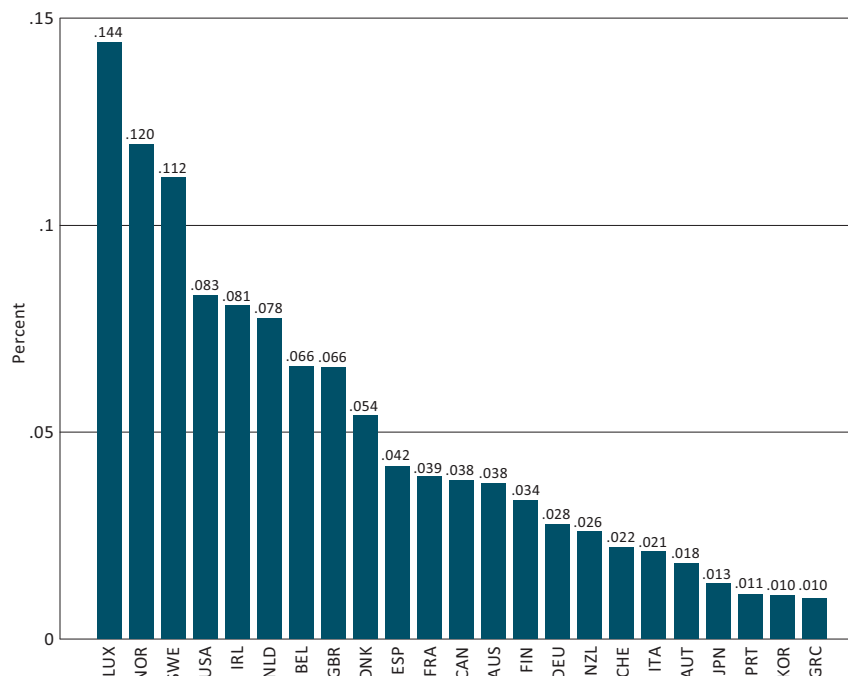
Public sector DAH

The total volume of DAH from governments, which we have grouped together as public sector DAH, grew from \$4.19 billion in 1990 to \$16.78 billion in 2008. Figure 6 shows total public sector DAH at six time periods from 1990 to 2008. The amount of public sector DAH nearly doubled between 1990 and 2002 and then more than doubled between 2002 and 2008.

The figure also shows the composition of all public sector DAH that flowed through each channel of assistance tracked in the study. What can be seen clearly is how public funds have flowed through the traditional channels for DAH – the UN agencies and the International Development Association (IDA) – at a fairly consistent rate for the past two decades. At the same time, the massive increase in public funding has largely bypassed these traditional channels and has instead flowed to governments through NGOs, GAVI, GFATM, and bilateral mechanisms. Public funding of NGOs, public-private partnerships, and other private groups grew from \$74.54 million in 1990 to \$5.82 billion in 2008. Government-to-government funding through bilateral agencies grew from \$139.14 million in 1990 to \$4.82 billion in 2008. Funding for GFATM in 2008 was \$1.91 billion. This means that while government-to-government contributions once dominated DAH, most DAH is now channeled to non-governmental global health entities. It is important to note that donors reported channels of assistance less completely in the past, preventing us from fully understanding how these trends have changed over time.

FIGURE 5:
DAH as a percentage of national income, 2008

- AUS = Australia
- AUT = Austria
- BEL = Belgium
- CAN = Canada
- CHE = Switzerland
- DEU = Germany
- DNK = Denmark
- ESP = Spain
- FIN = Finland
- FRA = France
- GBR = United Kingdom
- GRC = Greece
- IRL = Ireland
- ITA = Italy
- JPN = Japan
- KOR = South Korea
- LUX = Luxembourg
- NLD = the Netherlands
- NOR = Norway
- NZL = New Zealand
- PRT = Portugal
- SWE = Sweden
- USA = United States



Sources: IHME DAH Database 2010 and World Bank World Development Indicators

In Figure 6, we also see the significant improvements in transparency among public sector donors. Bilateral aid for which the OECD-DAC's data did not include any information about the channel of delivery is marked as "unspecified." In 1990, the amount of funding that was listed as unspecified totaled \$2.73 billion, or 65% of all funding. In 2008, that fraction dwindled to \$179.38 million, or 1% of all public sector DAH.

In Figure 7, we further analyze public sector DAH to show the composition of public funds by channel for each donor country in 2008. Countries are ordered from left to right based on what percentage of their DAH is channeled through bilateral mechanisms to governments in developing countries.

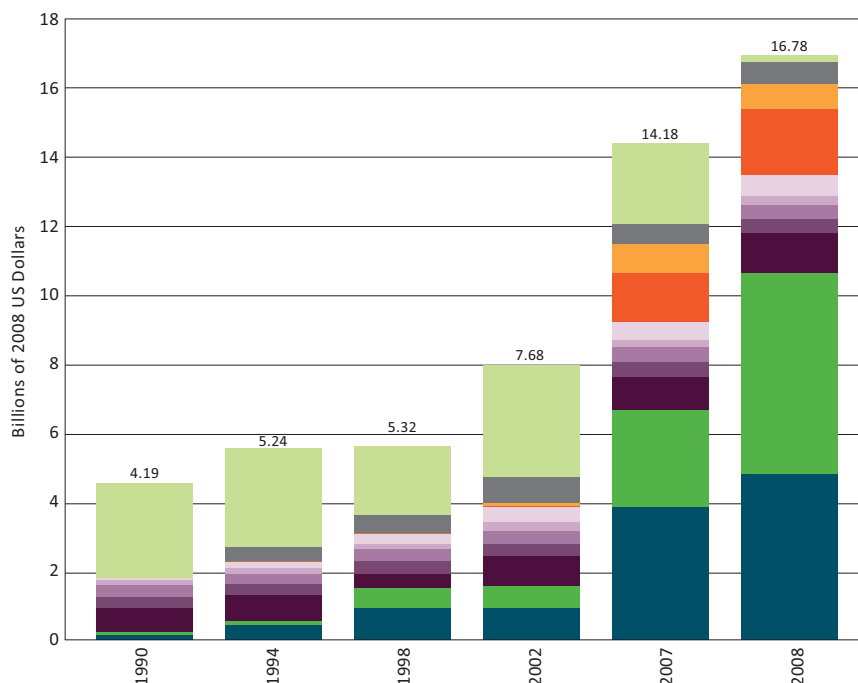
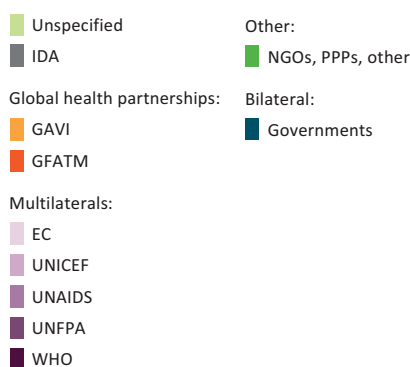
South Korea ranks highest, with 55% of its DAH going through bilateral mechanisms to governments in developing countries, and Canada ranks lowest at 5%. The US directs 33% of its DAH through bilateral mechanisms to governments, while the largest share, 51%, goes to NGOs and other organizations. Australia, New Zealand, and Canada also are notable for channeling 40% or more of their DAH to NGOs, public-private partnerships, and other organizations.

Some countries, including Finland, Denmark, and Greece, mainly channel their DAH through multilateral mechanisms, including the UN agencies, the EC, and the World Bank. In terms of commitments to GFATM, Germany, France, Italy, Spain, and Japan stand out for committing more than 20% of their DAH to that channel.

As will be seen in Chapter 2, country aid decisions are not always based on the greatest need and can be influenced by historic or economic ties or other factors. When channeling money through bilateral mechanisms to recipient governments, donor governments may attach conditions in order to have more control over where their DAH goes. These arrangements have been criticized by some as allowing donor governments to use aid as a way to promote their own priorities and agendas.^{14,15} Multilateral arrangements have critics, too, who say that there is not enough accountability in these arrangements and that UN agencies and the World Bank can put too many restrictions on recipient countries, forcing them to shift their priorities for the sake of receiving aid.¹⁶

FIGURE 6:
Public sector DAH received by channels of assistance, 1990, 1994, 1998, 2002, 2007, and 2008

Bilateral assistance from the 23 member countries of the OECD-DAC are further disaggregated into aid going to recipient governments and flows to NGOs, public-private partnerships (PPPs) excluding GAVI and GFATM, and other miscellaneous channels. Disbursements for which the channel was not specified in OECD-DAC's database are labeled "unspecified."



Source: IHME DAH Database 2010

Note: See Figure 5 for list of OECD-DAC countries.

In Figure 7, we also document the improvement by donor governments in reporting where their money is going. In 2007, 31% of DAH from the US was unspecified, meaning the US did not indicate the channel that would first receive its aid. Since then, the US has changed the way it reports its funding to OECD-DAC. As of 2008, 100% of US funding could be tracked to a specific channel, and Japan, France, and Italy also reported more information about the recipients of their aid. No country has an unspecified amount that is more than 10% of its total DAH funding, although Canada, Japan, and France still have room to improve.

Private philanthropy and DAH

Given the nature of government spending, which often entails a lengthy budgeting process and multi-year funding commitments, it is perhaps not surprising that the global economic downturn has not resulted in an immediate drop in public sector DAH. Within the sphere of private spending on DAH, though, we can see the clearest signs of a contraction in DAH funding.

We have attempted to capture the widest possible array of sources for private contributions to DAH. Our

research was hindered by the lack of an integrated database for tracking private philanthropy. Thus, we have had to estimate based only on contributions from NGOs registered with USAID and private US-based foundations. This includes many of the largest NGOs working worldwide, given that a large number of NGOs headquartered outside of the US maintain US offices and report their spending to USAID.

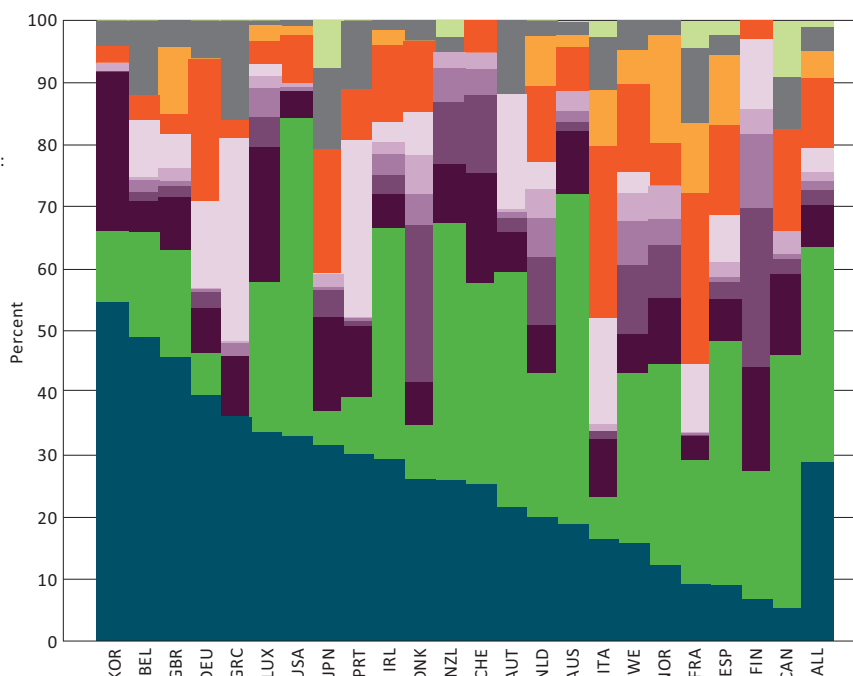
As for organizations not included in this report, our review of available financial data leads us to conclude that they comprise a small fraction of total DAH funding. As seen in Table 2, the most recent USAID Report of Voluntary Agencies¹⁷ lists fewer than 70 NGOs based outside the US that are engaged in overseas relief and development. Of those, we were able to find health expenditure data for 11 in 2008. That spending amounted to \$497.27 million in 2008, equal to 2% of all DAH in 2008.

What follows is our analysis of the role of US-based NGOs and private foundations in channeling DAH to developing countries.

FIGURE 7:
Public sector DAH by donor country received by channels of assistance, 2008

The composition of DAH from the 23 member countries of the OECD-DAC is shown.

- ALL = All-country average
- AUS = Australia
- AUT = Austria
- BEL = Belgium
- CAN = Canada
- CHE = Switzerland
- DEU = Germany
- DNK = Denmark
- ESP = Spain
- FIN = Finland
- FRA = France
- GBR = United Kingdom
- GRC = Greece
- IRL = Ireland
- ITA = Italy
- JPN = Japan
- KOR = South Korea
- LUX = Luxembourg
- NLD = the Netherlands
- NOR = Norway
- NZL = New Zealand
- PRT = Portugal
- SWE = Sweden
- USA = United States
- Unspecified
- IDA
- Global health partnerships:
 - GAVI
 - GFATM
- Multilaterals:
 - EC
 - UNICEF
 - UNAIDS
 - UNFPA
 - WHO
- Other:
 - NGOs, PPPs, other
- Bilateral:
 - Governments



Source: IHME DAH Database 2010

Note: Unspecified indicates donor country did not report the specific channel that would first receive its DAH.

Non-governmental organizations

US public funding of NGOs continued to grow, albeit weakly, through 2010, according to our preliminary estimates. Private funding, which comprises the largest share of DAH channeled through NGOs, spiked in 2008 and then began to fall, driving an overall 30% decrease in DAH funding through NGOs to a low of \$2.16 billion. We arrived at these estimates by analyzing data from tax filings for NGOs and the USAID Report of Voluntary Agencies. For more information about how we performed this analysis, please visit our online Methods Annex at:

http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_methods_IHME.pdf

Figure 2 showed the portion of DAH directed to NGOs. In Figure 8, we analyze that share of DAH by funding source and, in doing so, show a clear downward trend from all sources except US public funding.

Funding from the US government to NGOs remained fairly constant between 2004 and 2007 before growing 16% to \$955.10 million in 2008. Since then, it has grown

only 1% to \$969.16 million in 2010. This still represents a 323% increase since 1990. Public funding from sources outside the US, including funding to US-based NGOs from other national treasuries, dropped 61% between 2009 and 2010 to \$135.22 million, its lowest point since 2000.

Private donors, including individuals, foundations, and corporations, gave \$1.16 billion in cash to NGOs in 2008. Corporations also donated \$596.21 million in pharmaceuticals, medical equipment, and other in-kind contributions. By 2010, those numbers had dropped 33% and 59%, respectively.

Our recalculation of the value of in-kind donations has greatly changed the ranking of US-based NGOs with the most overseas health expenditures. As seen in Table 3, Population Services International now has the highest total overseas health expenditure of \$1.40 billion. The organization receives significant funding from the US government through the US President's Emergency Plan for AIDS Relief (PEPFAR) and very little funding from private sources.¹⁸ The opposite is true of

TABLE 2:
Summary of health spending by non-US NGOs, 1998-2008

Year	Number of non-US NGOs in USAID report	Number of non-US NGOs for which we found health expenditure data	Health expenditures by largest non-US NGOs* (in millions US\$, 2008)
Prior to 1998	0	–	–
1998	44	3	–
1999	0	–	–
2000	50	6	148.56
2001	51	7	152.13
2002	58	7	149.58
2003	54	7	203.11
2004	55	9	209.86
2005	59	9	226.61
2006	67	8	236.42
2007	68	10	417.20
2008	–	11	497.27

*Ranking determined by amount of overseas expenditure.

Notes: Data reflect non-US-based NGOs registered with USAID. USAID data for 2008 were not available at the time of the analysis, so we used rankings from 2007.

FIGURE 8:
Total overseas health expenditures channeled through US NGOs by funding source, 1990-2010

Total health spending is disaggregated by shares of revenue received from the US government, other public sources of funding, BMGF, financial donations from private contributions, and in-kind donations from private contributions.

- US public
- Other public
- BMGF
- Private financial contributions
- Private in-kind donations

*2008-2010 are based on preliminary estimates.

Source: IHME DAH Database (NGOs) 2010

Note: Data reflect US-based NGOs registered with USAID.

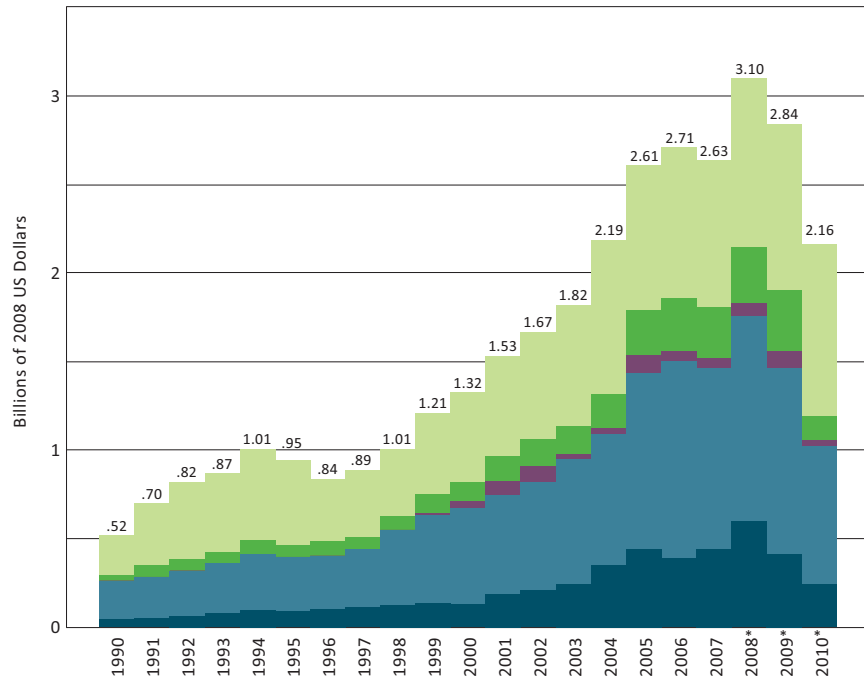


FIGURE 9:
Bill & Melinda Gates Foundation's global health disbursements and commitments, 1999-2010

The multicolored bars represent disbursements, and the blue bars show commitments. "Universities and research institutions" include universities, NGOs, foundations, and government institutions in low-, middle-, and high-income countries with a research focus. "Country governments" include all nonresearch-oriented government agencies.

- Country governments and IGOs (excluding UN)
- UN
- WB
- GAVI
- GFATM
- PPPs (excluding GAVI and GFATM)
- Universities and research institutions
- NGOs, foundations, and corporations
- Commitments
- Preliminary disbursements

Source: IHME DAH Database (BMGF) 2010

Notes: 2010 data are based on preliminary estimates obtained from BMGF. Final data were unavailable to show BMGF's commitments and recipients of disbursements for 2010.

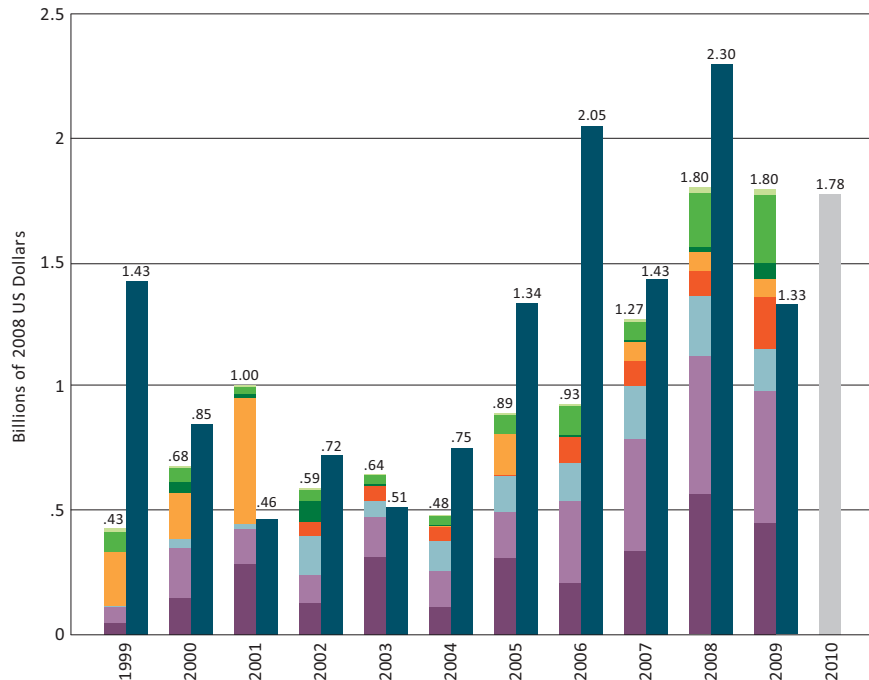


TABLE 3:
US-based NGOs with the highest cumulative overseas health expenditures, 2003-2007

Expenditures shown in millions US\$, 2008.

Rank	NGO	Overseas health expenditure, adjusted	Overseas health expenditure, unadjusted	Total overseas expenditure, unadjusted	Percent of revenue from private sources	Percent of revenue from in-kind contributions
1	Population Services International	1,397.93	1,398.30	1,446.23	11	0
2	Food For The Poor	636.43	1,973.02	3,838.07	93	83
3	Catholic Relief Services	616.78	625.22	2,869.28	37	2
4	World Vision	589.48	771.36	3,570.08	74	29
5	Management Sciences for Health	562.31	562.31	679.42	11	0
6	United Nations Foundation	446.14	500.61	703.54	88	13
7	PATH	429.73	430.55	513.31	91	0
8	Pathfinder International	307.21	309.15	346.59	22	1
9	MAP International	287.94	1,370.38	1,386.15	100	97
10	The Carter Center	286.53	441.71	542.96	95	43
11	Project HOPE	265.97	630.13	686.36	90	71
12	International Medical Corps	263.40	399.74	419.45	51	42
13	Save the Children	260.39	264.13	1,375.29	50	2
14	Population Council	234.10	243.83	321.88	39	5
15	CARE	223.36	224.75	2,824.23	26	1
16	Academy for Educational Development	215.94	218.55	1,086.21	15	1
17	Elizabeth Glaser Pediatric AIDS Foundation	205.64	206.61	235.66	23	1
18	Catholic Medical Mission Board	201.58	839.62	883.33	99	93
19	Brother's Brother Foundation	184.66	966.13	1,314.56	100	99
20	Feed the Children	175.73	546.62	1,924.15	97	83

Source: IHME DAH Database (NGOs) 2010

Notes: Overseas health expenditure for 2008-2010 is not included because of data limitations. Data reflect NGOs registered with USAID. Adjusted overseas health expenditure reflects deflated overseas health expenditure from private in-kind donations plus unadjusted overseas health expenditure from all other revenue sources (private financial contributions, BMGF, US public, and other public).

the organization with the second highest amount of overseas health expenditure, Food For The Poor, which receives 93% of its funding from private sources.

The organizations on the list span a range of missions, including narrowly defined goals of finding better HIV/AIDS treatments and broad missions of raising the standard of living for children worldwide. Faith-based organizations are difficult to track because they are not obligated to report information on their finances to the Internal Revenue Service. Our analysis captures a portion of these organizations. Six NGOs on the list have a religious affiliation, making up a combined 32% of all cumulative overseas health spending listed in Table 3 from 2003 to 2007.

Foundations

Funding channeled through foundations also slowed greatly over the past two years.

Using a grants database from the New York-based Foundation Center,²⁰ which compiles funding statistics from all major philanthropic foundations registered in the US, we estimated DAH by US-based foundations other than BMGF from 1990 to 2010. BMGF, the largest foundation in the US,¹⁹ contributes more to DAH than all other US foundations combined. Because of this, we used a variety of data sources to estimate DAH from BMGF (Table 1). We separated commitments and disbursements by channel from BMGF for the period from 1999 to 2009 with preliminary disbursements for 2010.

Figure 9 shows that BMGF spending on DAH grew quickly from 2004 to 2008, increasing at an average annual rate of 39% before reaching \$1.80 billion in 2008, then plateauing in 2009. Between 2009 and 2010, disbursements from BMGF declined to slightly less than \$1.80 billion. More significantly, BMGF’s funding for future commitments has dropped sharply, from \$2.30 billion in 2008 to \$1.33 billion in 2009, a 42% drop in one year to the lowest level since 2005. This drop in commitments, however, should be interpreted with caution as BMGF’s global health commitments have fluctuated dramatically in the past due to large grants scheduled to be disbursed over many years.

As in last year’s report, the largest share of BMGF’s global health spending continues to flow to universities and research institutions. It also transfers a significant share of its funding to NGOs and other foundations and a small fraction to corporations, mainly for drug and vaccine development. Most of the remaining funds go to public-private initiatives for global health, particularly GFATM and GAVI, and multilateral institutions, including the World Bank and UN agencies.

DAH from other US foundations grew from \$116.45 million in 1990 to \$542.78 million in 2008, a 366%

increase. We analyzed the amount of total assets reported to the Foundation Center through 2009 and used the relationship between assets and spending, along with other factors such as GDP and stock market trends, to create a model that allowed us to estimate spending for 2009 and 2010. As a result, we estimate that, through the end of 2010, total DAH spending by foundations will have grown by just 1% since 2008. This is largely driven by a steep decline in total foundation assets, attributed in large part to the drop in world financial markets.²¹ Total assets for foundations other than BMGF dropped from a peak of \$697.03 billion in 2007 to an estimated \$567.80 billion in 2010, a 19% decline.²⁰

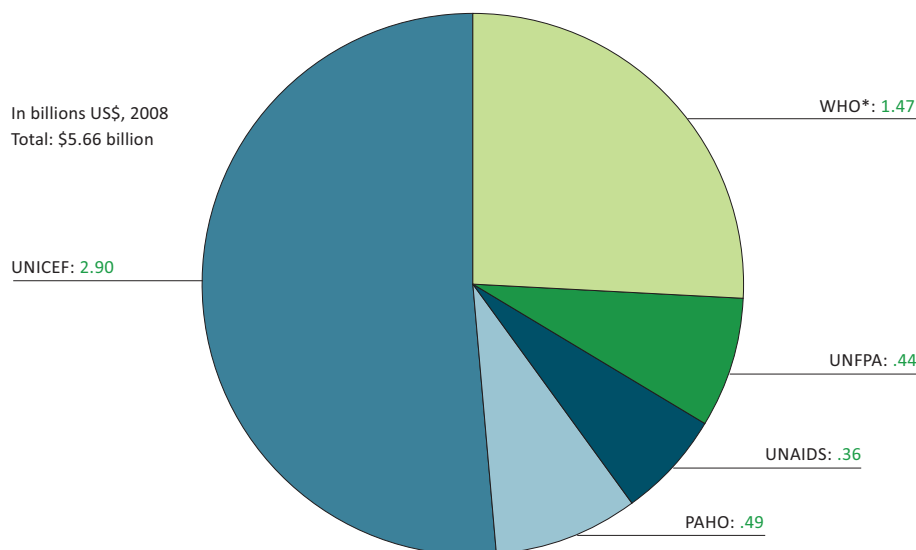
Multilateral organizations

International organizations, including the UN agencies, continue to provide a consistent amount of core funding for global health efforts. Yet their role has diminished in recent years with the advent of new global health actors such as BMGF, GAVI, and GFATM.¹ To better understand why their disbursement patterns have remained more constant than other organizations, we researched both their total expenditures since 1990 and their fund balances at the end of each year.

FIGURE 10:
Fund balances for UN health agencies at end of 2009

*WHO includes programmatic funds, as defined by “General Fund” in the 2008-2009 Financial Report.

Source: IHME DAH Database (UN) 2010



The amount that most UN agencies have disbursed for DAH grew at a much slower rate than DAH funding from other sources. Between 1990 and 2010, DAH channeled through UN agencies grew 87%, from \$2.00 billion to \$3.75 billion. All other channels combined saw an increase in the same period of 533%, from \$3.65 billion to \$23.12 billion. Since 2007, with the exception of WHO, UN agencies have seen an average annual growth rate in DAH between -1% and 3%. WHO has increased DAH by 8% annually. At the same time, the end-of-year fund balances for UN agencies have continued to climb. Figure 10 shows that for the five UN agencies responsible for nearly all DAH spending – WHO, the United Nations Children’s Fund (UNICEF), the Joint United Nations Programme on HIV/AIDS (UNAIDS), the United Nations Population Fund (UNFPA), and the Pan American Health Organization (PAHO) – the combined year-end fund balance for 2009 was \$5.66 billion, 52% more than what those agencies spent on DAH that year, as seen in Table 1 of the Statistical Annex.

In Figure 11, we compare fund balances over time to all expenditures, including DAH, for three UN health agencies. In 1991, UNFPA had a fund balance that amounted to 1% of its total spending that year. By 2009, its fund balance had grown to 55% of its total spending.

UNICEF’s fund balance was high at 95% in 1991 but dropped in subsequent years, reaching 62% in 1997. By 2009, though, UNICEF’s fund balance was \$2.90 billion, 90% as large as its total expenditure of \$3.23 billion. WHO nearly tripled its fund balance since 1991, from \$496.95 million to \$1.47 billion in 2009. During the same time frame, its spending grew at a slower pace of 57% to \$1.91 billion.

UN agencies may be responding to uncertain economic conditions by building their reserves, holding on to more funding in anticipation of future spending needs and declining donor contributions.

This may be prudent. Significant change in economic conditions can create stress on an agency’s budget. Increasing the size of fund balances may help agencies survive fiscal crises without jeopardizing core programs.^{22,23} The size of the fund balances, though, may indicate that the agencies are holding too much money in reserve, given the intense demands for DAH. There is no consensus on the ideal size for a year-end fund balance, but government analysts and auditors have said that fund balances of 5% or more of annual expenditure are considered healthy.²⁴

FIGURE 11:
Fund balances, annual expenditures, and fund balances as a percentage of annual expenditures for three UN agencies, 1991, 1997, 2003, and 2009

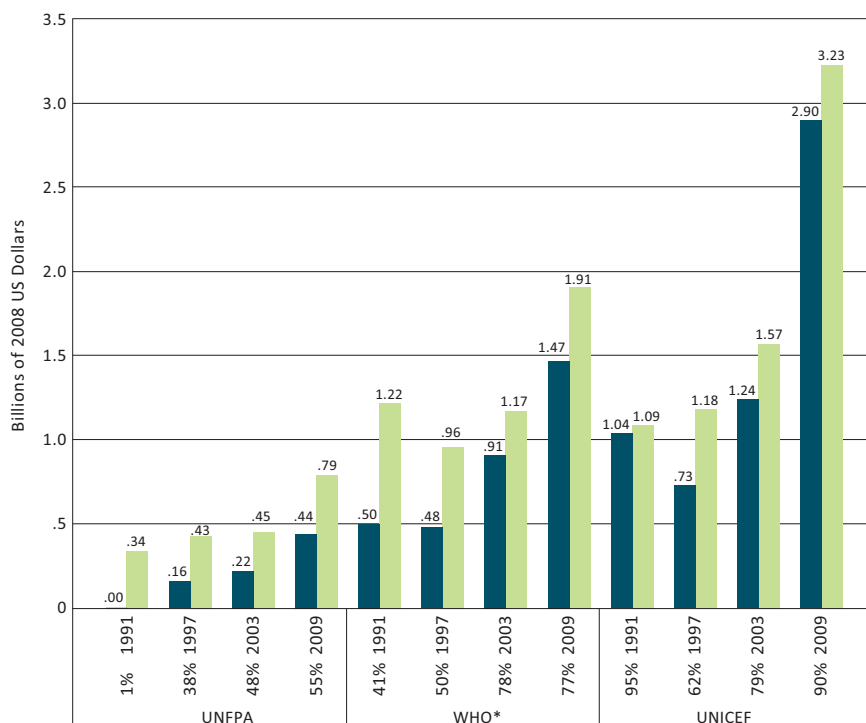
Annual expenditure includes all expenditure, including DAH.

■ Fund balance on Dec. 31
■ Annual expenditure

*WHO includes programmatic funds, as defined by “General Fund” in the 2008-2009 Financial Report.

Source: IHME DAH Database (UN) 2010

Notes: Percentages indicate fund balance as a percentage of annual expenditure. We developed methods to make estimates comparable across years, but changes in WHO accounting practices over time could have affected these corrections. For more information about our methods, please visit our online Methods Annex at: http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_methods_IHME.pdf





CHAPTER 2:

DISTRIBUTION OF DEVELOPMENT ASSISTANCE FOR HEALTH

Measuring the scope of development assistance for health (DAH) from its various sources is important for understanding the overall trends in public and private funding of health programs. In this chapter, we explore how funding through various channels and from different sources has created the current landscape of DAH for regions, countries, and health focus areas.

Following DAH to its recipient country and then to the specific health program it funds can illuminate the effects of national-level policy decisions on global health priorities. At the regional level, our DAH estimates indicate that the areas with the greatest need tend to receive the most DAH. This assumption is challenged, though, when taking a close look at the countries within those regions. The proportion of DAH spent on different health focus areas also raises important questions when viewed in the context of the disease burden attributed to those diseases and conditions.

Funding by focus region

To the extent possible, we separated DAH by focus region in Figure 12. When we were unable to identify the final recipient of DAH, we marked the funding as “unallocable.” As shown in Figure 12, a large share of DAH is unallocable because of limitations in the data. NGOs, for example, do not uniformly report the regions where their funds are targeted. The term “global” includes contributions made toward health research or the creation of public goods for multiple regions as well as projects that donors categorized as benefiting the entire world. Even with the data limitations, the figure shows an increase in funding across all regions. The relative share of DAH for sub-Saharan Africa has grown to the point where that region now receives

more funding than all other regions combined. In 1990, sub-Saharan Africa received 10% of DAH, and from 1997 to 2000, sub-Saharan Africa actually received a smaller share of DAH than Latin America. By 2008, though, its share had grown to 29%, representing \$6.92 billion. This growth primarily reflects the continued rise in funding for HIV/AIDS.

The other regions that received the largest shares of funding in 2008 were: South Asia, East Asia and the Pacific, and Latin America and the Caribbean. There were three regions that lost ground in DAH between 2005 and 2008: Europe and Central Asia; the Middle East and North Africa; and Latin America and the Caribbean. The figure also shows striking growth in DAH for research and product development that is global in nature, from \$688.44 million in 2001 to \$3.13 billion in 2008.

Funding by recipient country

Looking more closely at each region, we were able to pinpoint the recipient country for the majority of DAH, although 35%, or \$8.30 billion, remained unallocable in 2008 because of limitations in the data.

Figure 13 shows the top 10 health aid recipients, comprised mainly of the most populous developing countries. Here, we see the wide variety in the makeup of DAH for countries that received the most DAH from 2003 to 2008. Both India, the top recipient of DAH, and Pakistan, the 10th highest recipient, received 35% of their DAH funding through the World Bank. Ethiopia, the fourth largest recipient of DAH, received a much smaller share of its funding through the World Bank.

The figure also reveals how ongoing commitments from individual donor governments can have a large impact on a recipient government’s funding picture.

FIGURE 12:
DAH by focus region, 1990-2010

Health assistance for which we have no recipient country or region information is coded as “unallocable.”

- Unallocable
- Global
- Latin America and Caribbean
- Europe and Central Asia
- East Asia and Pacific
- South Asia
- Middle East and North Africa
- Sub-Saharan Africa
- Preliminary estimates

Sources: IHME DAH Database 2010 and IHME DAH Database (Country and Regional Recipient Level) 2010

Notes: 2009 and 2010 data are preliminary estimates based on information from channels of assistance, including budgets, appropriations, and correspondence. Data were unavailable to show total DAH by focus region for 2009 and 2010.

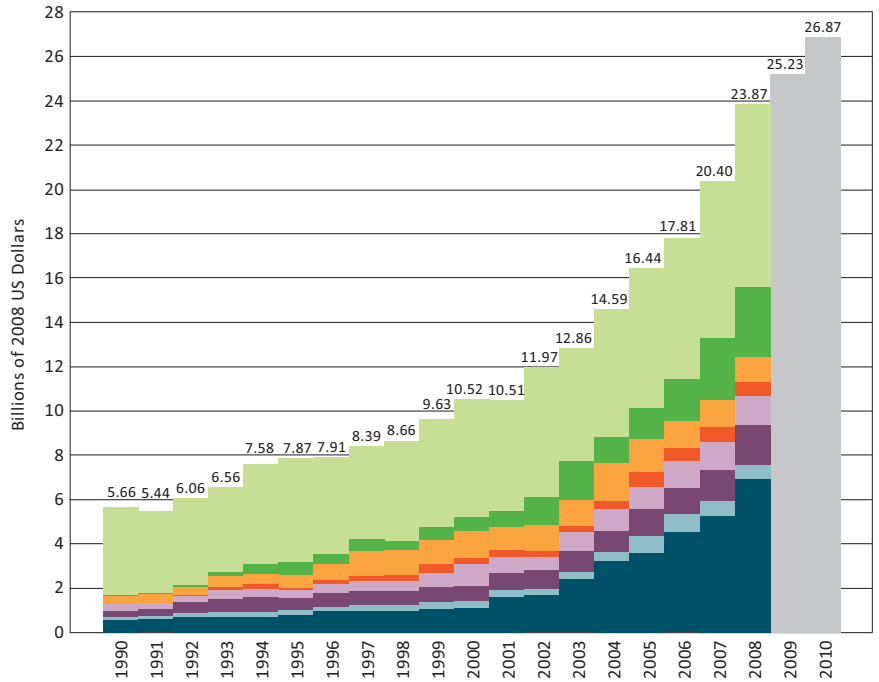
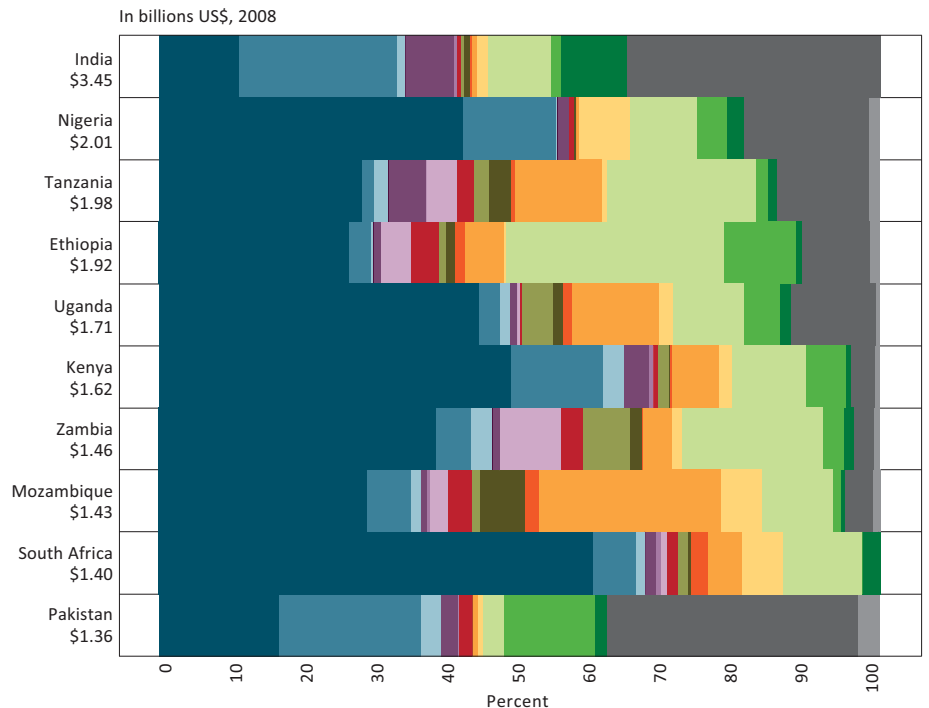


FIGURE 13:
Top 10 recipients of DAH by percentage received from channels of assistance, 2003-2008

The amount of DAH received by each country in real 2008 US\$ is shown below the name of the country. Only DAH allocable by country is reflected in the figure.

