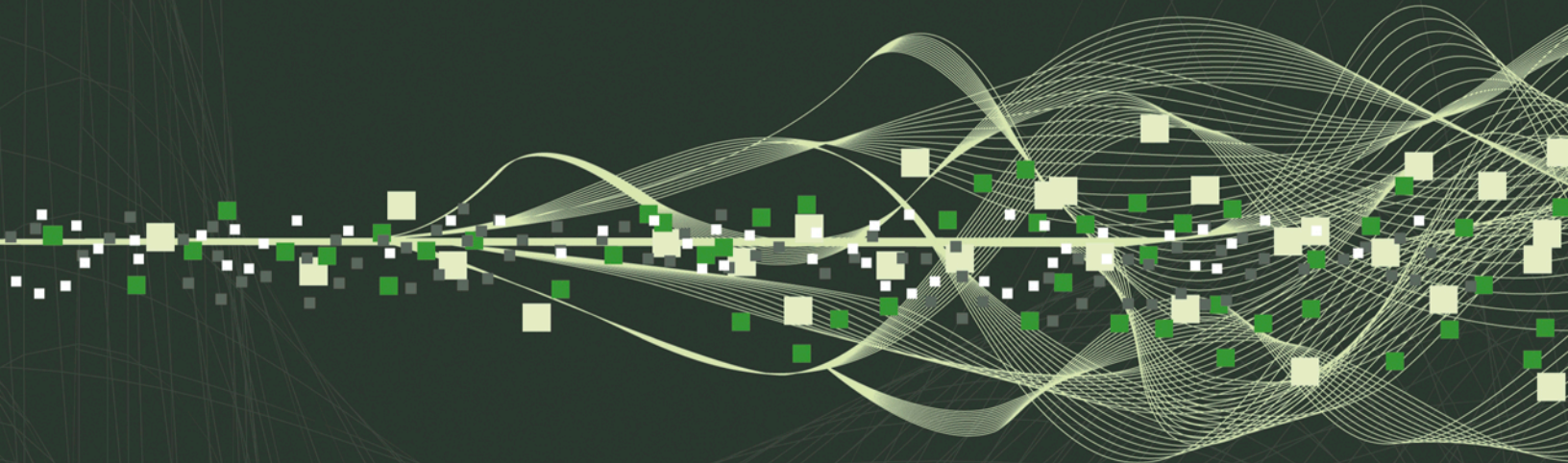


FINANCING GLOBAL HEALTH 2009:

TRACKING DEVELOPMENT ASSISTANCE FOR HEALTH



INSTITUTE FOR HEALTH METRICS AND EVALUATION
UNIVERSITY OF WASHINGTON



This report was prepared by the Institute for Health Metrics and Evaluation (IHME) through a research project funded by the Bill & Melinda Gates Foundation. The views expressed are those of the authors.

The contents of this publication may be reproduced in whole or in part, provided the intended use is for noncommercial purposes and full acknowledgement is given to IHME.

Institute for Health Metrics and Evaluation
2301 5th Avenue, Suite 600
Seattle, WA 98121
USA

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

ISBN 978-0-9840910-0-3

©2009 Institute for Health Metrics and Evaluation

FINANCING GLOBAL HEALTH 2009:

TRACKING DEVELOPMENT ASSISTANCE FOR HEALTH

CONTENTS

- 3** About IHME
- 3** About *Financing Global Health 2009*
- 5** Acknowledgements
- 6** Acronyms
- 7** List of figures and tables
- 8** Executive summary
- 9** Introduction to development assistance for health
- 11** Chapter 1: Tracking global health resource flows
- 19** Chapter 2: Development assistance for health
- 28** Chapter 3: Public development assistance for health
- 32** Chapter 4: Private philanthropy and development assistance
- 39** Chapter 5: Multilateral organizations and global health initiatives
- 47** Chapter 6: Distribution of development assistance for health
- 57** Conclusion
- 60** References
- 65** Methods annex
- 93** Statistical annex



ABOUT IHME

The Institute for Health Metrics and Evaluation (IHME) at the University of Washington monitors global health conditions and health systems and evaluates interventions, initiatives, and reforms. 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 2009*

An overwhelming majority of the global burden of disease lies in low- and middle-income countries. In contrast, these countries account for a minor share of total global health spending. Given this discrepancy, it is not surprising that improving health in developing countries and mobilizing more resources to achieve that end have emerged as urgent development priorities. The first is reflected in the Millennium Development Goals, three out of eight of which pertain to health. The second is evidenced by the unprecedented rise in development assistance for health and the emergence of several new global health financing institutions in recent years.

Objective, comparable, and comprehensive information on public and private resources for global health is needed for improving the quality of policymaking and planning at all levels. It is also an essential ingredient for the effective monitoring and evaluation of global health initiatives and national health programs. The Organisation for Economic Co-operation and Development (OECD) routinely produces data on national health accounts which reflect public and private health expenditure for its member states.¹ Since 1998, the World Health Organization (WHO) has been committed to expanding national health accounts to developing countries.² While these are important efforts, there are major gaps in both the methods for measuring health expenditures and the available data.

To help fill these gaps, IHME is tracking three major components of financial resource inputs for health:

- **Development assistance for health:** Donor contributions are an important source of revenue for health systems in many low- and middle-income countries. Monitoring the volume of external aid and understanding its nature and composition is of vital importance to the global health community. IHME's research in this area focuses on generating valid, reliable, and comparable estimates of development assistance for health on an annual basis from 1990 onwards, and undertaking targeted research into its composition and effectiveness. The central questions this research seeks to address are: Who is giving what, how, to whom, and to what end? Does the distribution of global health resources across different disease areas, types of interventions, and geographical areas reflect current global health priorities? Are information systems for tracking aid transparent, and how may they be improved and standardized?
- **Government health expenditure:** Measuring how much governments in low- and middle-income countries spend on the health sector, both from domestic revenue and from funds received from external sources, is essential for understanding the performance of health systems in these countries. IHME's work in this area focuses on both generating the most up-to-date and valid time-series data on government health expenditure and undertaking research into the links between development assistance and national health expenditure. By how much does a dollar in external aid increase government

health expenditure in different recipient countries? Does foreign aid for health lead governments to reallocate their domestic funds to other sectors? These questions lie at the heart of this research area.

- **Private health expenditure:** Out-of-pocket payments by households for medical services constitute a large share of total health expenditure in most developing countries. These payments can often be catastrophic and can drive households into poverty. As developing countries enact policy reforms to alleviate the economic burden of accessing health care through different kinds of health system reforms, it is essential that we have accurate and comparable estimates of private health expenditures across countries and over time. IHME's work in this area will focus on validating existing methods, systematically analyzing all available data on private spending in low- and middle-income countries, and developing new tools for tracking private health expenditure.

IHME is launching an annual report on global health financing to present results from these three research streams and to make information about health spending widely available. This annual report will provide valid and consistent time-series data for tracking global health resources and in-depth analyses of timely and relevant research questions in all three areas described above. Disseminating our research findings to the widest audience possible will contribute to evidence-based policymaking, advocacy, and action. We also hope the reports will foster constructive debate and dialogue about the substantive research questions, the analytical methods, and the findings. We foresee this dialogue opening new avenues for consultation and collaboration, which will in turn serve to improve and strengthen the evidence base in the long run.

In *Financing Global Health 2009* we showcase our research on development assistance for health. The key results and methods presented in this report have been published in a research paper in *The Lancet*.³⁰ Government health spending and private health spending will be the focus of the reports in years two and three, respectively. In subsequent years, the *Financing Global Health* report will present annual updates and new research findings in all three areas, as well as in-depth analyses on special topics of interest in the area of resource inputs for health.

REPORT AUTHORS

Nirmala Ravishankar, PhD

Research Scientist

Institute for Health Metrics and Evaluation
University of Washington
Seattle, WA, USA

Paul Gubbins, BA

Post-Bachelor Fellow

Institute for Health Metrics and Evaluation
University of Washington
Seattle, WA, USA

Rebecca J Cooley, MEd

Data Analyst

Institute for Health Metrics and Evaluation
University of Washington
Seattle, WA, USA

Katherine Leach-Kemon, MPH

Post-Graduate Fellow

Institute for Health Metrics and Evaluation
University of Washington
Seattle, WA, USA

Catherine M Michaud, MD PhD

Senior Research Scientist

Harvard Initiative for Global Health
Harvard University
Cambridge, MA, USA

Dean T Jamison, MS PhD

Professor, Global Health

Institute for Health Metrics and Evaluation
University of Washington
Seattle, WA, USA

Christopher JL Murray, MD DPhil

Institute Director and Professor, Global Health

Institute for Health Metrics and Evaluation
University of Washington
Seattle, WA, USA

ACKNOWLEDGEMENTS

We would like to extend our deepest appreciation to the Health Financing Advisory Panel convened in 2008 and 2009 to guide our research efforts. The feedback and advice offered by panel chair Sir Richard Feachem, panel members Simon Scott, Julian Schweitzer, Daniel Low-Ber, Stephen Gloyd, Simon Miti, and Yonas Biru, and special invitees Charles Gardner, Manfred Huber, and Daniel Kress, at panel meetings were indispensable in shaping our research agenda and refining our findings.

We would also like to acknowledge all the people from development agencies, international organizations, non-governmental organizations, and foundations who responded to our requests for data and answered our numerous queries. We greatly appreciate their time and assistance.

Special thanks also go to members of the IHME family who have helped in innumerable ways to bring this report to fruition, including Julio Frenk, the chair of IHME's Board, for his guidance and advice; Jill Oviatt for managing the production of the report; David Sapienza, Christina Bernard, Shannon Harris, Jennifer Berthiaume and Haley Lee for assistance with data collection; Meghan Werner for program coordination; Kelsey Pierce, Linda Ettinger, and Kevin Wald for logistical support; and William Heisel, Kate Jackson and Stanislava Nikolova for assistance with editing the manuscript.

Finally, we would like to extend our gratitude to the Bill & Melinda Gates Foundation for generously funding this research and its unwavering support of our efforts to accurately track resource inputs for global health.