- United States
- Great Britain
- Japan
- South Korea
- Germany
- France
- Netherlands
- Canada
- Sweden
- Norway
- Italy
- Other governments
- EC
- GFATM
- GAVI
- BMGF
- World Bank
- Regional development banks

Source: IHME DAH Database (Country and Regional Recipient Level) 2010



The US government is the biggest channel for seven of the top 10 recipient countries, which are all US President’s Emergency Plan for AIDS Relief (PEPFAR) focus countries.²⁵ In South Africa, 60% of all DAH comes from the US. Contributions funneled through the UK account for more than 10% of all DAH received by India, Nigeria, Kenya, and Pakistan, reflecting historical ties established during British colonial rule. Norway’s role in DAH funding for Mozambique is more significant than its role in other countries shown in Figure 13. The Netherlands contributes a large portion of all DAH received by Zambia.

The importance of funding from the Global Fund to Fight Aids, Tuberculosis and Malaria (GFATM) also can be seen in the figure. Funding from GFATM comprises 30% of DAH to Ethiopia, 21% to Tanzania, 20% to Zambia, and significant sums to other countries in the top 10 with the exception of Pakistan.

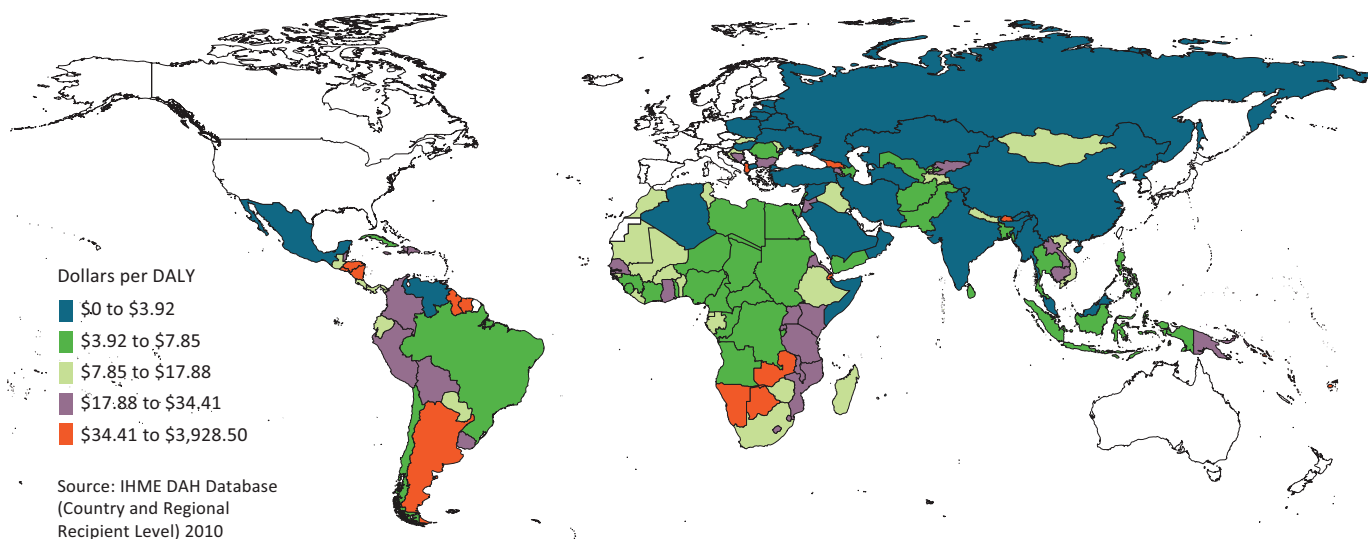
Overall, the distribution of DAH across countries continues to correspond with need as measured

by disease burden, but there remain strong exceptions to this trend. In Figure 14, we have mapped the amount of DAH given to each developing country for every disability-adjusted life year (DALY). A disability-adjusted life year measures overall disease burden by calculating the years of healthy life lost due to illness, disability, or early death.²⁶ We found that more than half of countries in sub-Saharan Africa received less than \$12 per DALY between 2003 and 2008, while all but three South American countries, which have both smaller populations and lower DALYs, received more than \$13 per DALY. Most countries in Asia and the Middle East received less than \$4 per DALY in this time period.

As we noted in last year’s report, allocation of DAH by country appears to be driven by many considerations beyond the burden of disease. Among those considerations are historical, political, and economic relationships between certain donors and recipient countries. The countries with the highest amount of

FIGURE 14:
Total DAH per all-cause DALY, 2003-2008

We used DALY data for 2004 as a proxy for burden in all subsequent years. Countries that received no DAH over the study period and countries with zero or missing burden data are not shown. DAH received is shown in real 2008 US\$.



DAH per DALY are small island nations with longtime ties to larger, more economically prosperous countries, including a cluster of islands in the South Pacific with ties to Australia, New Zealand, and the US: Niue, Micronesia, the Marshall Islands, Nauru, the Cook Islands, Tonga, Palau, Tuvalu, the Solomon Islands, Kiribati, and Samoa. All of these countries received more than \$100 per DALY – 20 times the amount that some African countries received. Sierra Leone, Central African Republic, and Niger each received less than \$7 per DALY.

Figure 15 ranks the top 30 recipients of DAH on the left and ranks countries by decreasing order of disease burden, as measured in total DALYs, on the right. In general, countries with higher disease burden receive greater external aid, as evidenced by India, which ranks first in both, and Nigeria, which ranks near the top in both. However, at similar levels of disease burden, there can be large variations in DAH.

Some countries, such as Bangladesh, the Democratic Republic of the Congo, and Brazil, had a much higher rank on the burden list than on the health aid list. They received much less assistance than would be expected based purely on disease burden. At the same time, countries such as Tanzania, Ethiopia, Uganda, Kenya, and Mozambique received more funds in proportion to their disease burden, in part because all received health aid from PEPFAR from 2004 to 2008 to help combat the high incidence of HIV/AIDS in these countries.

When viewed in the context of specific health focus areas, the contrast between need and funding can be even more apparent. For example, 16 of the 20 countries with the highest maternal mortality ratios in 2008 do not appear among the 20 countries that received the most DAH between 2003 and 2008.²⁷

To highlight countries in Figure 15 that appear on one list but not the other, we have underlined those countries' names. There are 11 countries that appear in the top 30 for DAH but not in the list of countries with the highest disease burdens: Zambia, Argentina, Colombia, Ghana, Malawi, Rwanda, Cambodia, Senegal, Haiti, Zimbabwe, and Peru. With the exception of Argentina, Colombia, and Peru, all of the countries were low- or lower-middle-income countries in 2008, as classified by the World Bank.²⁸

There are 11 countries with high disease burdens that are not among the top recipients of DAH: Russia, Mexico, Sudan, Myanmar, Thailand, Angola, Iran, Ukraine, Côte d'Ivoire, Turkey, and Niger. With the exception of Russia, Mexico, and Turkey, these are low- or lower-middle-income countries.

Funding by health focus

Over the past decade, the top health priorities for global health leaders have been HIV/AIDS, tuberculosis, and malaria,³¹ and this has been reflected in DAH funding patterns.¹ Beginning with events such as the first Women Deliver conference in 2007, though, there has been a move to increase funding for maternal, newborn, and child health (MNCH) programs.³² More recently, the United Nations (UN) and other organizations have raised concerns about the emergence of noncommunicable diseases (NCDs), such as cancer, heart disease, and diabetes, as a more prominent issue in the developing world.³³ This is partly the result of economic improvements^{34,35} and reductions in the mortality of children and adults. As people live longer, their likelihood of developing a chronic disease increases.

We analyzed the volume of DAH earmarked for these five priority areas as well as support for the health sector as a whole. This analysis was only possible for the channels where we were able to isolate a channel's total health contributions by disease. For GFATM, we were able to obtain data coded by disease focus. In all other cases, we used the descriptive fields in the data, such as the project title and project description, to distinguish a channel's total DAH by disease. In 2008, we identified the health focus areas for \$12.47 billion out of \$23.87 billion of total DAH.

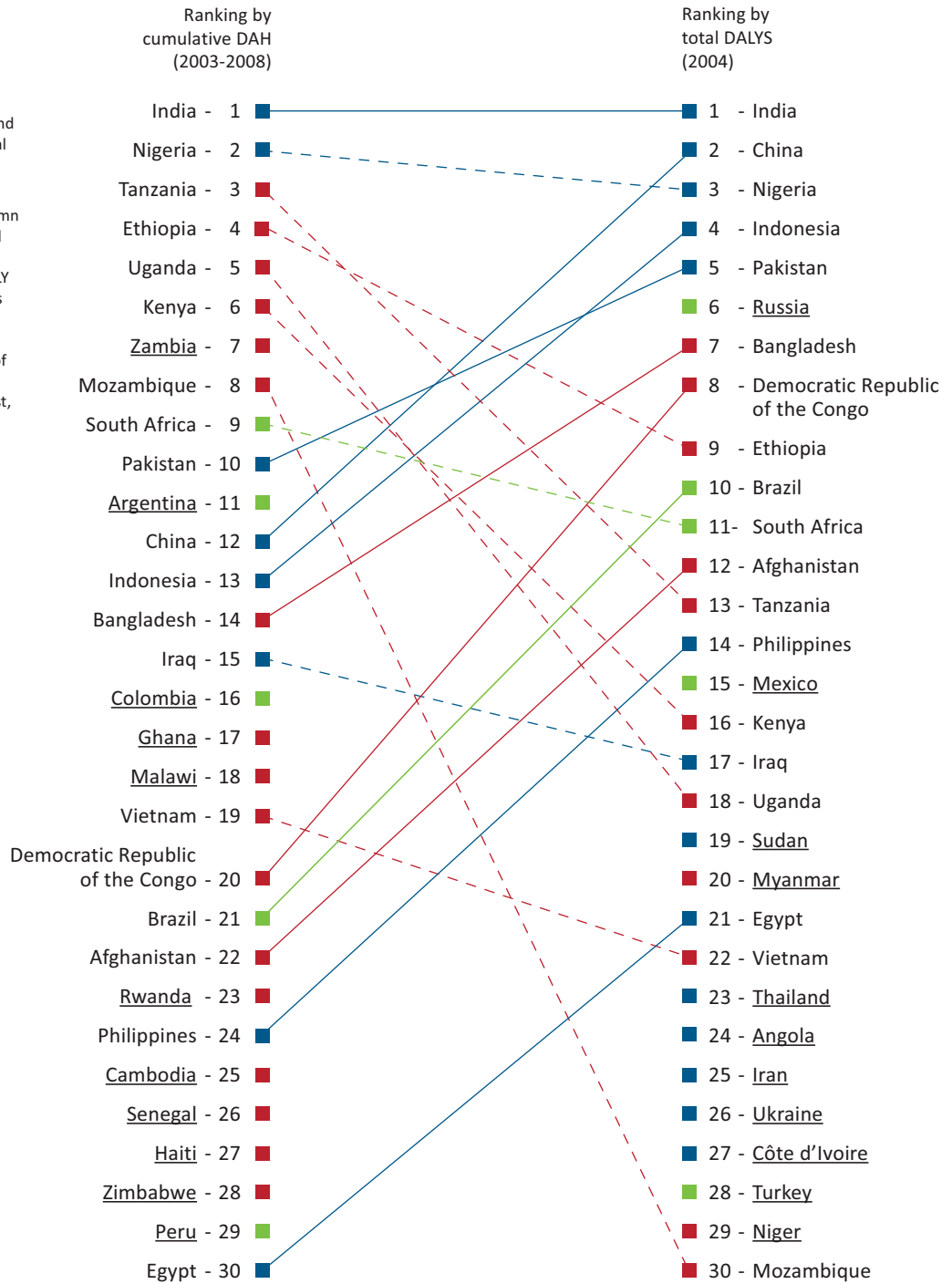
We made a few assumptions: that all spending by the Joint United Nations Programme on HIV/AIDS (UNAIDS) was for HIV/AIDS; that all spending by the United Nations Children's Fund (UNICEF) and the United Nations Population Fund (UNFPA) was for MNCH; and that all spending by the GAVI Alliance (GAVI) was for MNCH. In this section, we compare the funding of these health focus areas and then expand on each focus area in subsequent sections, in order by their share of DAH funding.

FIGURE 15:
Top 30 country recipients of DAH, 2003-2008, compared with top 30 countries by all-cause burden of disease, 2004

■ Upper-middle-income countries
■ Lower-middle-income countries
■ Low-income countries

Sources: IHME DAH Database (Country and Regional Recipient Level) 2010 and Global Burden of Disease 2004 Summary Tables 2009

Notes: Countries that appear in one column but not the other are underlined. Dashed line indicates country ranks higher in cumulative DAH column than in total DALY column. Solid line indicates country ranks the same or higher in total DALY column than in cumulative DAH column. In this year's report, we used the 2004 update of DALYs from WHO. This contributed to the change in composition from last year's list, which relied on 2002 DALYs. Only DAH allocable by country is reflected.



It is difficult to draw conclusions regarding health-focus-specific funding from 2002 to 2004 because of inconsistency in US reporting. Another limitation of this analysis is missing data on health focus areas indicated by the portion marked “unallocable” in the figures.

Figure 16 shows that spending on programs targeting HIV/AIDS has continued to rise. HIV/AIDS programs received nearly as much funding as all other health focus areas combined: \$6.16 billion for HIV/AIDS compared to \$6.31 billion for MNCH, malaria, health sector support, tuberculosis, and NCDs in 2008. Funding for HIV/AIDS rose from \$0.20 billion in 1990 to \$0.96 billion in 2001, an average rate of growth of 15%. Between 2001 and 2002, though, funding for HIV/AIDS programs increased 53%, and since then, funding increased every year by more than 25% until 2007. Between 2007 and 2008, funding increased by 20%.

MNCH programs received the second largest share of funding, totaling \$3.17 billion in 2008. MNCH once received much more funding than all other categories.

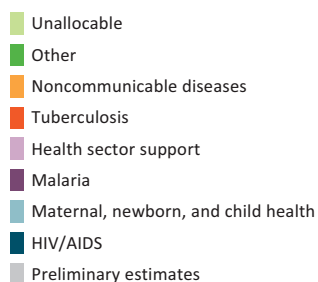
In 1990, MNCH received \$0.95 billion, or about 17% of all DAH. By 2008, that share had declined to 13%, while funding for HIV/AIDS had grown from 3% to 26% in that same period.

DAH for malaria and tuberculosis remained modest: \$1.19 billion and \$0.83 billion, respectively, in 2008. Between 2007 and 2008, though, malaria funding increased by 57%, faster than HIV/AIDS funding and much faster than tuberculosis funding, which increased 27%. Health sector support more than doubled since 2005 to \$1.00 billion in 2008, but it remains low compared to other health focus areas.

The NCD focus area, including cancer, diabetes, heart disease, and other significant contributors to disease burden, continues to receive the least amount of funding compared with other health focus areas, although there has been steady growth in recent years. NCDs received \$30.14 million in 1990. By 2008, that number had grown to \$121.25 million, just a sliver of all DAH funding at 0.5%.

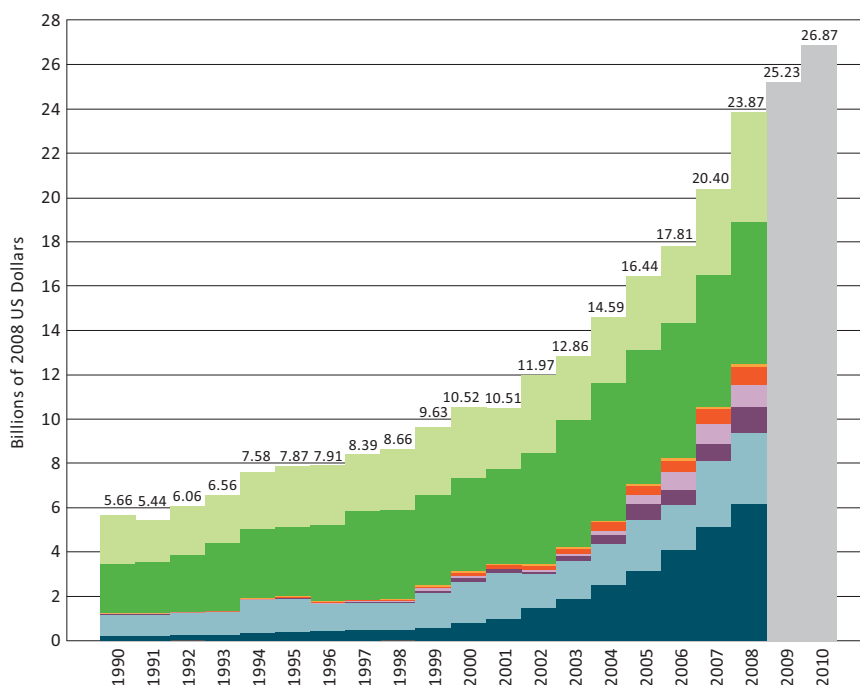
FIGURE 16:
DAH for HIV/AIDS; maternal, newborn, and child health; malaria; health sector support; tuberculosis; and noncommunicable diseases, 1990-2010

“Unallocable” corresponds to DAH for which we did not have information on disease focus.



Sources: IHME DAH Database 2010 and IHME DAH Database (Country and Regional Recipient Level) 2010

Notes: 2009 and 2010 data are preliminary estimates based on information from channels of assistance, including budgets, appropriations, and correspondence. Data were unavailable to show total DAH by health focus area for 2009 and 2010.



Funding for HIV/AIDS by channel of assistance

The increase in DAH for HIV/AIDS programs has been driven largely by two channels – the US government and GFATM. Figure 17 shows the US spent \$958.29 million on HIV/AIDS-related DAH in 2003 and increased spending to \$3.29 billion in 2008, a 243% increase in funding. That reflects the strong focus on HIV/AIDS established in 2004 when PEPFAR began disbursing funds. GFATM disbursements for HIV/AIDS programs, which started in 2002 at \$0.50 million, reached \$150.78 million in 2003, then increased 802% to reach a total of \$1.36 billion in 2008. UNAIDS and the Bill & Melinda Gates Foundation (BMGF) also have continued to increase funding for HIV/AIDS programs, although BMGF's total contribution is much larger than what is shown in this figure because it also contributes money through other channels, including GFATM.

Viewed on the map in Figure 18, the countries that receive the most HIV/AIDS funding per HIV/AIDS-related DALY are not always the countries with the highest disease burdens. Russia, China, and much of Central Asia receive more funding per HIV/AIDS-related DALY than countries in sub-Saharan Africa, which have much higher HIV/AIDS burdens. Bhutan, Albania, Mongolia, Bulgaria, and Georgia all receive more than \$4,000 for every HIV/AIDS-related DALY. Zimbabwe, the Democratic Republic of the Congo, Cameroon, and Gabon, by contrast, receive less than \$19 per DALY.

Funding for maternal, newborn, and child health by channel of assistance

In September 2010, world leaders attending the Millennium Development Goals (MDG) Summit hosted by the UN in New York City pledged to spend \$40 billion in new funding over the next five years to improve the health of mothers and children worldwide.³⁶ The announcement followed new findings by the Institute for Health Metrics and Evaluation (IHME)^{37, 38} and UN agencies³⁹ that showed both the maternal mortality ratio and the child mortality rate declining worldwide but not at a fast enough pace to achieve the MDG targets of a 75% reduction in the maternal mortality ratio between 1990 and 2015 and a 66% reduction in the child mortality rate during the same period. If this pledge is fully funded, the amount would be more than MNCH efforts have received over the past two decades combined.

As seen in Figure 19, MNCH efforts have fluctuated greatly in year-to-year funding levels, unlike the other focus areas in this study. Some of this fluctuation is related to problems with the data. For example, in the data that the US government reported to the Organisation for Economic Co-operation and Development's Creditor Reporting System (CRS) from 2002 to 2004, it did not provide enough information in its project descriptions to determine the health focus areas of its DAH. Because the data have been more specific in recent years, we are more confident in the MNCH funding numbers from 2005 onward.

Figure 19 shows that funding for MNCH efforts has been sustained by consistent spending from the European Commission (EC) and the UN agencies dating back to 1990. The EC has increased its funding for MNCH more than any other health focus area it funds. But the UN agencies have not increased spending on MNCH at the same rate as they have in other areas. For example, WHO increased spending on MNCH from \$84.50 million in 1990 to \$95.56 million in 2008, an annual growth rate of less than 1%. During the same period, WHO increased spending on malaria from \$16.60 million to \$101.96 million, an average growth rate of 11%.

The significant growth since 2006 has been largely driven by one channel: GAVI. Without GAVI's contributions of \$1.00 billion in 2007 and \$812.38 million in 2008, spending on MNCH would have been relatively flat since 2001 when compared with the other health focus areas.

The range in spending per MNCH-related DALY is narrower than for most other health focus areas, as seen in Figure 20. For example, excluding extreme outliers, the range for spending on HIV/AIDS for most countries is \$9 to \$15,000 per DALY. MNCH spending in most countries ranges from less than 5 cents per DALY for countries such as Belarus, Thailand, Venezuela, and Algeria to more than \$100 per DALY for Belize, Colombia, and Uruguay. In Figure 20, we can also see the contrast between need and DAH funding level. Afghanistan ranks eighth²⁹ in the world for DALYs attributable to diseases that impact maternal, newborn, and child health. Yet it received \$1.27 per DALY, well below the amount received by countries with much lower MNCH-related DALYs and stronger economies, such as Turkey, Vietnam, and Costa Rica.

FIGURE 17:
DAH for HIV/AIDS by channel of assistance, 1990-2008

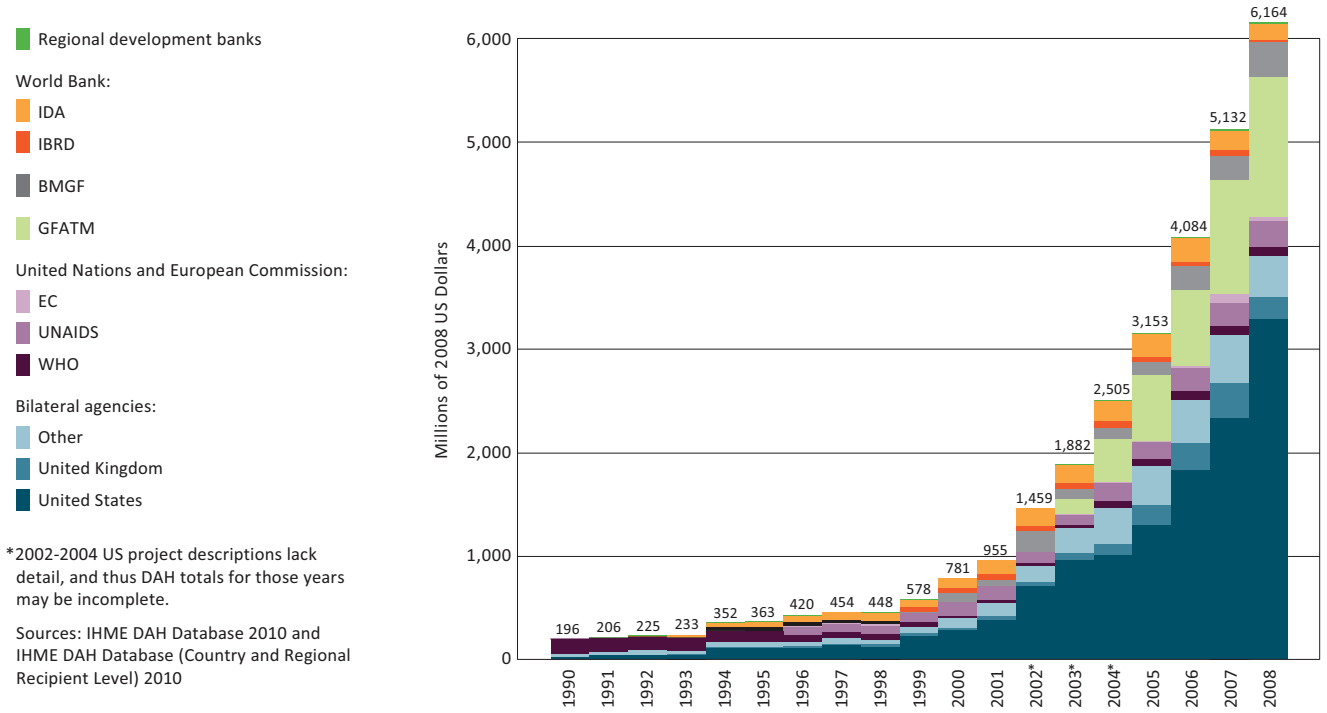


FIGURE 18:
HIV/AIDS: DAH per related DALY, 2003-2008

We used DALY data for 2004 as a proxy for burden in all subsequent years. Countries that received no DAH over the study period and countries with zero or missing burden data are not shown. DAH received is shown in real 2008 US\$.

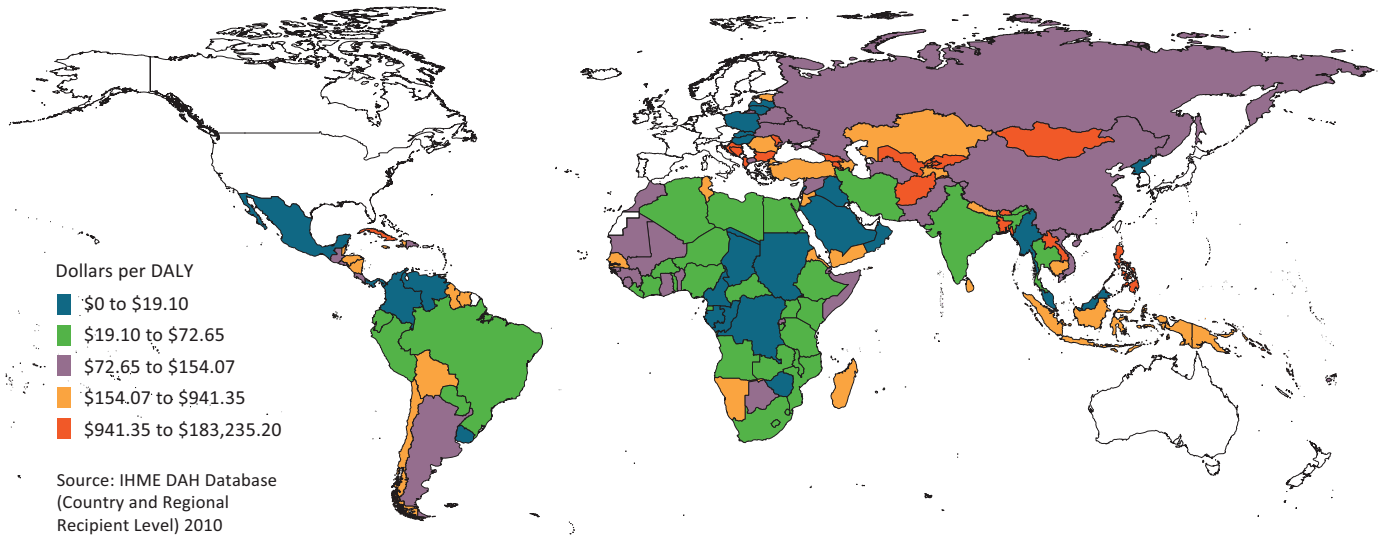


FIGURE 19:
DAH for maternal, newborn, and child health by channel of assistance, 1990-2008

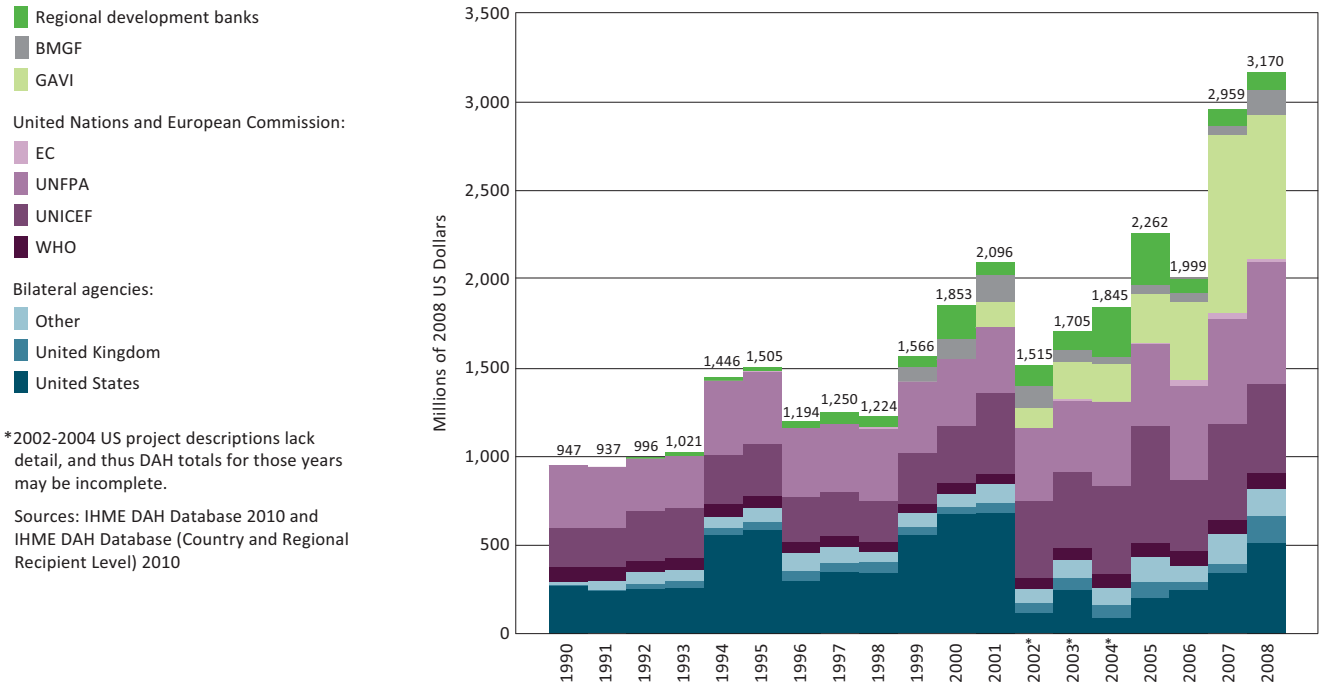
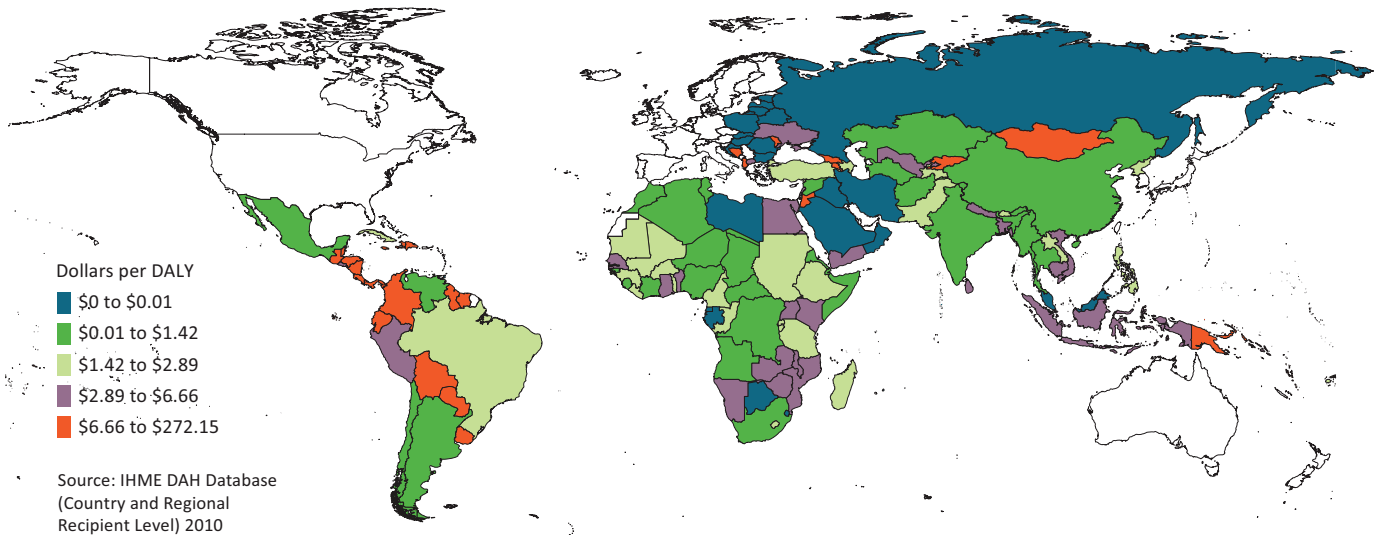


FIGURE 20:
Maternal, newborn, and child health: DAH per related DALY, 2003-2008

We used DALY data for 2004 as a proxy for burden in all subsequent years. Countries that received no DAH over the study period and countries with zero or missing burden data are not shown. DAH received is shown in real 2008 US\$.



Funding for malaria by channel of assistance

The African Summit on Roll Back Malaria held in Abuja, Nigeria, on April 25, 2000, set a target of reducing mortality from malaria in African countries by 50% between 2000 and 2010. Representatives from 44 African countries affected by malaria signed what became known as the Abuja Declaration.⁴⁰

IHME is researching the change in malaria-related mortality as part of its ongoing investigation of causes of death worldwide. In Figure 21, it appears that funding for malaria did not increase immediately following the Abuja Declaration. Instead, it dropped between 2000 and 2002. In more recent years, there has been a year-after-year increase in funding for antimalaria programs, particularly as the US government has taken on a larger role in funding antimalaria campaigns.

DAH from GFATM for antimalaria efforts increased from \$56.95 million in 2003 to \$514.93 million in 2008. BMGF funding grew from \$23.01 million to \$223.48 million in the same period.

Since it began in 2005, the US President's Malaria Initiative showed little effect on malaria funding patterns through 2006, when funding stood at \$14.14 million.⁴¹ By 2007, though, US funding had doubled and then shot up to \$198.08 million in 2008. The Group of Eight's commitments in 2005 to contribute an additional \$1.5 billion per year to malaria have yet to materialize.

Figure 22 shows dramatic differences in the distribution of malaria funding across countries when compared with the other health focus areas. This is largely because of the low incidence of malaria in most countries. There are only 81 countries that we identified as receiving any DAH for malaria out of 155 countries receiving DAH. Interestingly, of the 30 countries that receive the most DAH per malaria-related DALY, only three – Eritrea, Sao Tome and Principe, and Swaziland – are located in sub-Saharan Africa, the region with the highest malaria burden.

Instead, the countries that receive the most DAH per malaria-related DALY include Georgia, Sri Lanka, Azerbaijan, Uzbekistan, Nicaragua, Kyrgyzstan, Tajikistan, Honduras, and Guatemala, all of which received more than \$2,000 per DALY between 2003 and 2008.

Funding for health sector support by channel of assistance

Policymakers and researchers have recognized since at least the 1980s that some developing countries would benefit from aid for the general health sector and not only through disease-specific programs and interventions. At a 1997 meeting in Copenhagen hosted by the Danish Ministry of Foreign Affairs and the World Bank, the term "sectorwide approach" was coined.⁴² Since that time, various modes of health sector support have been tried through the channels covered in this report, but research continues to show that DAH for health sector support is weak in comparison with other health focus areas. One of the biggest funders of health sector support has been the EC. In 2008, a Court of Audit assessment of DAH from the EC found that "EC funding to the health sector has not increased since 2000 as a proportion of its total development assistance despite the Commission's MDG commitments and the health crisis in sub-Saharan Africa."⁴³

Data on DAH for health sector support are difficult to collect because of a lack of uniformity in how sectorwide approaches are defined. There are fewer data available on health sector support in part because the consensus around a need for general support for the health sector is more recent than the increased awareness around other health focus areas. For the EC, for example, we were only able to identify DAH for health sector support in six of the past 19 years. As seen in Figure 23, though, the data are strong enough to identify a trend beginning in 2006. From 2006 to 2008, funding grew by 22% to \$999.58 million, or 4% of all DAH. The growth rate was 2 percentage points faster than the overall growth rate for DAH, but it was still slower than disease-specific health focus areas. During the same period, DAH for malaria, tuberculosis, and HIV grew by 73%, 60%, and 51%, respectively.

Funding for tuberculosis by channel of assistance

In 1998, WHO led the creation of the Stop TB Initiative, which has expanded into the Stop TB Partnership, a global effort to marshal resources against one of the leading causes of death in the developing world.⁴⁴ The urgency behind this work has increased as more research shows how tuberculosis can compound health

FIGURE 21:
DAH for malaria by channel of assistance, 1990-2008

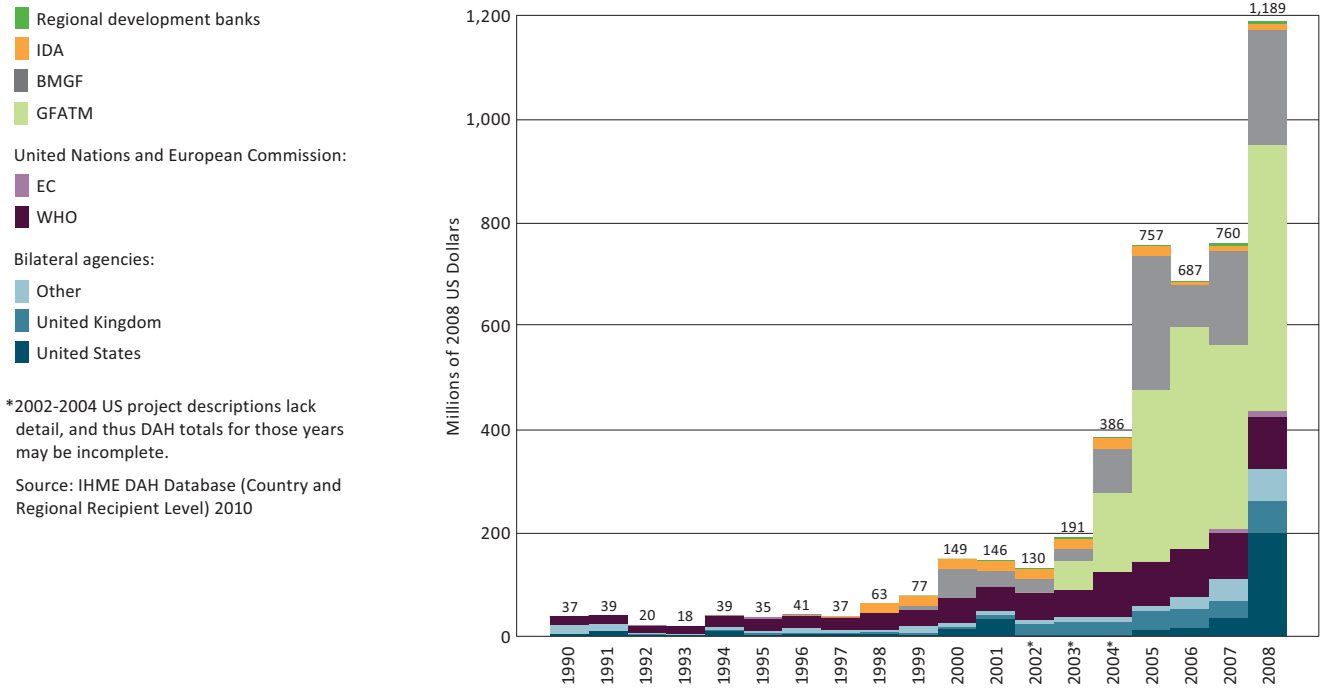
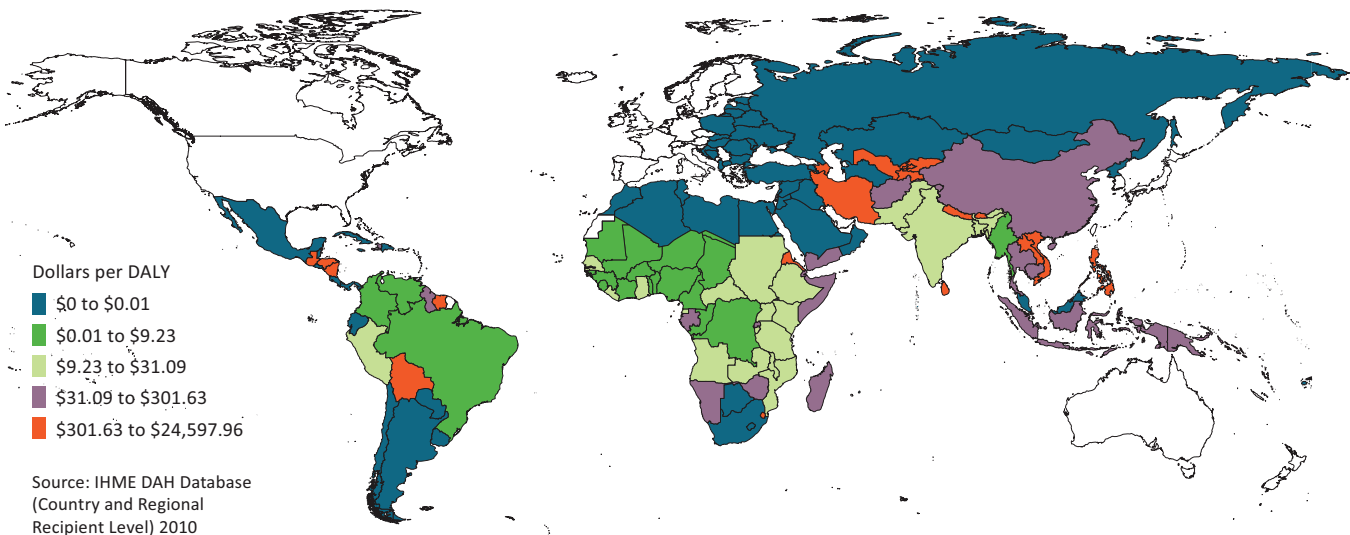


FIGURE 22:
Malaria: DAH per related DALY, 2003-2008

We used DALY data for 2004 as a proxy for burden in all subsequent years. Countries that received no DAH over the study period and countries with zero or missing burden data are not shown. DAH received is shown in real 2008 US\$.



complications related to HIV/AIDS. By WHO estimates, tuberculosis is the leading cause of death among people with HIV/AIDS in sub-Saharan Africa.⁴⁵

The Second Stop TB Partners Forum in New Delhi in 2004 pledged to cut mortality from tuberculosis in accordance with the MDG target of reducing it by half between 1990 and 2015.⁴⁶ The assembled partnership members, who included representatives from 29 countries, the UN, the World Bank, the World Economic Forum, and dozens of pharmaceutical companies and research organizations, also reaffirmed previous commitments to support GFATM.

As shown in Figure 24, funding flowing through GFATM did increase beginning in 2004, from \$58.28 million in 2003 to \$132.95 million in 2004. It grew to \$342.78 million in 2008.

Funding for tuberculosis control is dominated by GFATM and BMGF. Between them, they accounted for 69% of all funding for tuberculosis programs in 2008. They also have increased funding for tuberculosis more

than other channels of assistance. Funding channeled through BMGF grew from \$7.32 million in 1999 to \$232.65 million in 2008.

We expect that shifts in this funding pattern will be revealed as data for 2009 and 2010 are made available. In March 2010, the United States Agency for International Development (USAID) announced the Lantos-Hyde United States Government Tuberculosis Strategy, which promised “a substantial increase in US Government funding for TB treatment and control over a five-year period.”⁴⁷

Interesting patterns emerge when looking at funding in the context of disease burden. The countries that receive the most funding per tuberculosis-related DALY are mostly in Eastern Europe. Serbia and Montenegro, Georgia, Bulgaria, Moldova, and Armenia all receive more than \$100 per tuberculosis-related DALY. At the other end of the spectrum, countries with higher tuberculosis burdens receive less than \$5 per tuberculosis-related DALY. These include Uganda, Zimbabwe, Côte d’Ivoire, Nigeria, and Chad.

FIGURE 23:
DAH for health sector support by channel of assistance, 1990-2008

- Regional development banks
- IDA
- EC
- Bilateral agencies:
 - Other
 - United Kingdom
 - United States

*2002-2004 US project descriptions lack detail, and thus DAH totals for those years may be incomplete.

Source: IHME DAH Database (Country and Regional Recipient Level) 2010

Note: For search terms used to define health sector support, please visit our online Methods Annex at: http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_methods_IHME.pdf

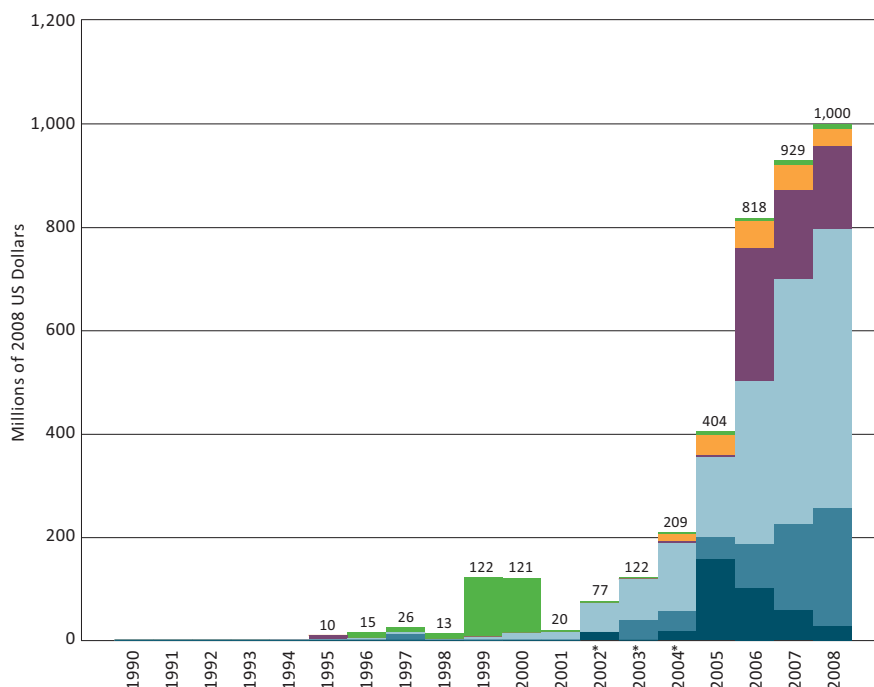


FIGURE 24:
DAH for tuberculosis by channel of assistance, 1990-2008

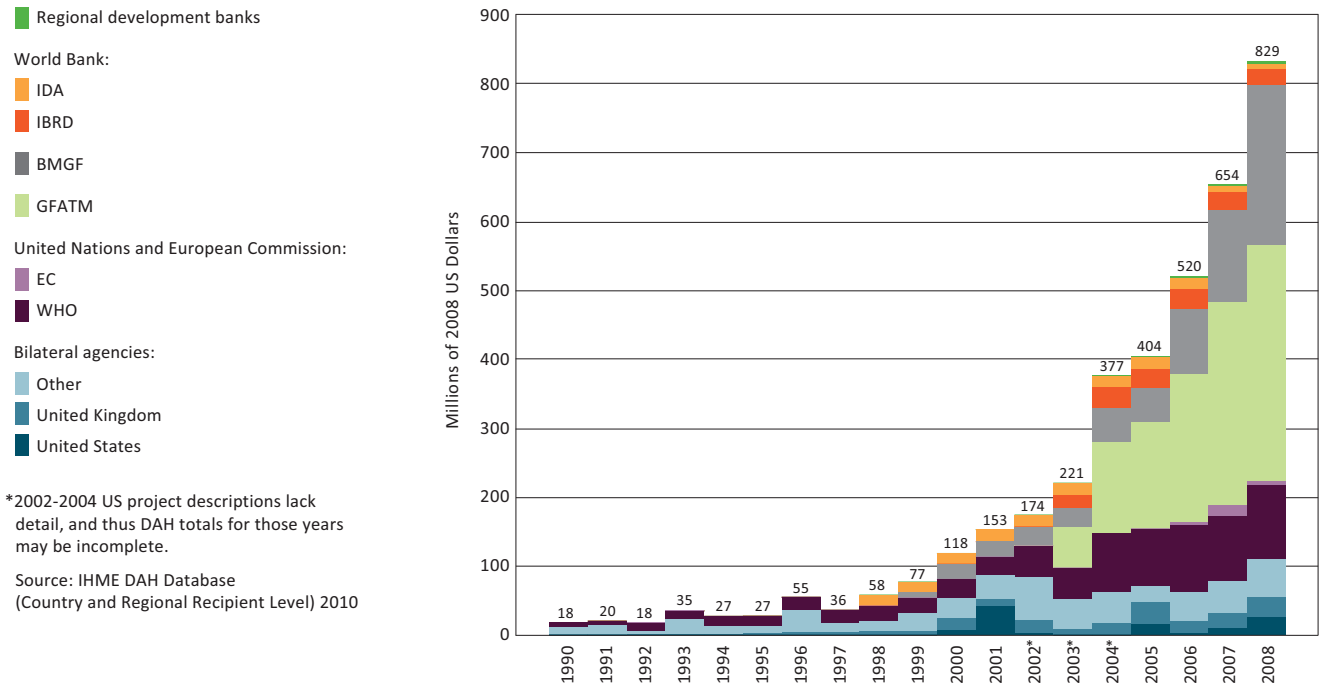
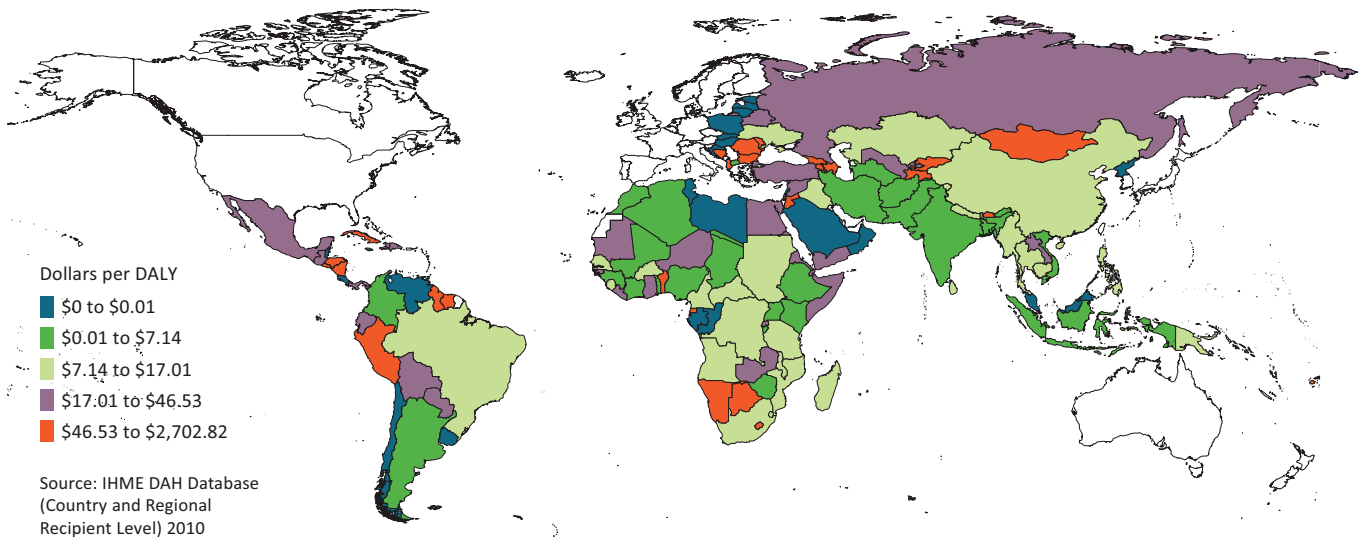


FIGURE 25:
Tuberculosis: DAH per related DALY, 2003-2008

We used DALY data for 2004 as a proxy for burden in all subsequent years. Countries that received no DAH over the study period and countries with zero or missing burden data are not shown. DAH received is shown in real 2008 US\$.



Funding for noncommunicable diseases by channel of assistance

For decades, donor countries have focused on infectious diseases that spread rapidly, including the diseases discussed in the previous sections: HIV/AIDS, malaria, and tuberculosis. As efforts to address those diseases have made headway, child and adult mortality have declined.^{38,48} In 1990, 12 countries had an under-5 mortality rate (defined as the probability of death between birth and age 5) of more than 200 deaths per 1,000 live births.³⁸ In 2010, no country had an under-5 mortality rate that high.³⁸ Adult mortality has fallen globally, too.⁴⁸ These trends, coupled with rising income levels in many developing countries, have given rise to the well-documented increase in the incidence of chronic diseases such as cancer, heart disease, and diabetes.³⁵

In May 2008, the World Health Assembly endorsed an action plan for preventing NCDs. In May 2009, the Doha Declaration on Noncommunicable Diseases and Injuries was made at a meeting convened by UN agencies.⁴⁹ The

declaration stated: “The socioeconomic cost of NCDs and injuries is enormous and is rising rapidly. These conditions cause considerable disability and premature death, leading to lost productivity. The rapidly increasing health costs are impoverishing, and inaction is a tremendous burden to sustainable development.”

These statements came during a period of shrinking financial commitments to NCDs by UN agencies and donor governments. Figure 26 shows that WHO spending on NCDs peaked in 2002 at \$64.47 million before dropping to \$43.74 million in 2008. Donor governments channeling funds through bilateral agencies spent less in 2008 on NCDs than they did in 1995.

Overall spending on NCDs increased because of funding channeled through BMGF, which spent a total of \$207.16 million on NCDs between 1999 and 2008. Much of this funding was targeted at efforts to reduce the use of tobacco.

The range of DAH per DALY for NCDs is narrower than for any other health focus area in the study, from

FIGURE 26:
DAH for noncommunicable diseases by channel of assistance, 1990-2008

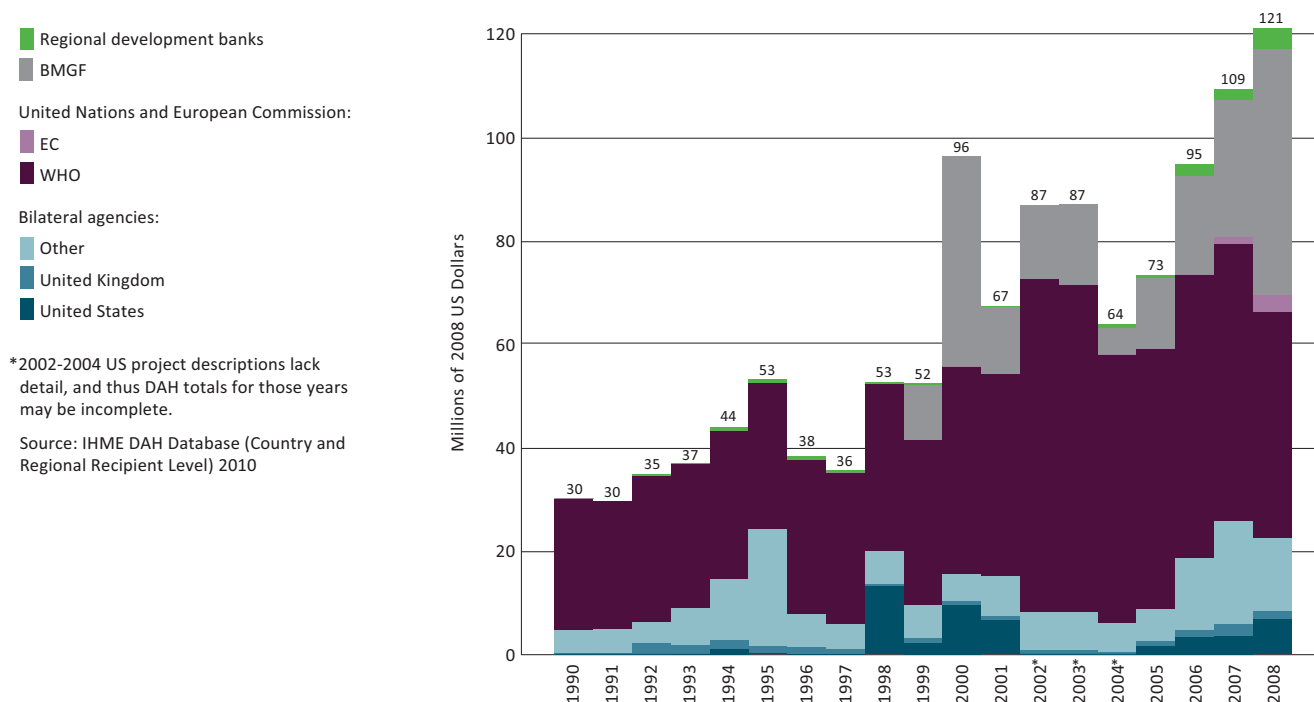
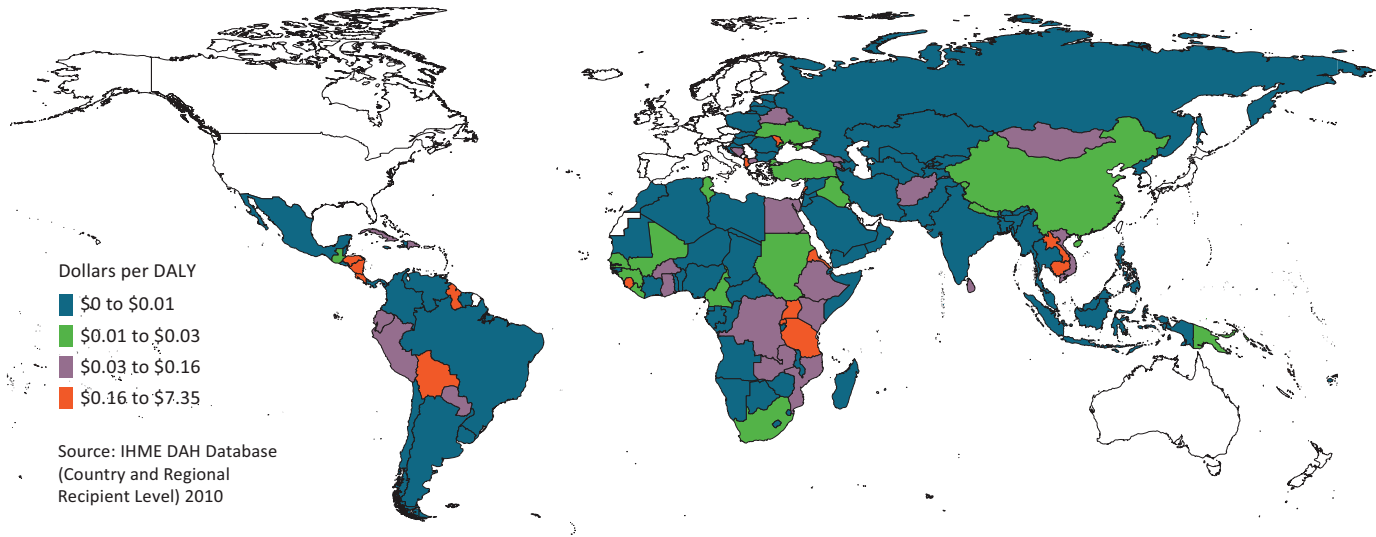


FIGURE 27:
Noncommunicable diseases: DAH per related DALY, 2003-2008

We used DALY data for 2004 as a proxy for burden in all subsequent years. Countries that received no DAH over the study period and countries with zero or missing burden data are not shown. DAH received is shown in real 2008 US\$.



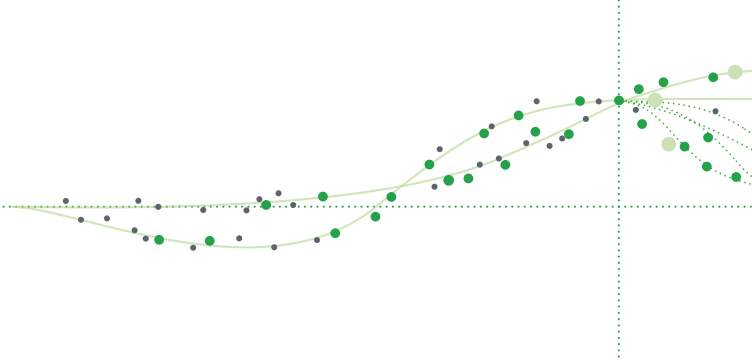
less than 1 cent per DALY to \$7.35. This is partially a result of missing and sparse project descriptions in the data reported by channels. We were only able to find funding targeted specifically for NCDs in 85 out of 155 countries, even though NCDs affect every country.

Figure 27 shows that countries receiving the most DAH per DALY for NCDs are primarily in Africa and Latin America. We found 56 countries that received between 1 cent and \$1 per NCD-related DALY between 2003 and 2008. At the low end were Benin, Liberia, Mali, Ukraine, Turkey, and China. At the high end, this included Samoa, Vanuatu, Albania, Nicaragua, Honduras, and Rwanda.

Through 2008, at least, the discussion around increasing funding for MNCH and NCDs had yet to translate into the kind of increases in spending seen following similar global pledges to focus on HIV/AIDS, tuberculosis, and malaria. It remains to be seen how the push to increase funding for MNCH and NCDs will shift priorities for the US government, the largest funder of global health projects. The US Global Health Initiative promises to put \$63 billion in new funding toward global health, and MNCH is listed among the initiative’s priorities, though NCDs are not.⁵⁰

PART TWO:

GOVERNMENT HEALTH EXPENDITURE



CHAPTER 3:

SPENDING ON HEALTH BY DEVELOPING COUNTRY GOVERNMENTS

With the steady growth in development assistance for health (DAH) going to developing countries, there has been a parallel rise in interest regarding how that money is impacting the budgets of recipient countries. It has not been clear whether the money provided for health was being used in addition to what countries would normally spend from their national treasuries, or whether it was replacing those national funds.

In this chapter, we show that spending on health by governments within their own countries amounts to a far greater sum than DAH. For developing countries to make progress toward the Millennium Development Goals by 2015, country spending on health and health-related sectors will be a more important factor than DAH, given the magnitude of country spending. Spending decisions by governments have a long-term impact on the sustainability of the health sector, decreasing poverty, and increasing the level of educational attainment. All of these factors have a health impact.

It has long been understood that some countries use donor funds to replace their own health spending, and donors differ in their views about whether that is acceptable. Other countries use outside donations as a supplement to their domestic spending and, in some cases, actually spend more of their own money on health after receiving donor funding.

Determining the final destination of those funds has proven difficult. Many developing countries do not specify how they use donor funds, and there are few publicly available databases published by these countries that would help clarify the relationship between donor funds and national government spending. Estimates of national public expenditures on health from the International Monetary Fund (IMF) and the World Health Organization (WHO) often differ.^{51,52}

To improve our collective understanding of the global financial investment in health, the Institute for Health Metrics and Evaluation (IHME) and its collaborators undertook a study. Using data from 1995 to 2006 for nearly every country in the world, we generated the most accurate estimates to date of country spending on health. Because of the conflicting data sources, we present some of these estimates as a range of possibilities. The data for spending in developing countries have a longer lag time than data for DAH, and we therefore did not produce estimates for more recent years.

As shown earlier in the report, DAH increased dramatically over the past two decades. Although donors are increasingly contributing to the health resources of developing countries, governments in those countries are also committing more of their own resources to the cause. Notably, health spending by the poorest countries doubled between 1995 and 2006. For this section of the report, we use DAH data from our 2009 *Financing Global Health* report because these data were the basis for our country spending study published in *The Lancet* in April 2010.⁵³

Conceptual framework and definitions

The first two chapters of this report examined how DAH flows to developing countries to address health needs. But there are two additional sources of health funding that complete the health expenditure picture: spending by governments of developing countries and private health spending by individuals, including out-of-pocket payments by households. These two funding streams make up the vast majority of health expenditure.⁵⁴ In Chapters 3 and 4, we analyze financing by governments of developing countries. In future years, we intend to study private health expenditure.

BOX 3:
List of acronyms

DAH	Development assistance for health
DR	Debt relief
GDP	Gross domestic product
GGE	General government expenditure
GHE-A	Government health expenditure as agent. This consists of domestic- and donor-funded health spending.
GHE-S	Government health expenditure as source. These are funds spent by the government that come only from domestically financed public spending on health.

In trying to understand the relationship between DAH and country spending on health, it is important to note that a number of factors influence what developing countries spend. Among these factors are gross domestic product (GDP), size of government, HIV prevalence, debt, and debt relief.^{51,55-62} There are also variables in policy choices that set priorities for health relative to other sectors.

For the purposes of this report, we set aside the policy choices and focused on the money flowing in and out of country government budgets, intending to construct a complete time series for low-income and lower-middle-income countries of their spending on health. In undertaking this exercise, there were numerous challenges to overcome.

The first challenge was settling on a simple list of acronyms for different types of funding. That list can be found in Box 3.

The second challenge was separating spending on health financed by DAH from spending financed by developing countries from their own treasuries. There are two primary sources of information on country spending on health: WHO and IMF.^{51,52} Both WHO and IMF track country spending on health with a two- to three-year lag, and, in principle, both collect data on government health expenditure as agent (GHE-A), meaning all spending on health financed by both domestic resources and DAH. A true compilation of all domestic public resources for health would include only government health spending as source (GHE-S).

Because domestic and international funds – as well as public and private funds – are commingled in the data, it is difficult to identify the origins of government spending on health. This lack of distinction between source and agent persists not only in IMF and WHO accounting, but in other studies as well.⁶¹ To keep this distinction clear, IHME and its collaborators developed a method to distinguish between GHE-A and GHE-S. Our approach to data collection and modeling is summarized in Box 4.

Trends in country spending on health programs

There were notable differences at the regional and country levels between the data from WHO and IMF. These differences were not explained by documentation from either organization, although the overall trends were roughly consistent. Still, because of the measurement uncertainty, we present our findings from both datasets.

As can be seen in Figures 28 and 29, the trend in constant 2006 US dollars has been a substantial increase in country spending on health from domestic sources. According to WHO data, spending on health by developing countries grew from \$128.18 billion in 1995 to \$241.33 billion in 2006, an increase of 88%, and, according to IMF data, the increase is 120%, from \$99.09 billion in 1995 to \$218.86 billion in 2006. In both cases, the year-to-year growth is steady and shows that developing country governments are spending more of their own money on health.

BOX 4:
Data collection and modeling

We collected GHE-A data from WHO's published National Health Accounts data from 1995 to 2006 for its 193 member countries.⁵² These included tax-funded health expenditures, social security for health, and DAH captured in government accounts. We estimate that 35% of the data were missing, and, in low-income countries, 44% were missing.

IMF provided a dataset of GHE-A as a percentage of GDP for countries from 1985 to 2007. These data were mainly from IMF staff reports, government finance statistics, spending outlays, and World Bank public expenditure reviews. We estimate that 25% of the data were missing from 1995 to 2006. Between the WHO and IMF datasets, we found a 0.65 correlation, indicating significant measurement uncertainty in GHE-A.

We compensated for missing data by utilizing a replicable imputation process for both the WHO and IMF datasets, including data from 111 developing countries and spanning the period 1995 to 2006. Yet the degree of measurement uncertainty in the underlying data made it difficult to draw conclusions at the country level. Thus, we decided to analyze GHE-A and GHE-S data at the regional level in order to draw strength from aggregated trends.

To extract GHE-S from GHE-A, we subtracted DAH disbursed to government from GHE-A estimates for each year. We standardized our estimates across a range of currencies by using GHE-S as a percentage of GDP. We then tested the relationship between government health spending as source and determinants, including GDP per person, government size, debt relief, and DAH itself.^{51,55-57,60,61} Because of concerns from members of our Advisory Panel about the effect of HIV on government budgets, we also tested the relationship between government health spending and the size of the HIV epidemic in specific countries.

For DAH estimates, we created a new variable based on the IHME DAH Database 2009 created by IHME researchers for *Financing Global Health 2009*.¹ We isolated DAH to governmental or non-governmental organizations by reviewing detailed project descriptions in financial data from the Organisation for Economic Co-operation and Development's Creditor Reporting System; development banks; the Global Fund to Fight AIDS, Tuberculosis and Malaria; the GAVI Alliance; the US President's Emergency Plan for AIDS Relief; and the Bill & Melinda Gates Foundation. We excluded DAH in the form of loans. All results are presented in 2006 US dollars.

By analyzing country spending at the Global Burden of Disease developing region level, we can see substantial growth in North Africa and the Middle East, Latin America, and East Asia. The latter is largely due to increased spending on health in China.

The amount of resources committed by governments to health was much larger than total DAH from 1995 to 2006, especially among the poorest countries. For all low-income countries, GHE-S grew from \$9.03 billion in 1995 to \$18.07 billion in 2006, a 100% increase, according to WHO data. Using IMF's dataset, GHE-S grew from \$7.96 billion to \$17.81 billion, a 124% increase, but the steeper growth curve may be an artifact of incomplete data in earlier years.

In low-income countries in sub-Saharan Africa, GHE-S increased 132% from 1995 to 2006, according to WHO, and 242%, according to the IMF. In the lower-middle-income countries of sub-Saharan Africa, GHE-S increased 92% (WHO) and 78% (IMF) in that period.

To better understand the drivers behind increased government spending on health, we analyzed three components of government financing: GHE-S, GDP, and general government expenditure (GGE). The results can be seen in Table 4.

The first column shows that, according to WHO data, absolute health spending from government sources went up in every region except Oceania between 2003 and 2006 (compared with 1999 to 2002).

FIGURE 28:
GHE-S by Global Burden of Disease developing region (based on WHO data), 1995-2006

- Sub-Saharan Africa, West
- Sub-Saharan Africa, South
- Sub-Saharan Africa, East
- Sub-Saharan Africa, Central
- Oceania
- North Africa / Middle East
- Latin America, Tropical
- Latin America, South
- Latin America, Central
- Latin America, Andean
- Caribbean
- Asia, Southeast
- Asia, South
- Asia, East
- Asia, Central

Source: IHME Government Health Spending Database (Developing Countries) 2010
 Note: Government health expenditure as source (GHE-S).

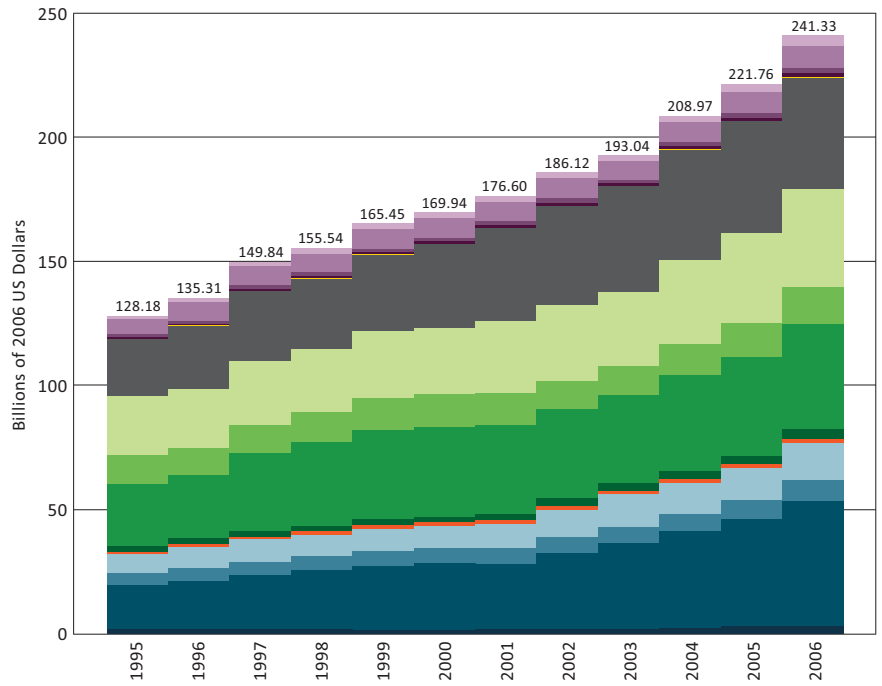
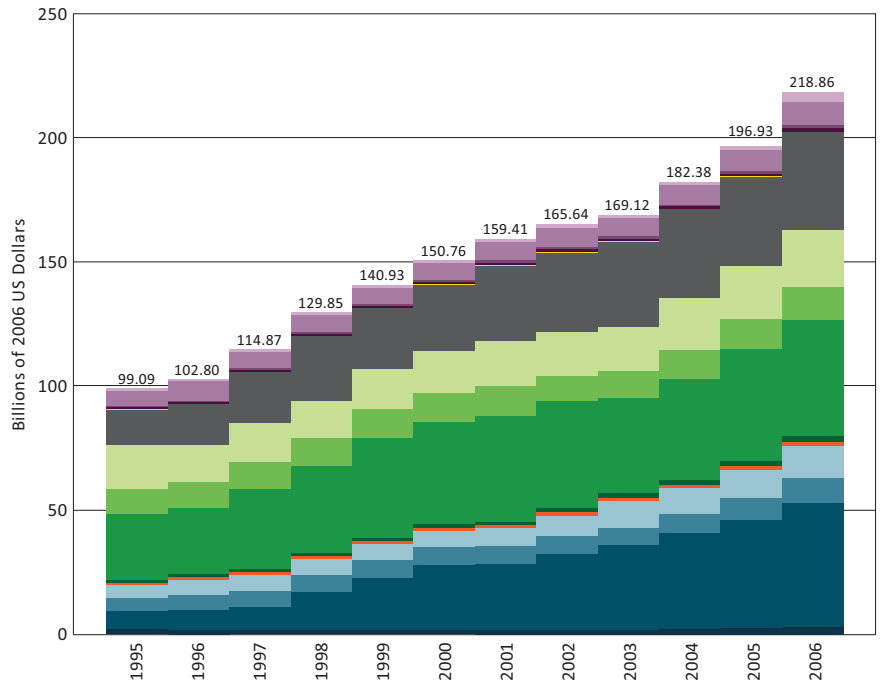


FIGURE 29:
GHE-S by Global Burden of Disease developing region (based on IMF data), 1995-2006

- Sub-Saharan Africa, West
- Sub-Saharan Africa, South
- Sub-Saharan Africa, East
- Sub-Saharan Africa, Central
- Oceania
- North Africa / Middle East
- Latin America, Tropical
- Latin America, South
- Latin America, Central
- Latin America, Andean
- Caribbean
- Asia, Southeast
- Asia, South
- Asia, East
- Asia, Central

Source: IHME Government Health Spending Database (Developing Countries) 2010
 Note: Government health expenditure as source (GHE-S).