ACRONYMS

ADB	Asian Development Bank
AfDB	African Development Bank
AMC	Advanced Market Commitments
BMGF	Bill & Melinda Gates Foundation
CSO	Civil society organization
DAC	Development Assistance Committee
DAH	Development assistance for health
DALY	Disability-adjusted life year
DFID	UK Department for International Development
EC	European Commission
EU	European Union
G8	Group of Eight
GAVI	Global Alliance for Vaccines and Immunization
GBS	General budget support
GDP	Gross domestic product
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
HNP	Health, Nutrition and Population
HSS	Health system strengthening
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IDB	Inter-American Development Bank
IFFIm	International Finance Facility for Immunisation
IHME	Institute for Health Metrics and Evaluation
IRS	United States Internal Revenue Service
ISS	Immunization services support
NGO	Non-governmental organization
NVS	New and underused vaccines support
ODA	Official development assistance
OECD	Organisation for Economic Co-operation and Development
PEPFAR	United States President's Emergency Plan for AIDS Relief
PPP	Public-private partnerships
UK	United Kingdom
US	United States
UNICEF	United Nations Children's Fund
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WHO	World Health Organization

LIST OF FIGURES AND TABLES

PAGE FIGURES

14	1	Channels of development assistance for health
15	2	Overlapping roles of the channels of assistance
16	3	Tracking flows from BMGF
17	4	Tracking flows for GFATM
20	5	Development assistance for health from 1990 to 2007 by channel of assistance
21	6	Development assistance for health from 1990 to 2007 by source of funding
21	7	Development assistance for health from 1990 to 2007 by country of origin
22	8	Development assistance for health as a percent of national income in 2007
23	9	Development assistance for health from 1990 to 2007 by focus region
24	10	Development assistance for health from 1990 to 2007 by type of assistance
25	11	Development assistance for health from 1990 to 2007 for HIV/AIDS, tuberculosis, malaria and health sector support
27	12	Bilateral ODA commitments from 1990 to 2007
27	13	General budget support and debt relief from the 22 DAC donor countries and the EC
29	14	Publicly financed development assistance for health in 1990, 1994, 1998, 2002, and 2007
30	15	Publicly financed health assistance by donor in 2007
31	16	Channel-wise composition of publicly financed DAH by donor in 2007
33	17	Global health disbursements from US-based foundations
33	18	BMGF's global health commitments and disbursements from 2000 to 2007
34	19	Comparing BMGF as source and channel
35	20	Total overseas health expenditure by US NGOs from 1990 to 2007
40	21	Income and expenditure for WHO
41	22	Income and expenditure for UNICEF
42	23	Income and expenditure for UNFPA
42	24	Income and expenditure for UNAIDS
43	25	Health resource flows from IDA and IBRD
44	26	Health resource flows from ADB, IDB and AfDB
44	27	GAVI's health contributions
45	28	GFATM's health contributions
48	29	Development assistance for HIV/AIDS
49	30	Development assistance for tuberculosis
49	31	Development assistance for malaria
50	32	Top 10 recipients of development assistance for health from 2002 to 2007, disaggregated by channel of assistance
51	33	Top 10 countries in terms of per capita development assistance for health received from 2002 to 2007, disaggregated by channel of assistance
53	34	Development assistance for health from 2002 to 2007 versus all-cause DALYs in 2002
54	35	World maps of development assistance for health
56	36	Top 30 country recipients of development assistance for health from 2002 to 2007, compared with top 30 countries in terms of all-cause burden of disease in 2002

PAGE TABLES

37	1	NGOs registered in the US with highest cumulative overseas health expenditure from 2002 to 2006
37	2	Summary of health expenditure by non-US NGOs from 1998 to 2006

EXECUTIVE SUMMARY

Timely and reliable information on development assistance for improving health in low- and middle-income countries is needed for effective policy planning and for assessing the cost-effectiveness of development assistance. Past resource tracking efforts have failed to provide comprehensive and consistent time-series data on external resource flows for health.

A host of conceptual and measurement challenges plague this arena. One of the primary contributions of this study on development assistance for health (DAH) is developing an approach to tracking global health resource flows that addresses these challenges and provides valid, comprehensive, and systematic estimates of DAH from 1990 to the present.

We defined DAH as all assistance for health channeled through public and private institutions whose primary purpose is to advance development in developing countries. We drew upon a variety of data sources to measure the total volume of DAH that flowed through each of the channels of assistance net of any transfers to other channels also tracked by the Institute for Health Metrics and Evaluation. In addition, we analyzed the volume of aid for HIV/AIDS, tuberculosis, and malaria as well as the distribution of health aid across countries.

Key findings of the study are:

- DAH, measured in real 2007 US\$, quadrupled from \$5.6 billion in 1990 to \$21.8 billion in 2007. The spending increased gradually until 2001 and then showed dramatic gains from 2002 to 2007.
- The fraction of health assistance channeled via multilateral institutions like the World Bank and United Nations agencies declined during the study period. New public-private initiatives for global health, specifically the Global Fund to Fight AIDS, Tuberculosis, and Malaria (GFATM), and the Global Alliance for Vaccines and Immunization (GAVI), have been responsible for a large and rapidly growing share of DAH since 2002.
- Publicly financed health aid on average accounted for two-thirds of total health aid over this period.
- The flow of health aid from non-governmental organizations has hitherto not been captured by resource tracking studies. Their overseas health expenditure accounted for \$5.4 billion out of the total envelope of \$21.8 billion in 2007.

- Private philanthropy accounted for 27% of health aid in 2007. Donations from private philanthropic foundations, specifically the Bill & Melinda Gates Foundation, and corporate donations of drugs and medical supplies, make up over half of these flows.
- US contributions, including both public and private flows, accounted for a growing share of total health aid flows, up from 34.6% in 1990 to 51.1% in 2007. When we take the national incomes of donor countries into account, the gap between the US and other donor countries narrows. In terms of the ratio of each donor country's health aid to its national income, the US trails Sweden, Luxembourg, Norway and Ireland, but leads all other donor countries.
- In-kind contributions in the form of technical assistance and drug donations constitute a significant share of total health aid (\$8.7 billion out of \$21.8 billion in 2007). Given the current methods being used to assign values to those contributions, those figures may be inflated.
- Of the DAH in 2007 for which we had project-level information – a total of \$13.8 billion – \$4.9 billion was for HIV/AIDS, compared to \$0.6 billion for tuberculosis, \$0.7 billion for malaria, and \$0.9 billion for health sector support.
- Overall, total DAH received by low- and middle-income countries was positively correlated with the burden of disease, while per-capita health assistance was negatively correlated with per-capita income. There are some strong anomalies, though. Some middle-income countries with lower disease burden – like Colombia, Iraq, and Argentina – receive large shares of DAH, while other much poorer countries with higher disease burden – like Mali, Niger, and Burkina Faso – receive relatively little funding.

The report documents the rapid and dramatic rise in DAH. It shows that the increase in DAH has been fueled by funds for HIV/AIDS, but other areas of global health have also expanded. The influx of funds has been accompanied by major changes in the institutional landscape of global health, with global health initiatives like GFATM and GAVI playing a more central role in mobilizing and channeling global health dollars. These findings confirm the need for systematic health resource tracking and greater transparency in development assistance reporting systems.

INTRODUCTION TO DEVELOPMENT ASSISTANCE FOR HEALTH

The past decade witnessed a rapid rise in development assistance for improving health in low- and middle-income countries. The emergence of several new global health players from outside the traditional nexus of bilateral agencies, multilateral organizations, and development banks that dominated the international aid scene in previous decades has accompanied this growth in resources. These new players have both mobilized resources for addressing global health challenges and successfully leveraged their funds to target specific diseases. The changes in the volume and organization of global health dollars have led to a lively debate among global health experts on the effectiveness of aid³⁻⁷ and the impact of the new funding initiatives.^{8,9} With economies around the world slipping into recession, the discussion has more recently turned to the potential decline in funding levels.¹⁰⁻¹³

Given these events, the lack of timely and reliable information on development assistance for health (DAH) is surprising. We know relatively little about the exact magnitude and impact of the rise in DAH because annual estimates of health funding from both public and private sources are conspicuously missing. We are also ill-equipped to answer basic questions like who is giving what, how, to whom and to what end. Such data are an essential ingredient for evidence-based policymaking and planning at the national level. The data are also needed for monitoring whether donors are honoring their commitments and can foster greater transparency in aid reporting. Understanding how financial aid flows into the health system is also an essential part of evaluating impact and cost-effectiveness.

The existing research on global health resource flows has yielded some important estimates and findings, but it does not provide comprehensive and systematic estimates of DAH over an extended period of time.¹⁴⁻¹⁸ A majority of studies have relied on databases maintained by the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD-DAC).¹⁹⁻²⁴ While these databases are a valuable source of information, they do not

capture all external aid for health.^{21,25} The biggest gap in coverage stems from the fact that the databases only reflect *official* development assistance (ODA) flowing from governments and leave out key private actors in the health domain like the Bill & Melinda Gates Foundation (BMGF), other private foundations, and non-governmental organizations (NGOs). A recent report by the Hudson Institute documents the steady growth of private philanthropy in the development assistance arena but lacks health sector-specific information.²⁶ A few attempts have been made to measure the overall DAH envelope, but these typically offer single-year snapshots^{18,27} or cover a relatively small number of years and have not been updated to reflect contributions in recent years.^{28,29}

The Institute for Health Metrics and Evaluation has launched a multi-year program for tracking DAH, which has addressed these conceptual and measurement challenges and developed a comprehensive system for global health resource tracking. The primary goal of the program is to develop consistent time-series data on DAH, which will be updated annually. This report showcases the program's research strategy and presents an in-depth analysis of DAH from 1990 to 2007. The underlying methods and key results have also been published in *The Lancet*.³⁰

Chapter 1 describes some of the challenges involved in measuring DAH and the methodology we developed to address them. Chapter 2 presents our estimates of the total envelope of health assistance from 1990 to 2007. Chapter 3 takes a closer look at publicly financed DAH and its modalities. Chapter 4 examines the role of private actors in mobilizing DAH. Chapter 5 reviews the different types of international institutions that are active in the health domain and their individual contributions. Chapter 6 examines the distribution of DAH for specific diseases and specific countries. A discussion of the research findings and their implications follows.



CHAPTER 1:

TRACKING GLOBAL HEALTH RESOURCE FLOWS

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

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

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

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

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

BOX 1

Summary of research methodology

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

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

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

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

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

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

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

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

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

Conceptual framework for defining development assistance for health

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

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

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

BOX 2

Definitions

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

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

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

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

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

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

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

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

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

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

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

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

BOX 3

Global health channels of assistance tracked

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

European Commission (EC)

The World Health Organization (WHO)

The United Nations Children's Fund (UNICEF)

The United Nations Population Fund (UNFPA)

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

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

The Asian Development Bank (ADB)

The Inter-American Development Bank (IDB)

The African Development Bank (AfDB)

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

US-based non-governmental organizations (NGOs)

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

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

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

FIGURE 1
Channels of development assistance for health



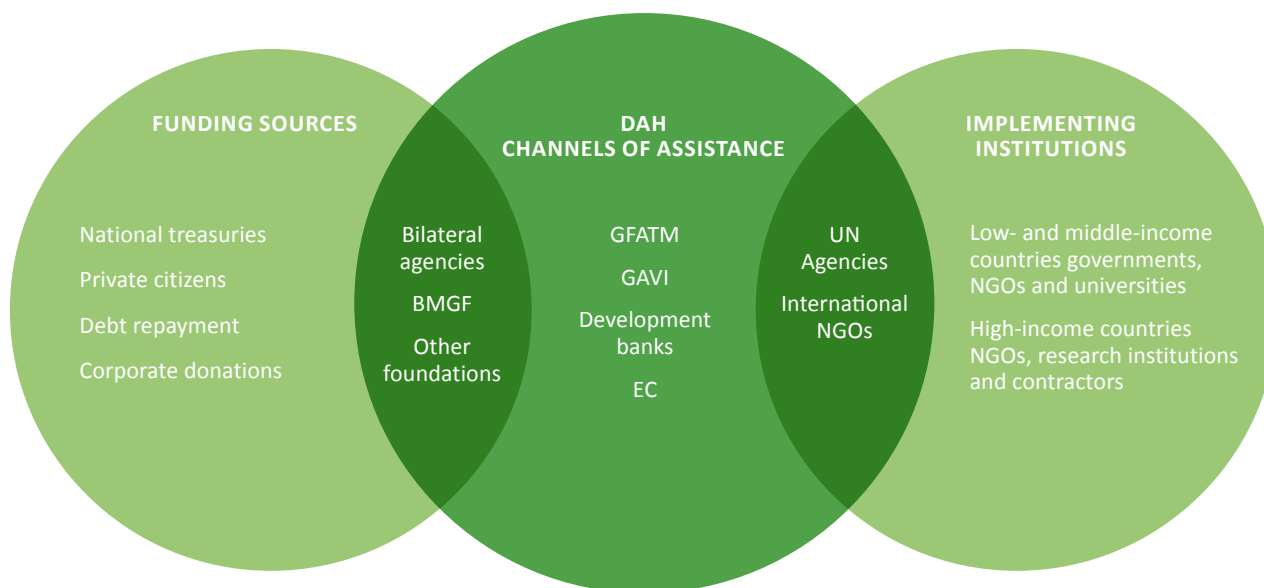
channels also spend some of their funds to implement programs themselves, for example, providing technical assistance, undertaking disease surveillance, or managing loan- and grant-making. Lastly, the channels give resources to other channels of assistance that in turn use the funds in the ways described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