In the last column, we see that GDP rose in all regions. In theory, this should have led to similar increases in GHE-S, but this was not the case. As seen in the second-to-last column, in all regions except Southeast Asia and all of sub-Saharan Africa, GDP growth was greater than growth in government spending. This is because the size of government has been stable or contracting. The crucial measure is the share of GGE going to health (GHE-S/GGE). Table 4 shows that in most regions, that share is going up, meaning the government commitment to health is on the rise worldwide, both in absolute terms and as a measure of all government spending.

However, both datasets show the share of GGE for health is going down in three regions: Central, East, and South sub-Saharan Africa. As we will discuss in the next chapter, the most policy-relevant factor to understand is that these also were the regions where governments had received the largest amount of DAH.

When compared to government health spending, the growth of DAH in absolute terms has been more dramatic, but health aid has yet to rival country spending on health programs in size. Using the data from our 2009 report, the total envelope of DAH to all recipients, including governments, NGOs, and bilateral agencies, was \$8.01 billion in 1995 and \$18.99 billion in 2006. Although this represents more than a doubling, the total in 2006 is still less than one-tenth the size of country spending on health by developing countries that year.

To analyze the trend more closely, Figure 30 shows the percentage of DAH that could be traced directly to developing regions. The total grew from \$1.16 billion in 1995, or 15% of all DAH, to \$5.69 billion in 2006, or 31% of all DAH. Most of that money in 2006 went to low-income countries in sub-Saharan Africa. Even in those countries, government spending on health was significantly more than what they received in DAH: \$6.68 billion, according to WHO data, and \$5.90 billion, according to IMF data.

FIGURE 30:
DAH by Global Burden of Disease developing region, 1995-2006

- Sub-Saharan Africa, West
- Sub-Saharan Africa, South
- Sub-Saharan Africa, East
- Sub-Saharan Africa, Central
- Oceania
- North Africa / Middle East
- Latin America, Tropical
- Latin America, South
- Latin America, Central
- Latin America, Andean
- Caribbean
- Asia, Southeast
- Asia, South
- Asia, East
- Asia, Central

Source: IHME DAH Database
(Country and Regional Recipient Level) 2009

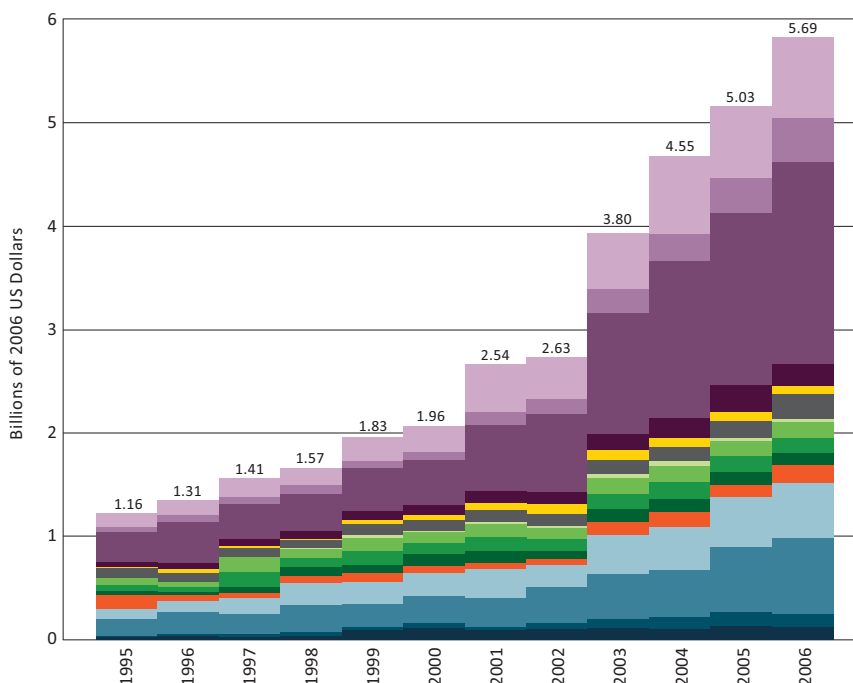


TABLE 4:
Percentage change in key health-expenditure-related indicators, 1999-2002 compared with 2003-2006

GBD region	GHE-S, WHO	GHE-S, IMF	GHE-S/GGE, WHO	GHE-S/GGE, IMF	GGE/GDP	GDP
Asia						
Central	52	52	15	15	-9	44
East	52	58	14	18	-8	45
South	19	20	5	6	-12	28
Southeast	38	54	7	18	6	23
Caribbean	17	24	3	9	-3	18
Latin America						
Andean	25	47	7	26	-2	19
Central	9	2	4	-2	-6	11
South	3	5	4	5	-12	13
Tropical	25	20	13	9	-2	12
North Africa / Middle East	24	29	9	13	-6	21
Oceania	-1	3	2	7	-9	8
Sub-Saharan Africa						
Central	16	14	-10	-11	2	27
East	22	5	-12	-24	15	23
South	2	17	-15	-3	5	16
West	32	52	0	15	1	31

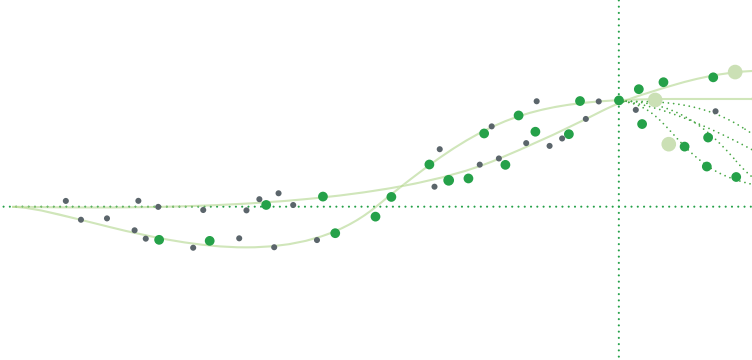
Sources: IMF World Economic Outlook, IHME Government Health Spending Database (Developing Countries) 2010, World Bank World Development Indicators

Notes: Analysis of trends from 1999-2002 and 2003-2006 for government health expenditure as source (GHE-S); share of general government expenditure spent on health (GHE-S/GGE); share of gross domestic product spent by government (GGE/GDP); and GDP.

Our results show that for low- and middle-income countries in most regions of the world, government spending on health is increasing in absolute terms. The growth is not simply due to increases in GDP but is also attributed to rising GGE devoted to health, even as the overall size of governments in most regions is decreasing.

Efforts to accurately estimate the amount of country spending on health programs are hindered by a lack of complete data. A clear set of reporting standards for GHE-S and spending in other health-related sectors, such as education, water, and sanitation, is vital to a

more thorough understanding of country spending trends. Any improvements in that reporting would require leadership from the two main data sources – WHO and IMF – as well as the World Bank. They also would require new investments in building the capacity of governments – particularly in low-income countries – to report their spending data using common definitions and standards.



CHAPTER 4:

IMPACT OF DEVELOPMENT ASSISTANCE FOR HEALTH ON COUNTRY SPENDING

As external health aid has grown in importance in recent years, global health experts have discussed the role that development assistance for health (DAH) plays in defining the agenda for health spending by developing countries. These discussions have relied on mostly anecdotal evidence and limited data.⁵⁷ In this chapter, we will discuss our findings regarding the effect that DAH has on country spending for health in low- and lower-middle-income countries.

Chapter 3 showed that there were notable differences at the country level between the databases of the International Monetary Fund (IMF) and the World Health Organization (WHO), yet the overall pattern remained similar. Large parts of Latin America, the Middle East, and Asia showed increasing government commitment to health as measured by government health expenditure as source (GHE-S) as a percentage of general government expenditure (GGE). Much of sub-Saharan Africa, however, showed decreasing commitment. These trends can be seen in the maps in Figures 31 and 32.

The maps reveal how regional averages can mask wide variation in the performance of different countries. Malawi, for example, shows an increasing commitment to health, as measured by GHE-S against GGE, but it is part of a region with a decreasing commitment to health. In West Africa, there are significant differences in funding trends among countries. In the Middle East, Pakistan is notable as one of the few countries showing a consistent decline in GHE-S as a percentage of GGE while being surrounded by countries that have increased their commitment to health.

To illustrate these variations in spending patterns, it is worth comparing the maps in Figures 31 and 32 with the map of DAH by country in Figure 33.

For the most part, the countries that have seen the most substantial increases in DAH are also the countries that have seen declines in country spending on health programs.

Statistical analysis of DAH and country spending

To test whether this connection between DAH and country spending on health is significant, we applied several statistical models to the data. We were able to identify three factors that had an impact on country spending: DAH given directly to governments, DAH given to non-governmental organizations (NGOs) operating within those countries, and GGE. We found that, on average, for every \$1 of DAH given directly to governments, those governments decreased their own health spending by a range of 43 cents to \$1.14.

In analyzing both WHO and IMF datasets, the results were substantially the same. According to WHO data, for every \$1 of DAH given to governments in developing countries, the governments reduced spending from their own sources by 46 cents. The results from the IMF database were nearly identical, showing a reduction in spending of 43 cents. This finding was confirmed by subgroup analyses for three groups of countries: low-income countries, low- and lower-middle-income countries, and sub-Saharan African countries.

This finding suggests that global health funders would need to increase their giving to accomplish their goals. For example, the High Level Taskforce on Innovative International Financing for Health Systems asked for \$30 billion to save the lives of 10 million mothers and children in developing countries.⁶³ Based on our research, they actually would need to spend at least \$53 billion – and perhaps considerably more – to achieve their goal if they channel funds directly to governments.

FIGURE 31:
Percentage change in GHE-S as a share of GGE for countries in Global Burden of Disease developing regions (based on IMF data), 1999-2002 compared with 2003-2006

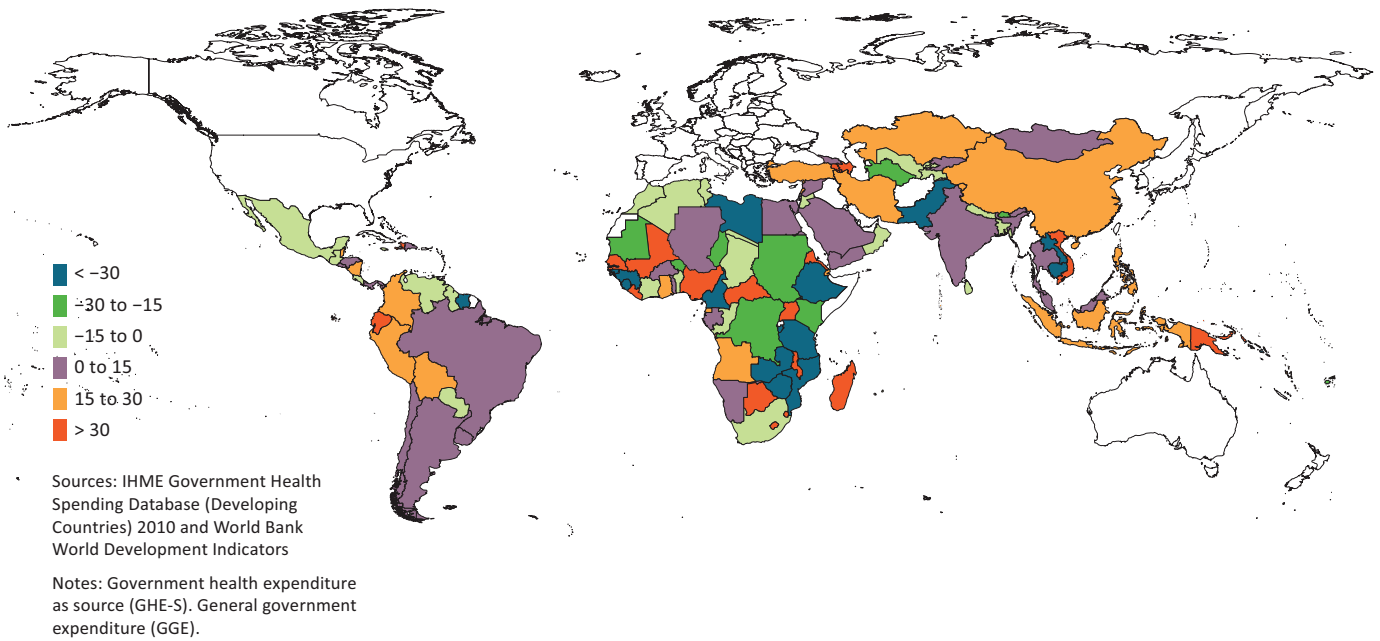


FIGURE 32:
Percentage change in GHE-S as a share of GGE for countries in Global Burden of Disease developing regions (based on WHO data), 1999-2002 compared with 2003-2006

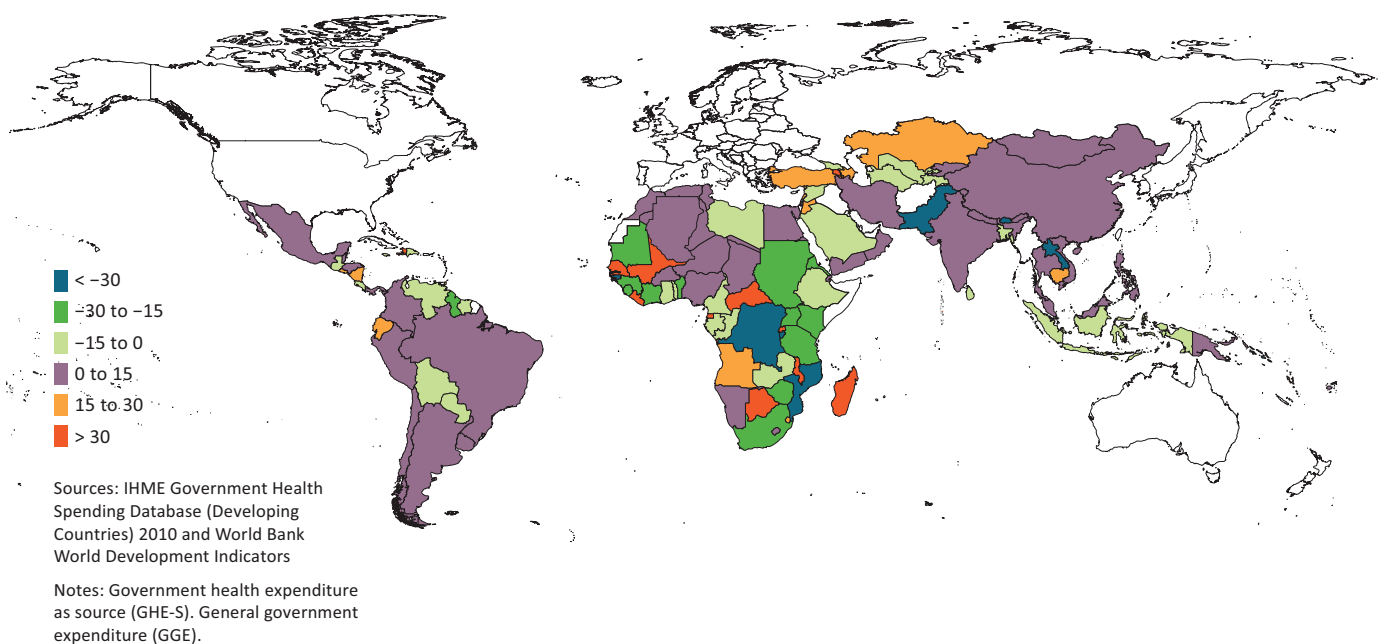
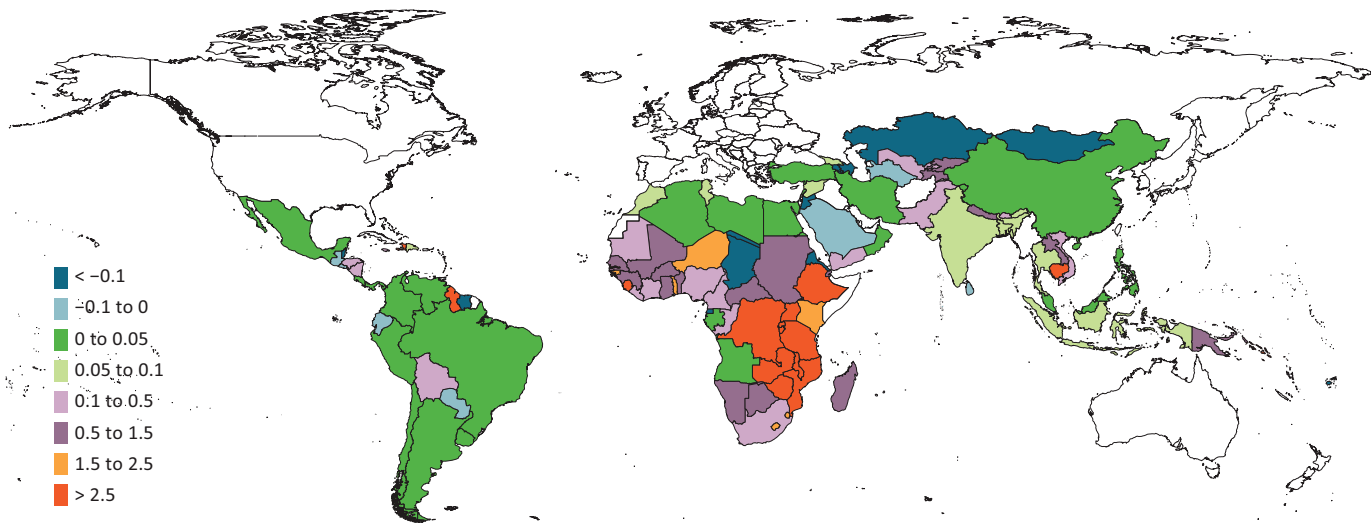


FIGURE 33:
Percentage change in DAH as a share of GDP in Global Burden of Disease developing regions, 1999-2002 compared with 2003-2006



Sources: IHME DAH Database (Country and Regional Recipient Level) 2009 and IMF World Economic Outlook

Note: Gross domestic product (GDP).

Whether the movement of funding to areas other than health has an overall negative or positive effect on social welfare can only be answered by more information about the programs on which the budgets of ministries of health are spent. The funds could be going toward increasing educational attainment, which has been shown to have an enormous impact on health outcomes.⁶⁴ The funds also could be going to infrastructure development, poverty alleviation, or other underfinanced government programs that may improve health. However, governments could be taking their own money out of the health budget to finance sectors with uncertain health impacts, such as the military or industrial development. The current state of reporting by many recipient governments does not help answer the question.

The finding that some governments in low-resource settings spend their own resources elsewhere was not as surprising as our finding in regard to NGOs. We found that for every \$1 of DAH given to NGO channels, on average, country governments appeared to increase their spending on health by about 60 cents. The question of how governments would react to spending channeled through NGOs has not been widely studied. Some global health observers have speculated that NGOs increase the competition for human resources and, therefore, may force governments to increase salaries for their own staffs.^{65,66} NGOs also may bring increased attention to health problems within a country and, in doing so, increase funding through both public and private channels. Before policymakers react to this finding by channeling more DAH through NGOs, careful research is needed to determine the exact drivers of this trend and the risks and benefits of channeling DAH through NGOs.

Connection between HIV/AIDS and country spending on health programs

To help understand why DAH is not having a more dramatic impact on HIV/AIDS, we examined the relationship between the HIV/AIDS disease burden and country spending.

The push to control the HIV/AIDS epidemic is a key component of increases in DAH worldwide. Yet despite promising therapies that are reaching more HIV-positive patients than in previous years, the HIV/AIDS epidemic remains dauntingly large in much of the developing world.

We found that the largest reductions in the fraction of GHE-S were noted for parts of sub-Saharan Africa with the largest HIV/AIDS epidemics and the largest contributions of DAH to government.

The results of the analysis of the WHO and IMF databases were remarkably consistent even if the data varied substantially by country and year. We expected HIV seroprevalence to have an impact on the amount that governments spend of their own funds on health.⁵⁸ Instead, we found no significant association in these analyses with the amount spent.

We also reasoned that governments might need time to respond appropriately to the rise of the epidemic. Redirecting spending cannot always be accomplished quickly. We built into our model the assumption that it would take three years for governments to respond to an increased prevalence of HIV. Even with this assumption, we still found no association.

Implications of the effect of DAH on developing country spending on health

The debate over the effect of DAH on country spending for health tends to center around how governments actually allocate resources for health compared to how donors, civil society organizations, and others perceive that governments should spend that funding, whether it comes from DAH or from domestic resources. These were the main themes at the symposium in London in April 2010 where researchers from the Institute for Health Metrics and Evaluation (IHME), representatives from donor and recipient countries, and finance experts discussed the relationship between DAH and country spending.¹²

On one side, some researchers, finance ministers, and others working in the field of development say governments should make their own allocation decisions based on the conditions unique to their populations and economic state.⁶⁷ Devi Sridhar at All Souls College at the University of Oxford recently wrote that DAH-funded projects in developing countries “are largely driven by donor agendas rather than the country’s own needs and priorities. However ambitious or well-intentioned the initiative might be, it becomes difficult in this environment for governments to develop and implement sound national plans for their country.”⁶⁸ The IMF has taken the view that countries could use DAH to increase their reserves because aid flows can be unreliable from year to year.⁶⁹ In this view, DAH should be considered budget support that enables countries to set their own priorities, whether that means better schools, new roads, or health programs. Some have drawn the analogy of a national government sending funding to states or provinces for road building. In this scenario, local governments are not necessarily expected to spend their own money on the same roads but are free to spend their money on schools, public safety, and other priorities.

On the other side of the debate, some who have spent time working in health programs for bilateral agencies, country governments, or NGOs tend to believe that, regardless of a country’s other priorities, funding given for health programs should supplement existing country spending on health, not replace it. Karen Grepin at New York University’s Wagner Graduate School of Public Service wrote in response to IHME’s country spending paper: “Donor aid might be squeezing out spending on systems in a great way. To the Ministry of Finance, a dollar is a dollar, but to a patient in Africa, a free bed net might be a poor substitute for a doctor to deliver a baby.”⁷⁰ To those on this side of the debate, there is a moral urgency to address health needs in certain countries, particularly related to the HIV/AIDS epidemic, that imposes an obligation on governments to devote as much funding as possible to health concerns. To take up the same analogy, the national government in this case would tell the states or provinces that they had to provide matching funds for any new federally funded road construction.

What's clear is that more research needs to be conducted into the most effective ratio for DAH as it relates to country spending. Equally important would be efforts to improve the quality of data on country spending. The main limitation for IHME's country spending paper was that the data are far from complete. Multiple imputation can compensate for some amount of missing data, but there are real concerns that systematic errors could be skewing the country spending picture. The project-level databases from WHO and IMF leave large gaps in the funding picture. We also had difficulties ascertaining the exact amount of DAH channeled directly to governments and the exact amount of DAH channeled through NGOs.

During the prepublication process for the April 2010 *Lancet* publication, reviewers asked that we take another look at how much DAH is actually going to governments versus NGOs. In response, we performed a series of sensitivity analyses that relied on a much stricter assumption of the amount of DAH going to government. Using this narrower definition of DAH, our results indicated that a larger amount of country spending for health was redirected to other sectors compared to our initial results based on a broader definition of DAH. That finding underscored for us that our initial results were sound. For more information about the sensitivity analysis, please visit our online Methods Annex at:

http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_methods_IHME.pdf

We also sent our researchers to Zambia and Malawi to conduct interviews with donors, ministries of health, and ministries of finance. In both cases, in-country interviews confirmed the results we saw in the data.

We believe that, if anything, we are overestimating the amount of country spending on health programs, and we have called for a more rigorous approach to collecting and reporting both DAH sent to governments and country spending on health programs. Taking into account the full scope of spending on health programs, nearly 90% of recipient countries in our analysis have been increasing their spending on health. That funding is a mixture of their own resources and DAH. For health advocates, this is undoubtedly good news. At the same time, key health interventions are scaling up, including antiretroviral medicines to combat HIV/AIDS, insecticide-treated bed nets to prevent malaria, childhood immunizations for a range of diseases, and skilled birth attendance programs to prevent maternal and newborn deaths.⁷¹⁻⁷⁴ There is accumulating evidence that these interventions are having a powerful impact. In this context, it is all the more important to understand what drives spending on health programs in developing countries. As the dominant source of money for health, it will continue to be the engine for accelerating progress.

CONCLUSION

There is rising concern in the global health community that the dramatic growth in development assistance for health (DAH) since 1990 is likely to stagnate in the years ahead. With the evidence that we have been able to gather to date, we have found that trends in global health financing may not be as dire as some fear.

Much of the anxiety stems from recent reports about financial commitments to large global health efforts. In September 2010, the UN Millennium Development Goal Gap Task Force released a report predicting that total development assistance from donor governments for all sectors would rise from \$120 billion in 2009 to \$126 billion in 2010 but would fall short of the promises made by the Group of Eight nations at a 2005 summit at Gleneagles in Scotland.⁷⁵ In October 2010, donors pledged \$11.7 billion in new commitments to the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), which was short of GFATM's goal. To keep programs funded at their current levels, GFATM was hoping to receive new commitments of at least \$13 billion.⁷⁶

Despite some disappointment among aid experts, the pledged amount to GFATM is notable for three reasons. It marked a new high for three-year GFATM commitments.⁷⁷ The United States offered \$4 billion over three years, an increase of nearly 40% over its last pledge.⁷⁸ And the next largest commitment was a \$300 million pledge from the Bill & Melinda Gates Foundation, a sign of continued strength in the private donor sector.⁷⁷ *Foreign Policy* wrote: "That number dwarfs almost all country donors – including countries known for giving a relatively high proportion of their GDPs to aid: Norway, Denmark, and Australia. What a new world it is where the richest foundation in the United States can outspend the world's most generous national donors."⁷⁹

While the evidence shows that DAH continues to grow, though at a slower pace, our analysis also raises questions about whether DAH is always aligned with need, as seen in the relationship between DAH and disability-adjusted life years. Some countries with relatively low

disease burdens continue to receive disproportionately high amounts of DAH, while some countries with greater disease burdens receive less. Criticism of how health focus areas are funded will likely increase as the aid pool shrinks and competition for DAH intensifies. When the United Nations General Assembly meets in September 2011 to discuss noncommunicable diseases, the group will be faced with balancing the funding needs of the pressing health problems presented by infectious diseases with the growing burden of heart disease, cancer, diabetes, and other chronic diseases.¹⁰

In the midst of the economic crisis, innovations in health interventions continue to emerge, providing both simple and technologically advanced solutions to seemingly intractable health problems. In *PLoS Medicine* in August 2010, the Institute for Health Metrics and Evaluation (IHME) and its collaborators published a paper that showed how the distribution of relatively low-cost insecticide-treated bed nets has expanded rapidly throughout Africa.⁷¹ Major pharmaceutical companies have invested in new drugs and treatments that are starting to be sold in developing countries to combat a variety of diseases. These will address unmet needs, and they also will require new funding. The most important funders, as we have shown, will be the governments themselves, regardless of the amount of DAH they receive.

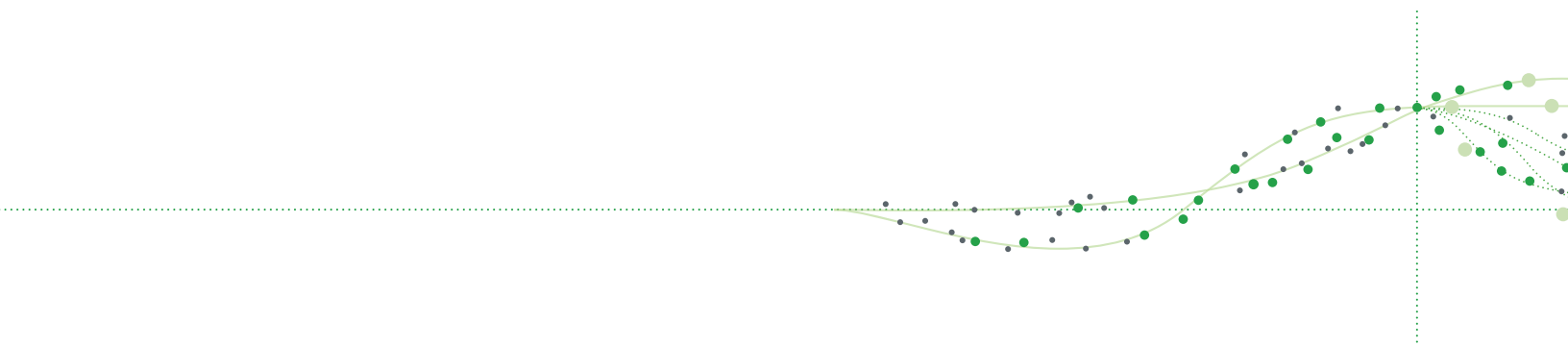
In this regard, the news in recent years has been good. The developing world's commitment to health grew dramatically over the past two decades. Still, a significant portion of the countries with the greatest need for robust health spending also decreased their commitments to health as they have received more DAH. If countries fall behind now in health spending, it will be even harder for them to catch up. Reports by IHME,⁸⁰ the United Nations Development Programme,⁸¹ and other organizations have shown that a minority of countries are on track to reach the Millennium Development Goals for reducing child and maternal mortality by 2015. Given these concerns, we must recognize the importance of country spending on health and look for ways to maximize its impact.

One area for improvement we have identified is funding transparency. In an era where so much information is available online, it is surprising that civil society groups and citizens in countries cannot easily find out what their governments spend on different sectors, including health. Tremendous progress has been made on making donor funding more transparent in the past few years. Leadership by the World Bank, the International Monetary Fund, the World Health Organization, and country governments is needed to bring that same level of transparency to spending by finance ministries.

In tandem with greater transparency, more discussion is needed on how to build the capacity of recipient governments to make better use of DAH. There is anecdotal evidence that because ministries of health are only equipped to handle a certain level of funding, ministries of finance do not increase health funding

in light of increased DAH.⁸² Very little is known about this area, and one approach would be to identify cases where implementation capacity has been a factor when governments either increased their spending on health after receiving DAH or reallocated country spending to other sectors. Case studies could provide important evidence for both donor and recipient countries regarding key factors that contribute to declining shares of government spending on health.

The next step would be to study the impact of DAH on health to see whether donors and recipients are getting value for the health money invested. More spending does not necessarily improve population health. It is only through careful evaluation of spending as it relates to health determinants and health outcomes over time that we will find the right tools to build a path to better health for all countries and their populations.



REFERENCES

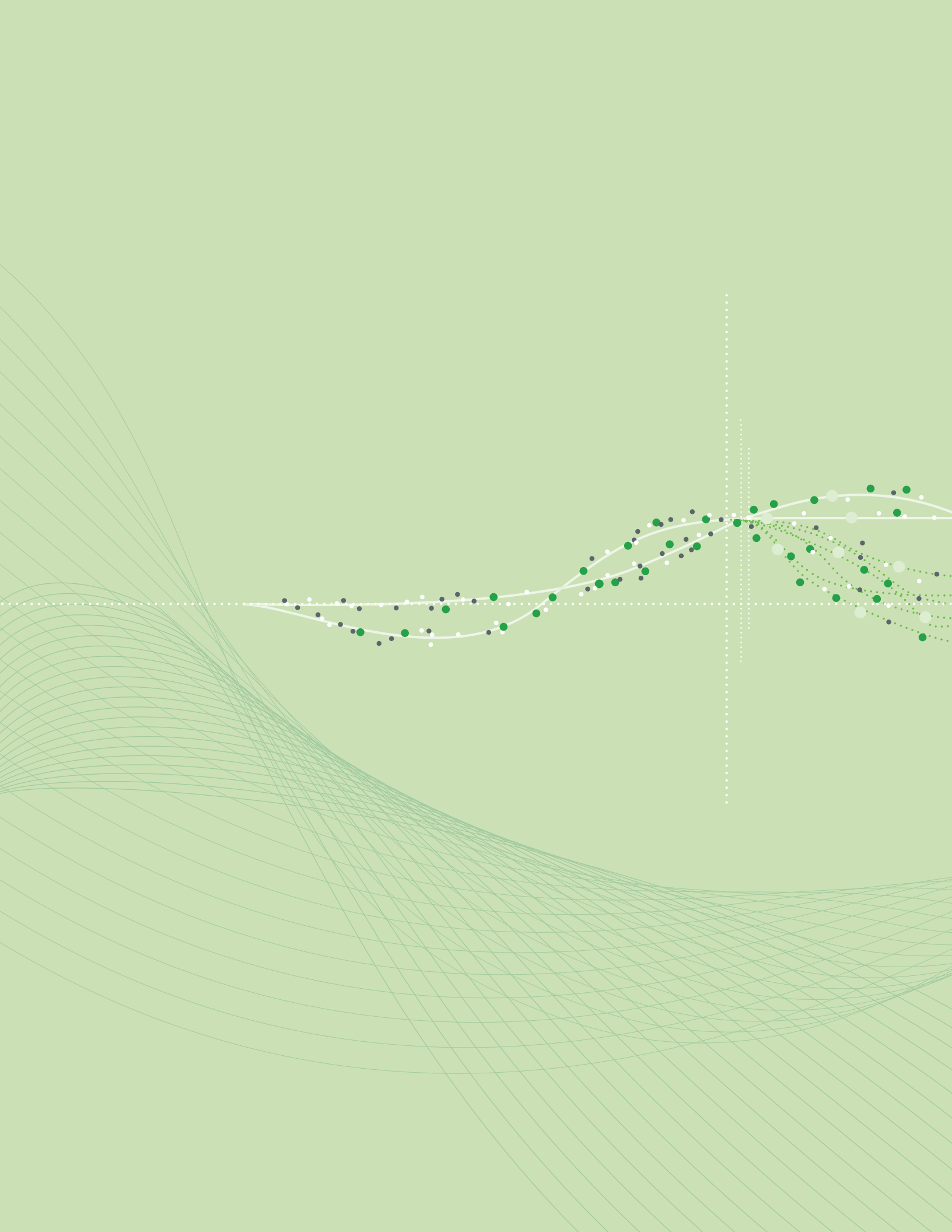
1. Institute for Health Metrics and Evaluation. Financing Global Health 2009: Tracking Development Assistance for Health. Seattle, WA: IHME, 2009. http://www.healthmetricsandevaluation.org/print/reports/2009/financing/financing_global_health_report_full_IHME_0709.pdf (accessed Oct. 12, 2010).
2. Hall H. Charitable Giving Fell 3.2% Last Year, Report Finds. *The Chronicle of Philanthropy*. June 8, 2010. <http://philanthropy.com/article/Charitable-Giving-Fell-32-/65825/> (accessed Sept. 29, 2010).
3. McLean C, Brouwer C. The Effect of the Economy On the Nonprofit Sector. GuideStar. June 2010. <http://www2.guidestar.org/ViewCmsFile.aspx?ContentID=2963> (accessed Sept. 28, 2010).
4. *The Chronicle of Philanthropy*. Fund Raising 2010: How Big Charities Are Faring in the First Quarter. May 17, 2010. <http://philanthropy.com/article/Fund-Raising-2010-How-Big/65598/> (accessed Sept. 29, 2010).
5. Lederer E. Donors pledge \$11.7 billion to fight AIDS, TB. The Associated Press. Oct. 6, 2010. <http://www.google.com/hostednews/ap/article/ALeqM5hcFZFfIscdUkb1JUEpSockdMrlAD9ILR34G0?docId=D9ILR34G0> (accessed Oct. 8, 2010).
6. UN News Centre. Donors pledge billions to help UN-backed fund combat AIDS, TB and malaria. Oct. 5, 2010. <http://www.un.org/apps/news/story.asp?NewsID=36349&Cr=hiv&Cr1> (accessed Oct. 12, 2010).
7. Boseley S. In spite of the Bruni glitzkrieg, AIDS funding is set to decline. Sarah Boseley's Global Health Blog. Oct. 6, 2010. <http://www.guardian.co.uk/society/sarah-boseley-global-health/2010/oct/06/hiv-infection-aids> (accessed Oct. 8, 2010).
8. USAID. USAID Fact Sheet: The U.S. Government's Global Health Initiative. <http://www.usaid.gov/ghi/factsheet.html> (accessed Sept. 29, 2010).
9. Kaiser Family Foundation. G8 Nations Commit \$5B For Maternal, Child Health; Additional \$2.3B Committed From Other Countries, Foundations. Kaiser Daily Global Health Policy Report. June 28, 2010. <http://globalhealth.kff.org/Daily-Reports/2010/June/28/GH-062810-G8-Summit.aspx> (accessed Sept. 29, 2010).
10. Morris K. UN raises priority of non-communicable diseases. *The Lancet*. 2010; 375(9729):1859-1859.
11. Schweitzer J. Health Financing: Introductory Remarks. April 9, 2010. <http://workspace.imperial.ac.uk/globalhealth/public/J%20Schweitzer%20slides.pdf> (accessed Oct. 12, 2010).
12. Imperial College London, Institute for Global Health. Public financing of health in developing countries symposium. April 9, 2010. <http://www3.imperial.ac.uk/globalhealth/resources/talkslectures/podcast9april2010> (accessed Oct. 12, 2010).
13. Internal Revenue Service. Determining Fair Market Value of Donated Property. April 2007. <http://www.irs.gov/publications/p561/ar02.html#d0e216> (accessed Sept. 29, 2010).
14. Hopkins R. Political Economy of Foreign Aid. In: Tarp F, Hjertholm P, eds. *Foreign Aid and Development: Lessons Learnt and Directions for the Future*. London: Routledge, 2000.
15. Schraeder P, Hook S, Taylor B. Clarifying the Foreign Aid Puzzle: A Comparison of American, Japanese, French, and Swedish Aid Flows. *World Politics*. 1998; 50(2):294-323.
16. Ram R. Roles of Bilateral and Multilateral Aid in Economic Growth of Developing Countries. *Kyklos*. 2003; 56(1):95-110.

17. USAID. 2009 VolAg: Report of Voluntary Agencies. 2009. http://www.usaid.gov/our_work/cross-cutting_programs/private_voluntary_cooperation/volag2009.pdf (accessed Oct. 12, 2010).
18. AVERT. PEPFAR Funding: how is the money spent? July 6, 2010. <http://www.avert.org/pepfar-funding.htm> (accessed Sept. 29, 2010).
19. Foundation Center. Top 100 US Foundations by Asset Size. July 8, 2010. <http://foundationcenter.org/findfunders/topfunders/top100assets.html> (accessed Oct. 12, 2010).
20. Foundation Center. <http://foundationcenter.org/> (accessed Oct. 12, 2010).
21. Barton N, Wilhelm I. Many Foundations Have Lost Almost One-Third of Their Assets, Chronicle Study Finds. *The Chronicle of Philanthropy*. Jan. 21, 2009. <http://philanthropy.com/article/Many-Foundations-Have-Lost-/62999/> (accessed Sept. 29, 2010).
22. Aizenman J. *Managing Economic Volatility and Crises: A Practitioner's Guide*. Cambridge; New York: Cambridge University Press, 2005.
23. Tax Policy Center. State and Local Tax Policy: What are rainy day funds and how do they work? Aug. 12, 2009. <http://www.taxpolicycenter.org/briefing-book/state-local/fiscal/rainy-day.cfm> (accessed Sept. 29, 2010).
24. The National Association of State Budget Officers. The Fiscal Survey of States: December 1999. NASBO. <http://www.nasbo.org/Publications/FiscalSurvey/FiscalSurveyArchives/tabid/106/Default.aspx> (accessed Sept. 29, 2010).
25. U.S. President's Emergency Plan for AIDS Relief. Focus Countries. <http://2006-2009.pepfar.gov/countries/c19418.htm> (accessed Oct. 12, 2010).
26. Lopez AD, Mathers CD, Ezzati M, Jamison DT, Murray CJL, eds. *Disease Control Priorities Project. Global burden of disease and risk factors*. New York; Washington, DC: Oxford University Press; World Bank, 2006. <http://files.dcp2.org/pdf/GBD/GBD.pdf> (accessed Oct. 12, 2010).
27. Institute for Health Metrics and Evaluation. Maternal Mortality (Global) Information Resources. Seattle, WA: IHME, 2010. <http://www.healthmetricsandevaluation.org/resources/datasets/2010/mortality/results/maternal/maternal.html> (accessed Oct. 12, 2010).
28. The World Bank. Countries and Economies. <http://data.worldbank.org/country> (accessed Sept. 29, 2010).
29. World Health Organization Department of Measurement and Health Information. Global Burden of Disease (GBD) 2004 Summary Tables. February 2009. http://www.who.int/entity/healthinfo/global_burden_disease/gbddeathdalycountryestimates2004.xls (accessed Oct. 12, 2010).
30. World Health Organization. Deaths and DALY estimates for 2002 by cause for WHO Member States. December 2004. <http://www.who.int/entity/healthinfo/statistics/bodgbddeathdalyestimates.xls> (accessed Oct. 12, 2010).
31. Ministry of Foreign Affairs of Japan. Okinawa International Conference on Infectious Diseases. <http://www.mofa.go.jp/policy/economy/summit/2000/infection.html> (accessed Oct. 12, 2010).
32. Women Deliver. About Women Deliver. <http://www.womendeliver.org/about> (accessed Oct. 12, 2010).
33. World Health Organization. *Noncommunicable Disease, Poverty and the Development Agenda*. Doha, Qatar: WHO, 2009. <http://www.un.org/en/ecosoc/newfunct/pdf/discussion%20paper%20on%20ncds%20-%205%20may%202009.pdf> (accessed Oct. 12, 2010).

34. Aboderin I, Kalache A, Ben-Shlomo Y, Lynch J, Yajnik C, Kuh D, et al. Life course perspectives on coronary heart disease, stroke and diabetes: Key issues and implications for policy and research. Geneva, Switzerland: World Health Organization, 2001. http://whqlibdoc.who.int/hq/2001/WHO_NMH_NPH_01.4.pdf (accessed Oct. 12, 2010).
35. Yach D. The Global Burden of Chronic Diseases: Overcoming Impediments to Prevention and Control. *The Journal of the American Medical Association*. 2004; 291(21):2616-2622.
36. Worsnip P, Wroughton L. UN to boost poverty goals in \$40 billion plan. Reuters Africa. Sept. 22, 2010. <http://af.reuters.com/article/topNews/idAFJOE68L01620100922> (accessed Sept. 29, 2010).
37. Hogan MC, Foreman KJ, Naghavi M, Ahn SY, Wang M, Makela SM, et al. Maternal mortality for 181 countries, 1980–2008: a systematic analysis of progress towards Millennium Development Goal 5. *The Lancet*. 2010; 375(9726):1609-1623.
38. Rajaratnam JK, Marcus JR, Flaxman AD, Wang H, Levin-Rector A, Dwyer L, et al. Neonatal, postneonatal, childhood, and under-5 mortality for 187 countries, 1970-2010: a systematic analysis of progress towards Millennium Development Goal 4. *The Lancet*. 2010; 375(9730):1988-2008.
39. You D, Jones G, Hill K, Wardlaw T, Chopra M. Levels and trends in child mortality, 1990-2009. *The Lancet*. 2010; 376(9745):931-933, and World Health Organization, United Nations Children’s Fund, United Nations Population Fund, The World Bank. Trends in Maternal Mortality: 1990 to 2008. Geneva, Switzerland: WHO, 2010.
40. Roll Back Malaria. The Abuja Declaration and the Plan of Action: an Extract from The African Summit on Roll Back Malaria. April 25, 2000. http://www.rollbackmalaria.org/docs/abuja_declaration_final.htm (accessed Sept. 29, 2010).
41. The President’s Malaria Initiative. Fast Facts: The President’s Malaria Initiative. April 2010. http://www.fightingmalaria.gov/resources/reports/pmi_fastfacts.pdf (accessed Oct. 12, 2010).
42. Vaillancourt D. Do Health Sector-Wide Approaches Achieve Results: Emerging Evidence and Lessons from Six Countries. The World Bank. 2009. <http://siteresources.worldbank.org/EXTWBASSHEANUTPOP/Resources/wp4.pdf> (accessed Oct. 12, 2010).
43. European Court of Auditors. EC Development Assistance to Health Services in Sub-Saharan Africa. 2008. <http://blog-pfm.imf.org/files/24823161.pdf> (accessed Oct. 12, 2010).
44. Stop TB Partnership. About Us. <http://www.stoptb.org/about/> (accessed Sept. 29, 2010).
45. World Health Organization. Global tuberculosis control: a short update to the 2009 report. http://whqlibdoc.who.int/publications/2009/9789241598866_eng.pdf (accessed Sept. 29, 2010).
46. Stop TB Partnership. Keeping the Pledge to Stop TB: Second Stop Partners’ Forum. March 24, 2004. http://www.stoptb.org/assets/documents/events/meetings/partners_forum/2004/PLEDGE_DECLARATION.pdf (accessed Oct. 4, 2010).
47. USAID. Lantos-Hyde United States Government Tuberculosis Strategy. 2010. http://www.usaid.gov/press/releases/2010/USG_TB_Strategy_3-24-10.pdf (accessed Sept. 29, 2010).
48. Rajaratnam JK, Marcus JR, Levin-Rector A, Chalupka AN, Wang H, Dwyer L, et al. Worldwide mortality in men and women aged 15–59 years from 1970 to 2010: a systematic analysis. *The Lancet*. 2010; 375(9727):1704-1720.
49. ECOSOC/UNESCWA/WHO. Western Asia Ministerial Meeting. Addressing noncommunicable diseases and injuries: Major challenges to sustainable development in the 21st century. May 10, 2009. <http://www.un.org/en/ecosoc/newfunct/pdf/doha-declaration.pdf> (accessed Sept. 29, 2010).

50. USAID. Implementation of the Global Health Initiative: Consultation Document. http://www.usaid.gov/our_work/global_health/home/Publications/docs/ghi_consultation_document.pdf (accessed Oct. 12, 2010).
51. Gupta S, Clements B, Guin-Siu MT, Leruth L. Debt relief and public health spending in heavily indebted poor countries. *Bulletin of the World Health Organization*. 2002; 80(2):151-157.
52. World Health Organization. National Health Accounts: Country Health Information. <http://www.who.int/nha/country/en/> (accessed Oct. 12, 2010).
53. Lu C, Schneider M, Gubbins P, Leach-Kemon K, Jamison D, Murray CJL. Public financing of health in developing countries: a cross-national systematic analysis. *The Lancet*. 2010; 375(9723):1375-1387.
54. Lu C. Limitations of methods for measuring out-of-pocket and catastrophic private health expenditures. *Bulletin of the World Health Organization*. 2009; 87(3):238-244.
55. Baldacci E, Clements B, Gupta S, Cui Q. Social Spending, Human Capital, and Growth in Developing Countries. *World Development*. 2008; 36(8):1317-1341.
56. Devarajan S, Rajkumar AS, Swaroop V. What Does Aid to Africa Finance? The World Bank. 1999. http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/1999/08/15/000094946_9904020601437/additional/280868028_20050283051934.pdf (accessed Sept. 29, 2010).
57. Farag M, Nandakumar AK, Wallack SS, Gaumer G, Hodgkin D. Does Funding From Donors Displace Government Spending For Health In Developing Countries? *Health Affairs*. 2009; 28(4):1045-1055.
58. Arndt C, Lewis J. The Macro Implications of HIV/AIDS in South Africa: A Preliminary Assessment. *The South African Journal of Economics*. 2000; 68(5):856-887.
59. Haacker M. The impact of HIV/AIDS on government finance and public services. In: The macroeconomics of HIV/AIDS. Washington, DC: International Monetary Fund, 2004. p. 198-258.
60. Kaddar M, Furrer E. Are current debt relief initiatives an option for scaling up health financing in beneficiary countries? *Bulletin of the World Health Organization*. 2008; 86(11):877-883.
61. Mishra P, Newhouse D. Health Aid and Infant Mortality. International Monetary Fund. 2007. <http://www.imf.org/external/pubs/ft/wp/2007/wp07100.pdf> (accessed Oct. 12, 2010).
62. Stover J, Bollinger L. The Economic Impact of AIDS. Washington DC: The Futures Group International in collaboration with Research Triangle Institute and the Centre for Development and Population Activities, 1999. http://www.policyproject.com/pubs/SEImpact/SEImpact_Africa.pdf (accessed Oct. 12, 2010).
63. High Level Taskforce on Innovative International Financing for Health Systems. Terms of Reference and Management Arrangements. New York: United Nations, 2008.
64. Gakidou E, Cowling K, Lozano R, Murray CJL. Increased educational attainment and its effect on child mortality in 175 countries between 1970 and 2009: a systematic analysis. *The Lancet*. 2010; 376(9745):959-974.
65. Huddart J, Furth R, Lyons J. The Zambia HIV/AIDS Workforce study: preparing for scale-up. Operations research results. Bethesda, MD: University Research Co. LLC, 2004. <http://www.qaproject.org/pubs/PDFs/ORMZambiaWorkforcel.pdf> (accessed Oct. 12, 2010).
66. Davey G, Fekade D, Parry E. Must aid hinder attempts to reach the Millennium Development Goals? *The Lancet*. 2006; 367(9511):629-631.
67. Barder O. Should we worry about fungibility of health aid? Owen Abroad: Thoughts from Owen in Africa. April 11, 2010. <http://www.owen.org/blog/3201>(accessed Oct. 4, 2010).

68. Sridhar D. Seven Challenges in International Development Assistance for Health and Ways Forward. *The Journal of Law, Medicine & Ethics*. 2010; 38(3):459-469.
69. Berg A, Hussain M, Aiyar S, Roache S, Mirzoev T, Mahone A. The Macroeconomics of Managing Increased Aid Inflows: Experiences of Low-Income Countries and Policy Implications. International Monetary Fund, 2006. http://www.sarpn.org.za/documents/d0002059/IMF_Macroeconomics_Jun2006.pdf (accessed Oct. 4, 2010).
70. Grepin K. Is aid to the health sector fungible? Apparently. Karen Grepin's Global Health Blog. April 9, 2010. <http://karengrepin.blogspot.com/2010/04/government-expenditures-on-health-in.html> (accessed Oct. 4, 2010).
71. Flaxman AD, Fullman N, Otten MW, Menon M, Cibulskis RE, Ng M, et al. Rapid Scaling Up of Insecticide-Treated Bed Net Coverage in Africa and Its Relationship with Development Assistance for Health: A Systematic Synthesis of Supply, Distribution, and Household Survey Data. *PLoS Medicine*. 2010; 7(8):e1000328.
72. Boerma JT. Monitoring scale-up of antiretroviral therapy programmes. *Bulletin of the World Health Organization*. 2006; 84(2):145-150.
73. Lim S, Stein D, Charrow A, Murray CJL. Tracking progress towards universal childhood immunisation and the impact of global initiatives: a systematic analysis of three-dose diphtheria, tetanus, and pertussis immunisation coverage. *The Lancet*. 2008; 372(9655):2031-2046.
74. United Nations. The Millennium Development Goals Report 2008. New York: United Nations, 2008. <http://www.un.org/millenniumgoals/pdf/The%20Millennium%20Development%20Goals%20Report%202008.pdf> (accessed Oct. 12, 2010).
75. United Nations. Millennium Development Goal 8: The Global Partnership for Development at a Critical Juncture. http://www.un.org/esa/policy/mdggap/mdggap2010/mdg8report2010_engw.pdf (accessed Sept. 29, 2010).
76. The Huffington Post. Global Drive To Fight Fatal Diseases Misses Mark. Oct. 6, 2010. http://www.huffingtonpost.com/2010/10/06/global-drive-to-fight-fat_n_752977.html (accessed Oct. 8, 2010).
77. The Global Fund to Fight AIDS, Tuberculosis and Malaria. Donors Commit US\$11.7 Billion to the Global Fund for Next Three Years. Oct. 5, 2010. http://www.theglobalfund.org/en/pressreleases/?pr=pr_101005c (accessed Oct. 12, 2010).
78. Randall T, Varner B. Obama Boosts Pledge 38% to Global Fund for AIDS, TB. *Businessweek*. Oct. 5, 2010. <http://www.businessweek.com/news/2010-10-05/obama-boosts-pledge-38-to-global-fund-for-aids-tb.html> (accessed Oct. 12, 2010).
79. Dickinson E. China ups donations to HIV/AIDS. *Foreign Policy*. Oct. 6, 2010. http://blog.foreignpolicy.com/posts/2010/10/06/china_ups_donations_to_hivaids (accessed Oct. 8, 2010).
80. Institute for Health Metrics and Evaluation. Building Momentum: Global Progress Toward Reducing Maternal and Child Mortality. Seattle, WA: IHME, 2010. http://www.healthmetricsandevaluation.org/print/reports/2010/building/building_momentum_full_report_IHME_0610.pdf (accessed Sept. 29, 2010).
81. United Nations Development Programme. What is the role of UNPD? <http://www.undp.org/mdg/roles.shtml> (accessed Sept. 29, 2010).
82. Clemens M, Radelet S. Absorptive capacity: how much is too much? In: Challenging Foreign Aid: A Policymaker's Guide to the Millennium Challenge Account. Washington, DC: Center for Global Development, 2003. p. 125-144.



STATISTICAL ANNEX

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The Statistical Annex includes tables related to the figures presented in *Financing Global Health 2010: Development assistance and country spending in economic uncertainty*. It also includes data from supplementary figures published on IHME's website. To view supplementary figures and tables, please visit:

http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_statistical_IHME.pdf.

TABLE 1:
DAH by channel of assistance, 1990-2010

Channel	1990	1991	1992	1993	1994	1995	1996	1997
Bilateral development agencies	2,691.14	2,284.34	2,508.26	2,461.49	2,805.95	3,245.72	3,293.86	3,259.42
Regional development banks								
African Development Bank (AfDB)	64.72	62.53	61.12	59.74	93.07	71.92	73.42	91.71
Asian Development Bank (ADB)	28.74	27.89	45.95	65.58	64.72	71.49	59.42	75.29
Inter-American Development Bank (IDB)	88.04	80.53	53.32	62.62	85.45	85.17	110.13	149.46
World Bank								
International Development Association (IDA)	30.88	98.28	287.89	467.14	587.98	640.93	662.97	691.95
International Bank for Reconstruction and Development (IBRD)	61.54	96.22	181.36	397.68	440.87	346.06	535.34	898.77
United Nations								
Joint United Nations Programme on HIV/AIDS (UNAIDS)							76.76	75.50
United Nations Population Fund (UNFPA)	354.60	342.62	295.54	288.90	418.56	410.20	390.77	384.35
United Nations Children's Fund (UNICEF)	216.43	218.04	275.83	285.85	277.77	288.50	253.92	246.85
World Health Organization (WHO)	1,160.86	1,121.65	1,097.97	1,073.31	1,202.61	1,178.58	989.81	973.55
Pan American Health Organization (PAHO)	271.45	262.28	269.55	263.49	279.52	273.93	258.81	254.56
European Commission (EC) ¹	51.36	39.04	28.08	99.82	172.13	177.92	195.82	239.52
Global health partnerships								
GAVI Alliance (GAVI)								
Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM)								
Bill & Melinda Gates Foundation (BMGF)								
Other foundations ²	116.45	113.21	138.21	170.26	148.23	138.59	170.88	164.51
Non-governmental organizations (NGOs) ²	519.11	697.93	819.03	868.38	1,005.88	945.04	837.61	887.22
Total	5,655.32	5,444.57	6,062.11	6,564.26	7,582.74	7,874.04	7,909.53	8,392.65

Preliminary estimates based on information from channel of assistance, including budgets, appropriations, and correspondence.

Source: IHME DAH Database 2010

Notes: In millions US\$, 2008. Development assistance for health (DAH) includes both financial and in-kind contributions for activities aimed at improving health in low- and middle-income countries. This table disaggregates DAH by the institutional channel through which DAH flowed to low- and middle-income countries.

¹ Includes funds from the European Development Fund and the European Commission budget

² Only includes organizations incorporated in the United States

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
	3,123.43	3,403.45	3,288.32	3,200.79	4,054.90	4,345.38	4,802.34	5,353.14	6,528.72	7,891.67	9,553.78	10,875.15	12,161.97
	61.58	60.69	44.40	41.63	79.91	41.64	88.81	146.48	89.42	86.89	105.18	104.38	116.63
	122.00	220.17	379.68	157.76	154.74	150.73	130.06	118.64	114.92	121.88	129.49	126.94	108.46
	161.47	159.77	190.26	172.65	216.97	189.17	380.04	389.39	132.78	157.77	138.98	140.43	112.14
	676.42	848.07	878.97	931.54	1,080.52	1,147.58	1,210.77	1,204.78	1,020.26	941.56	864.14	671.19	547.62
	920.08	846.58	946.46	832.39	921.41	727.38	1,108.53	849.98	712.94	695.29	434.59	429.30	857.82
	85.15	83.94	130.30	127.23	110.81	108.50	175.98	170.47	231.08	225.10	261.54	259.62	230.02
	405.28	399.50	376.47	367.61	407.93	399.42	474.91	460.03	520.75	587.93	684.73	681.30	636.47
	232.70	285.84	316.91	453.81	427.13	421.69	490.73	659.67	394.40	534.49	496.93	525.83	568.09
	1,069.89	1,054.65	1,291.32	1,260.95	1,329.65	1,301.91	1,624.21	1,573.35	1,616.48	1,574.65	1,889.16	1,886.75	1,978.37
	286.77	282.68	281.78	275.16	268.53	262.93	266.71	258.36	351.59	342.50	377.04	373.53	336.73
	299.77	342.10	359.56	420.87	431.86	652.60	100.91	436.26	520.30	532.65	647.58	706.88	681.91
			2.75	143.61	116.25	203.89	214.12	277.73	441.11	1,004.59	812.38	530.00	1,058.00
					16.05	303.47	758.56	1,219.56	1,475.10	1,838.88	2,403.17	2,724.41	2,991.17
		160.54	367.01	271.41	405.04	534.12	338.12	462.81	662.96	862.54	1,433.29	1,797.60	1,776.21
	210.00	268.67	341.33	320.70	282.45	247.24	238.50	252.56	290.00	368.47	542.78	555.29	545.52
	1,005.27	1,210.06	1,324.91	1,531.25	1,666.24	1,820.05	2,187.67	2,609.19	2,707.67	2,634.25	3,099.22	2,840.96	2,160.51
	8,659.79	9,626.73	10,520.43	10,509.36	11,970.39	12,857.69	14,590.97	16,442.41	17,810.47	20,401.11	23,873.98	25,229.56	26,867.62

TABLE 2:
DAH by source of funding, 1990-2008

Funding source	1990	1991	1992	1993	1994	1995	1996	1997	
National treasuries									
Australia	27.39	30.13	58.85	70.26	111.21	108.46	163.64	132.72	
Austria	34.67	14.40	11.74	13.49	18.85	15.45	17.77	67.90	
Belgium	75.28	100.45	111.37	114.47	110.87	117.16	115.82	106.10	
Canada	130.35	131.71	121.35	124.94	164.06	168.82	144.26	150.98	
Denmark	88.65	98.24	121.56	132.67	146.23	144.81	210.16	177.05	
Finland	95.11	96.33	64.27	54.46	51.11	46.12	49.12	42.95	
France	645.66	389.77	374.85	350.19	460.39	484.84	481.03	389.06	
Germany	202.13	220.59	273.48	338.02	545.78	625.19	518.31	532.07	
Greece	1.85	1.79	1.71	1.67	2.39	9.27	15.46	17.02	
Ireland	4.12	4.26	5.68	2.50	12.55	28.95	30.29	6.67	
Italy	278.08	261.89	236.23	223.46	210.62	185.58	212.15	122.77	
Japan	416.53	458.83	510.55	678.58	660.18	821.78	712.14	884.57	
Korea	1.19	2.92	5.38	6.74	6.48	12.92	5.92	52.91	
Luxembourg	1.47	1.41	9.02	9.06	3.99	17.65	18.63	28.26	
Netherlands	165.75	143.10	235.04	245.74	160.86	219.10	280.10	271.98	
New Zealand	1.56	2.50	3.10	3.88	55.07	52.43	4.65	4.39	
Norway	119.12	112.63	121.26	114.44	96.32	90.17	150.42	143.65	
Portugal	1.44	1.40	3.13	3.48	9.03	10.74	14.12	19.07	
Spain	18.85	34.16	101.55	113.32	98.85	162.47	235.72	203.67	
Sweden	347.09	316.38	348.23	336.34	274.68	273.11	261.16	234.53	
Switzerland	79.78	71.52	56.59	56.84	83.96	68.58	62.53	83.37	
United Kingdom	140.76	151.90	252.31	253.46	304.60	313.00	330.25	386.32	
United States	1,392.16	1,383.73	1,480.71	1,425.57	1,815.43	1,840.44	1,731.01	1,730.99	
Other ¹	145.29	140.61	186.74	182.75	225.91	221.85	129.86	127.60	
Private philanthropy									
Bill & Melinda Gates Foundation (BMGF)									
Corporate donations	44.65	49.33	62.80	76.72	97.33	90.02	104.16	112.79	
Other	414.18	427.16	522.53	584.63	594.70	581.76	603.31	621.44	
Debt repayments (IBRD)	76.50	119.39	218.07	465.95	602.48	526.61	705.59	1,077.64	
Other	348.03	336.27	225.44	220.52	273.33	267.43	182.79	179.86	
Unallocable	357.64	341.79	338.58	360.13	385.46	369.33	419.15	484.02	
Total	5,655.32	5,444.57	6,062.11	6,564.25	7,582.74	7,874.04	7,909.53	8,392.33	

Source: IHME DAH Database 2010

Notes: In millions US\$, 2008. Development assistance for health (DAH) includes both financial and in-kind contributions for activities aimed at improving health in low- and middle-income countries. This table disaggregates DAH by the primary funding source.

For preliminary estimates of DAH for 2009 and 2010, refer to Table 1 of the Statistical Annex.

¹ Includes private contributions through foundations and NGOs

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	113.87	158.34	177.30	155.95	143.46	142.10	158.94	217.10	186.74	215.80	382.01
	32.51	98.13	63.15	37.73	39.78	51.58	43.64	53.66	50.10	61.06	75.39
	108.56	115.77	127.72	132.60	183.30	172.11	198.78	163.46	200.61	218.19	281.48
	127.72	150.99	169.09	149.64	240.58	280.69	373.05	500.15	413.89	536.36	571.37
	126.82	128.65	125.33	104.94	114.25	127.77	146.37	164.92	164.82	184.34	182.51
	44.39	46.78	47.36	49.80	61.22	66.41	71.16	73.53	82.66	82.37	90.62
	405.59	377.65	331.93	378.48	447.31	599.21	507.19	667.78	969.21	816.29	1,114.20
	490.23	499.70	479.44	478.53	560.88	586.81	506.51	572.18	716.21	768.68	961.94
	17.93	12.58	14.59	17.75	17.40	40.88	32.26	48.54	51.08	51.56	34.72
	29.14	28.49	39.74	49.99	110.21	138.71	148.43	165.38	244.08	262.87	215.43
	157.13	172.00	152.42	205.49	220.81	331.60	210.47	413.78	383.00	415.03	481.04
	779.11	833.90	862.52	817.91	626.18	769.15	903.04	819.37	799.44	602.38	651.99
	44.37	136.00	75.74	54.26	67.41	32.96	96.29	107.75	72.66	85.37	93.54
	30.18	23.41	32.99	40.91	47.44	46.59	53.91	48.73	65.57	73.80	77.21
	276.66	288.81	408.56	395.53	387.73	394.34	376.44	427.03	585.68	499.67	667.40
	5.77	6.68	6.99	9.17	11.95	12.93	16.26	19.19	25.06	25.67	33.48
	114.55	137.67	150.96	208.13	272.04	305.03	350.29	352.90	366.65	542.17	538.12
	17.81	17.55	18.39	17.90	21.35	24.47	18.10	23.28	23.07	24.73	26.13
	192.15	219.13	170.55	180.01	186.81	215.92	210.95	245.20	331.32	427.36	667.36
	202.79	204.73	185.81	157.54	185.00	207.42	320.11	447.55	466.72	494.49	527.58
	50.61	123.67	59.85	59.70	75.34	140.46	75.73	69.60	102.27	80.49	91.42
	447.60	483.90	813.01	825.83	845.76	1,072.75	1,000.70	1,312.55	1,575.11	2,041.58	1,747.64
	1,714.86	1,875.21	2,003.71	2,180.33	2,976.13	3,007.67	3,769.23	3,976.95	4,565.12	5,732.48	7,341.80
	340.00	336.17	112.13	111.89	90.93	94.62	147.00	160.62	196.18	236.75	268.30
		169.32	419.73	474.18	521.03	609.35	437.95	697.25	849.49	1,140.25	1,859.83
	125.05	136.57	128.39	187.95	207.81	244.69	351.15	442.77	387.99	441.33	596.21
	849.26	999.01	1,157.04	1,187.66	1,110.11	1,163.86	1,240.68	1,572.95	1,720.99	1,803.10	2,122.43
	1,070.80	1,017.07	1,166.96	1,047.25	1,270.45	1,075.27	1,447.66	1,321.52	968.28	1,069.06	675.05
	214.11	211.34	229.79	229.79	248.61	278.19	327.35	332.17	500.44	675.85	659.34
	530.25	617.52	789.22	562.52	679.12	624.15	1,051.34	1,024.43	745.92	791.97	838.35
	8,659.78	9,626.73	10,520.43	10,509.36	11,970.39	12,857.68	14,590.97	16,442.31	17,810.37	20,401.04	23,873.90

TABLE 3:
DAH by country of origin, 1990-2008

Country	1990	1991	1992	1993	1994	1995	1996	1997
Australia	27.85	30.60	60.20	71.63	114.01	111.55	166.29	135.27
Austria	34.96	14.70	12.27	14.04	19.28	15.93	18.17	68.28
Belgium	76.01	101.16	112.68	115.81	111.96	118.29	116.41	106.68
Canada	135.09	136.67	126.50	130.19	169.45	174.74	148.14	154.73
Denmark	88.79	98.38	121.76	132.87	146.38	144.96	210.41	177.29
Finland	96.30	97.54	65.19	55.40	51.74	46.81	49.63	43.43
France	646.91	391.00	376.27	351.62	462.95	487.61	483.20	391.17
Germany	206.10	224.61	281.80	346.57	555.01	635.12	529.53	542.95
Greece	1.95	1.89	1.90	1.87	2.50	9.39	15.56	17.11
Ireland	4.17	4.30	5.72	2.54	12.70	29.09	30.29	6.67
Italy	279.76	263.60	239.65	226.93	213.39	188.40	214.30	124.87
Japan	430.45	472.62	524.87	692.91	681.61	843.51	734.38	906.37
Korea	1.27	3.00	5.41	6.77	6.70	13.16	6.29	53.26
Luxembourg	1.51	1.45	9.14	9.18	4.11	17.77	18.75	28.38
Netherlands	171.87	149.47	246.62	257.56	170.06	229.22	284.82	276.55
New Zealand	1.62	2.56	3.32	4.10	55.21	52.57	4.80	4.54
Norway	119.27	112.78	121.40	114.57	96.38	90.23	150.67	143.89
Portugal	1.55	1.51	3.27	3.62	9.10	10.81	14.16	19.11
Spain	22.02	37.47	105.92	117.79	103.80	167.92	241.96	209.70
Sweden	347.14	316.43	348.47	336.58	275.14	273.59	261.36	234.73
Switzerland	82.42	74.15	60.85	61.14	86.67	71.46	66.46	87.18
United Kingdom	143.41	154.61	256.77	258.00	309.02	317.78	333.82	389.79
United States	1,788.63	1,797.63	1,968.37	1,986.83	2,402.00	2,402.88	2,332.75	2,362.53
Other countries	133.66	129.41	176.27	172.57	217.82	214.56	127.25	124.91
Unallocable by country ¹	348.03	336.27	225.44	220.52	273.33	267.43	182.79	179.86
Unspecified ²	464.59	490.77	602.05	872.67	1,032.44	939.25	1,167.33	1,603.41
Total	5,655.32	5,444.57	6,062.11	6,564.25	7,582.74	7,874.04	7,909.53	8,392.65

Source: IHME DAH Database 2010

Notes: In millions US\$, 2008. Development assistance for health (DAH) includes both financial and in-kind contributions for activities aimed at improving health in low- and middle-income countries. This table disaggregates all DAH from both public and private sources by origin country of DAH.

For preliminary estimates of DAH for 2009 and 2010, refer to Table 1 of the Statistical Annex.

¹ Unallocable includes funds such as interagency transfers from non-DAH institutions, interest income, and miscellaneous income that could not be attributed to countries

² Channels for which we had no revenue information are included under unspecified

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	115.61	160.55	178.41	157.59	144.39	143.01	161.34	220.42	188.11	217.36	383.02
	32.86	98.58	63.37	38.06	39.95	51.75	45.57	55.66	51.56	62.52	75.98
	109.16	116.54	128.71	133.91	184.37	173.16	201.93	167.54	201.89	219.65	332.43
	130.45	154.40	172.11	154.10	243.78	283.82	380.10	509.41	417.05	540.33	577.20
	126.84	128.68	125.55	105.22	114.77	128.28	147.88	166.94	169.52	185.33	184.43
	44.78	47.28	48.00	50.76	61.70	66.88	71.93	74.59	83.19	83.03	91.38
	407.46	380.04	336.64	384.55	453.41	605.18	521.06	686.00	977.97	825.85	1,126.04
	498.92	510.78	492.22	497.22	577.98	603.56	530.23	602.95	729.17	784.36	1,013.74
	18.05	12.73	14.67	17.87	17.61	41.09	32.52	48.87	51.42	51.94	34.90
	29.25	28.63	40.05	50.45	110.59	139.08	149.19	166.44	244.32	263.18	215.72
	157.97	173.08	154.63	208.62	224.38	335.10	217.70	423.65	386.57	419.48	487.37
	783.73	839.77	875.36	833.25	637.36	780.10	911.39	829.78	805.22	608.77	657.26
	44.50	136.17	76.11	54.74	67.79	33.33	97.06	108.80	74.66	87.65	97.05
	30.45	23.76	33.46	41.52	47.74	46.89	54.56	49.52	65.98	74.26	77.58
	282.15	295.80	411.70	400.08	391.29	397.82	386.45	439.82	590.80	505.58	675.76
	5.79	6.70	7.03	9.21	12.02	13.00	16.48	19.49	25.22	25.87	33.68
	116.48	140.13	151.03	208.21	272.29	305.27	350.76	353.53	367.11	542.72	540.88
	17.87	17.62	18.58	18.19	21.46	24.58	18.63	24.01	23.51	25.28	26.48
	195.48	223.37	174.36	185.73	190.44	219.47	215.52	251.42	343.03	442.16	670.30
	202.88	204.85	186.60	158.56	185.79	208.19	322.45	450.66	485.03	517.62	534.78
	51.47	124.76	63.60	64.15	90.48	155.28	88.00	83.05	115.95	94.98	109.49
	455.52	493.99	819.98	835.37	880.70	1,106.95	1,014.97	1,330.52	1,607.78	2,082.60	1,756.64
	2,477.49	2,953.55	3,574.17	3,861.08	4,642.96	4,853.42	5,612.84	6,454.94	7,307.37	8,821.92	11,712.73
	116.25	116.91	109.98	112.59	89.78	93.10	152.11	170.39	206.53	228.45	280.29
	214.11	211.34	229.79	229.79	248.61	278.19	327.35	332.17	500.44	675.85	659.34
	1,994.27	2,026.72	2,034.34	1,698.53	2,018.76	1,771.18	2,562.96	2,421.76	1,790.98	2,014.30	1,519.41
	8,659.78	9,626.73	10,520.43	10,509.35	11,970.39	12,857.68	14,590.97	16,442.31	17,810.38	20,401.04	23,873.90

TABLE 4:
DAH by target region, 1990-2008

Year	Sub-Saharan Africa	Middle East and North Africa	South Asia	
1990	560.65	117.79	293.83	
1991	579.61	164.46	315.45	
1992	689.31	159.63	506.63	
1993	697.47	200.76	591.63	
1994	703.66	210.73	663.94	
1995	768.95	209.94	573.34	
1996	952.54	202.33	630.67	
1997	973.62	259.73	609.19	
1998	967.97	227.16	657.66	
1999	1,051.79	293.56	679.13	
2000	1,095.26	305.66	704.01	
2001	1,585.18	314.79	763.58	
2002	1,661.11	276.44	868.80	
2003	2,381.09	322.88	961.08	
2004	3,223.31	392.13	956.80	
2005	3,590.64	764.35	1,198.86	
2006	4,517.02	802.62	1,208.30	
2007	5,250.76	645.12	1,411.33	
2008	6,918.12	639.90	1,788.24	

Sources: IHME DAH Database 2010 and IHME DAH Database (Country and Regional Recipient Level) 2010

Notes: In millions US\$, 2008. Development assistance for health (DAH) includes both financial and in-kind contributions for activities aimed at improving health in low- and middle-income countries. This table disaggregates DAH by region intended to benefit from the assistance. World Bank regional groupings are used.

For preliminary estimates of DAH for 2009 and 2010, refer to Table 1 of the Statistical Annex.