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

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

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

FIGURE 2
Overlapping roles of the channels of assistance

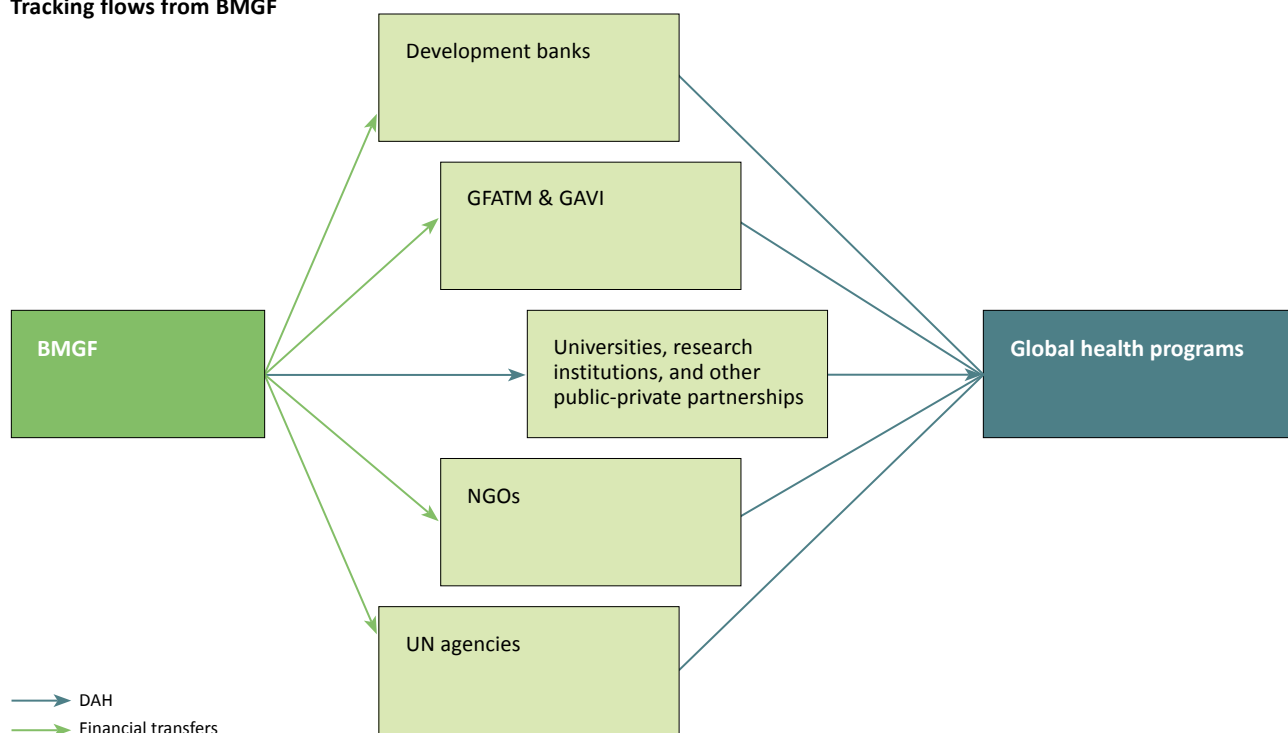


Financial contributions include all disbursements of funds on health grants and loans. We counted disbursements rather than commitments because the former represent the actual funds that flowed from donors to recipient countries, while the latter represent funds that are likely to flow over multiple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

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

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

FIGURE 3
Tracking flows from BMGF



Data collection

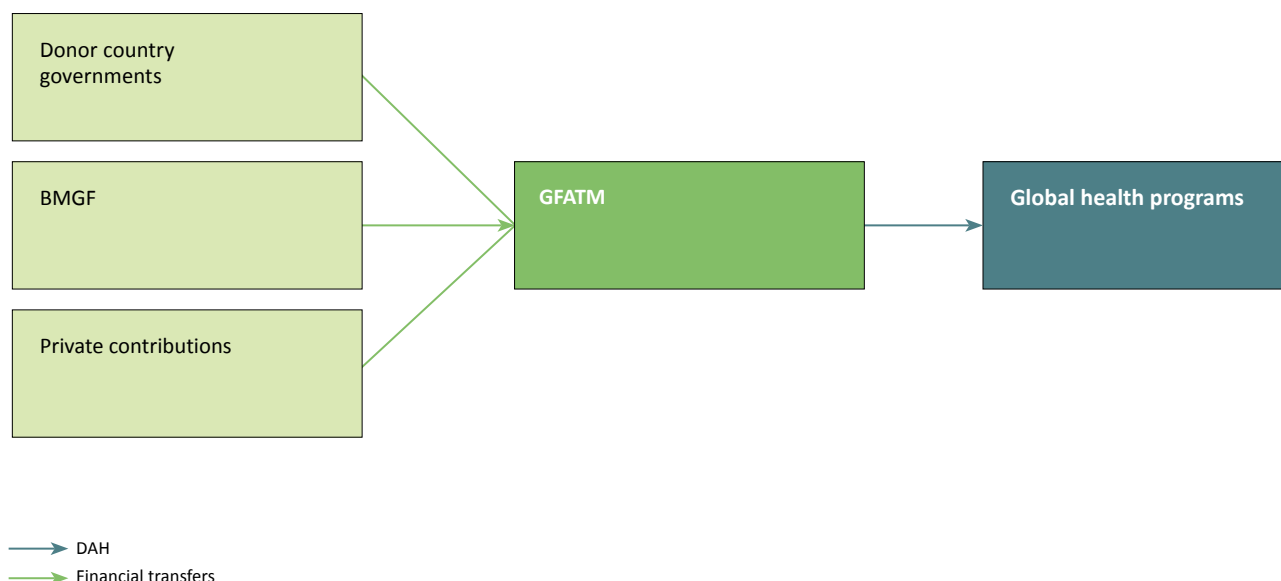
The first step in the data collection stage was to assess data availability for the channels of assistance that met our definition. Channels for which we found no reliable data sources were excluded from the study. For example, there is no central repository for tracking bilateral aid from non-OECD countries.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

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

Measuring the total volume of development assistance for health

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

FIGURE 4
Tracking flows for GFATM



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

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

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

Disaggregating development assistance for health by funding source

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

Analyzing the composition of development assistance for health

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



CHAPTER 2:

DEVELOPMENT ASSISTANCE FOR HEALTH

The foremost goal of this research is to estimate the total volume of health assistance from 1990 to 2007. In this chapter, we present our estimates of total health assistance from 1990 to 2007 and analyze the relative share of different channels, funding sources, countries of origin, and types of contributions. All estimates are presented in 2007 US dollars.

By channel of assistance

Figure 5 presents the total envelope of development assistance for health (DAH) by year, disaggregated by channels of assistance. It is hard to miss the dramatic rise in total health assistance from 1990 to 2007 in the graph. Between 1990 and 2007, DAH quadrupled in volume from \$5.6 billion to \$21.8 billion. The figure also shows that the rate of growth has not been constant over this duration. Health assistance grew gradually in the 11 years from 1990 to 2001, roughly doubling from \$5.6 billion to \$10.9 billion. It took only six years for it to double again from \$10.9 in 2001 to \$21.8 in 2007.

The total volume of aid in each year is disaggregated further into the individual contributions from each of the following channels: bilateral agencies, regional development banks, the two arms of the World Bank – the International Development Association (IDA) and the International Bank for Reconstruction and

Development (IBRD) – the United Nations (UN) agencies, the European Commission (EC), Global Alliance for Vaccines and Immunization (GAVI), Global Fund to Fight Aids, Tuberculosis and Malaria (GFATM), Bill & Melinda Gates Foundation (BMGF), other US-based foundations, and US-based non-governmental organizations (NGOs) tracked in the study. For each of them, the graph shows their total financial and in-kind health-related contributions, net of any transfers to other channels also tracked by IHME. For example, a large share of the revenue received by US-based NGOs was from the US government. We subtracted the share of expenditure that was financed through contributions from the US government from the assistance attributed to bilateral aid. For BMGF, this figure shows its total disbursements net of any funds it transferred to other channels in the study.

Examining the composition of health assistance by channel reveals that the relative contributions of different channels have changed considerably over the years. The share of health assistance from bilateral agencies decreased from 46.8% in 1990 to 27.1% in 2001, and then increased in subsequent years to 34% in 2007. The percent of total health assistance flowing from UN agencies decreased from 32.3% in 1990 to 14% in 2007. The World Bank and regional banks accounted for 21.7% of total health assistance at their

relative peak in 2000. That percentage dropped to 7.2% by 2007. GFATM and GAVI scaled up rapidly from less than 1% of health assistance each in 2002 to 8.3% and 4.2% respectively in 2007. BMGF as a channel peaked in 2007 at 3.9% of health assistance. The share of resources flowing through NGOs increased from 13.1% of health assistance in 1990 to 24.9% in 2006, the last year for which we have reported data for the NGOs.

By source of funding

Figure 6 shows the disaggregation of DAH each year by the share that was funded by different sources. It is worth noting that the figure does not show the amount of funds that flowed from each of the funding sources to the channels, but rather the share of total development assistance that is attributable to different funding sources. For example, the World Health Organization’s (WHO) total health contributions are disaggregated into the shares that it received from different national treasuries and private contributions.

Contributions from donor governments accounted for nearly two-thirds of total DAH flowing to developing countries. As a percent of total, their contributions ranged from 60% to 76% in the years covered by the study. The US government was the single largest donor of public DAH during this entire time period. Other big donors included the governments of the UK, Japan, Germany, France, the Netherlands, Canada, Sweden, Norway, and Italy. Even though we did not track bilateral aid from non-Organisation for Economic Co-operation and Development (OECD) countries separately, to the extent that countries make contributions to any of the channels tracked by the study, they are reflected in this graph. Hence, “other governments” in Figure 6 include both OECD governments not shown separately in the figure as well as expenditures financed by contributions from non-OECD countries.