¹ Global denotes contributions made toward health research or the creation of public goods for multiple regions or projects that donors categorized as benefiting the entire world

	East Asia and Pacific	Europe and Central Asia	Latin America and Caribbean	Global ¹	Unallocable by region	Total
	292.40	15.19	353.86	43.66	3,977.94	5,655.32
	245.33	14.98	396.49	55.38	3,672.87	5,444.57
	258.56	57.47	380.32	74.00	3,936.20	6,062.11
	411.68	143.69	479.38	181.19	3,858.45	6,564.25
	382.14	194.26	462.79	479.76	4,485.48	7,582.74
	337.79	118.04	558.61	627.29	4,680.08	7,874.04
	405.39	138.32	749.91	455.66	4,374.71	7,909.53
	462.71	232.61	1,140.63	523.86	4,190.31	8,392.65
	458.85	245.70	1,141.89	445.74	4,514.83	8,659.78
	667.00	366.62	1,116.98	542.23	4,909.43	9,626.73
	957.14	304.69	1,178.86	647.29	5,327.52	10,520.43
	750.01	288.20	1,061.96	688.44	5,057.21	10,509.36
	601.72	237.78	1,185.33	1,289.66	5,849.55	11,970.39
	847.17	305.49	1,151.24	1,739.88	5,148.84	12,857.68
	987.72	361.84	1,732.11	1,169.45	5,767.61	14,590.97
	1,011.79	639.72	1,499.82	1,444.50	6,292.63	16,442.31
	1,209.62	580.90	1,218.89	1,870.67	6,402.35	17,810.37
	1,286.68	639.95	1,245.17	2,794.56	7,127.48	20,401.04
	1,312.38	632.31	1,151.02	3,130.45	8,301.48	23,873.90

**TABLE 5:
DAH by target country, 1990-2008**

Region/Country	1990		1991		1992		1993		1994		1995		1996		1997	
	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita
East Asia and Pacific																
Cambodia	–	–	1.67	0.17	6.04	0.58	7.64	0.71	37.39	3.38	56.15	4.93	55.36	4.73	46.08	3.84
China	42.22	0.04	32.68	0.03	53.07	0.05	47.70	0.04	63.14	0.05	82.21	0.07	110.29	0.09	100.81	0.08
Cook Islands	0.00		–		–		–		–		0.01		0.01		0.01	
Far East Asia, regional/multicountry	0.86		0.60		2.93		7.91		8.18		8.67		3.35		2.87	
Fiji	0.64	0.88	5.17	7.09	11.46	15.52	18.40	24.57	1.68	2.21	1.53	1.99	1.04	1.34	1.17	1.50
French Polynesia																
Indonesia	101.90	0.56	51.72	0.28	44.94	0.24	75.70	0.39	48.13	0.25	49.76	0.25	60.92	0.30	98.09	0.48
Kiribati	5.22		2.41		0.01		2.45		0.08		0.09		0.19		0.19	
Laos	0.10	0.02	0.55	0.13	2.25	0.52	0.84	0.19	1.86	0.41	3.13	0.67	7.20	1.50	5.87	1.19
Malaysia	35.38	1.95	36.67	1.97	33.31	1.75	31.31	1.60	36.78	1.83	54.02	2.62	41.87	1.98	31.28	1.44
Marshall Islands	–		–		–		0.06		0.06		1.41		1.38		1.36	
Micronesia	–	–	–	–	3.82	37.70	0.62	6.00	0.46	4.32	0.34	3.13	0.25	2.29	0.18	1.69
Mongolia	1.93	0.87	2.17	0.96	3.39	1.47	1.93	0.83	2.60	1.10	3.26	1.36	2.78	1.15	3.27	1.35
Myanmar	2.58	0.06	2.16	0.05	0.09	0.00	0.08	0.00	0.12	0.00	0.21	0.00	0.26	0.01	0.25	0.01
Nauru	–		–		–		–		–		–		–		–	
New Caledonia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Niue	–		–		–		–		–		–		–		–	
North Korea	–	–	–	–	–	–	–	–	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Northern Mariana Is.	0.14		2.58		0.48		0.35		0.26							
Palau	–		–		–		–		–		–		–		–	
Papua New Guinea	16.75	4.05	18.79	4.43	23.61	5.43	26.47	5.93	12.36	2.70	8.83	1.88	39.72	8.21	27.07	5.45
Philippines	44.23	0.72	49.36	0.79	44.17	0.69	35.53	0.54	41.67	0.62	43.17	0.63	48.84	0.70	52.15	0.73
Samoa	0.00	0.01	–	–	–	–	0.39	2.34	0.62	3.72	0.31	1.86	0.36	2.13	0.33	1.89
Solomon Islands	0.74	2.35	0.87	2.69	2.06	6.19	1.79	5.23	2.44	6.94	1.92	5.32	2.44	6.56	1.64	4.29
South Korea	26.81	0.63	16.91	0.39	–	–	104.17	2.36	95.80	2.15						
Thailand	2.32	0.04	1.67	0.03	0.86	0.02	12.87	0.23	3.41	0.06	2.69	0.05	8.16	0.14	22.31	0.38
Timor–Leste	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tokelau	–		–		–		–		–		–		–		–	
Tonga	0.07	0.77	0.07	0.71	0.05	0.49	0.13	1.35	0.32	3.30	0.24	2.46	0.18	1.85	1.45	14.82
Tuvalu	–		–		–		–		–		0.09		0.06		0.08	
Vanuatu	0.31	2.05	0.69	4.47	0.34	2.15	0.44	2.71	0.57	3.40	0.45	2.61	0.37	2.12	0.82	4.56
Vietnam	3.49	0.05	11.71	0.17	19.91	0.29	28.13	0.40	16.80	0.23	15.21	0.21	16.62	0.22	50.12	0.66
Wallis and Futuna	–		–		–		–		–		–		–		–	
Europe and Central Asia																
Albania	–	–	–	–	2.85	0.87	0.88	0.27	2.99	0.94	2.83	0.90	3.97	1.27	3.42	1.10
Armenia	–	–	–	–	–	–	–	–	13.92	4.23	2.61	0.81	3.21	1.01	2.41	0.77
Azerbaijan	–	–	–	–	–	–	–	–	5.81	0.76	0.95	0.12	0.93	0.12	0.57	0.07
Belarus	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Bosnia and Herzegovina	–	–	–	–	–	–	0.38	0.10	0.99	0.28	0.61	0.18	2.22	0.65	21.93	6.33
Bulgaria	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4.89	0.60
Central Asia, regional/multicountry	–		–		–		–		–		–		–		–	
Croatia	–	–	–	–	–	–	–	–	0.71	0.15	7.01	1.50	14.21	3.05	13.42	2.91
Estonia	–	–	–	–	–	–	–	–	–	–	–	–	0.53	0.37	0.52	0.37
Europe, regional/multicountry	–		–		–		–		–		–		0.02		1.07	
Georgia	–	–	–	–	–	–	–	–	7.82	1.53	1.55	0.31	1.91	0.38	4.31	0.88
Gibraltar	–		–		–		–		–		–		–		–	

	1998		1999		2000		2001		2002		2003		2004		2005		2006		2007		2008	
	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita
	33.09	2.70	29.63	2.37	37.58	2.94	42.72	3.28	34.40	2.59	73.11	5.42	78.29	5.71	109.02	7.81	106.50	7.50	117.00	8.10	127.24	8.66
	102.73	0.08	90.91	0.07	137.63	0.11	126.63	0.10	122.83	0.10	141.46	0.11	218.98	0.17	179.58	0.14	240.86	0.18	296.81	0.22	239.98	0.18
	0.01		–		0.14		0.14		0.30		1.49		1.89		0.51		1.43		0.67		0.39	
	0.96		1.33		1.11		1.34		1.30		0.24		0.35		2.04		24.54		33.52		13.16	
	0.70	0.89	11.51	14.47	8.02	10.00	4.04	5.00	5.24	6.44	13.37	16.35	6.06	7.37	2.80	3.38	6.09	7.31	7.33	8.74	5.86	6.95
															–	–						
	112.81	0.55	134.38	0.64	387.34	1.83	249.79	1.16	158.76	0.73	226.78	1.03	225.97	1.01	182.97	0.81	233.52	1.02	211.62	0.91	202.59	0.86
	0.16		0.12		0.26		0.28		0.20		0.19		0.15		2.03		2.73		4.37		7.43	
	6.18	1.23	11.97	2.34	21.83	4.18	14.61	2.75	12.93	2.39	30.78	5.61	23.81	4.27	33.37	5.89	32.59	5.66	38.56	6.58	37.52	6.29
	11.42	0.51	13.67	0.60	11.32	0.49	8.75	0.37	1.19	0.05	2.73	0.11	1.39	0.06	1.49	0.06	0.86	0.03	0.75	0.03	0.69	0.03
	1.34		3.76		3.02		1.62		1.24		3.87		10.28		15.19		7.38		7.77		8.36	
	–	–	5.80	54.15	1.05	9.78	0.76	7.05	–	–	4.41	40.61	17.41	159.18	19.14	173.91	17.41	157.35	17.94	161.42	18.03	161.55
	6.54	2.68	12.96	5.28	7.51	3.04	17.50	7.03	5.26	2.10	8.29	3.27	5.45	2.13	6.75	2.61	6.57	2.52	14.37	5.47	12.84	4.84
	0.56	0.01	2.06	0.05	3.10	0.07	3.43	0.07	9.87	0.21	26.71	0.57	25.08	0.53	35.38	0.74	21.22	0.44	34.79	0.71	46.74	0.95
	–		–		–		–		–		–		–		0.41		1.79		3.97		2.62	
	–		–		–		–		0.12		0.03		0.30		4.05		0.75		1.34		0.41	
	0.26	0.01	0.23	0.01	0.04	0.00	–	–	1.27	0.05	1.30	0.06	1.99	0.08	3.49	0.15	2.42	0.10	2.02	0.08	2.58	0.11
	–		–		–		–		–		–		–		–		–		–		–	
	–		1.66		0.27		0.20		–		1.31		1.18		1.32		0.94		0.10		0.78	
	42.41	8.31	44.74	8.53	31.04	5.77	44.17	8.00	51.77	9.15	50.95	8.79	54.04	9.10	55.03	9.07	59.25	9.55	55.05	8.70	67.45	10.44
	75.42	1.03	90.72	1.22	79.33	1.04	90.02	1.16	46.31	0.58	77.57	0.96	80.49	0.97	107.83	1.28	109.26	1.27	135.08	1.54	106.78	1.19
	1.17	6.73	0.62	3.50	0.46	2.58	2.14	11.97	2.44	13.55	3.61	19.92	3.49	19.13	3.26	17.73	4.70	25.36	2.87	15.34	2.93	15.51
	1.21	3.09	2.10	5.19	2.69	6.48	6.34	14.85	7.18	16.41	10.74	23.90	12.04	26.13	10.26	21.71	10.39	21.47	11.59	23.39	16.38	32.28
	–	–	0.06	0.00	–	–	–	–	–	–	–	–	–	–	0.62		0.01		–		–	
	2.07	0.03	119.48	1.99	133.29	2.20	17.00	0.28	19.55	0.32	33.03	0.53	53.23	0.85	34.86	0.55	79.86	1.26	58.90	0.92	67.92	1.06
	–	–	0.27	0.34	0.50	0.61	2.53	2.98	0.72	0.80	2.32	2.44	3.94	3.89	4.45	4.17	15.76	14.15	17.22	14.91	22.81	19.13
	–		–		–		–		0.07		0.25		0.06		–		–		–		–	
	0.15	1.55	0.08	0.84	0.90	9.22	0.92	9.36	0.94	9.53	2.01	20.37	4.16	42.03	11.23	113.02	4.08	40.87	2.49	24.84	2.63	26.09
	0.13		–		0.14		0.14		4.95		2.05		0.05		0.43		0.13		0.14		0.14	
	1.13	6.20	1.68	9.04	1.59	8.36	2.85	14.67	2.31	11.58	3.46	16.93	3.57	16.99	3.46	16.08	2.82	12.77	3.04	13.45	4.92	21.23
	52.35	0.68	73.92	0.95	72.07	0.91	77.02	0.96	80.02	0.98	90.97	1.10	108.34	1.29	137.35	1.62	183.54	2.13	168.52	1.93	191.27	2.16
	–		–		–		16.85		15.46		6.56		3.32		1.01		0.99		3.48		0.85	
	7.13	2.31	12.11	3.93	12.01	3.90	21.16	6.86	10.84	3.50	20.36	6.54	19.87	6.34	25.09	7.95	27.03	8.52	19.85	6.22	18.67	5.82
	5.37	1.72	6.71	2.16	12.17	3.95	5.22	1.70	11.68	3.83	7.22	2.38	4.34	1.43	22.46	7.44	19.19	6.38	23.37	7.79	18.91	6.31
	0.62	0.08	9.45	1.17	11.54	1.42	3.82	0.47	4.63	0.56	2.74	0.33	2.40	0.29	9.13	1.09	13.41	1.60	13.63	1.61	11.34	1.33
	–	–	–	–	–	–	–	–	–	–	–	–	1.40	0.14	4.50	0.46	4.59	0.47	7.78	0.80	14.09	1.46
	24.02	6.72	46.64	12.63	18.39	4.85	15.47	4.02	12.72	3.28	13.32	3.42	9.83	2.52	10.39	2.65	26.53	6.76	23.16	5.89	16.13	4.09
	4.84	0.60	11.55	1.43	11.31	1.41	13.87	1.74	9.15	1.16	11.22	1.43	12.80	1.64	28.22	3.64	29.15	3.79	16.14	2.11	57.09	7.53
	–		0.29		0.29		–		0.55		0.09		–		0.29		8.78		6.94		4.01	
	13.21	2.89	12.68	2.80	5.45	1.21	5.41	1.20	7.68	1.71	8.99	1.99	5.44	1.20	7.69	1.69	20.94	4.60	0.51	0.11	0.49	0.11
	0.51	0.37	0.51	0.37	0.49	0.36	–	–	–	–	1.15	0.85	2.01	1.49	2.50	1.86	–	–	–	–	–	–
	2.10		0.94		1.39		2.98		6.84		19.55		7.51		198.25		15.42		11.14		31.87	
	7.11	1.47	11.01	2.31	18.25	3.87	14.65	3.14	16.77	3.64	12.74	2.79	13.28	2.94	28.74	6.43	28.27	6.38	38.73	8.81	22.12	5.07
	–		–		–		–		–		–		–		–		–		–		–	

(continued on next page)

Table 5: DAH by target country, 1990-2008, continued

Region/Country	1990		1991		1992		1993		1994		1995		1996		1997	
	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita
Hungary	-	-	-	-	-	-	-	-	6.96	0.67	6.82	0.66	6.69	0.65	6.58	0.64
Kazakhstan	-	-	-	-	-	-	-	-	4.70	0.29	3.67	0.23	4.42	0.28	5.10	0.33
Kosovo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kyrgyzstan	-	-	-	-	-	-	0.09	0.02	1.54	0.34	0.30	0.06	8.27	1.78	8.48	1.80
Latvia	-	-	-	-	-	-	9.00	3.50	8.81	3.49	-	-	-	-	-	-
Lithuania	-	-	-	-	-	-	6.79	1.85	6.65	1.82	6.51	1.79	-	-	-	-
Macedonia	-	-	-	-	-	-	-	-	-	-	-	-	6.58	3.34	6.56	3.31
Malta	-	-	-	-	-	-	-	-	0.02	0.04	0.01	0.02	0.00	0.01	0.00	0.00
Moldova	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.54	0.13
Montenegro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poland	-	-	-	-	-	-	12.30	0.32	12.04	0.31	11.80	0.31	11.58	0.30	11.39	0.30
Romania	-	-	-	-	25.34	1.10	24.77	1.08	24.25	1.06	23.76	1.05	23.32	1.03	22.94	1.02
Russia	-	-	-	-	-	-	70.64	0.47	69.17	0.46	-	-	-	-	65.96	0.44
Serbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Slovakia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tajikistan	-	-	-	-	-	-	-	-	5.25	0.92	1.86	0.32	1.65	0.28	2.02	0.34
Turkey	13.05	0.23	12.03	0.21	26.82	0.45	17.17	0.28	16.10	0.26	37.86	0.60	33.85	0.53	28.96	0.45
Turkmenistan	-	-	-	-	-	-	-	-	1.36	0.33	1.83	0.44	1.03	0.24	1.29	0.30
Ukraine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Uzbekistan	-	-	-	-	-	-	-	-	1.45	0.06	2.77	0.12	11.44	0.49	7.39	0.31
Yugoslavia	-	-	-	-	0.88	-	0.40	-	1.99	-	2.20	-	0.97	-	0.38	-
Latin America and Caribbean																
Anguilla	-	-	-	-	0.30	-	0.32	-	0.37	-	0.32	-	0.26	-	0.19	-
Antigua and Barbuda	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Argentina	14.59	0.45	24.27	0.73	68.35	2.04	16.04	0.47	31.22	0.91	73.11	2.10	55.72	1.58	299.85	8.40
Barbados	3.79	13.98	0.00	0.01	0.12	0.45	0.12	0.43	0.12	0.42	0.12	0.41	0.11	0.40	0.11	0.39
Belize	2.52	13.57	1.99	10.43	0.81	4.13	0.82	4.07	0.34	1.63	0.54	2.50	0.88	3.99	0.62	2.74
Bolivia	16.63	2.49	19.94	2.92	36.93	5.29	32.38	4.53	37.47	5.12	33.96	4.54	40.83	5.34	44.33	5.67
Brazil	48.05	0.32	43.14	0.28	47.79	0.31	44.24	0.28	78.96	0.50	78.20	0.48	76.11	0.46	144.95	0.87
Chile	9.97	0.76	29.95	2.23	27.59	2.02	39.30	2.82	28.85	2.04	31.42	2.18	25.87	1.77	25.16	1.70
Colombia	4.91	0.14	5.62	0.16	4.39	0.12	18.60	0.50	16.63	0.44	15.44	0.40	48.09	1.23	42.41	1.07
Costa Rica	1.60	0.52	0.92	0.29	1.39	0.43	6.16	1.86	8.80	2.60	8.63	2.48	8.89	2.50	8.28	2.27
Cuba	0.04	0.00	0.02	0.00	0.25	0.02	0.36	0.03	0.26	0.02	0.53	0.05	0.33	0.03	0.92	0.08
Dominica	3.43	-	1.06	-	0.10	-	1.06	-	0.24	-	0.18	-	0.10	-	0.41	-
Dominican Republic	5.44	0.75	4.48	0.60	4.35	0.57	8.72	1.13	5.69	0.72	5.69	0.71	22.03	2.70	15.48	1.86
Ecuador	10.35	1.01	7.49	0.71	7.92	0.74	17.41	1.59	16.71	1.49	15.40	1.35	15.75	1.36	17.93	1.52
El Salvador	26.47	5.18	36.69	7.05	39.91	7.53	26.02	4.81	18.87	3.42	17.99	3.19	11.09	1.93	15.41	2.63
Falkland Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grenada	2.86	29.86	1.68	17.52	0.34	3.56	0.00	0.04	-	-	-	-	-	-	0.15	1.54
Guatemala	10.89	1.22	8.60	0.94	10.23	1.10	26.54	2.78	13.76	1.41	15.56	1.56	20.46	2.00	85.95	8.21
Guyana	4.26	5.83	4.12	5.64	4.02	5.50	5.12	6.97	4.59	6.22	4.49	6.08	4.42	5.98	4.51	6.11
Haiti	20.10	2.83	26.85	3.70	19.72	2.67	33.23	4.40	34.49	4.49	82.93	10.58	30.20	3.78	28.59	3.52
Honduras	22.92	4.69	20.61	4.10	18.15	3.51	30.74	5.80	19.01	3.50	15.72	2.82	32.97	5.78	43.52	7.47
Jamaica	19.65	8.30	18.66	7.81	16.89	7.00	13.40	5.50	13.69	5.56	10.54	4.24	13.27	5.29	14.02	5.54
Mexico	60.48	0.72	58.21	0.68	10.71	0.12	4.60	0.05	0.87	0.01	0.72	0.01	155.59	1.66	146.04	1.53
Montserrat	-	-	-	-	-	-	-	-	0.97	-	1.48	-	1.18	-	0.97	-
Netherlands Antilles	0.19	0.98	0.05	0.27	0.01	0.07	0.02	0.08	-	-	-	-	-	-	-	-
Nicaragua	8.26	2.00	17.95	4.23	15.69	3.61	30.58	6.86	29.77	6.53	25.48	5.46	29.89	6.28	36.96	7.61
North and Central America, regional/multicountry	6.09	-	5.12	-	4.14	-	10.23	-	2.00	-	1.83	-	6.17	-	5.78	-
Panama	0.55	0.23	4.40	1.79	0.79	0.31	3.92	1.53	11.11	4.25	10.81	4.05	23.47	8.61	16.33	5.87
Paraguay	0.46	0.11	0.28	0.06	0.22	0.05	0.12	0.03	0.08	0.02	0.06	0.01	0.09	0.02	3.40	0.68

	1998		1999		2000		2001		2002		2003		2004		2005		2006		2007		2008	
	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita
	6.51	0.63	6.42	0.63	6.28	0.61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7.75	0.51	17.53	1.16	20.65	1.38	17.42	1.17	12.93	0.87	17.44	1.16	13.18	0.87	10.03	0.66	15.25	1.00	9.77	0.63	18.97	1.22
	-	-	-	-	-	-	-	-	-	-	-	-	0.12	-	0.12	-	0.21	-	0.21	-	0.24	-
	9.04	1.88	8.87	1.82	16.82	3.40	8.09	1.62	12.70	2.51	23.44	4.59	16.40	3.18	27.70	5.32	31.13	5.92	36.04	6.78	39.31	7.31
	-	-	1.90	0.79	1.85	0.78	1.81	0.77	1.78	0.76	1.74	0.75	1.69	0.73	-	-	-	-	-	-	-	-
	-	-	-	-	3.26	0.93	3.19	0.91	3.13	0.90	3.07	0.89	2.98	0.87	2.89	0.84	2.80	0.82	-	-	-	-
	4.14	2.08	23.78	11.88	7.37	3.67	10.86	5.39	3.65	1.81	4.74	2.34	3.56	1.75	13.92	6.84	10.35	5.08	10.36	5.08	11.80	5.79
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1.04	0.24	10.98	2.61	14.49	3.49	9.39	2.30	5.98	1.48	6.43	1.62	9.39	2.39	14.99	3.87	11.47	2.99	16.39	4.32	17.83	4.74
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.52	5.80	6.10	10.15	6.41	10.72	3.20	5.34
	11.27	0.29	11.11	0.29	10.87	0.28	10.62	0.28	10.43	0.27	-	-	-	-	-	-	-	-	-	-	-	-
	22.69	1.02	22.37	1.01	-	-	11.21	0.51	11.02	0.50	17.32	0.79	28.16	1.30	23.19	1.07	18.59	0.86	21.25	0.99	8.63	0.40
	71.16	0.48	71.02	0.48	69.71	0.47	67.88	0.46	14.01	0.10	13.72	0.09	40.10	0.28	52.35	0.36	80.05	0.56	102.52	0.72	95.21	0.67
	0.65	0.06	13.73	1.35	11.83	1.17	12.17	1.21	7.39	0.74	33.55	3.37	36.30	3.67	18.43	1.87	20.81	2.11	13.89	1.41	13.93	1.41
	-	-	-	-	-	-	-	-	-	-	-	-	16.31	3.03	15.79	2.93	15.30	2.84	-	-	-	-
	1.36	0.23	4.03	0.66	4.30	0.70	3.94	0.63	6.52	1.03	10.51	1.64	17.46	2.70	15.57	2.38	19.68	2.96	27.04	4.01	33.38	4.88
	27.45	0.42	28.23	0.42	18.09	0.27	12.91	0.19	17.48	0.25	17.57	0.25	17.16	0.24	16.22	0.22	54.43	0.74	130.65	1.74	12.18	0.16
	6.38	1.45	2.77	0.62	2.16	0.48	1.90	0.42	1.88	0.41	2.15	0.46	1.69	0.36	1.73	0.36	1.67	0.34	1.79	0.36	1.99	0.40
	-	-	-	-	-	-	-	-	2.94	0.06	14.11	0.30	16.07	0.34	34.90	0.74	55.35	1.19	50.10	1.08	62.70	1.37
	7.28	0.30	22.78	0.93	13.12	0.53	20.71	0.83	30.36	1.19	25.42	0.98	32.89	1.25	30.89	1.16	28.33	1.05	31.30	1.14	29.65	1.07
	0.06	-	0.11	-	0.29	-	0.13	-	3.32	-	0.34	-	7.54	-	0.48	-	2.10	-	1.41	-	0.03	-
	0.06	-	0.21	-	0.13	-	0.36	-	0.19	-	0.02	-	0.25	-	0.71	-	-	-	-	-	-	-
	-	-	0.17	-	1.27	-	0.10	-	0.02	-	0.09	-	-	-	-	-	0.01	-	-	-	-	-
	346.14	9.59	100.75	2.76	88.93	2.41	69.29	1.86	122.10	3.24	127.14	3.35	310.66	8.10	283.23	7.31	267.37	6.83	292.94	7.41	50.91	1.27
	0.11	0.39	0.11	0.38	-	0.10	0.36	-	2.90	10.00	2.84	9.78	2.70	9.26	-	-	4.68	-	15.87	-	-	-
	0.79	3.40	0.67	2.81	1.46	5.96	2.68	10.69	1.58	6.15	1.44	5.48	1.53	5.67	1.51	5.49	1.81	6.42	1.62	5.64	1.40	4.77
	53.53	6.71	42.75	5.25	71.01	8.54	58.91	6.94	53.72	6.20	74.97	8.49	80.10	8.89	53.01	5.77	72.23	7.72	61.40	6.45	66.97	6.91
	123.16	0.73	131.92	0.77	213.60	1.23	153.35	0.87	152.66	0.85	171.48	0.94	347.01	1.88	119.39	0.64	103.66	0.55	97.23	0.51	51.82	0.27
	19.28	1.28	6.20	0.41	2.52	0.16	3.02	0.19	1.13	0.07	7.49	0.47	15.55	0.96	16.78	1.03	7.48	0.45	8.91	0.54	3.28	0.20
	22.95	0.57	20.64	0.50	19.49	0.47	23.08	0.54	79.51	1.85	122.92	2.81	299.36	6.75	326.26	7.26	87.52	1.92	107.59	2.33	105.91	2.27
	9.09	2.43	17.73	4.62	20.17	5.13	10.31	2.57	8.85	2.16	7.64	1.83	10.08	2.37	4.51	1.04	5.33	1.21	4.82	1.08	6.25	1.38
	0.63	0.06	4.76	0.43	3.25	0.29	3.76	0.34	4.36	0.39	12.08	1.08	12.23	1.09	7.57	0.67	7.89	0.70	14.20	1.26	9.41	0.84
	0.32	-	-	-	-	-	-	-	-	-	0.16	-	0.10	-	0.06	-	0.16	-	0.11	-	0.13	-
	34.04	4.03	48.41	5.63	30.93	3.54	25.30	2.85	27.66	3.06	38.04	4.14	37.76	4.05	69.17	7.30	34.72	3.61	36.46	3.74	41.61	4.20
	27.14	2.27	24.62	2.03	26.93	2.19	25.46	2.04	11.11	0.88	14.20	1.11	28.14	2.18	17.98	1.38	29.09	2.20	50.33	3.77	48.19	3.57
	23.69	3.96	24.09	3.96	22.08	3.56	33.96	5.39	36.35	5.69	34.50	5.32	41.31	6.28	44.08	6.61	41.93	6.20	41.79	6.09	27.29	3.92
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.14	1.40	-	-	-	-	-	-	-	-	0.22	2.13	0.33	3.17	0.69	6.51	0.74	6.99	0.64	6.10	0.63	5.98
	33.91	3.16	45.90	4.19	33.59	2.99	48.18	4.19	33.37	2.83	46.16	3.82	31.00	2.50	30.65	2.41	35.95	2.76	47.68	3.57	67.41	4.93
	3.38	4.59	3.74	5.10	0.75	1.02	1.53	2.08	2.50	3.40	10.25	13.89	23.63	31.97	20.51	27.74	27.71	37.49	25.34	34.34	31.81	43.21
	34.73	4.20	43.68	5.18	39.18	4.57	34.02	3.90	24.23	2.73	49.52	5.50	62.21	6.80	65.06	7.00	115.29	12.21	130.97	13.65	145.00	14.87
	20.00	3.36	65.95	10.86	66.00	10.65	30.75	4.87	25.46	3.95	42.01	6.39	58.97	8.80	47.53	6.96	47.10	6.76	55.79	7.85	54.72	7.55
	14.98	5.88	18.25	7.11	16.28	6.29	14.47	5.55	27.85	10.60	9.68	3.66	11.19	4.20	10.19	3.80	12.83	4.75	12.46	4.59	16.01	5.87
	147.23	1.52	256.51	2.61	275.17	2.76	302.15	3.00	318.29	3.13	67.35	0.66	53.67	0.52	50.84	0.49	51.73	0.49	51.30	0.48	46.18	0.43
	4.08	-	2.03	-	2.39	-	2.78	-	2.18	-	1.77	-	0.18	-	0.38	-	0.20	-	-	-	0.31	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	36.25	7.33	69.99	13.92	55.98	10.96	41.72	8.05	47.81	9.10	57.42	10.78	52.75	9.78	63.96	11.71	69.02	12.48	74.65	13.32	77.27	13.61
	5.08	-	10.97	-	7.99	-	10.28	-	9.11	-	14.40	-	25.10	-	32.74	-	29.09	-	24.27	-	20.65	-
	13.74	4.84	13.18	4.55	11.06	3.75	9.10	3.03	14.03	4.58	8.58	2.75	8.06	2.54	6.60	2.04	5.78	1.76	5.43	1.62	5.73	1.69
	21.93	4.28	29.79	5.69	19.26	3.60	10.71	1.96	6.74	1.21	12.22	2.15	12.67	2.19	9.80	1.66	10.51	1.75	15.87	2.59	20.53	3.29

(continued on next page)

Table 5: DAH by target country, 1990-2008, continued

Region/Country	1990		1991		1992		1993		1994		1995		1996		1997	
	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita
Peru	15.09	0.69	12.80	0.58	13.31	0.59	50.63	2.20	39.70	1.69	50.36	2.11	63.10	2.60	52.19	2.12
South America, regional/multicountry	11.13		11.09		8.23		5.60		10.25		7.33		6.25		4.36	
St. Helena	–		–		0.64		0.49		0.56		0.45		0.37		1.48	
St. Kitts and Nevis	0.03		0.02		–		–		–		0.83		–		0.11	
St. Lucia	1.04	7.52	0.76	5.47	0.26	1.85	0.15	1.05	0.73	5.03	0.14	0.96	1.06	7.21	0.65	4.36
St. Vincent and the Grenadines	–		–		–		–		–		0.28	2.50	0.05	0.48	0.65	5.68
Suriname	5.18	12.86	10.31	25.45	11.87	29.12	5.17	12.61	4.51	10.92	12.68	30.49	7.50	17.89	3.68	8.67
Trinidad and Tobago	0.01	0.01	0.01	0.01	1.00	0.81	0.97	0.78	0.95	0.75	0.96	0.76	0.94	0.74	13.14	10.24
Turks and Caicos Islands	0.17		0.24		0.19		0.15		0.14		0.12		0.08		0.01	
Uruguay	0.16	0.05	0.24	0.08	0.34	0.11	15.79	4.98	3.95	1.24	1.11	0.34	3.44	1.06	1.00	0.31
Venezuela	–		9.94	0.49	9.73	0.47	21.63	1.02	21.30	0.99	30.84	1.40	36.25	1.61	35.63	1.55
Virgin Islands																
Middle East and North Africa																
Algeria	–		–		1.65	0.06	1.90	0.07	1.41	0.05	0.87	0.03	0.27	0.01	0.05	0.00
Bahrain	–		–		–		–		–		–		–		–	
Djibouti	1.60	2.85	1.91	3.30	6.49	10.96	0.77	1.28	0.60	0.99	1.58	2.52	1.48	2.30	6.38	9.62
Egypt	53.70	0.97	63.58	1.13	56.89	0.99	78.23	1.34	84.21	1.41	84.47	1.39	72.61	1.18	70.70	1.12
Iran	–		–		–		–		16.20	0.26	15.87	0.26	15.58	0.25	15.32	0.24
Iraq	1.01	0.05	–		0.10	0.01	0.37	0.02	0.66	0.03	3.11	0.14	2.77	0.12	0.52	0.02
Jordan	2.44	0.75	5.20	1.51	2.27	0.62	5.15	1.32	18.82	4.57	11.53	2.68	14.28	3.22	12.56	2.77
Lebanon	3.06	1.03	4.35	1.42	2.29	0.72	0.58	0.18	0.86	0.25	10.84	3.11	7.07	1.98	7.84	2.16
Libya	–		–		–		–		–		–		–		–	
Middle East, regional/multicountry	5.60		2.34		3.24		2.10		2.14		1.18		0.42		0.59	
Morocco	8.37	0.34	26.12	1.03	24.74	0.96	60.88	2.33	30.01	1.13	34.43	1.28	25.34	0.93	35.81	1.29
North of Sahara, regional/multicountry	0.43		0.43		0.15		0.10		0.10		0.00		–		–	
Oman	–		–		–		–		–		–		–		–	
Palestinian Territory, Occupied	0.07	0.03	0.04	0.02	0.02	0.01	0.05	0.02	8.84	3.51	6.55	2.50	13.56	4.99	34.87	12.36
Saudi Arabia	–		–		–		–		–		–		–		–	
Syria	0.01	0.00	0.14	0.01	0.07	0.01	0.89	0.06	0.20	0.01	0.18	0.01	0.06	0.00	4.48	0.29
Tunisia	1.03	0.13	0.40	0.05	10.83	1.27	10.58	1.22	10.63	1.20	10.22	1.14	10.08	1.11	9.67	1.05
Yemen	3.01	0.24	13.45	1.04	17.24	1.27	16.60	1.17	13.19	0.89	17.27	1.11	20.99	1.30	26.46	1.59
South Asia																
Afghanistan	29.48	2.33	23.73	1.75	13.58	0.92	11.07	0.69	5.23	0.30	3.53	0.19	4.09	0.22	4.20	0.22
Bangladesh	67.66	0.60	74.29	0.64	185.59	1.57	125.26	1.04	165.33	1.34	118.91	0.94	112.01	0.87	130.33	0.99
Bhutan	3.55	6.49	2.86	5.26	1.79	3.34	1.63	3.12	1.28	2.50	0.38	0.76	0.23	0.46	2.00	3.88
India	100.43	0.12	127.19	0.14	235.95	0.26	349.90	0.38	405.28	0.43	323.26	0.34	354.84	0.36	295.61	0.30
Maldives	–		–		0.26	1.12	9.23	39.18	–		–		–		0.67	2.59
Nepal	15.84	0.83	21.74	1.11	19.94	0.99	12.63	0.61	8.05	0.38	14.90	0.69	19.10	0.86	22.40	0.98
Pakistan	57.29	0.51	36.43	0.31	34.25	0.29	50.68	0.42	54.74	0.44	100.44	0.79	127.26	0.97	117.30	0.87
Singapore																
South Asia, regional/multicountry	–		–		–		–		–		–		–		–	
Sri Lanka	20.83	1.22	23.52	1.36	21.25	1.21	22.95	1.29	13.42	0.75	10.61	0.59	12.51	0.69	23.58	1.28
Sub-Saharan Africa																
Angola	15.09	1.43	12.28	1.13	18.66	1.66	8.13	0.70	9.69	0.81	18.53	1.50	65.37	5.17	38.42	2.97
Benin	8.01	1.55	1.80	0.33	8.23	1.48	6.03	1.04	5.02	0.84	4.33	0.70	12.77	1.99	12.54	1.90
Botswana	5.55	4.06	2.58	1.83	3.35	2.31	3.55	2.38	4.40	2.88	11.24	7.18	4.04	2.52	3.01	1.84
Burkina Faso	8.46	0.95	8.57	0.94	8.28	0.88	8.36	0.86	12.70	1.27	45.83	4.46	19.13	1.81	21.01	1.93
Burundi	1.47	0.26	0.93	0.16	1.04	0.18	12.14	2.00	7.16	1.16	10.09	1.62	10.13	1.60	6.22	0.98

	1998		1999		2000		2001		2002		2003		2004		2005		2006		2007		2008	
	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita
	64.29	2.57	56.69	2.24	79.31	3.09	76.07	2.93	42.63	1.62	96.80	3.63	98.68	3.66	98.45	3.61	64.46	2.34	52.80	1.89	61.25	2.17
	4.03		5.90		10.27		9.48		8.30		3.86		11.76		11.35		3.70		4.72		14.62	
	1.22		0.58		1.10		1.04		1.25		2.17		2.03		1.91		2.01		2.83		3.53	
	-		0.09		0.97		3.56		1.39		0.02		0.30		0.29		0.29		0.28		0.27	
	0.69	4.58	0.03	0.18	0.07	0.47	0.15	0.99	0.10	0.62	0.26	1.64	0.22	1.39	0.43	2.65	0.45	2.75	0.45	2.71	0.65	3.88
	1.19	10.34	0.70	6.04	0.12	0.99	-	-	-	-	-	-	0.05	0.43	0.28	2.33	0.41	3.38	0.35	2.90	0.09	0.78
	15.63	36.51	10.05	23.24	4.62	10.59	6.81	15.47	7.81	17.62	9.18	20.56	9.12	20.29	10.52	23.25	4.57	10.03	7.05	15.39	8.05	17.49
	13.03	10.10	12.61	9.74	11.87	9.12	11.63	8.91	11.43	8.72	11.27	8.57	14.53	11.02	14.09	10.65			3.36		2.51	
	-		0.18		0.17		0.02		0.02		-		0.08		0.21		-		-		-	
	0.95	0.29	1.14	0.35	0.87	0.26	1.00	0.30	45.71	13.74	43.68	13.14	7.91	2.38	7.89	2.37	31.54	9.47	6.97	2.09	0.76	0.23
	35.25	1.50	34.70	1.45	25.98	1.06	14.66	0.59	15.19	0.60	8.69	0.34	8.15	0.31	8.40	0.31	1.56	0.06	1.61	0.06	1.53	0.05
															-	-						
	0.58	0.02	1.47	0.05	0.80	0.03	1.46	0.05	0.77	0.02	0.35	0.01	2.61	0.08	2.59	0.08	3.02	0.09	3.29	0.10	4.63	0.13
	0.02	0.03	0.03	0.04	0.02	0.03									-	-						
	7.68	11.19	8.84	12.47	3.94	5.40	0.74	0.99	1.23	1.61	3.98	5.12	6.96	8.80	14.91	18.54	12.15	14.85	16.18	19.42	12.49	14.73
	60.53	0.94	79.66	1.22	87.82	1.32	82.69	1.22	64.69	0.94	53.93	0.77	65.97	0.92	64.90	0.89	104.29	1.41	96.46	1.28	126.67	1.65
	15.31	0.24	15.25	0.23	14.94	0.23	26.12	0.39	11.55	0.17	11.39	0.17	11.15	0.16	12.17	0.18	12.19	0.17	12.66	0.18	18.62	0.26
	0.38	0.02	1.89	0.08	1.21	0.05	0.38	0.01	0.38	0.01	23.11	0.86	66.01	2.40	422.46	15.09	328.85	11.54	210.52	7.26	74.85	2.54
	18.22	3.94	38.29	8.15	34.67	7.22	36.43	7.41	50.65	10.02	40.78	7.83	37.10	6.91	12.50	2.25	13.96	2.44	10.60	1.79	24.50	4.00
	7.17	1.95	10.18	2.73	7.96	2.11	7.62	1.99	6.02	1.56	6.75	1.72	3.91	0.99	3.34	0.83	3.71	0.91	7.82	1.91	8.37	2.02
	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-	-	0.22	0.04	0.50	0.08	1.59	0.26	30.73	4.89
	0.02		0.55		0.57		(0.01)	0.10		0.63	0.45		2.08		0.80		1.55		0.80			
	44.01	1.57	31.42	1.10	33.42	1.16	33.35	1.14	31.85	1.08	47.16	1.58	34.72	1.15	35.89	1.18	65.33	2.12	36.13	1.16	43.67	1.38
	0.04		0.89		1.49		2.05		3.46		0.49		0.98		1.13		6.40		2.79		14.55	
	0.01	0.00	0.01	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.05	0.02	0.05	0.02	0.04	0.01	-	-		0.01	0.00	
	26.40	9.02	23.62	7.78	28.91	9.18	27.78	8.50	24.26	7.16	41.03	11.69	62.04	17.07	48.59	12.92	50.08	12.88	65.70	16.35	62.46	15.06
	0.15	0.01	0.24	0.01	0.04	0.00	0.07	0.00	0.13	0.01	0.26	0.01							-	-		
	2.49	0.16	0.11	0.01	0.13	0.01	0.06	0.00	3.13	0.18	2.32	0.13	5.37	0.29	2.25	0.12	3.92	0.20	7.19	0.36	14.62	0.71
	10.02	1.07	17.15	1.81	12.10	1.27	15.41	1.59	13.10	1.34	14.41	1.46	4.62	0.46	3.80	0.38	28.45	2.78	7.46	0.72	32.73	3.13
	9.29	0.54	13.71	0.78	13.66	0.75	18.20	0.97	18.86	0.98	28.10	1.41	21.23	1.04	40.90	1.94	32.64	1.50	45.23	2.02	47.00	2.04
	2.21	0.11	3.90	0.19	3.74	0.18	4.10	0.19	18.62	0.84	26.97	1.17	100.74	4.18	135.44	5.40	141.80	5.44	171.37	6.31	191.07	6.77
	125.65	0.94	149.73	1.09	150.06	1.08	181.38	1.28	147.95	1.02	158.19	1.07	163.07	1.08	165.52	1.08	229.10	1.47	195.13	1.23	251.60	1.56
	4.91	9.29	2.46	4.53	5.23	9.36	3.96	6.90	2.63	4.45	6.71	11.05	5.28	8.48	7.36	11.56	6.59	10.16	6.08	9.23	5.37	8.06
	365.91	0.36	407.79	0.40	443.51	0.42	453.57	0.43	508.65	0.47	498.68	0.45	468.44	0.42	583.04	0.51	493.28	0.43	689.99	0.59	679.48	0.57
	-	-	0.10	0.37	0.39	1.43	0.20	0.72	0.10	0.37	0.09	0.32	0.02	0.08	0.37	1.25	0.42	1.40	1.66	5.43	0.19	0.62
	31.44	1.35	33.35	1.40	29.82	1.22	43.50	1.74	42.40	1.66	48.29	1.86	65.04	2.45	68.99	2.55	75.81	2.74	69.29	2.46	95.29	3.31
	87.04	0.63	61.08	0.43	52.13	0.36	53.59	0.36	121.68	0.81	191.73	1.26	123.65	0.80	174.33	1.10	216.24	1.34	257.82	1.57	390.59	2.34
															0.44	0.10						
	-		-		-		-		-		6.34		-		17.13		6.86		13.80		2.89	
	35.85	1.94	14.03	0.75	6.81	0.36	10.81	0.58	16.35	0.87	10.95	0.58	11.24	0.59	17.55	0.92	16.85	0.88	21.51	1.11	25.65	1.32
	14.61	1.10	23.41	1.72	19.36	1.39	27.20	1.90	28.27	1.92	37.75	2.49	50.34	3.22	96.56	6.00	51.98	3.14	61.13	3.59	85.25	4.87
	16.06	2.36	18.59	2.65	15.31	2.12	18.48	2.48	20.58	2.67	32.61	4.10	41.47	5.04	54.42	6.41	60.65	6.92	54.20	6.00	60.54	6.50
	2.45	1.47	0.36	0.21	0.21	0.12	2.04	1.16	10.09	5.68	13.73	7.65	34.08	18.78	20.31	11.06	30.29	16.30	46.60	24.77	234.61	123.12
	20.38	1.82	18.55	1.61	22.48	1.89	28.17	2.30	31.95	2.52	38.67	2.96	62.74	4.65	66.51	4.77	68.75	4.79	97.46	6.59	88.68	5.83
	5.96	0.92	3.90	0.60	4.87	0.73	8.63	1.26	16.37	2.32	22.84	3.13	26.53	3.51	27.65	3.52	41.27	5.05	34.53	4.06	52.26	5.90