The figure also shows that private sources of funding were responsible for a growing share of total health assistance, up from 19% in 1998 to 26.7% in 2007. The

FIGURE 5
Development assistance for health from 1990 to 2007 by channel of assistance

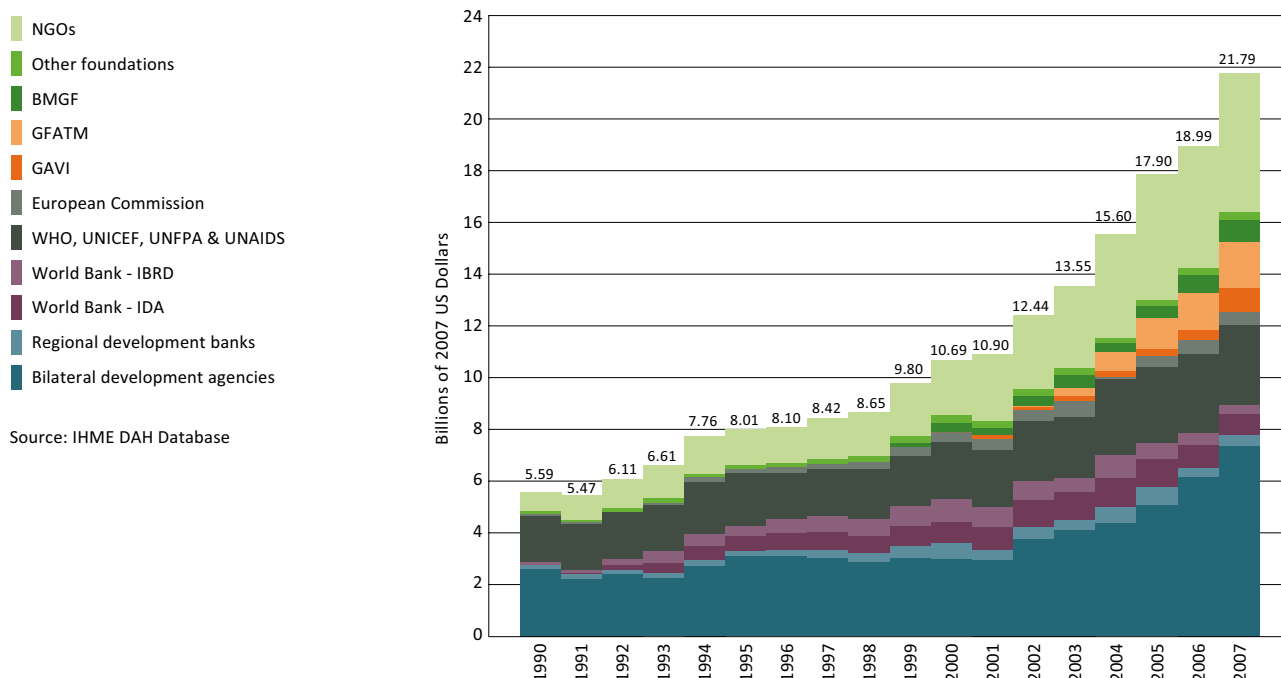


FIGURE 6

Development assistance for health from 1990 to 2007 by source of funding

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



Source: IHME DAH Database

FIGURE 7

Development assistance for health from 1990 to 2007 by country of origin

"Unallocable" includes funds like inter-agency transfers from non-DAH institutions, interest income, and miscellaneous income that could not be attributed to countries due to their nature. Channels for which we had no revenue information are included under "unspecified."



Source: IHME DAH Database

share of health assistance financed by private philanthropy is further broken into its largest constituent parts. BMGF as a source includes both BMGF's contributions as a channel of assistance and the amount of flows from other channels that can be attributed to the funds received from BMGF. Counted this way, BMGF is one of the main sources of privately financed health assistance. Contributions from private corporations to US-based NGOs constitute another large component of privately financed health assistance. In-kind donations of drugs and medical equipment from pharmaceutical companies are included in this category. In the data reported by the NGOs, these donations were sometimes valued at current market prices. This accounting practice has potentially resulted in an exaggeration of the magnitude of resources flowing via US NGOs and, in turn, the share of total assistance that can be attributed to corporate donations. This issue is discussed in detail in Chapter 4. All private charitable donations as well private giving from US-based foundations besides BMGF are included in the residual category.

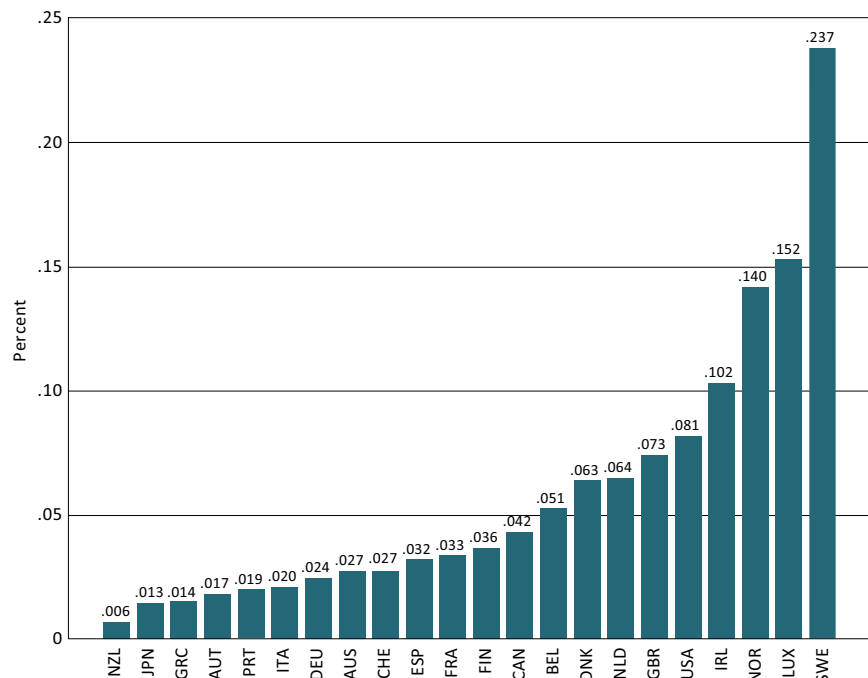
By country of origin

Figure 7 shows the disaggregation of total health assistance by its country of origin. To do this, we combined all health resources financed by US-based actors, regardless of whether those funds were public contributions from the national treasury, or private donations from US-based philanthropists and corporations, into a common pool representing the total of US contributions. It is worth noting that private contributions from citizens of other donor countries to NGOs in their countries were not quantified due to data limitations. To put this into context, the eight largest non-US NGOs for which we found some data spent \$231 million on health programs in 2006, which is small in comparison to the health expenditures of US NGOs. Hence, we believe that the overall pattern is still largely as shown, despite the exclusion of non-US NGOs. The figure shows that with respect to the volume of health aid, the US was the biggest contributor from 1990 to 2007 and its share has increased over the years. European countries contributed the

FIGURE 8
Development assistance for health as a percent of national income in 2007

- 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
- LUX = Luxembourg
- NLD = the Netherlands
- NOR = Norway
- NZL = New Zealand
- PRT = Portugal
- SWE =Sweden
- USA = United States

Source: IHME DAH Database and World Bank World Development Indicators



second largest share of health assistance, followed by Japan and Canada.

This comparison, however, disregards differences in national incomes across these countries. Figure 8 shows health assistance from each of the 22 member countries of the OECD-DAC in 2007 as a fraction of their national incomes, measured in terms of their gross domestic product (GDP) in the same year. At the high end, Sweden’s health aid represented 0.23% of its national income in 2007. At the other extreme, New Zealand’s contribution amounted to less than 0.01% of its GDP. By this measure, the US ranks fifth among the 22 donor countries, behind Sweden, Luxembourg, Norway, and Ireland. The inclusion of private monies in the US contribution to DAH causes this donor to rank dramatically higher than it would if the US government’s DAH alone was counted.

By target region

Figure 9 provides a regional breakdown of health assistance. For some of the channels tracked in the study, the data we have collected did not allow us to ascertain the target region. For example, we were unable to disaggregate health expenditures by US-based NGOs according to the regions of the world in which the NGOs implemented their programs. This is distinct from funds that had no country target, which correspond to contributions made towards health research and the generation of other global public goods and are shown in this graph as “global.”

The figure shows that all regions saw increases in funding, but the relative share of health assistance for sub-Saharan Africa increased from 9.7% in 1990 to 13.8% in 2001, and then to 22.7% in 2007. This growth in part reflects the massive expansion of funding for HIV/AIDS. The figure also shows that health assistance

FIGURE 9
Development assistance for health from 1990 to 2007 by focus region

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



Source: IHME DAH and project databases

that is global in nature, which includes funds for health research, has grown considerably in recent years.

By type of assistance

Figure 10 shows the disaggregation of DAH by the type of assistance provided into financial transfers and in-kind contributions. Financial transfers include all gross disbursements from health assistance channels to implementing agencies and research institutions in both high-income countries and developing countries through grants and concessionary loans. In-kind assistance has two components. The first – program management, research, and technical assistance – includes all expenditures by UN agencies on health programs, the costs incurred by loan- and grant-making institutions for providing technical assistance and program management, and expenditures by NGOs net of any commodities delivered. Donated drugs and other commodities comprise the second component of in-kind transfers and are shown separately.

While discussions on development assistance have hitherto focused primarily on financial transfers in the form of loans and grants, this figure shows that the in-kind share of health assistance is large and has grown over time.

Whether staff hired from donor countries to administer health programs and provide technical assistance represent “phantom aid” or provide useful and much-needed training and expertise is a much-debated question.³¹ The effectiveness of such in-kind contributions is a research question in its own right which deserves careful analysis.

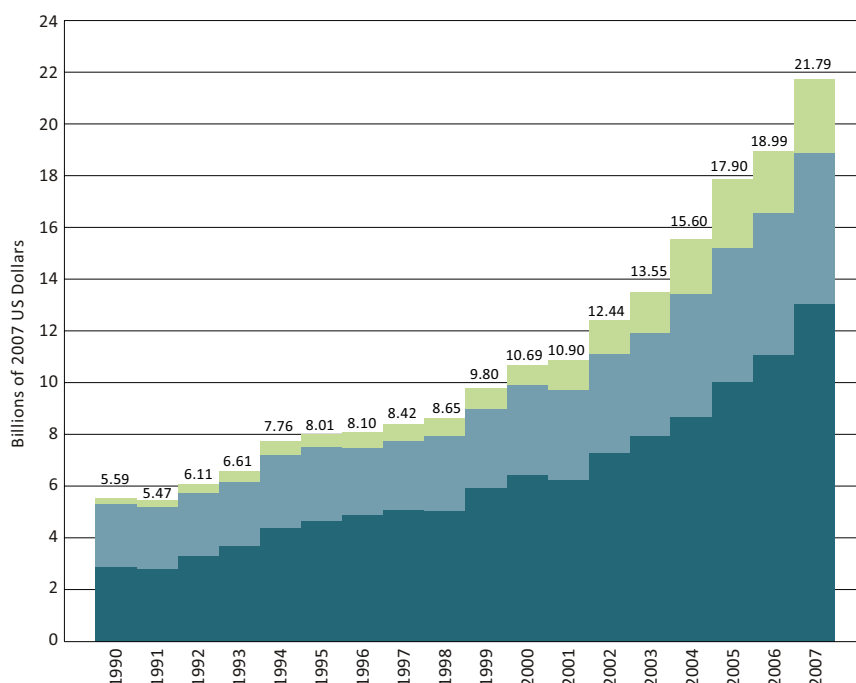
By health focus

Given current debates about disease-specific vertical program support and general health system support, we analyzed the volume of development assistance earmarked for three priority diseases among donors – HIV/AIDS, tuberculosis, and malaria – as well as

FIGURE 10
Development assistance for health from 1990 to 2007 by type of assistance

- Transfers:
- In kind: Commodities (drugs & supplies)
 - In kind: Management, research, technical assistance
 - Financial: Grants & loans

Source: IHME DAH Database



support for sector-wide approaches and health systems strengthening. This analysis was only possible for a subset of the channels tracked by the study, where we were able to break down the channels' total health contributions by disease. Only GFATM currently provides data already coded by disease focus. In all other cases, we used project-level information when it was available to disaggregate the channels' total health flows by disease. Specifically, we used the descriptive fields in the data, such as the project title and project description. We assumed that all expenditure by the Joint United Nations Programme on HIV/AIDS (UNAIDS) was for HIV/AIDS. We were able to find a disease-wise breakdown of expenditures made by WHO. Figure 11 shows the results from this analysis. This disaggregation reflects the contributions of bilateral agencies, EC, GFATM, GAVI, the World Bank, the Asian Development Bank (ADB), the Inter-American

Development Bank (IDB), BMGF, WHO and UNAIDS. All others are lumped together as "unallocable."