(continued on next page)

Table 5: DAH by target country, 1990-2008, continued

Region/Country	1990		1991		1992		1993		1994		1995		1996		1997	
	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita	DAH	DAH per capita
Cameroon	10.45	0.85	16.18	1.28	10.85	0.84	11.05	0.83	7.24	0.53	4.21	0.30	11.06	0.77	12.00	0.81
Cape Verde	0.29	0.81	0.01	0.03	0.12	0.33	0.47	1.23	0.36	0.91	0.21	0.52	0.59	1.43	2.13	5.06
Central African Republic	2.28	0.76	1.96	0.64	3.14	0.99	2.94	0.90	2.97	0.88	4.49	1.30	1.55	0.44	2.86	0.79
Chad	12.70	2.08	6.38	1.01	3.70	0.57	7.35	1.10	4.15	0.60	7.24	1.01	16.45	2.23	17.15	2.25
Comoros	0.22	0.41	0.13	0.23	0.05	0.09	0.01	0.01	1.45	2.45	2.71	4.47	1.59	2.55	2.89	4.50
Congo	8.85	3.65	1.45	0.58	0.84	0.33	0.18	0.07	1.81	0.67	2.46	0.88	3.84	1.34	3.72	1.26
Congo, Democratic Republic of the	16.02	0.42	13.68	0.35	7.21	0.18	4.02	0.09	4.88	0.11	6.87	0.15	16.25	0.35	17.13	0.36
Côte d'Ivoire	11.63	0.91	13.56	1.02	49.20	3.60	37.99	2.69	31.33	2.15	35.62	2.38	59.01	3.83	31.49	1.99
Equatorial Guinea	0.12	0.36	0.09	0.27	0.15	0.41	0.71	1.94	1.52	4.08	0.79	2.06	1.92	4.90	1.17	2.91
Eritrea	–	–	–	–	–	–	–	–	5.18	1.63	4.95	1.54	7.36	2.25	5.15	1.54
Ethiopia	32.73	0.64	20.03	0.38	26.80	0.49	13.11	0.23	25.30	0.43	37.67	0.62	37.88	0.61	38.65	0.60
Gabon	1.28	1.39	0.66	0.70	0.98	1.01	3.05	3.04	0.68	0.66	0.50	0.47	2.39	2.21	3.62	3.27
Gambia	3.69	3.84	3.06	3.06	4.73	4.56	6.24	5.80	3.04	2.72	3.12	2.69	2.27	1.89	2.00	1.61
Ghana	4.60	0.30	22.52	1.40	15.64	0.95	29.15	1.72	25.34	1.45	23.73	1.33	24.21	1.32	36.53	1.94
Guinea	0.47	0.08	6.98	1.11	5.50	0.84	6.61	0.97	7.71	1.09	8.62	1.18	12.71	1.69	17.38	2.25
Guinea-Bissau	5.18	5.10	5.41	5.16	4.33	4.00	2.39	2.13	4.42	3.83	9.53	8.00	4.77	3.89	3.40	2.70
Kenya	48.38	2.06	44.64	1.84	53.10	2.12	45.52	1.76	38.82	1.46	50.39	1.84	77.65	2.76	72.40	2.50
Lesotho	5.26	3.29	4.85	2.98	4.32	2.62	2.85	1.71	2.22	1.31	9.36	5.44	8.68	4.95	8.47	4.74
Liberia	2.40	1.12	1.13	0.54	1.05	0.51	0.22	0.11	0.19	0.09	0.03	0.02	0.21	0.09	1.76	0.71
Madagascar	4.57	0.38	8.33	0.67	15.96	1.25	15.23	1.16	18.51	1.37	18.42	1.32	21.51	1.50	22.33	1.51
Malawi	26.43	2.80	11.90	1.23	27.09	2.77	33.56	3.40	25.69	2.58	32.86	3.26	43.48	4.21	46.23	4.36
Mali	14.46	1.89	19.54	2.48	14.45	1.79	15.72	1.90	24.42	2.87	29.00	3.32	18.60	2.07	24.86	2.70
Mauritania	15.47	7.95	3.10	1.55	7.20	3.51	8.13	3.86	2.93	1.35	2.84	1.28	8.51	3.72	6.38	2.71
Mauritius	0.07	0.06	0.04	0.03	0.02	0.02	0.02	0.02	0.43	0.39	0.10	0.09	0.64	0.56	0.41	0.36
Mayotte	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mozambique	44.95	3.32	67.94	4.90	55.62	3.88	36.23	2.44	67.58	4.38	54.75	3.43	82.97	5.05	71.02	4.21
Namibia	1.86	1.32	3.97	2.70	5.80	3.82	10.45	6.67	11.14	6.92	7.82	4.72	14.41	8.46	9.56	5.46
Niger	7.29	0.93	11.73	1.45	21.55	2.58	11.67	1.35	11.54	1.29	12.41	1.34	13.10	1.36	19.10	1.91
Nigeria	27.10	0.29	24.51	0.25	19.78	0.20	33.82	0.33	21.06	0.20	19.18	0.18	17.58	0.16	16.41	0.14
Rwanda	8.05	1.10	8.10	1.15	11.07	1.68	7.33	1.20	7.56	1.32	11.36	2.01	11.88	2.02	16.65	2.62
Sao Tome and Principe	1.31	11.27	0.25	2.14	0.19	1.58	1.89	15.30	2.35	18.74	1.72	13.41	1.56	11.94	1.60	12.03
Senegal	12.18	1.54	12.40	1.53	13.65	1.63	15.00	1.75	14.18	1.61	13.77	1.52	10.46	1.12	20.29	2.13
Seychelles	0.09	–	0.00	–	0.46	–	0.35	–	0.35	–	0.75	–	0.33	–	0.77	–
Sierra Leone	0.42	0.10	0.12	0.03	0.64	0.16	4.59	1.11	1.17	0.28	1.10	0.27	1.87	0.45	4.17	0.99
Somalia	15.36	2.29	4.34	0.65	2.22	0.34	3.42	0.54	3.92	0.63	2.75	0.44	2.73	0.43	1.98	0.31
South Africa	1.39	0.04	–	–	2.59	0.07	3.69	0.09	12.01	0.30	9.87	0.24	18.99	0.45	23.90	0.55
South of Sahara, regional/multicountry	30.81	–	38.14	–	31.41	–	18.19	–	27.45	–	18.54	–	25.60	–	41.72	–
Sudan	8.33	0.32	3.73	0.14	4.93	0.18	15.91	0.57	1.92	0.07	3.83	0.13	7.50	0.25	4.98	0.16
Swaziland	3.06	3.54	3.32	3.74	1.73	1.91	1.14	1.23	7.21	7.67	2.99	3.12	1.02	1.04	1.20	1.20
Tanzania	43.05	1.69	44.30	1.68	46.62	1.71	54.47	1.94	40.89	1.41	41.22	1.38	58.03	1.89	64.76	2.06
Togo	1.40	0.35	5.22	1.28	7.65	1.84	1.82	0.43	3.28	0.75	3.29	0.73	3.20	0.68	7.05	1.45
Uganda	19.51	1.09	44.92	2.43	38.23	1.99	38.28	1.93	42.12	2.05	50.68	2.39	79.00	3.61	70.40	3.12
Zambia	7.15	0.88	3.98	0.48	19.34	2.26	30.07	3.42	32.65	3.62	47.10	5.09	58.11	6.12	46.43	4.77
Zimbabwe	11.11	1.06	13.56	1.26	45.83	4.14	42.61	3.76	46.35	4.01	49.38	4.19	47.17	3.93	51.75	4.24

Source: IHME DAH Database (Country and Regional Level) 2010

Notes: In millions US\$, 2008. Development assistance for health (DAH) includes both financial and in-kind contributions for activities aimed at improving health in low- and middle-income countries. This table disaggregates financial DAH transfers by the country receiving funds or intended to benefit from research or technical assistance activities. Population data were obtained from the United Nations Population Division. DAH per capita values are missing where population data were not available for the country. This table only reflects financial DAH from channels of assistance providing project-level detail, specifically: bilateral development agencies, World Bank (IDA and IBRD), ADB, AfDB, IDB, GFATM, GAVI, and BMGF.

	1998		1999		2000		2001		2002		2003		2004		2005		2006		2007		2008	
	DAH per capita		DAH per capita		DAH per capita		DAH per capita		DAH per capita		DAH per capita		DAH per capita		DAH per capita		DAH per capita		DAH per capita		DAH per capita	
	DAH	capita	DAH	capita	DAH	capita	DAH	capita	DAH	capita	DAH	capita	DAH	capita	DAH	capita	DAH	capita	DAH	capita	DAH	capita
	12.31	0.81	15.69	1.01	9.18	0.58	11.76	0.72	15.14	0.91	25.70	1.51	43.53	2.50	39.61	2.23	53.46	2.94	68.22	3.68	53.97	2.85
	0.98	2.29	1.10	2.50	1.05	2.32	6.95	15.06	1.71	3.61	7.43	15.37	6.53	13.19	8.84	17.44	13.15	25.36	11.04	20.81	10.90	20.10
	3.42	0.92	11.31	2.99	3.99	1.03	5.75	1.46	9.97	2.49	6.14	1.51	17.50	4.25	10.81	2.58	17.00	3.99	6.45	1.49	28.13	6.36
	19.44	2.46	19.49	2.39	16.47	1.95	22.36	2.55	25.33	2.78	19.97	2.11	40.57	4.14	27.24	2.68	29.13	2.78	19.94	1.85	28.58	2.58
	5.39	8.15	4.02	5.91	3.52	5.04	2.24	3.12	2.85	3.86	2.24	2.95	3.61	4.64	3.56	4.47	1.69	2.06	1.58	1.88	0.81	0.94
	2.64	0.87	0.42	0.13	0.53	0.17	0.68	0.21	2.24	0.67	3.81	1.10	10.13	2.87	7.49	2.08	10.65	2.89	10.38	2.75	14.98	3.89
	21.70	0.45	20.74	0.42	25.67	0.51	33.85	0.65	42.43	0.79	82.19	1.49	98.36	1.73	136.18	2.32	173.95	2.87	151.35	2.42	242.45	3.75
	23.71	1.46	20.37	1.22	15.33	0.90	18.39	1.06	28.79	1.63	44.38	2.47	43.54	2.38	45.77	2.46	64.82	3.43	64.35	3.34	121.00	6.17
	1.10	2.67	2.49	5.92	4.16	9.66	3.73	8.45	2.14	4.75	3.01	6.52	3.91	8.27	7.80	16.12	10.55	21.28		8.96	17.24	
	12.68	3.69	15.41	4.34	17.75	4.82	24.67	6.44	24.34	6.09	29.45	7.05	28.28	6.50	21.66	4.78	23.62	5.03	22.12	4.56	19.94	3.98
	31.44	0.48	54.65	0.81	54.79	0.79	84.74	1.19	80.62	1.10	176.45	2.35	134.55	1.75	244.90	3.10	345.75	4.27	532.90	6.41	488.80	5.74
	4.70	4.15	2.29	1.98	4.24	3.58	4.81	3.99	2.70	2.20	3.22	2.58	6.81	5.36	7.45	5.77	10.37	7.91	7.47	5.61	5.89	4.36
	1.53	1.19	5.49	4.11	7.45	5.38	7.75	5.41	10.33	6.99	9.19	6.03	12.15	7.73	17.80	11.01	11.54	6.94	13.59	7.95	12.87	7.34
	24.89	1.29	48.07	2.44	36.00	1.79	77.51	3.76	80.51	3.82	78.05	3.62	162.04	7.35	165.95	7.36	188.35	8.19	201.08	8.56	200.53	8.37
	15.21	1.93	20.25	2.52	19.67	2.40	22.47	2.69	27.82	3.27	24.02	2.77	25.90	2.93	23.39	2.60	27.23	2.97	20.58	2.20	22.61	2.36
	4.95	3.82	4.09	3.07	4.55	3.32	7.49	5.30	8.33	5.72	8.15	5.43	10.21	6.59	11.19	7.00	11.64	7.07	14.74	8.70	12.21	6.99
	75.54	2.55	74.51	2.45	50.32	1.61	109.59	3.42	104.16	3.16	148.37	4.39	199.03	5.74	199.73	5.61	318.56	8.71	326.58	8.70	434.86	11.28
	2.00	1.10	0.30	0.16	2.05	1.09	4.07	2.13	4.52	2.34	8.78	4.50	12.34	6.28	12.62	6.37	13.05	6.54	19.78	9.85	37.43	18.53
	1.65	0.61	3.27	1.12	6.97	2.27	4.71	1.48	3.41	1.05	5.88	1.79	12.50	3.73	14.77	4.29	16.52	4.62	18.29	4.88	49.60	12.58
	24.13	1.58	24.98	1.59	30.75	1.90	33.14	1.99	29.34	1.71	49.35	2.80	54.45	3.00	77.03	4.13	78.02	4.07	71.56	3.64	69.38	3.43
	34.29	3.13	46.43	4.11	56.77	4.88	63.98	5.36	71.71	5.85	89.94	7.15	118.64	9.20	105.35	7.97	156.06	11.50	222.81	16.00	264.36	18.50
	18.97	2.00	31.18	3.21	27.76	2.78	45.01	4.37	18.49	1.74	47.28	4.33	45.53	4.04	67.73	5.83	75.85	6.34	83.42	6.76	104.09	8.19
	6.07	2.51	10.78	4.33	10.25	3.99	11.67	4.42	7.51	2.76	8.72	3.11	10.68	3.71	5.70	1.93	6.57	2.16	12.67	4.06	15.31	4.78
	0.30	0.26	0.53	0.45	0.90	0.76	0.25	0.20	(0.00)	(0.00)	0.15	0.13	0.18	0.15	0.33	0.26	0.55	0.44	0.82	0.65	0.00	0.00
	-		-		-		20.20		18.16		13.04		21.52		0.56		0.39		6.44		13.87	
	62.14	3.59	70.23	3.96	73.23	4.03	99.03	5.31	110.45	5.77	133.82	6.82	204.68	10.19	172.15	8.38	220.41	10.51	306.55	14.33	384.87	17.64
	6.24	3.47	11.29	6.13	13.21	7.03	10.07	5.27	9.97	5.13	18.26	9.28	29.43	14.76	32.34	16.01	75.75	37.01	92.59	44.64	82.74	39.36
	22.07	2.13	14.63	1.36	14.64	1.32	16.46	1.43	19.97	1.67	30.97	2.50	48.20	3.76	32.12	2.42	56.24	4.09	61.47	4.32	79.91	5.42
	13.72	0.12	22.69	0.19	44.58	0.36	72.04	0.56	86.54	0.66	143.32	1.06	261.69	1.90	200.70	1.42	341.59	2.36	410.50	2.77	596.79	3.94
	19.87	2.83	21.68	2.83	21.57	2.64	29.96	3.51	37.12	4.24	41.70	4.68	74.03	8.18	104.53	11.32	145.24	15.35	157.47	16.19	231.03	23.08
	1.47	10.85	4.92	35.74	5.20	37.09	4.79	33.58	4.15	28.62	3.61	24.48	4.27	28.46	4.50	29.49	4.25	27.40	3.24	20.52	4.99	31.14
	30.55	3.12	41.75	4.15	36.10	3.49	61.19	5.77	45.95	4.22	94.77	8.48	89.83	7.83	101.65	8.64	120.57	9.99	74.64	6.03	95.74	7.55
	0.64		0.52		0.09		0.22		0.35		1.15		1.15		1.24		0.16		0.08		0.06	
	3.60	0.84	6.45	1.47	5.24	1.16	9.63	2.05	8.65	1.76	19.26	3.73	23.37	4.34	21.34	3.82	25.49	4.44	31.33	5.34	42.63	7.14
	2.98	0.45	3.57	0.52	2.94	0.42	3.11	0.43	4.25	0.57	4.04	0.52	13.67	1.72	14.06	1.71	18.44	2.18	21.65	2.49	22.83	2.55
	37.82	0.86	23.16	0.52	26.70	0.59	50.52	1.10	47.54	1.02	108.70	2.31	121.47	2.56	157.59	3.29	199.53	4.13	327.27	6.74	485.09	9.93
	50.48		20.20		77.18		148.87		129.67		146.87		145.94		127.32		258.80		176.09		271.50	
	6.91	0.22	7.81	0.24	7.90	0.24	6.50	0.19	16.17	0.47	14.74	0.42	32.69	0.90	60.48	1.64	70.86	1.88	66.47	1.72	111.61	2.83
	5.01	4.91	1.17	1.13	2.22	2.10	1.02	0.95	0.85	0.78	9.36	8.49	5.23	4.70	23.57	20.96	13.90	12.26	20.65	18.10	28.60	24.91
	92.39	2.86	93.40	2.83	64.95	1.92	97.60	2.81	123.54	3.47	123.02	3.37	212.32	5.66	278.72	7.24	306.95	7.78	418.79	10.35	568.98	13.72
	8.26	1.64	3.77	0.72	2.03	0.38	2.94	0.53	1.98	0.34	8.89	1.50	14.30	2.36	15.09	2.42	13.57	2.12	23.71	3.60	27.72	4.10
	81.44	3.50	79.62	3.32	80.34	3.25	97.63	3.83	121.91	4.64	185.71	6.84	260.30	9.29	279.11	9.64	270.33	9.04	352.15	11.40	367.01	11.50
	29.94	3.00	35.19	3.44	49.12	4.70	71.17	6.67	84.83	7.80	158.09	14.28	198.21	17.59	242.38	21.12	214.60	18.35	264.74	22.21	384.27	31.62
	57.99	4.69	45.47	3.63	29.98	2.37	28.42	2.23	33.10	2.57	46.91	3.63	60.43	4.64	84.40	6.43	100.16	7.57	148.74	11.14	96.63	7.17

TABLE 6:
DAH by health focus area, 1990-2008

Year	HIV/AIDS	Maternal, newborn, and child health	Malaria	Health sector support	Tuberculosis	Noncommunicable diseases	Unallocable	Other	Total
1990	0.20	0.95	0.04	0.00	0.02	0.03	2.20	2.23	5.66
1991	0.21	0.94	0.04	0.00	0.02	0.03	1.94	2.27	5.44
1992	0.22	1.00	0.02	0.00	0.02	0.03	2.23	2.54	6.06
1993	0.23	1.02	0.02	0.00	0.04	0.04	2.18	3.04	6.56
1994	0.35	1.45	0.04	0.00	0.03	0.04	2.55	3.12	7.58
1995	0.36	1.51	0.04	0.01	0.03	0.05	2.77	3.11	7.87
1996	0.42	1.19	0.04	0.02	0.05	0.04	2.71	3.43	7.91
1997	0.45	1.25	0.04	0.03	0.04	0.04	2.56	3.99	8.39
1998	0.45	1.22	0.06	0.01	0.06	0.05	2.79	4.01	8.66
1999	0.58	1.57	0.08	0.12	0.08	0.05	3.06	4.09	9.63
2000	0.78	1.85	0.15	0.12	0.12	0.10	3.17	4.23	10.52
2001	0.96	2.10	0.15	0.02	0.15	0.07	2.80	4.27	10.51
2002	1.46	1.51	0.13	0.08	0.17	0.09	3.52	5.00	11.97
2003	1.88	1.70	0.19	0.12	0.22	0.09	2.92	5.73	12.86
2004	2.50	1.84	0.39	0.21	0.38	0.06	2.98	6.22	14.59
2005	3.15	2.26	0.76	0.40	0.40	0.07	3.32	6.07	16.44
2006	4.08	2.00	0.69	0.82	0.52	0.09	3.48	6.12	17.81
2007	5.13	2.96	0.76	0.93	0.65	0.11	3.91	5.94	20.40
2008	6.16	3.17	1.19	1.00	0.83	0.12	4.99	6.41	23.87

Sources: IHME DAH Database 2010 and DAH Database (Country and Regional Level) 2010

Notes: In millions US\$, 2008. Development assistance for health (DAH) includes both financial and in-kind contributions for activities aimed at improving health in low- and middle-income countries. This table disaggregates financial DAH earmarked for HIV/AIDS, maternal, newborn, and child health, malaria, health sector support, tuberculosis, and noncommunicable diseases. We were able to allocate flows from the following channels of assistance by their health focus areas: bilateral development agencies, World Bank (IDA and IBRD), regional development banks, GFATM, GAVI, WHO, UNICEF, UNAIDS, UNFPA, EC, and BMGF. Contributions from remaining channels are shown as unallocable by disease.

For preliminary estimates of DAH for 2009 and 2010, refer to Table 1 of the Statistical Annex.

TABLE 7:
DAH by type of transfer, 1990-2008

Year	Financial: Grants and loans	In-kind: Services, management, research, and technical assistance	In-kind: Drugs and commodities
1990	2,984.10	2,626.56	44.65
1991	2,876.64	2,518.61	49.33
1992	3,415.29	2,584.02	62.80
1993	3,878.03	2,609.50	76.72
1994	4,483.41	3,002.00	97.33
1995	4,829.75	2,954.27	90.02
1996	5,054.60	2,750.77	104.16
1997	5,522.25	2,757.62	112.79
1998	5,536.39	2,998.35	125.05
1999	6,309.11	3,181.06	136.57
2000	6,761.12	3,630.92	128.39
2001	6,470.16	3,721.64	317.56
2002	7,699.47	3,962.92	307.99
2003	8,333.56	4,106.17	417.96
2004	9,288.89	4,822.86	479.21
2005	10,561.71	5,245.83	634.76
2006	11,748.13	5,494.41	567.84
2007	13,872.27	5,690.99	837.78
2008	16,414.60	6,715.94	743.35

Source: IHME DAH Database 2010

Notes: In millions US\$, 2008. Development assistance for health (DAH) includes both financial and in-kind contributions for activities aimed at improving health in low- and middle-income countries. This table disaggregates DAH by type of transfer. Financial DAH transfers include grants and loans from channels of assistance. In-kind contributions in the form of health services delivered, management, research, and technical assistance include all United Nations health-related expenditures and the management and administrative component involved in grant- and loan-making activities. In-kind contributions in the form of drugs and commodities represent donations by corporations through US NGOs as well as vaccine procurement through GAVI's new and underused vaccine and injection safety support programs.

For preliminary estimates of DAH for 2009 and 2010, refer to Table 1 of the Statistical Annex.

For the related figure, please visit:

http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_statistical_IHME.pdf

TABLE 8:
Bilateral commitments and disbursements, 1990-2008

Donor	Observed/ Estimated ¹	1990		1991		1992		1993		1994		1995		1996		1997	
		Comm ²	Disb ³	Comm ²	Disb ³	Comm ²	Disb ³	Comm ²	Disb ³	Comm ²	Disb ³	Comm ²	Disb ³	Comm ²	Disb ³	Comm ²	Disb ³
Australia	Observed	13.22	–	17.50	–	27.91	–	60.90	–	73.76	–	24.78	–	163.94	–	69.19	–
Australia	Estimated	13.22	8.90	17.50	11.48	68.10	36.00	62.41	42.82	90.40	62.27	93.36	72.80	163.94	112.26	72.87	88.47
Austria	Observed	17.16	1.28	2.93	0.18	–	–	–	0.63	–	12.20	–	1.11	8.15	5.71	4.78	5.17
Austria	Estimated	40.26	27.54	4.61	8.46	–	3.10	–	2.67	–	2.10	–	0.21	11.03	7.55	64.00	45.26
Belgium	Observed	3.77	–	2.38	2.38	–	–	–	–	57.13	–	63.25	–	74.86	–	66.23	–
Belgium	Estimated	98.37	54.60	90.12	77.54	95.96	87.31	91.81	91.80	71.59	79.56	63.25	69.23	74.86	71.34	73.69	72.14
Canada	Observed	49.42	–	53.73	–	27.07	28.58	20.02	26.43	68.89	27.46	115.30	37.39	60.74	51.00	36.71	28.71
Canada	Estimated	53.96	52.45	53.73	52.81	34.05	42.11	36.11	40.70	69.59	56.24	117.00	81.91	60.74	62.51	36.71	50.56
Denmark	Observed	48.40	–	108.05	–	140.84	–	125.02	–	45.33	–	110.39	–	296.97	–	37.47	91.34
Denmark	Estimated	48.40	28.48	113.47	39.28	169.68	58.05	125.02	64.86	56.98	55.61	110.39	60.00	302.88	94.66	40.30	71.44
European Commission	Observed	16.12	–	43.48	–	224.58	–	224.93	–	66.76	–	270.33	–	343.64	76.25	238.94	59.81
European Commission	Estimated	16.12	47.33	43.48	35.98	224.58	25.88	224.93	91.98	66.76	158.62	270.33	163.96	343.64	180.45	238.94	220.72
Finland	Observed	55.30	39.84	52.03	41.34	33.63	29.77	6.53	20.60	20.90	21.18	27.66	–	14.99	17.29	9.06	13.72
Finland	Estimated	56.12	38.91	52.03	40.78	33.63	38.22	6.82	29.19	20.97	22.09	27.66	18.15	14.99	14.53	9.17	11.20
France	Observed	143.90	41.33	75.71	25.78	93.09	29.31	74.69	59.78	84.35	30.06	103.46	34.82	101.49	20.07	141.07	23.53
France	Estimated	751.90	543.44	279.88	307.08	239.58	284.69	199.34	236.73	294.47	276.99	367.27	328.33	290.18	292.66	223.85	248.87
Germany	Observed	51.44	6.79	29.63	6.98	81.65	53.57	81.52	13.06	209.88	116.48	181.48	83.00	89.90	81.87	311.27	79.42
Germany	Estimated	117.41	84.35	124.67	99.59	171.76	136.41	196.05	165.00	320.11	252.35	414.81	329.41	272.35	273.99	311.27	307.53
Greece	Observed	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Greece	Estimated	–	–	–	–	–	–	–	–	–	–	–	6.38	6.38	6.26	6.26	8.40
Ireland	Observed	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ireland	Estimated	2.51	2.51	2.67	2.67	3.50	3.50	–	–	6.96	6.96	21.97	21.97	21.56	21.56	–	–
Italy	Observed	147.25	4.89	161.25	1.17	99.44	5.35	70.82	11.29	9.32	3.89	39.03	0.86	54.32	0.27	27.81	0.44
Italy	Estimated	160.06	210.04	187.19	189.43	133.39	155.96	98.96	130.28	45.15	89.27	48.01	67.09	73.10	62.76	27.81	44.69
Japan	Observed	150.61	–	125.75	–	188.76	128.45	369.59	306.78	225.13	92.58	213.55	22.12	382.91	205.88	274.67	246.60
Japan	Estimated	321.18	240.99	307.76	273.89	305.26	288.31	555.57	388.49	423.82	419.31	470.14	423.32	590.80	488.48	468.28	495.53
Luxembourg	Observed	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Luxembourg	Estimated	–	–	–	–	6.21	6.21	6.22	6.22	–	–	12.27	12.27	12.04	12.04	21.21	21.21
Netherlands	Observed	62.13	1.98	67.95	–	131.84	–	110.22	–	115.90	–	166.24	–	229.59	–	138.56	–
Netherlands	Estimated	131.63	72.52	67.95	53.15	228.67	122.23	110.22	91.93	115.90	74.94	171.46	111.60	229.59	140.72	138.56	105.23
New Zealand	Observed	–	–	–	–	–	–	–	–	–	–	2.41	–	–	–	–	–
New Zealand	Estimated	–	–	3.51	0.83	2.59	1.19	1.99	1.68	2.81	2.75	2.75	2.43	–	1.75	–	1.57
Norway	Observed	28.05	–	24.10	–	87.05	–	9.36	–	40.25	–	74.72	–	39.28	–	38.38	–
Norway	Estimated	28.06	30.59	24.10	26.15	87.05	44.63	9.36	36.59	40.25	44.07	74.72	43.84	39.28	46.39	38.38	49.42
Portugal	Observed	–	–	–	–	–	–	–	–	0.03	–	0.27	0.03	0.97	0.40	0.15	0.63
Portugal	Estimated	–	–	–	–	2.81	1.48	–	0.83	5.95	3.60	9.04	6.51	11.13	9.51	13.56	11.94
South Korea	Observed	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
South Korea	Estimated	–	–	1.77	1.77	3.34	3.34	4.74	4.74	–	–	6.58	6.58	–	–	45.90	45.90
Spain	Observed	6.89	–	18.65	–	85.29	–	62.79	21.35	23.92	12.29	153.42	46.66	178.56	–	145.25	102.08
Spain	Estimated	6.89	4.75	27.78	19.91	118.68	84.24	93.22	90.97	49.19	62.15	153.42	121.93	232.40	194.96	145.25	161.32
Sweden	Observed	245.64	127.83	73.53	123.65	269.49	148.64	54.98	103.22	99.55	90.25	181.92	117.56	79.81	107.97	62.01	89.48
Sweden	Estimated	245.64	213.99	139.41	186.65	269.49	211.19	166.70	194.84	132.95	163.95	181.92	162.69	165.33	155.37	105.95	137.52
Switzerland	Observed	64.55	–	42.93	–	26.51	–	19.61	–	39.50	–	18.46	–	26.87	–	55.07	–
Switzerland	Estimated	64.56	42.72	42.93	35.86	26.51	22.92	20.43	16.22	39.50	24.58	18.46	18.10	26.87	17.74	55.07	33.94
United Kingdom	Observed	98.92	–	63.91	–	441.27	–	127.74	–	149.53	–	148.59	–	274.88	–	260.36	–
United Kingdom	Estimated	137.53	43.78	92.48	55.30	441.27	147.40	138.36	146.82	149.53	152.84	169.27	160.42	274.88	185.78	260.36	198.96
United States	Observed	497.76	11.75	626.77	9.31	534.70	10.24	688.36	1.73	1,256.32	0.00	1,246.43	–	646.84	–	1,151.24	–
United States	Estimated	1,055.21	872.84	1,035.37	911.89	954.68	896.78	880.02	866.81	1,314.19	1,163.76	1,431.40	1,293.74	1,079.62	1,100.70	1,151.24	1,140.52

Source: IHME DAH Database 2010

Notes: In millions US\$, 2008. This table presents commitments from bilateral development agencies net of identifiable contributions through multilateral channels of assistance (GFATM, GAVI, United Nations agencies, etc.).