The trends show that disbursements for HIV/AIDS grew, first gradually from \$0.2 billion in 1990 to \$0.7 billion in 2000, and then more rapidly to \$4.9 billion in 2007. Development assistance for tuberculosis and malaria remained small in comparison: \$0.6 billion and \$0.7 billion respectively in 2007. However, resources for malaria have shown substantial increases since 2005. The figure also shows health sector support funds mobilized through partner coordination mechanisms. Despite the strong rhetoric from donors on the importance of providing funds for sector-wide approaches that are not linked to specific programs or diseases, the volume of these flows remained low. More information on the relationship between health assistance and disease can be found in Chapter 6.

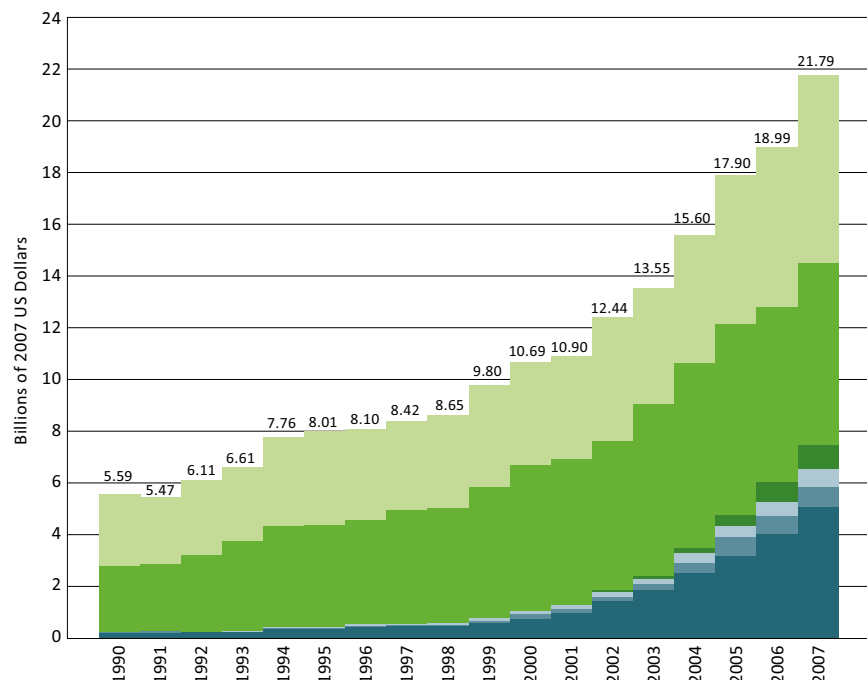
FIGURE 11

Development assistance for health from 1990 to 2007 for HIV/AIDS, tuberculosis, malaria and health sector support

"Unallocable" corresponds to DAH for which we did not have project level information on disease-focus.

- Unallocable
- Other
- Health sector support
- Tuberculosis
- Malaria
- HIV/AIDS

Source: IHME DAH and project databases



BOX 4

Comparing aid for health with aid for other sectors

This study documents the dramatic rise in health aid. Are these gains representative of a general increase in all types of aid? Or has health aid as a share of total aid grown over the years, which implies that it has displaced aid to other sectors?

To answer these questions correctly, we would need to conduct a second resource tracking exercise to estimate the total envelope of development assistance from all public and private channels of assistance. We plan to do that in future years. In the meantime, we include here two comparisons of health aid with other resource flows to provide a preliminary answer to this question.

The first comparison uses estimates of bilateral assistance from the Development Assistance Committee of the Organisation for Economic Co-operation and Development's (OECD-DAC) databases, also called bilateral official development assistance (ODA). "Official" refers to the fact that these estimates only reflect aid from donor governments and not private contributions. Figure 12 shows estimates of total bilateral assistance from these data. These include sector-specific assistance as well as general non-sector-specific aid, such as general budget support (GBS), debt relief, and humanitarian assistance. Sector-specific aid includes all assistance flowing to areas such as health, education, and water and sanitation. In the case of GBS, the donor gives funds to recipient governments without earmarking for use in any particular sector. In the case of debt relief, a donor forgives outstanding debt. Figure 12 also shows sector-specific aid and aid for the health sector. Finally, it shows health aid as a fraction of all aid and sector-specific aid.

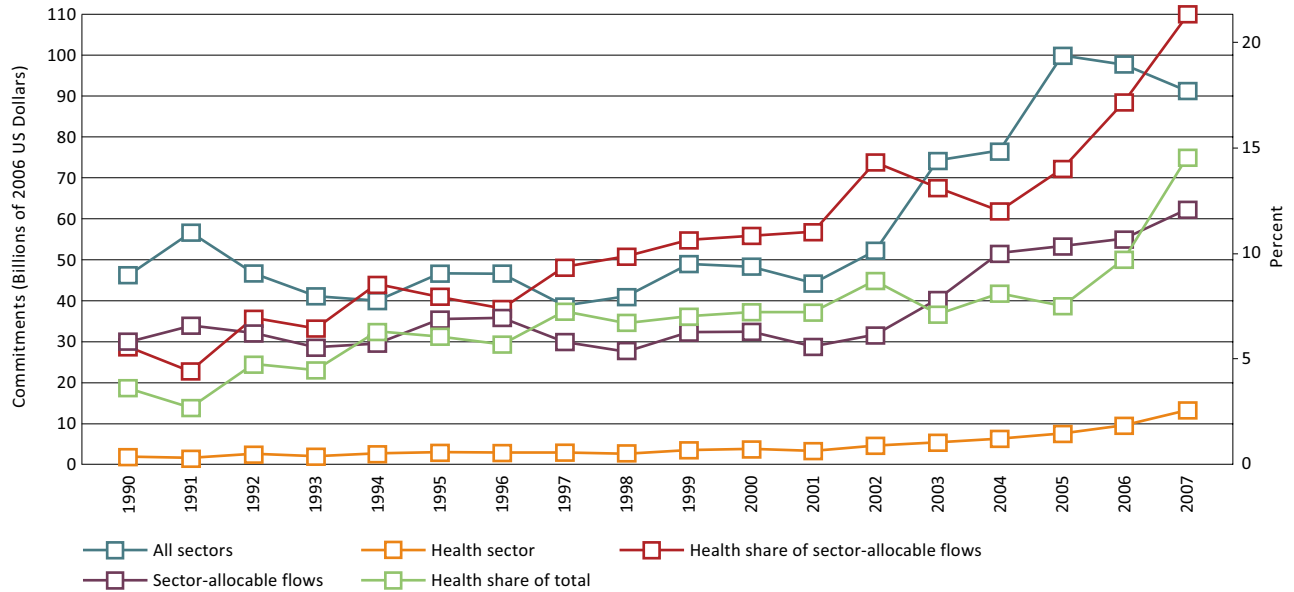
Total bilateral assistance fluctuated in the 1990s, increased dramatically from 2001 to 2005, and dropped in the subsequent two years. Aid for development-related sectors also fluctuated in the 1990s but grew steadily from 2001 to 2007. Bilateral assistance for health both as share of total aid and sector-allocable aid has increased from 1990 to 2007. Hence, the rise in health sector assistance has been greater than the rise in aid for other sectors combined.

The second comparison addresses current discussions in the development assistance community about the impact of GBS and debt-relief on health. Some donors, particularly the UK and the EC, have channeled an increasing amount of their development aid into GBS instead of sector-specific aid. GBS gives country governments control over how and where the funds are spent. Such grants, along with debt relief, have the potential to increase resources for the health sector, despite not being earmarked for health *per se*. Hence, to put development assistance for health numbers in perspective, Figure 13 shows our estimated trend for GBS disbursements and debt relief. The figure also shows the additional dollars that flowed into the health sector in developing countries as a result of GBS and debt relief assuming that developing country governments spent 5% of the resources on health. On average, developing countries spend 8% of their total budgets on health, which includes external funds received specifically for use in the health sector. Given the influx of donor funding for the health sector, governments are likely to spend a lower fraction of funds they control, and therefore GBS, on health. The results show that the amount of health dollars that GBS and debt relief generated was small (less than \$0.3 billion in 2007) in comparison to health assistance.

FIGURE 12

Bilateral ODA commitments from 1990 to 2007

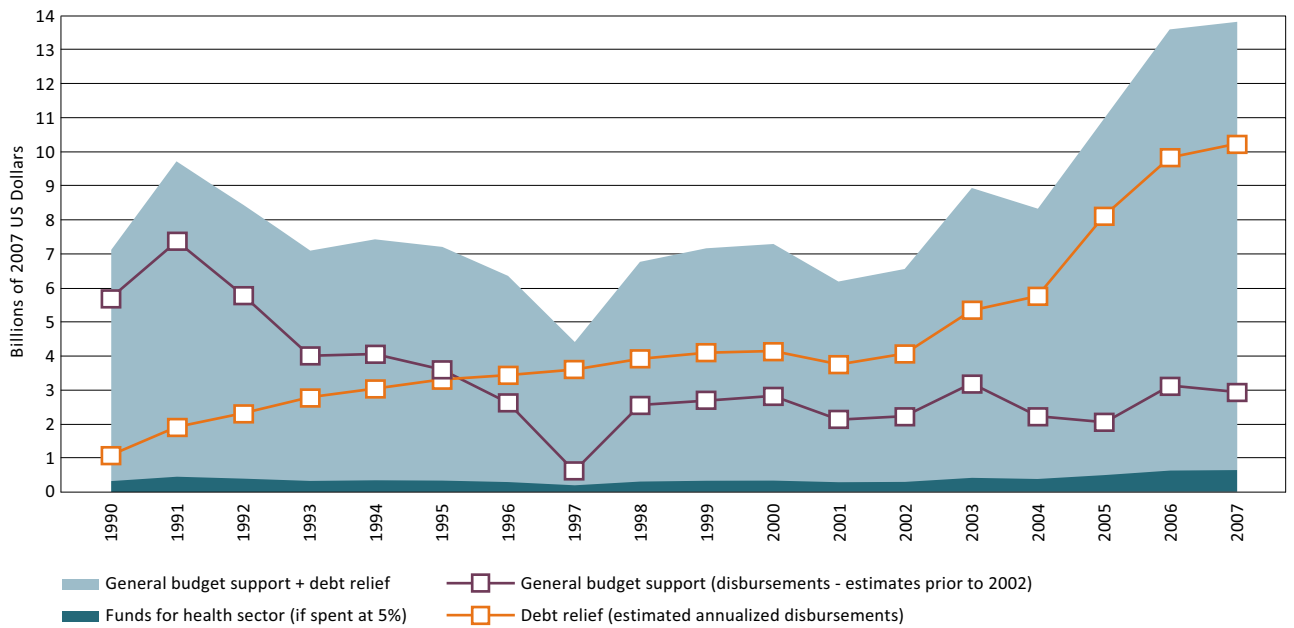
This figure shows annual commitments and not disbursements. Sector-allocable ODA excludes general budget support, debt relief, and humanitarian assistance.



Source: OECD-DAC Creditor Reporting System

FIGURE 13

General budget support and debt relief from the 22 DAC donor countries and the EC



Source: OECD-DAC Creditor Reporting System



CHAPTER 3:

PUBLIC DEVELOPMENT ASSISTANCE FOR HEALTH

As was mentioned in the previous chapter, donor country governments on average accounted for two-thirds of total development assistance for health (DAH) from 1990 to 2007. In this chapter, we take a closer look at these flows. At present, there is no integrated database for development assistance from all donor countries. The only comprehensive data source that exists for tracking public contributions is the Development Assistance Committee of the Organisation for Economic Co-operation and Development's (OECD-DAC) International Development Statistics that tracks aid from its 22 member countries.²⁰ However, the OECD-DAC restricts the type of aid contributions that member country governments can report. Hence, its estimates of public assistance for health from its member countries, which it measures in terms of official development assistance (ODA) for health, does not capture all publicly financed health aid. Below, we first discuss the differences in our approach to measuring health aid from public sources versus that employed by OECD-DAC. Next, we present an analysis of health aid from public sources using our estimates.