	1998		1999		2000		2001		2002		2003		2004		2005		2006		2007		2008	
	Comm ²	Disb ³	Comm ²	Disb ³	Comm ²	Disb ³	Comm ²	Disb ³	Comm ²	Disb ³	Comm ²	Disb ³	Comm ²	Disb ³	Comm ²	Disb ³	Comm ²	Disb ³	Comm ²	Disb ³	Comm ²	Disb ³
	68.84	29.12	120.96	42.08	191.00	72.60	112.58	85.85	75.10	89.73	102.75	102.76	47.10	103.99	110.97	113.18	137.48	159.85	138.70	160.15	412.48	167.85
	69.14	84.40	120.96	102.77	191.00	138.82	112.58	118.42	97.26	107.88	102.75	107.11	103.10	106.77	110.97	107.24	154.87	122.78	162.06	133.69	412.48	254.03
	8.51	4.99	6.54	5.29	4.79	3.06	4.11	35.90	9.41	5.98	16.49	7.16	25.94	8.25	31.16	7.59	19.45	11.43	28.73	11.17	48.54	12.69
	14.23	19.07	106.78	79.71	33.86	42.76	4.17	17.87	10.59	17.02	16.49	19.91	25.94	22.39	31.17	26.58	19.45	20.45	28.74	26.42	48.54	41.26
	71.51	-	77.34	77.34	71.23	71.23	79.37	79.11	146.91	80.76	99.04	98.24	94.49	84.65	111.69	95.22	125.95	109.97	178.56	136.46	182.45	141.13
	74.96	73.24	77.34	75.48	74.92	74.61	79.37	76.52	146.91	115.35	99.04	108.12	94.49	97.89	111.69	105.65	125.95	115.12	178.56	149.79	182.64	169.56
	41.62	31.33	46.14	16.90	98.88	51.76	92.66	42.64	94.06	44.85	158.82	85.16	159.44	107.93	127.24	302.58	206.10	153.82	377.17	284.44	355.10	307.05
	45.71	53.36	46.14	51.61	98.88	74.73	96.85	77.18	94.06	80.74	158.82	118.44	169.61	135.55	136.00	128.48	206.10	166.11	377.23	263.67	356.76	284.92
	7.72	68.58	136.90	-	31.63	19.61	39.54	34.01	75.43	-	96.59	56.39	162.00	70.11	114.70	81.68	140.80	70.90	142.45	81.51	34.36	88.15
	8.10	50.17	136.90	61.48	31.63	47.46	39.54	29.91	76.93	33.67	101.51	42.77	162.00	55.23	122.19	60.84	140.80	68.77	142.46	74.35	34.37	58.42
	388.85	79.73	399.42	63.65	425.39	56.45	350.14	83.23	249.99	85.28	268.58	109.23	584.89	220.85	7.41	10.23	543.90	610.51	513.15	601.14	558.25	666.49
	388.85	276.25	399.42	315.25	425.39	331.34	417.60	387.83	405.75	397.97	563.79	601.38	584.89	92.99	725.03	402.02	543.90	479.47	513.15	490.85	558.25	596.76
	26.64	10.70	15.97	12.29	12.85	12.62	27.06	22.04	39.64	16.22	39.03	20.60	26.20	-	24.35	-	53.40	29.50	23.97	31.97	35.93	32.98
	33.35	14.03	22.54	14.69	12.85	12.99	27.06	14.24	42.62	18.57	39.42	21.19	28.03	20.71	26.87	20.45	53.41	25.03	23.97	22.59	35.93	22.83
	144.00	38.27	76.53	79.42	84.78	50.42	170.71	152.73	179.59	154.70	216.77	205.01	334.44	266.40	270.12	332.28	319.92	276.60	154.13	99.97	388.51	349.94
	267.50	267.35	215.72	227.63	151.63	176.20	191.75	190.77	234.44	216.98	216.77	210.81	349.35	304.78	307.45	293.88	319.92	309.71	179.92	217.58	388.51	343.66
	223.89	112.29	188.64	93.13	125.52	70.72	146.41	168.53	201.35	115.72	246.56	206.66	258.41	259.41	216.76	230.22	491.91	254.94	376.32	347.43	458.58	392.56
	223.89	258.73	199.67	235.59	125.52	169.54	146.41	166.66	239.80	207.49	265.31	226.80	273.59	241.71	216.76	219.70	491.92	389.17	376.36	342.40	458.58	411.37
	-	-	-	-	-	-	-	-	4.22	4.22	13.58	13.58	24.89	24.89	30.35	30.35	33.28	33.28	34.73	34.73	11.58	11.58
	9.49	9.49	4.27	4.27	4.86	4.86	6.53	6.53	4.22	4.22	24.94	24.94	24.89	24.89	34.71	34.71	33.29	33.29	34.73	34.73	11.59	11.59
	-	-	-	-	18.36	2.06	30.69	2.85	74.66	74.66	102.57	102.57	109.71	109.71	113.89	113.89	163.21	163.21	176.62	175.22	128.20	128.20
	20.67	20.67	18.80	18.80	26.42	26.42	33.65	33.65	80.50	80.50	102.57	102.57	109.72	109.72	115.12	115.12	163.21	163.21	176.62	176.62	132.17	132.17
	17.05	-	46.77	-	56.31	-	28.66	-	86.71	10.01	85.06	45.94	63.84	54.19	76.02	57.62	103.24	75.62	108.50	109.16	132.51	120.19
	17.05	35.15	46.77	37.21	56.31	42.19	28.66	37.35	86.71	60.72	85.06	67.89	63.84	69.23	101.69	84.24	103.24	89.23	108.63	98.94	132.73	113.89
	278.57	266.65	228.89	319.19	173.01	291.16	159.16	188.87	177.12	138.33	361.67	319.32	635.34	295.93	259.58	285.74	256.38	318.19	261.06	331.37	212.07	288.71
	464.15	465.48	436.36	449.09	394.06	426.98	368.85	391.32	383.49	381.78	361.68	369.51	635.34	470.00	259.58	390.86	264.57	302.56	261.06	282.33	212.07	267.40
	-	-	-	-	-	-	28.86	-	29.96	-	28.43	-	28.26	28.26	24.58	24.58	34.99	34.99	39.50	39.50	41.13	41.13
	24.35	24.35	18.02	18.02	21.75	21.75	28.86	28.86	29.96	29.96	28.43	28.43	33.26	33.26	27.32	27.32	34.99	34.99	39.50	39.50	41.14	41.14
	164.49	59.05	194.02	-	175.42	-	164.83	154.64	252.96	181.47	153.86	242.19	217.18	215.80	226.67	222.91	552.42	217.61	179.73	278.09	472.68	317.37
	164.49	108.49	194.02	129.66	175.42	119.31	164.83	112.95	252.96	155.81	168.46	126.05	217.18	137.11	226.67	152.98	552.42	306.73	179.73	174.33	472.68	265.44
	-	-	-	-	-	-	-	-	4.41	2.82	11.77	9.20	9.46	9.53	15.69	15.46	26.70	16.04	14.87	12.43	33.81	15.49
	5.86	2.33	6.60	2.54	4.59	3.49	4.96	5.38	4.41	5.11	11.77	6.18	9.46	6.81	15.69	9.30	26.70	14.80	14.87	14.43	33.81	21.57
	45.96	-	103.58	-	37.89	-	151.86	39.92	110.67	82.64	108.62	78.94	100.06	122.80	161.59	216.53	155.67	162.16	360.44	188.81	195.21	218.63
	45.96	43.14	103.58	60.37	37.89	57.92	151.87	93.60	110.67	96.40	112.12	116.18	115.42	112.39	161.59	124.57	155.67	136.33	360.44	213.60	195.21	221.11
	0.63	0.56	10.77	0.36	7.25	0.22	9.28	9.27	8.79	8.79	9.26	9.26	11.04	11.04	10.97	10.86	10.90	10.90	11.40	11.40	8.21	8.21
	9.04	10.66	10.77	10.63	7.43	8.59	9.28	8.85	9.33	8.89	9.26	9.16	11.04	10.05	10.97	10.49	10.90	10.72	11.40	10.98	8.21	9.47
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40.40	42.18	113.09	50.07	257.95	61.81
	30.76	30.76	124.95	124.95	63.52	63.52	42.20	42.20	44.17	44.17	16.79	16.79	61.67	61.67	97.15	97.15	40.40	42.18	113.09	50.07	257.95	61.81
	126.43	89.48	164.07	113.93	93.28	129.38	87.07	107.08	99.28	72.14	98.73	104.03	138.30	129.18	131.21	156.84	152.17	137.05	230.65	202.64	308.99	318.92
	127.29	137.86	164.07	156.02	93.28	113.62	108.74	107.68	111.00	110.76	121.45	115.78	138.30	129.75	156.58	146.07	152.17	148.84	230.65	200.78	366.75	309.07
	107.53	56.80	116.21	75.09	80.69	56.87	50.67	86.37	133.24	85.01	138.11	108.65	145.79	159.89	324.76	209.31	288.56	247.73	145.50	254.32	150.98	235.16
	107.53	120.32	116.21	114.12	80.69	99.84	50.67	78.62	133.24	91.01	138.11	103.02	174.97	122.93	324.76	183.82	288.56	213.78	255.61	226.30	184.80	209.64
	31.09	-	47.15	-	40.60	-	33.86	-	63.77	38.70	35.91	44.33	64.92	46.20	38.09	49.64	35.81	43.94	68.65	43.84	65.39	54.87
	31.09	28.06	47.19	30.88	40.60	31.03	42.57	30.56	63.77	41.83	35.91	32.30	64.92	40.85	39.77	34.36	45.01	31.55	68.65	44.76	65.39	48.36
	446.13	204.04	577.70	206.68	969.27	222.94	357.10	233.64	703.48	464.05	657.48	396.35	622.62	417.52	1,179.43	626.17	1,567.32	869.47	1,725.15	938.78	923.23	940.16
	446.13	240.98	577.70	320.24	969.27	474.06	357.10	446.42	703.48	510.45	657.48	544.18	622.62	548.37	1,179.43	670.79	1,567.32	844.90	1,725.15	1,048.76	923.23	1,010.37
	1,016.37	-	1,288.12	-	1,298.12	-	1,475.33	-	1,941													

TABLE 9:
World Bank financial and in-kind DAH, 1990-2008

Year	International Development Association		International Bank for Reconstruction and Development	
	Financial	In-kind	Financial	In-kind
1990	28.31	2.57	59.45	2.09
1991	91.61	6.66	91.68	4.54
1992	265.76	22.13	172.33	9.04
1993	426.59	40.55	378.05	19.63
1994	535.15	52.83	412.18	28.69
1995	582.57	58.36	324.70	21.36
1996	610.28	52.69	507.42	27.92
1997	645.91	46.04	858.51	40.26
1998	649.86	26.56	885.06	35.02
1999	797.83	50.25	808.88	37.70
2000	806.66	72.31	883.96	62.51
2001	864.34	67.20	775.49	56.90
2002	994.91	85.61	854.32	67.10
2003	1,022.22	125.36	676.83	50.55
2004	1,055.77	155.00	1,014.05	94.49
2005	1,080.55	124.23	768.87	81.11
2006	907.55	112.71	654.59	58.34
2007	830.39	111.17	634.12	61.19
2008	762.10	102.05	393.92	40.69

TABLE 10:
Regional development banks' financial and in-kind DAH, 1990-2008

Year	African Development Bank		Asian Development Bank		Inter-American Development Bank	
	Financial	In-kind	Financial	In-kind	Financial	In-kind
1990	60.02	4.70	26.66	2.09	81.65	6.39
1991	57.99	4.54	25.87	2.03	74.68	5.85
1992	56.68	4.44	42.62	3.34	49.45	3.87
1993	55.41	4.34	60.82	4.76	58.07	4.55
1994	86.31	6.76	60.02	4.70	79.25	6.20
1995	66.70	5.22	66.30	5.19	78.98	6.18
1996	68.09	5.33	55.10	4.31	102.13	8.00
1997	85.05	6.66	69.83	5.47	138.60	10.90
1998	57.10	4.47	113.14	8.86	149.75	11.70
1999	56.29	4.41	204.19	16.00	148.17	11.60
2000	41.18	3.22	352.11	27.60	176.44	13.80
2001	38.61	3.02	146.30	11.50	160.11	12.50
2002	74.10	5.80	143.50	11.20	201.21	15.80
2003	38.62	3.02	139.79	10.90	175.43	13.70
2004	82.36	6.45	120.62	9.44	352.44	27.60
2005	135.85	10.60	109.94	8.61	361.11	28.30
2006	82.92	6.49	106.49	8.34	123.14	9.64
2007	80.58	6.31	112.95	8.84	146.31	11.50
2008	97.54	7.64	120.01	9.40	128.89	10.10

Source: IHME DAH Database 2010

Notes: In millions US\$, 2008. For preliminary estimates of DAH for 2009 and 2010, refer to Table 1 of the Statistical Annex.

For the related figures, please visit:

http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_statistical_IHME.pdf

TABLE 11:
Financial and in-kind contributions by GFATM and GAVI, 2000-2008

Year	GFATM		GAVI	
	Financial	In-kind	Financial	In-kind
2000			2.43	0.32
2001			139.89	3.72
2002	1.05	15.00	107.65	8.60
2003	266.01	37.46	198.76	5.14
2004	701.80	56.75	166.85	47.27
2005	1,139.74	79.83	246.93	30.80
2006	1,384.18	90.91	419.68	21.44
2007	1,759.03	79.86	943.03	61.56
2008	2,246.17	157.00	735.73	76.65

Source: IHME DAH Database 2010

Notes: In millions US\$, 2008. For preliminary estimates of DAH for 2009 and 2010, refer to Table 1 of the Statistical Annex.

For the related figure, please visit: http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_statistical_IHME.pdf

TABLE 12:
UN agencies' fund balances, annual expenditures, and fund balances as a percentage of annual expenditures, 1991, 1997, 2003, and 2009

UN agency	Fund balance on Dec. 31	Annual expenditure	Fund balance as percentage of annual expenditure
UNFPA			
1991	496.95	1,217.40	41
1997	478.67	962.94	50
2003	906.92	1,168.41	78
2009	1,471.37	1,914.89	77
WHO ¹			
1991	1,037.48	1,089.93	95
1997	727.95	1,176.95	62
2003	1,242.79	1,574.05	79
2009	2,900.75	3,233.62	90
UNICEF			
1991	3.51	343.06	1
1997	163.44	426.67	38
2003	220.20	454.45	48
2009	438.68	792.65	55

Source: IHME DAH Database (UN) 2010

Notes: In millions US\$, 2008. We developed methods to make estimates comparable across years, but changes in WHO accounting practices over time could have affected these corrections. For more information about our methods, please visit our online Methods Annex at:

http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_methods_IHME.pdf

¹ WHO includes programmatic funds, as defined by "General Fund" in 2008-2009 Financial Report

TABLE 13:
WHO, regular and extrabudgetary income and expenditure, 1990-2008

Year	Regular budget income	Regular budget expenditure	Extrabudgetary income	Extrabudgetary expenditure ¹	Total income	Total expenditure	Development assistance for health ²
1990	550.36	508.25	789.32	781.65	1,339.69	1,289.90	1,168.82
1991	550.36	508.25	789.32	781.65	1,339.69	1,289.90	1,168.82
1992	483.11	483.11	790.28	745.18	1,273.38	1,228.29	1,103.83
1993	483.11	483.11	790.28	745.18	1,273.38	1,228.29	1,103.83
1994	581.17	581.17	805.41	854.46	1,386.58	1,435.64	1,210.24
1995	581.17	581.17	805.41	854.46	1,386.58	1,435.64	1,210.24
1996	525.68	507.42	732.24	683.16	1,212.95	1,145.65	997.99
1997	525.68	507.42	732.24	683.16	1,212.95	1,145.65	997.99
1998	514.04	507.90	881.00	769.71	1,345.67	1,236.79	1,069.10
1999	514.04	507.90	881.00	769.71	1,345.67	1,236.79	1,069.10
2000	492.11	490.39	1,206.14	1,055.93	1,632.68	1,500.42	1,279.19
2001	492.11	490.39	1,206.14	1,055.93	1,632.68	1,500.42	1,279.19
2002	442.87	477.71	1,204.29	1,109.17	1,500.05	1,422.42	1,326.60
2003	442.87	477.71	1,204.29	1,109.17	1,500.05	1,422.42	1,326.60
2004	457.35	471.77	1,630.41	1,525.00	1,908.67	1,817.68	1,607.28
2005	457.35	471.77	1,630.41	1,525.00	1,908.67	1,817.68	1,607.28
2006	449.76	459.06	2,511.31	1,828.05	2,773.10	2,099.15	1,706.24
2007	449.76	459.06	2,511.31	1,828.05	2,773.10	2,099.15	1,706.24
2008	452.10	476.47	1,450.91	1,517.76	1,879.55	1,970.78	1,930.00

Source: IHME DAH Database 2010

Notes: In millions US\$, 2008. For preliminary estimates of DAH for 2009 and 2010, refer to Table 1 of the Statistical Annex.

For the related figure, please visit:

http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_statistical_IHME.pdf

¹ Includes the Voluntary Fund for Health Promotion, other WHO funds, and interagency trust funds

² Excludes expenditures from trust funds and associated entities not part of WHO's program of activities and supply services funds

TABLE 14:
UNFPA, regular and extrabudgetary income and expenditure, 1990-2008

Year	Regular budget income	Regular budget expenditure	Extrabudgetary income	Extrabudgetary expenditure	Total income	Total expenditure	Development assistance for health ¹
1990	316.33	326.51	13.47	16.57	329.80	343.08	343.16
1991	316.33	326.51	13.47	16.57	329.80	343.08	343.16
1992	317.07	274.96	46.93	39.90	364.01	314.86	289.36
1993	317.07	274.96	46.93	39.90	364.01	314.86	289.36
1994	384.00	389.70	65.03	61.88	449.04	451.58	410.68
1995	384.00	389.70	65.03	61.88	449.04	451.58	410.68
1996	383.91	387.42	51.18	39.25	435.09	426.67	384.80
1997	383.91	387.42	51.18	39.25	435.09	426.67	384.80
1998	328.31	360.17	86.11	72.54	414.42	432.71	400.02
1999	328.31	360.17	86.11	72.54	414.42	432.71	400.02
2000	318.39	278.11	166.10	113.63	484.50	391.73	368.10
2001	318.39	278.11	166.10	113.63	484.50	391.73	368.10
2002	317.64	324.18	125.75	130.27	447.91	454.45	400.74
2003	317.64	324.18	125.75	130.27	447.91	454.45	400.74
2004	375.58	353.79	202.36	174.10	577.94	527.89	460.52
2005	375.58	353.79	202.36	174.10	577.94	527.89	460.52
2006	399.70	365.16	179.24	152.23	578.95	548.23	517.39
2007	467.05	393.80	301.51	248.87	768.56	642.66	588.60
2008	469.90	452.40	375.80	249.50	845.30	701.90	684.70

Source: IHME DAH Database 2010

Notes: In millions US\$, 2008. For preliminary estimates of DAH for 2009 and 2010, refer to Table 1 of the Statistical Annex.

For the related figure, please visit:

http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_statistical_IHME.pdf

¹ Excludes income and expenditure associated with procurement and cost-sharing trust funds

TABLE 15:
UNICEF, regular and extrabudgetary income and expenditure, 1990-2008

Year	Regular budget income	Regular budget expenditure	Extrabudgetary income	Extrabudgetary expenditure	Total income	Total expenditure	Regular budget health expenditure (estimate and correspondence)	Development assistance for health ¹
1990	751.57	695.46	428.43	374.48	1,179.99	1,069.94	90.41	217.29
1991	751.57	689.59	428.43	405.00	1,179.99	1,094.59	90.41	218.94
1992	731.83	748.76	517.47	542.21	1,249.30	1,290.96	85.65	276.71
1993	731.83	814.79	517.47	566.21	1,249.30	1,381.00	97.34	286.74
1994	712.25	780.76	627.77	536.53	1,340.02	1,317.28	101.63	278.48
1995	712.25	740.46	627.77	604.08	1,340.02	1,344.55	101.50	289.28
1996	704.61	674.26	479.72	507.61	1,184.33	1,181.87	92.93	253.95
1997	704.61	672.98	479.72	499.06	1,184.33	1,172.04	87.65	246.88
1998	725.58	614.18	577.70	470.57	1,303.28	1,084.74	85.29	233.48
1999	725.58	711.59	577.70	608.33	1,303.28	1,319.92	79.84	286.84
2000	656.75	703.98	747.27	691.74	1,404.02	1,395.72	88.41	320.00
2001	656.75	703.98	747.27	691.74	1,404.02	1,395.72	118.31	458.45
2002	819.78	693.73	978.99	880.32	1,798.77	1,574.05	94.27	433.21
2003	819.78	693.73	978.99	880.32	1,798.77	1,574.05	97.74	427.64
2004	855.12	739.39	1,698.38	1,313.36	2,553.50	2,052.75	97.66	494.63
2005	855.12	739.39	1,698.38	1,313.36	2,553.50	2,052.75	120.66	665.06
2006	1,089.72	891.37	1,855.25	1,715.90	2,944.97	2,607.27	65.27	401.34
2007	1,089.72	891.37	1,855.25	1,715.90	2,944.97	2,607.27	119.62	543.28
2008	1,067.37	997.62	2,305.18	2,061.76	3,372.54	3,059.38	109.19	501.71

Source: IHME DAH Database 2010

Notes: In millions US\$, 2008. For preliminary estimates of DAH for 2009 and 2010, refer to Table 1 of the Statistical Annex.

For the related figure, please visit:

http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_statistical_IHME.pdf

¹ As UNICEF's activities are not limited to the health sector, we used the fraction of total expenditure attributable to health for 2001-2008 to obtain estimates for development assistance for health

TABLE 16:
UNAIDS, regular and extrabudgetary income and expenditure, 1996-2008

Year	Regular budget income	Regular budget expenditure	Extrabudgetary income	Extrabudgetary expenditure	Total income	Development assistance for health ¹
1996	68.22	65.46	13.00	8.93	81.23	74.39
1997	68.22	65.46	13.00	8.93	81.23	74.39
1998	81.36	70.35	14.18	14.37	95.53	84.71
1999	81.36	70.35	14.18	14.37	95.53	84.71
2000	103.18	116.50	12.06	12.97	115.23	129.47
2001	103.18	116.50	12.06	12.97	115.23	129.47
2002	125.40	92.06	25.01	18.70	150.41	110.76
2003	125.40	92.06	25.01	18.70	150.41	110.76
2004	175.03	143.51	28.97	27.50	204.01	171.01
2005	175.03	143.51	28.97	27.50	204.01	171.01
2006	233.50	191.26	43.35	33.98	276.85	225.24
2007	233.50	191.26	43.35	33.98	276.85	225.24
2008	255.56	227.10	33.02	34.92	288.58	262.02

Source: IHME DAH Database 2010

Notes: In millions US\$, 2008. For preliminary estimates of DAH for 2009 and 2010, refer to Table 1 of the Statistical Annex.

For the related figure, please visit:

http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_statistical_IHME.pdf

¹ No adjustments were made to UNAIDS total expenditure to obtain development assistance for health

TABLE 17:
PAHO, regular and extrabudgetary income and expenditure, 1990-2008

Year	Regular budget income	Regular budget expenditure	Income from WHO	Expenditure of WHO funds	
1990	197.79	185.21	79.10	79.10	
1991	197.79	185.21	79.10	79.10	
1992	213.61	203.71	70.52	70.52	
1993	213.61	203.71	70.52	70.52	
1994	201.66	212.93	73.13	73.13	
1995	201.66	212.93	73.13	73.13	
1996	236.87	206.46	60.61	60.61	
1997	236.87	206.46	60.61	60.61	
1998	349.36	326.33	61.51	61.51	
1999	349.36	326.33	61.51	61.51	
2000	329.65	342.68	57.32	57.32	
2001	329.65	342.68	57.32	57.32	
2002	386.87	368.10	49.78	49.78	
2003	386.87	368.10	49.78	49.78	
2004	384.01	377.61	52.47	52.47	
2005	384.01	377.61	52.47	52.47	
2006	536.81	444.32	61.19	61.19	
2007	536.81	444.32	61.19	61.19	
2008	672.29	619.92	72.19	72.19	

Source: IHME DAH Database 2010

Notes: In millions US\$, 2008. For preliminary estimates of DAH for 2009 and 2010, refer to Table 1 of the Statistical Annex.

For the related figure, please visit:

http://www.healthmetricsandevaluation.org/publications/financing_global_health_2010_statistical_IHME.pdf

¹ Excludes expenditure associated with the Rotating Fund for procurement of drugs as these are funded by the recipient countries

	Income centers	Expenditure centers	Total income	Total expenditure	Rotating fund expenditure	Development assistance for health ¹
	12.12	11.92	289.01	276.23	14.50	261.73
	12.12	11.92	289.01	276.23	14.50	261.73
	11.67	11.73	295.80	285.96	23.20	262.76
	11.67	11.73	295.80	285.96	23.20	262.76
	9.24	8.50	284.04	294.56	19.28	275.28
	9.24	8.50	284.04	294.56	19.28	275.28
	22.51	10.12	319.99	277.19	25.61	251.58
	22.51	10.12	319.99	277.19	25.61	251.58
	8.42	8.41	419.29	396.24	116.22	280.03
	8.42	8.41	419.29	396.24	116.22	280.03
	9.28	8.47	396.26	408.47	127.90	280.57
	9.28	8.47	396.26	408.47	127.90	280.57
	11.01	10.21	441.35	421.78	166.71	255.08
	11.01	10.21	441.35	421.78	166.71	255.08
	11.35	10.97	432.61	425.82	170.13	255.69
	11.35	10.97	432.61	425.82	170.13	255.69
	11.21	11.72	591.43	499.45	190.99	308.46
	11.21	11.72	591.43	499.45	190.99	308.46
	7.15	8.55	724.60	673.64	314.26	359.38

TABLE 18:
US NGO expenditures, 1990-2010

	1990	1991	1992	1993	1994	1995	1996	1997
Total overseas health expenditure	519.11	697.93	819.03	868.38	1,005.88	945.04	837.61	887.22
Amount of overseas health expenditure financed from:								
Revenue from US government	229.09	347.77	435.46	441.72	516.75	483.12	354.36	378.31
Revenue from other governments	29.06	68.77	65.94	67.29	80.42	67.69	81.88	70.79
BMGF grants	–	–	–	–	–	–	–	0.32
Private financial revenue	216.31	232.06	254.83	282.65	311.38	304.21	297.22	325.01
Private in-kind revenue	44.65	49.33	62.80	76.72	97.33	90.02	104.16	112.79
Average percent of revenue from:								
US government	19.82	17.47	18.34	19.73	20.43	20.92	20.49	19.98
Private financial contributions	60.36	63.14	61.13	59.07	57.25	56.94	54.64	54.64
Private in-kind contributions	15.33	14.31	15.45	16.10	16.84	16.09	18.55	19.15
Average health fraction	0.20	0.19	0.19	0.19	0.20	0.20	0.20	0.20
Number of US NGOs	267	339	390	418	438	429	434	439

Source: IHME DAH Database (NGOs) 2010

Notes: In millions US\$, 2008.

Total overseas health expenditure is the sum of the product of each US NGO's overseas expenditure multiplied by the actual or estimated health expenditure as a fraction of total expenditure.

Amount of overseas health expenditure financed by revenue from each source is the sum of the product of each US NGO's fraction of revenue from a given source and the overseas health expenditure.

TABLE 19:
Bill & Melinda Gates Foundation global health commitments, disbursements, and in-kind contributions, 1999-2009

	1999	2000	2001	2002
Commitments	1,425.85	848.13	463.99	722.94
Disbursements	425.65	678.93	1,003.97	589.66
Country governments and IGOs (excluding UN)	12.51	8.57	7.17	6.25
UN agencies	80.21	57.99	30.15	47.58
World Bank		44.68	12.62	82.25
GAVI	218.90	183.63	508.09	
GFATM				58.75
Public-private partnerships (excluding GAVI and GFATM)	2.00	35.50	21.30	155.00
Universities and research institutions	64.19	200.25	141.75	112.03
NGOs ¹ and corporations	47.85	148.31	282.88	127.80
In-kind	0.91	36.73	45.13	35.18

Source: IHME DAH Database (BMGF) 2010

Notes: In millions US\$, 2008. Data were unavailable to show BMGF in-kind contributions for 2009.

For preliminary estimates of DAH for 2010, refer to Table 1 of the Statistical Annex.

¹ Includes nonresearch-focused NGOs and foundations based in low-, middle-, and high-income countries

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1,005.27	1,210.06	1,324.91	1,531.25	1,666.24	1,820.05	2,187.67	2,609.19	2,707.67	2,634.25	3,099.22	2,840.96	2,160.51
376.21	459.12	505.29	566.71	604.35	682.55	871.85	821.79	848.86	826.87	955.10	937.49	969.16
81.91	108.78	105.77	142.65	152.85	161.95	193.91	250.56	302.58	287.95	312.75	344.04	135.22
–	8.78	41.75	80.40	86.62	26.45	32.35	100.89	53.98	59.04	75.31	97.99	33.98
422.11	496.82	543.71	553.54	614.61	704.40	738.41	993.17	1,114.26	1,019.07	1,159.85	1,047.40	779.92
125.05	136.57	128.39	187.95	207.81	244.69	351.15	442.77	387.99	441.33	596.21	414.03	242.22
19.01	18.99	18.94	18.55	18.17	18.12	17.69	15.90	15.30	14.66	15.27	15.27	15.27
55.11	55.62	54.03	53.90	54.84	55.71	56.62	59.22	58.14	59.44	59.14	59.14	59.14
19.71	19.44	20.05	21.01	20.25	20.63	20.02	18.67	20.21	19.11	19.43	19.43	19.43
0.20	0.20	0.21	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
450	452	456	470	504	528	532	521	547	556	556	556	556

Average percent of revenue from the US government, private financial contributions, and private in-kind contributions represent the average fraction of US NGOs' total revenue from a given source.

Average health fraction is the average of US NGOs' actual and estimated health expenditure as a fraction of total expenditure.

Number of US NGOs is the number present in the USAID Report of Voluntary Agencies in a single year.

Revenue and health fractions for 2008-2010 are not available due to a lack of the more detailed revenue data available in previous years. Thus, the mean of the revenue and health percentages from 2003-2007 were used for 2008-2010.

	2003	2004	2005	2006	2007	2008	2009
	512.48	753.82	1,336.77	2,051.94	1,431.83	2,302.22	1,330.77
	643.84	481.38	893.59	928.89	1,272.38	1,803.46	1,797.60
	0.20	6.13	11.14	7.16	11.13	22.23	27.01
	39.15	33.69	74.23	118.55	75.65	217.78	274.08
	4.60	4.47	0.10	6.48	6.19	23.63	63.50
	4.03	5.59	167.16		76.63	75.00	74.30
	57.53	55.92	0.76	107.29	102.17	101.48	208.57
	65.59	121.12	148.59	153.65	212.56	241.67	170.67
	160.19	143.95	183.00	327.64	451.77	557.08	528.60
	312.55	110.50	308.61	208.11	336.29	564.60	450.86
	41.50	31.28	74.63	94.36	92.90	174.21	

TABLE 20:
Government health expenditure as source according to WHO and IMF, 1995-2006

GBD region	1995		1996		1997		1998		1999	
	Government health expenditure as source		Government health expenditure as source		Government health expenditure as source		Government health expenditure as source		Government health expenditure as source	
	WHO	IMF	WHO	IMF	WHO	IMF	WHO	IMF	WHO	IMF
Asia										
Central	1,874.47	1,927.60	1,806.29	1,844.17	1,927.06	1,562.41	1,970.43	1,522.96	1,595.10	1,513.82
East	17,839.77	7,343.74	19,432.25	8,051.89	21,440.64	9,281.96	23,510.05	15,543.15	25,644.65	21,331.78
South	4,754.94	5,224.20	4,997.74	5,673.20	5,347.23	6,458.50	5,674.10	6,890.65	5,951.57	6,952.59
Southeast	7,639.80	5,562.74	8,754.70	6,317.41	9,299.33	6,720.12	8,793.16	6,241.80	9,178.31	6,685.83
Caribbean	823.90	752.46	982.54	894.54	1,128.95	989.76	1,249.48	1,252.98	1,259.02	1,024.10
Latin America										
Andean	2,228.92	1,144.84	2,466.88	1,234.78	2,396.70	1,382.64	2,337.58	1,309.47	2,558.97	1,362.75
Central	25,152.68	26,322.53	25,641.84	26,884.06	31,093.72	32,222.94	33,608.36	35,066.45	35,832.32	40,029.14
South	11,621.87	10,328.75	10,887.34	10,386.49	11,526.94	10,765.82	12,487.32	11,421.85	13,145.83	11,779.71
Tropical	23,846.35	17,616.06	23,671.59	14,948.99	25,753.45	15,837.16	25,351.10	14,885.16	26,781.19	16,508.92
North Africa / Middle East	22,974.62	14,380.46	25,520.42	16,547.79	28,186.87	20,297.16	28,182.76	25,927.09	30,850.84	24,222.60
Oceania	213.64	184.00	224.53	130.28	213.96	165.22	250.38	124.63	248.64	181.41
Sub-Saharan Africa										
Central	710.41	727.56	659.57	649.21	794.84	791.84	886.01	785.61	825.39	670.43
East	1,147.67	710.92	1,116.35	662.16	1,233.31	730.92	1,353.44	952.19	1,323.31	793.92
South	5,866.99	6,020.16	7,606.06	7,763.29	7,779.62	6,759.86	7,558.81	6,618.01	7,765.26	6,546.24
West	1,481.80	844.95	1,541.88	814.63	1,713.92	908.00	2,322.97	1,307.31	2,488.47	1,331.26

Source: IHME Government Health Spending Database (Developing Countries) 2010

Notes: In millions US\$, 2006. Government health expenditure as source (GHE-S) includes funds raised by recipient country governments from internal resources. This table disaggregates GHE-S by Global Burden of Disease developing regions from base data sources of the World Health Organization (WHO) National Health Accounts and the International Monetary Fund (IMF).

TABLE 21:
DAH allocated to government or non-government recipients, 1995-2006

GBD region	1995		1996		1997		1998		1999	
	DAH to government	DAH to non-government	DAH to government	DAH to non-government	DAH to government	DAH to non-government	DAH to government	DAH to non-government	DAH to government	DAH to non-government
	Asia									
Central	24.20	0.05	29.60	0.15	24.00	0.85	29.10	4.80	91.30	3.01
East	8.57	0.19	17.50	1.08	26.20	0.89	37.30	1.16	12.10	9.32
South	152.00	7.43	169.00	46.20	152.00	36.30	222.00	32.80	191.00	35.00
Southeast	98.00	5.34	99.10	7.21	135.00	25.00	186.00	36.20	201.00	16.10
Caribbean	128.00	1.41	56.30	0.72	47.00	2.79	49.30	17.30	71.40	10.60
Latin America										
Andean	38.40	0.71	33.60	1.45	46.10	6.92	68.10	12.90	76.00	2.13
Central	63.00	1.47	43.10	2.64	143.00	3.01	82.20	6.47	127.00	4.07
South	3.58	0.29	1.89	0.29	0.81	0.17	1.03	0.11	2.51	0.09
Tropical	2.27	0.07	1.69	0.14	1.80	0.88	9.35	1.70	13.60	9.71
North Africa / Middle East	93.30	2.31	87.30	1.84	63.50	17.40	68.90	2.57	106.00	9.13
Oceania	6.00	-	30.50	-	19.80	-	13.40	0.39	19.10	12.50
Sub-Saharan Africa										
Central	50.80	0.53	63.40	1.41	62.60	7.28	66.90	11.30	76.90	15.50
East	275.00	16.50	366.00	31.10	300.00	44.20	306.00	51.10	355.00	54.10
South	46.20	2.04	60.30	1.80	63.10	2.73	88.20	4.25	70.40	4.01
West	126.00	5.29	136.00	18.30	170.00	12.40	149.00	13.00	205.00	23.70

Source: IHME DAH Database (Country and Regional Recipient Level) 2009

Notes: In millions US\$, 2006. Development assistance for health (DAH) includes both financial and in-kind contributions, excluding loans, for activities aimed at improving health in low- and middle-income countries. This table disaggregates financial DAH transfers by the recipient sector and Global Burden of Disease developing regions.

	2000		2001		2002		2003		2004		2005		2006	
	Government health expenditure as source		Government health expenditure as source		Government health expenditure as source		Government health expenditure as source		Government health expenditure as source		Government health expenditure as source		Government health expenditure as source	
	WHO	IMF	WHO	IMF	WHO	IMF	WHO	IMF	WHO	IMF	WHO	IMF	WHO	IMF
	1,594.24	1,550.33	1,712.81	1,624.15	1,812.80	1,712.81	1,977.12	1,875.18	2,371.89	2,270.22	2,829.18	2,701.51	3,016.92	2,892.65
	26,648.97	26,528.23	26,590.35	26,708.15	30,652.61	30,549.25	34,317.91	33,956.11	38,774.16	38,411.58	43,509.90	43,302.23	50,321.82	50,129.70
	6,233.35	6,979.27	6,227.07	7,064.71	6,611.79	7,272.72	6,561.59	7,256.12	6,889.19	7,731.95	7,470.96	9,011.91	8,733.73	9,934.17
	9,004.65	6,779.31	9,728.29	7,428.42	10,797.64	8,336.69	13,332.28	10,620.45	12,731.39	10,447.18	12,921.73	11,172.77	14,624.53	12,750.36
	1,456.27	1,148.32	1,482.98	1,166.98	1,653.26	1,369.40	1,549.85	1,246.11	1,622.19	1,346.37	1,656.19	1,469.67	2,006.25	1,754.26
	2,361.53	1,317.59	2,672.93	1,415.53	2,968.17	1,664.29	2,926.55	1,807.05	3,110.74	2,003.16	3,406.18	2,257.96	3,713.76	2,396.88
	36,262.04	41,437.18	35,593.57	42,621.95	36,241.55	42,888.54	35,731.34	38,669.28	38,907.83	40,678.60	39,844.95	44,783.38	42,531.43	47,016.13
	12,971.02	11,589.21	13,124.70	11,975.11	11,081.63	10,486.04	11,460.65	10,797.61	12,266.73	11,785.41	13,520.03	12,246.19	14,664.15	13,217.59
	26,649.35	16,947.78	28,670.74	18,288.35	30,724.52	17,506.39	30,109.79	17,599.17	34,243.12	20,905.91	36,631.96	21,685.08	39,557.61	22,797.83
	33,920.42	26,519.73	37,619.29	30,191.18	39,904.36	32,166.53	42,363.57	34,441.73	44,349.35	35,666.87	44,888.69	35,776.35	44,961.82	39,532.87
	248.22	219.48	235.19	218.72	209.21	201.91	190.69	174.94	246.35	217.25	237.00	227.98	254.81	229.24
	945.35	889.20	1,173.38	1,200.95	1,038.04	1,089.61	1,099.48	1,145.36	1,034.91	1,055.04	1,204.28	1,115.48	1,683.78	1,489.10
	1,446.30	879.77	1,499.85	1,023.97	1,806.94	1,106.09	1,495.54	925.54	1,707.86	730.49	1,947.53	1,036.87	2,251.04	1,306.25
	7,744.18	6,953.17	8,012.23	7,125.40	8,194.68	7,329.72	7,519.71	7,368.24	8,037.75	7,786.82	8,224.87	8,531.29	8,715.53	9,059.05
	2,451.66	1,022.01	2,260.03	1,354.24	2,420.25	1,956.58	2,404.39	1,237.81	2,676.36	1,346.47	3,463.67	1,610.21	4,289.69	4,353.68

	2000		2001		2002		2003		2004		2005		2006	
	DAH to non-government	DAH to government	DAH to non-government	DAH to government	DAH to non-government	DAH to government	DAH to non-government	DAH to government	DAH to non-government	DAH to government	DAH to non-government	DAH to government	DAH to non-government	DAH to government
	86.00	23.40	84.60	2.69	87.70	9.99	102.00	5.41	90.10	8.94	69.40	61.20	57.00	64.00
	24.30	22.80	23.00	11.40	55.60	5.10	85.00	6.16	115.00	6.91	126.00	5.74	104.00	16.70
	186.00	72.50	253.00	26.90	296.00	45.40	380.00	48.90	363.00	83.80	415.00	211.00	386.00	359.00
	202.00	28.20	245.00	31.60	191.00	31.90	350.00	33.50	370.00	52.50	319.00	166.00	324.00	200.00
	55.50	8.27	62.40	3.64	40.70	15.20	94.20	31.20	75.30	64.80	45.40	80.30	44.70	131.00
	117.00	3.24	90.60	23.10	48.50	30.30	96.60	26.90	98.80	28.90	67.10	58.30	58.60	56.80
	99.90	3.36	122.00	5.56	82.70	25.80	136.00	14.30	120.00	40.70	85.10	62.00	76.40	75.10
	0.82	0.05	1.94	0.14	3.06	1.26	12.30	9.62	8.78	17.80	8.02	15.00	3.80	4.60
	12.30	3.85	25.30	0.30	25.70	2.39	44.20	0.31	37.40	1.53	21.00	12.10	13.90	7.51
	100.00	2.76	109.00	5.12	100.00	12.10	124.00	10.20	129.00	12.30	132.00	32.60	210.00	34.20
	40.20	7.89	61.50	-	89.20	0.42	95.20	0.49	87.60	3.39	73.00	6.22	29.10	50.40
	83.30	10.30	97.00	20.50	91.10	31.70	126.00	28.20	142.00	47.00	112.00	149.00	83.50	133.00
	380.00	59.10	601.00	45.30	610.00	141.00	1,040.00	123.00	1,010.00	513.00	1,020.00	643.00	1,090.00	861.00
	66.40	8.42	90.40	33.90	131.00	17.50	195.00	38.90	154.00	106.00	209.00	130.00	229.00	198.00
	227.00	27.00	429.00	29.10	331.00	72.00	484.00	61.80	574.00	190.00	422.00	270.00	483.00	308.00



Institute for Health Metrics and Evaluation
2301 Fifth Ave., Suite 600
Seattle, WA 98121
USA
www.healthmetricsandevaluation.org

Telephone: +1-206-897-2800
Fax: +1-206-897-2899
E-mail: comms@healthmetricsandevaluation.org