Comparing our approach and OECD-DAC's measure of official development assistance

There are two key differences between OECD-DAC's estimates of ODA for health and our approach to estimating public DAH.

The first relates to how funds flowing from donor governments to multilateral institutions are counted. OECD-DAC distinguishes between bilateral ODA and multilateral ODA. Bilateral ODA estimates include all aid going directly to recipient country governments, non-governmental organizations (NGOs), and multilateral institutions, *except* assessed contributions from donor governments to the regular budgets of multilateral institutions. Assessed contributions to multilateral institutions like the World Health Organization (WHO) and the World Bank are payments made against previous agreements or promises made by the donor governments. They do not count towards official bilateral aid because the donor countries lose effective control over how these funds are spent. In contrast, voluntary or extra-budgetary contributions from the donor governments to these same multilateral institutions count as bilateral ODA because the donor countries can stipulate how and where the funds are to be used.

OECD-DAC separately tracks multilateral ODA, which are the funds flowing from international institutions and agencies to developing countries. However, its coverage on this front is still limited. For example, its database does not reflect all of WHO's activities (it excludes all programs funded from the regular budget) and does not include Global Alliance for Vaccines and Immunization (GAVI) disbursements.

In contrast, our estimate of public DAH includes:

- All bilateral aid from the OECD-DAC’s database that is classified as being for the health sector, excluding all transfers – regular and voluntary – made to other channels of assistance tracked by the study. We take out these transfers to avoid double-counting.
- For each of the other channels besides the bilateral agencies, we calculate the amount of their health contributions that were publicly financed. For example, we disaggregate GAVI’s total giving by the fraction of its revenue that came from different income streams. We then count that portion of its total expenditure that can be attributed to a particular country government towards that country’s public contribution.

Hence, our estimates of public development assistance for health include both bilateral assistance as defined by OECD-DAC and the public-share of health assistance from all channels tracked by the study.

The second key difference between OECD-DAC’s health ODA estimates and public health aid estimates presented stems from the quantity of interest used to track aid. While OECD-DAC counts all commitments made in a year, we have estimated annual disbursements. Commitments on health loans and grants, which promise payments of specified amounts to the recipient over several years, do not reflect flows in the year they are made. For capturing the true time trends of global health resource flows, disbursements are the right quantity to track, although they are harder to find. One of the key contributions of this study is to estimate disbursements for missing years. The methods used are described in detail in the methods annex.

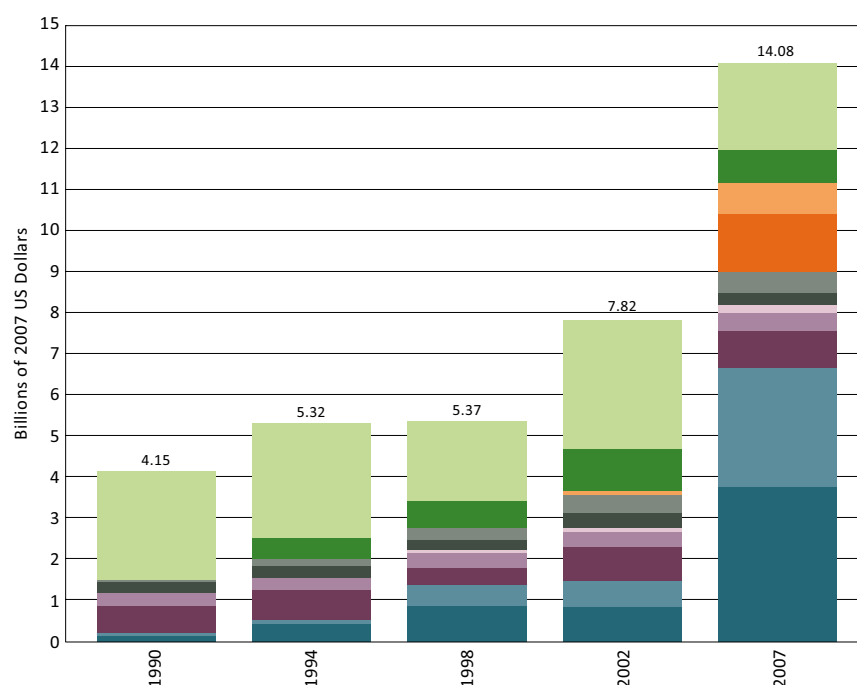
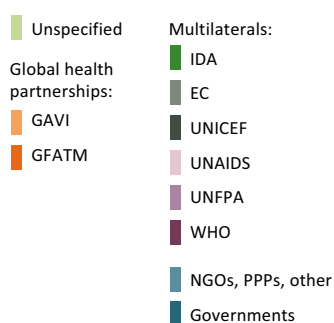
Public development assistance for health

Figure 14 shows total publicly financed health aid at four time periods from 1990 to 2007. The total volume of public DAH (measured in 2007 US\$) increased from \$4.2 billion in 1990 to \$14.1 billion in 2007. The figure also shows the composition of these funds by the

FIGURE 14

Publicly financed development assistance for health in 1990, 1994, 1998, 2002, and 2007

Bilateral assistance from the 22 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 shown here as “unspecified.”



Source: IHME DAH Database

channel of delivery through which they flowed. For the channels of assistance tracked in the study – United Nations (UN) agencies, the European Commission (EC), the International Development Association (IDA) (the arm of the World Bank that receives contributions from donor governments), GAVI, the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) – the public-share of their health contributions is shown in the graph. In the case of bilateral health aid, the channel of delivery refers to the first recipient of the bilateral aid. The share of bilateral aid that flowed to developing country governments as well as NGOs, public-private partnerships (excluding GFATM and GAVI), and other civil society organizations (CSOs) are separately shown. Bilateral aid for which the OECD-DAC’s data did not include any information about the channel of delivery is marked as “unspecified.” It is worth noting that donor governments have improved the quality of the data they are reporting to the OECD-DAC, and, as a result, the share of publicly financed

health assistance for which we are unable to ascertain the mode of delivery has declined over time. However, further improvements are needed on this front.

The figure highlights the dramatic increase in funds flowing through GAVI, GFATM, NGOs, and other recipients of bilateral assistance. In contrast, funds flowing through the World Bank, EC, WHO, United Nations Children’s Fund (UNICEF), and other UN agencies have not expanded at the same pace. The privatization of public aid for health is illustrated by the growth of the NGO share. Given that the share flowing through unspecified channels has declined from 1990 to 2007, these trends need to be interpreted with some caution.

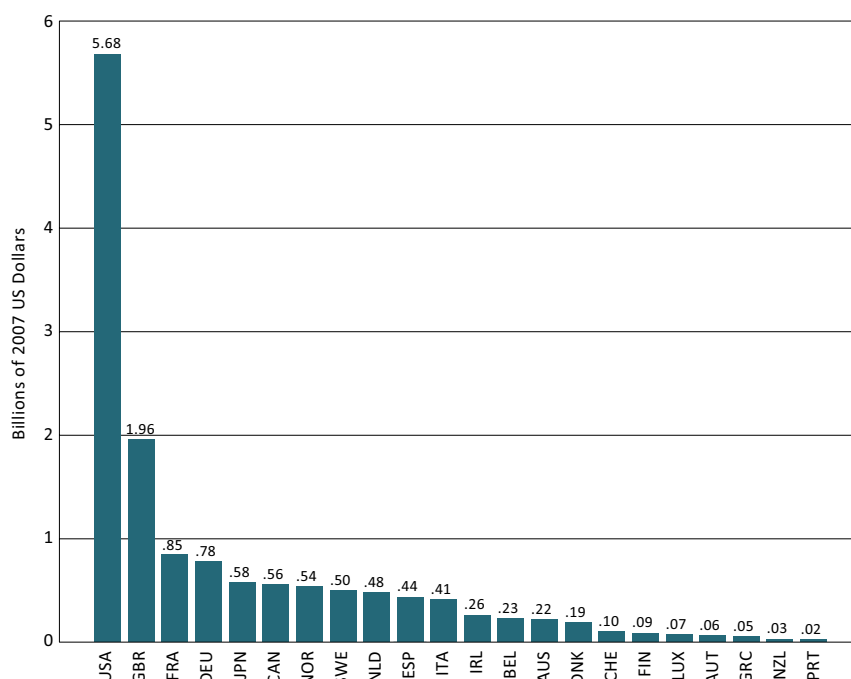
Comparing donors in 2007

Figure 15 shows the volume of public DAH from different donor countries in 2007. The US leads in the volume of aid, followed by the UK, France, Germany, Japan, and Canada. This comparison disregards total government expenditure in these donor countries. It

FIGURE 15
Publicly financed health assistance by donor in 2007

Public DAH from the 22 member countries of the OECD-DAC is shown.

- 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
- LUX = Luxembourg
- NLD = the Netherlands
- NOR = Norway
- NZL = New Zealand
- PRT = Portugal
- SWE =Sweden
- USA = United States.



Source: IHME DAH Database

has been often noted in the development assistance literature that while the US government contributes a large amount as development assistance, aid as a share of its total government size is small compared to other donor countries.

Figure 16 shows the composition of public monies by channel for each donor country in 2007. Countries in the figure are ordered by the fraction flowing directly to governments in developing countries. Some countries, specifically France, Italy, the Netherlands, and Finland have largely channeled their public monies through multilateral mechanisms. Other large donors such as the UK and the US have channeled a large fraction through bilateral mechanisms or through NGOs. The figure also illustrates the quality of the latest aid data available from OECD-DAC's systems. The fraction of "unspecified" aid corresponds to data reported by donors to OECD-DAC in which the channel of delivery variable is missing. In other words, these are projects

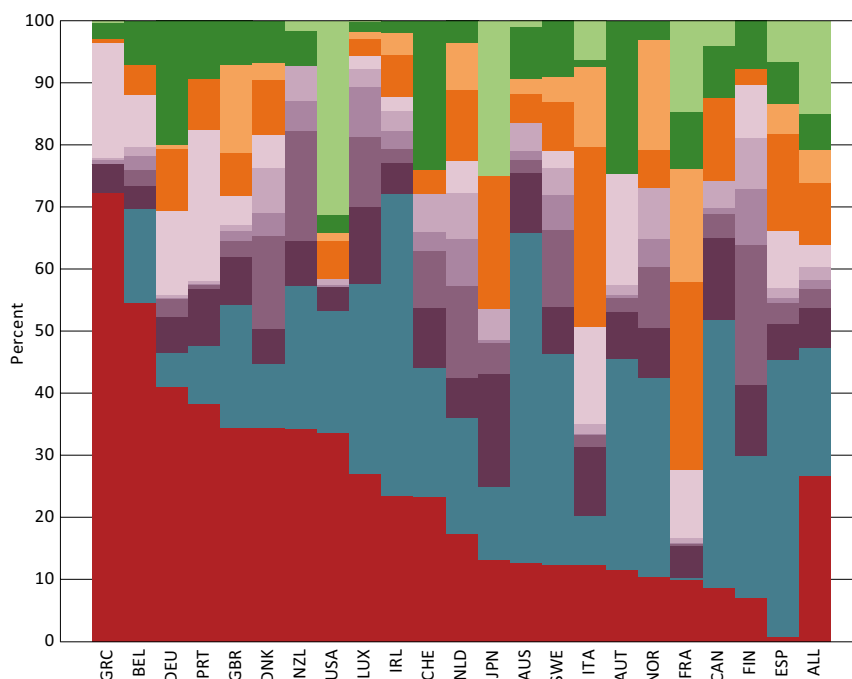
for which donors have failed to specify any principle recipient of the aid. The worst performer in this regard is the US. For over 30% of its public contributions towards health, we are unable to say whether the funds were going to developing country governments, US-based NGOs, international NGOs, or developing-country NGOs.

FIGURE 16
Channel-wise composition of publicly financed DAH by donor in 2007

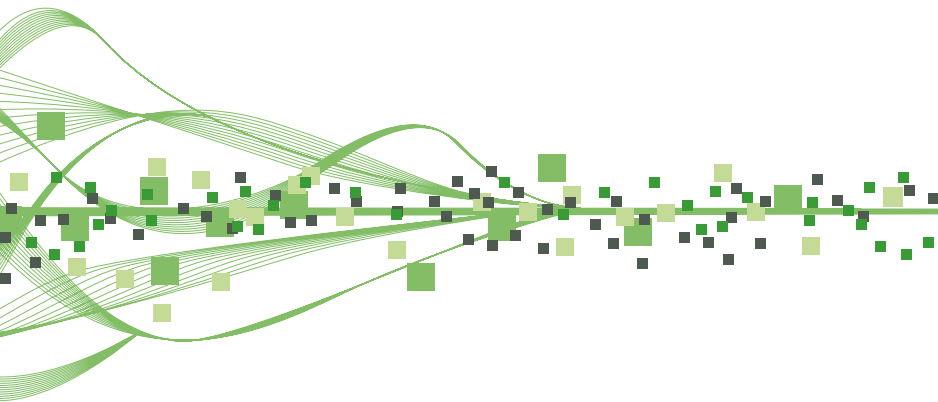
The composition of DAH from the 22 member countries of the OECD-DAC is shown.

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

- | | |
|-----------------------------|-----------------------|
| Unspecified | Multilaterals: |
| Global health partnerships: | IDA |
| GAVI | EC |
| GFATM | UNICEF |
| | UNAIDS |
| | UNFPA |
| | WHO |
| | NGOs, PPPs, other |
| | Recipient governments |



Source: IHME DAH Database



CHAPTER 4:

PRIVATE PHILANTHROPY AND DEVELOPMENT ASSISTANCE

In this chapter, we turn to development assistance for health (DAH) from private channels of assistance. Private contributions to development assistance have rarely been included in most resource tracking efforts. This is primarily because there is no single integrated database for tracking resource flows from all foundations and non-governmental organizations (NGOs) worldwide. Our estimates for their contributions only reflect private foundations and NGOs registered in the US. This approach was not undertaken by choice but by necessity. Although we were able to find data sources for tracking these institutions for the years covered by this study, we found no reliable and comprehensive data sources for tracking their non-US counterparts for those years. Below is our analysis of the role of US-based private foundations and NGOs in channeling DAH to developing countries.

Private foundations

Private foundations are philanthropic entities usually created by a small group of wealthy donors, often from the same family. Unlike charitable foundations and NGOs that seek donations from the public, private foundations rely exclusively on their endowments to make grants. While philanthropy across national borders has more recent origins than local or national philanthropy, it has emerged as an important form of development assistance. Unfortunately, there is no centralized database for tracking development

assistance from foundations worldwide. However, existing studies suggest that US foundations dominate this arena.³²

The Foundation Center compiles a grants database for all the major philanthropic foundations registered in the US. The Center codes these grants by sector and for domestic versus international focus. We used its estimates of global health grant-making by US-based foundations in our tracking exercise. Given the size and importance of the Bill & Melinda Gates Foundation's (BMGF) contributions to global health, we compiled a separate database to track its health grants using the organization's online grants database and tax filings. References to these data sources are provided in the methods annex.

Figure 17 compares gross global health disbursements by BMGF with total giving for global health by other US-based private foundations tracked by the Foundation Center. Since 2000, BMGF's health grants have dwarfed the health contributions of all other US-based foundations combined. This comparison of BMGF and the rest confirms that prior to the arrival of BMGF, the role of private foundations in global health was minimal. The rapid scale-up for BMGF, however, has put private foundations on the global health resource map.

FIGURE 17

Global health disbursements from US-based foundations

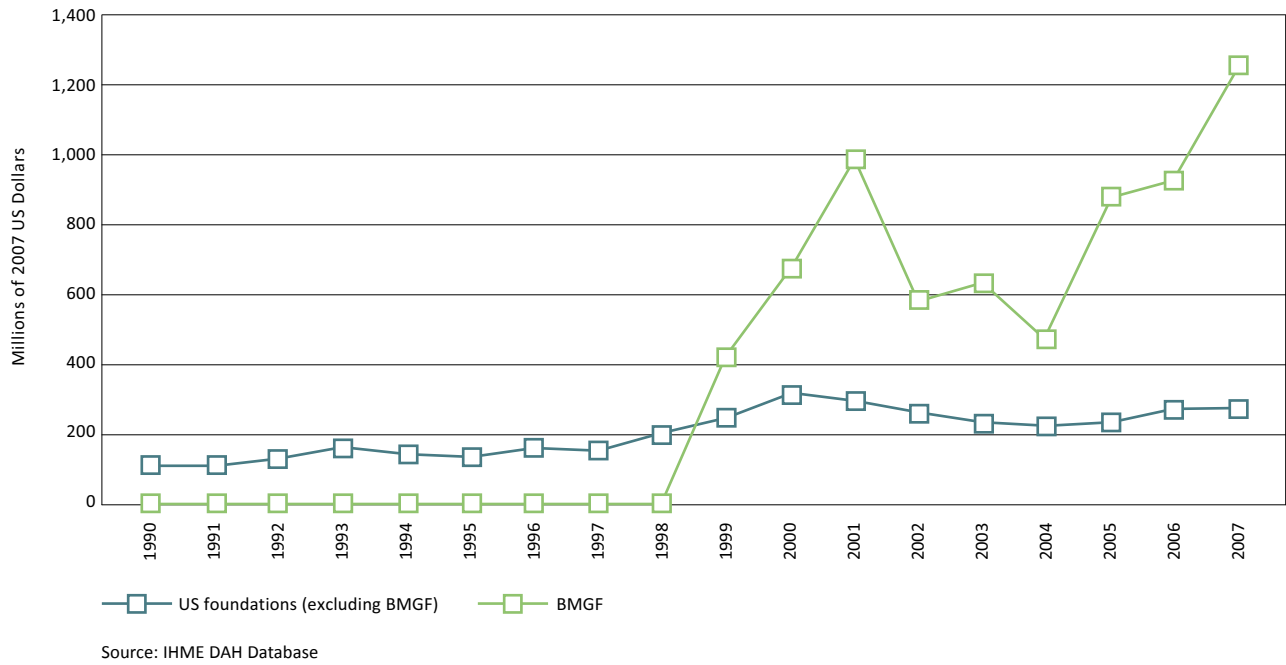


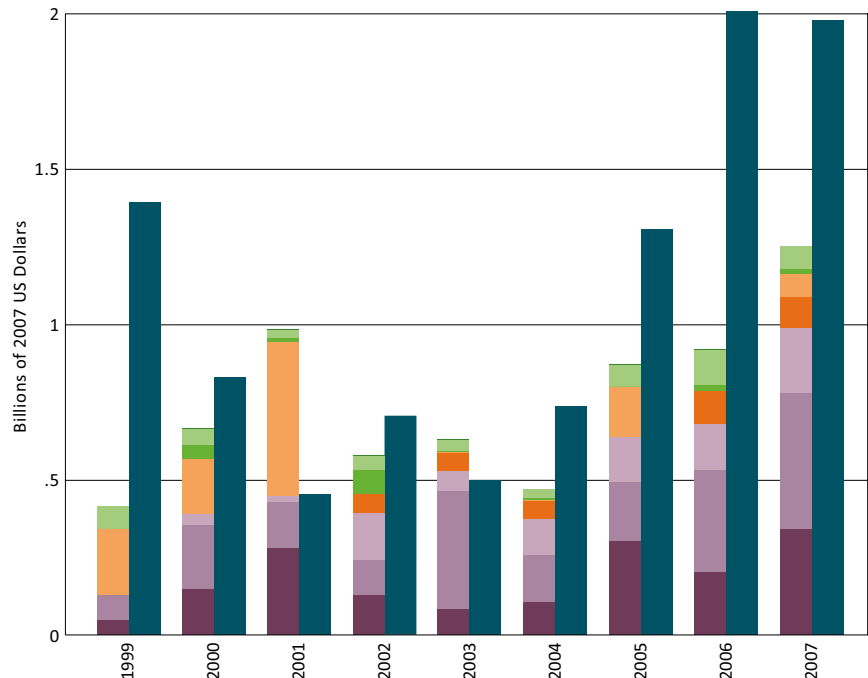
FIGURE 18

BMGF's global health commitments and disbursements from 2000 to 2007

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

- Country governments
- UN
- WB
- GAVI
- GFATM
- PPPs (excluding GAVI and GFATM)
- Universities & research institutions
- CSOs and corporations
- Commitments

Source: IHME DAH Database of BMGF global health grants



BMGF's disbursements and commitments are shown separately in Figure 18. We coded the recipients of BMGF's grants so as to examine where the funds were flowing. The largest share of BMGF's global health spending has flowed to universities and research institutions for research purposes. It transferred similarly large amounts of funds to public-private initiatives for global health, including the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), the Global Alliance for Vaccines and Immunization (GAVI) and various product-development partnerships. The remaining funds flowed to civil-society organizations (CSOs), including other foundations and NGOs; corporations; and multilateral institutions, including the World Bank and UN agencies.

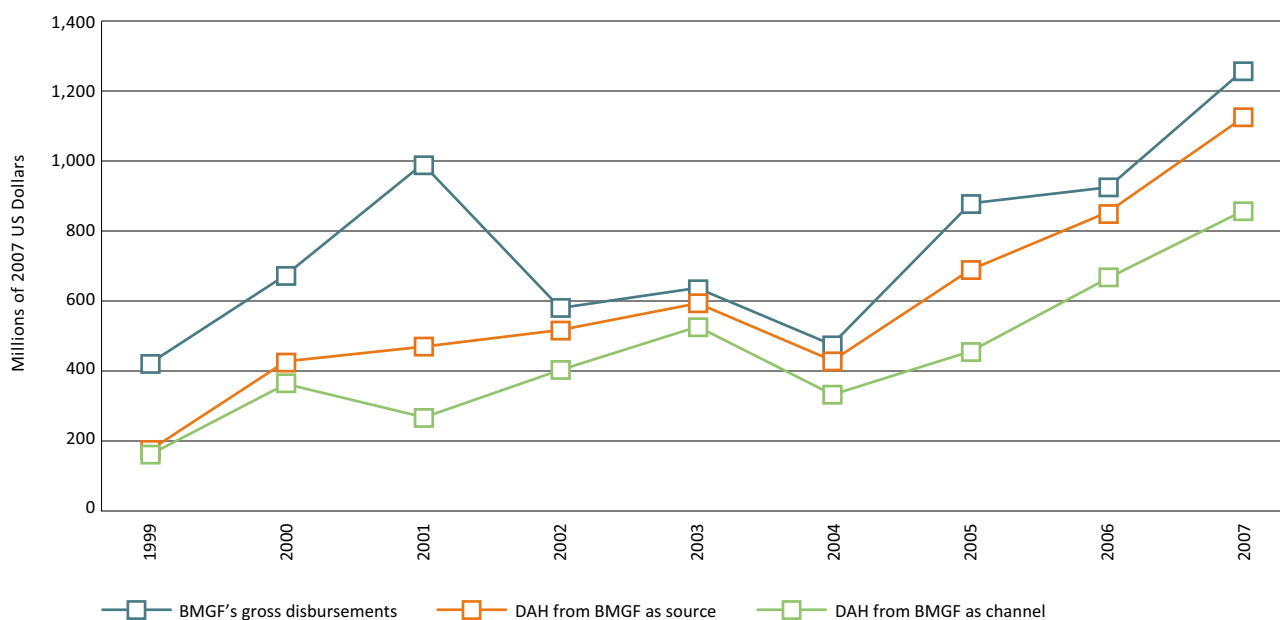
Our estimates of DAH do not reflect the sum total of BMGF's gross disbursements in a year. This is because of the research methodology we adopted, which centers on tracking resource flows from each channel of assistance, net of any transfers made to other channels also tracked in the study. Since BMGF transfers

a large share of its funds to other channels included in the study, we only count what is not transferred to others as BMGF's contribution as a channel of assistance. However, in disaggregating the funding source of all DAH, we attribute to BMGF a fraction of the expenditure by channels that receive BMGF funding. Consequently, the amount corresponding to BMGF as a source includes both what BMGF spends as a channel and that part of other global health contributions from other channels that can be traced back to BMGF contributions. While this amount is much closer to BMGF's gross disbursements, it is not identical. The discrepancy stems from the fact that channels deriving their revenue from BMGF and other sources do not spend every dollar they receive in a year. BMGF's gross disbursements, its disbursements as a channel, and contributions as a source are compared in Figure 19.

Non-governmental organizations

NGOs have been active in delivering social services for well over 160 years.³³ The United Nations (UN) charter recognizes the role of NGOs in facilitating international

FIGURE 19
Comparing BMGF as source and channel



Source: IHME DAH Database

development. Their importance has grown in the last half century, which can be linked to the rollback of the welfare state as well as the rising influence of the private sector.³⁴ NGOs are viewed as being better at serving the interests of marginalized groups and more efficient at delivering services than governments.^{35,36} Hence, they have attracted contributions from private citizens and corporations as well as bilateral donors. Private citizens donate money to NGOs like Save the Children, Catholic Relief Services and PATH, but their contributions, up to this point, have not been captured in time-series studies of global health resource flows.

As is the case with private foundations, there is no central repository of data on the health-related activities of NGOs worldwide. We had greater success in finding information on NGOs registered in the US than for NGOs registered in other donor countries. Consequently, we focused our research primarily on assessing the role of US-based NGOs, though we also report some preliminary estimates for some of the largest non-US NGOs. The United States Agency

for International Development's (USAID) Report on Voluntary Agencies³⁷ provides annual data on the revenue received by US-based NGOs from different public and private sources as well as their overseas expenditure on development-related programs. The report does not identify the share of expenditure that was for health or any other specific sector. In order to estimate the fraction of overseas programs that were for health, we did additional research on a sample of NGOs drawn from this database. For these NGOs alone, we analyzed their tax filings with the US government and their annual reports to estimate the share of their total overseas expenditure that was for health. We used a statistical model based on this sample to estimate the total volume of international health assistance that US-based NGOs contribute.

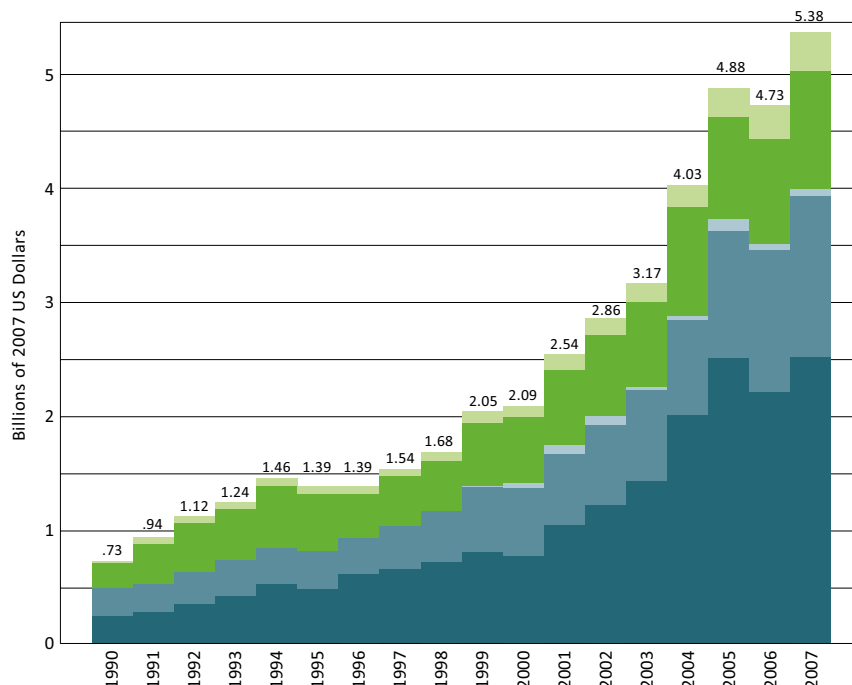
Figure 20 presents our estimates of overseas health expenditure by US-based NGOs from 1990 to 2007. Overseas health expenditure by US-based NGOs has risen steadily since the mid-1990s. These NGOs were responsible for over \$5.2 billion in overseas health

FIGURE 20
Total overseas health expenditure by US NGOs from 1990 to 2007

Total health spending is disaggregated by fractions of revenue received from the US government, other public sources of funding, from BMGF, financial donations from private contributors, and in-kind donations from private contributors. Since revenue and expenditure data for 2007 are not currently available, the overseas health expenditure for 2007 was estimated from annual growth rates in the previous five years.

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

Source: IHME NGO Database



expenditure in 2007, up from less than \$1 billion in 1990. The large increases in 2004 and 2005 are likely a reflection of the huge outpouring of support from the global community to address the devastation from the Indian Ocean tsunami in December 2004.

Since NGOs receive contributions from multiple public and private sources, the figure also disaggregates this total expenditure by the fraction of revenue received from different revenue streams. The share of expenditure financed through private revenues is divided into fractions from BMGF, other private financial donations, and in-kind contributions. Private contributions constitute the bulk of NGOs' revenue each year. This includes charitable contributions from individuals and corporations. In-kind donations of drugs and medical supplies from corporations accounted for nearly 50% of revenue in most years. Large US-based pharmaceutical companies are the source of most of these donations. It is worth noting that the drugs and commodities they donate are valued at current market prices. This accounting practice has potentially resulted in an exaggeration of the magnitude of resources flowing via US NGOs relative to their value on the global market, which is further discussed in Box 5.

The other big contributor to US NGOs is the US government. Since 2002, increasing amounts of bilateral aid for health have been flowing to US NGOs. Table 1 lists the top 20 US-based NGOs according to overseas health expenditure. These 20 NGOs alone received nearly \$400 million under the US President's Emergency Plan for AIDS Relief (PEPFAR) from 2004-2006.³⁸ Eight of these top 20 agencies self-identify as religious organizations on their Web sites (Food for the Poor, MAP International, World Vision, Feed the Children, Catholic Medical Mission Board, Medical Teams International, Catholic Relief Services, and Interchurch Medical Assistance.) Their programs span a wide range of activities including supplying donated drugs and medical equipment, implementing prevention

programs, sending medical volunteers to developing countries, training health workers, and working in the area of research and development for new health technologies.

These results reflect the health contributions of US NGOs as well as the US arm of international NGOs. We were unable to track the contributions of NGOs registered and operating from other countries besides the US because data on their income and expenditure was difficult to ascertain. The USAID report on NGOs started including data on some of these NGOs in 1998. We attempted to compile data on the health expenditures of the top 10 non-US NGOs from their financial documents and through direct communication. Getting reliable time-series data before 2000 proved to be extremely difficult for even this small sample of non-US NGOs. While we hope to find data on non-US NGOs in future years, we do not think their exclusion from this study is a source of bias for the following reasons. First, many of the top non-US NGOs have US-based chapters that are registered in the US and with USAID, and are, hence, covered by USAID's data (for example, Save the Children and International Planned Parenthood Federation both have arms registered in the US and receive funds from the US government). Second, the health expenditure numbers that we were able to collect for the top non-US NGOs from 2000 onwards suggest that they still account for a relatively small amount of development assistance in comparison to US-based NGOs; the top eight non-US NGOs (Oxfam, Save the Children, International Planned Parenthood Federation, Christian Aid, German Agro Action, ActionAid, International Union Against Tuberculosis and Lung Disease, and Marie Stopes International) accounted for \$230 million in overseas health expenditure in 2006, while the top eight US-based NGOs accounted for \$1.9 billion in the same year. Table 2 summarizes the data on non-US NGOs that we were able to find.

TABLE 1**NGOs registered in the US with highest cumulative overseas health expenditure from 2002 to 2006**

Data for 2007 have not been released yet. Expenditure is expressed in millions of real 2007 US\$.

Rank	NGO	Overseas health expenditure	Total overseas expenditure	Percent of revenue from private sources	Percent of revenue from in-kind contributions
1	Food For The Poor	1492.3	3137.0	91.0	80.4
2	Population Services International	1250.3	1275.6	10.7	0.1
3	MAP International	1196.8	1210.2	99.8	96.4
4	World Vision	826.1	3150.4	73.5	28.6
5	Brother's Brother Foundation	785.8	1158.6	99.9	99.0
6	Feed The Children	706.9	2044.5	96.9	82.6
7	Catholic Medical Mission Board	699.0	746.6	99.6	93.0
8	Project HOPE	583.6	635.6	89.6	69.2
9	Medical Teams International	568.8	698.8	98.5	89.0
10	Management Sciences for Health	515.5	617.6	11.1	0.0
11	United Nations Foundation	505.9	726.9	86.1	9.6
12	Catholic Relief Services	498.1	2547.9	37.3	2.0
13	Interchurch Medical Assistance	462.6	466.6	89.6	85.6
14	Direct Relief International	431.8	507.1	99.9	91.7
15	PATH	389.5	444.1	92.2	0.0
16	The Carter Center	378.2	472.3	94.1	45.4
17	International Medical Corps	338.7	354.1	52.1	42.8
18	Pathfinder International	269.6	301.0	20.9	0.9
19	Save the Children	229.1	1229.1	48.4	1.9
20	National Cancer Coalition	226.6	242.4	100.0	93.1

TABLE 2**Summary of health expenditure by non-US NGOs from 1998 to 2006**

Data for 2007 are not available yet. Expenditure is expressed in millions of real 2007 US\$.

Year	Number of non-US NGOs in USAID Report	Number of top non-US NGOs for which we found health expenditure data	Health expenditure by top non-US NGOs
Prior to 1998	0	–	–
1998	44	3	–
1999	0	–	–
2000	50	6	145.4
2001	51	7	148.9
2002	58	7	146.4
2003	54	7	198.8
2004	55	9	205.4
2005	59	9	221.8
2006	67	8	231.4

BOX 5

The value of in-kind donations from pharmaceutical companies

From 2000 to 2006, in-kind contributions represented an average of 45% of the revenue received by non-governmental organizations (NGOs). A majority of these in-kind contributions were medicines and medical supplies. Most pharmaceutical companies that donate medicines to US NGOs value their donated drugs at US wholesale prices. In reality, the value of these drugs to developing country recipients may be less than US wholesale prices. For example, GlaxoSmithKline began to value its drug donations at average cost to the company instead of US wholesale prices in 2008, which resulted in a 64% deflation in the total value of their product donations.³⁹ If all pharmaceutical companies followed suit, the estimated value of in-kind overseas health expenditure for US NGOs might be greatly reduced.

The value of donations to recipient communities also may be less due to the mismatch between the drugs and supplies and local health needs. Some of these products also have a short shelf-life. Reich et al.⁴⁰ examined pharmaceutical donations obtained by two major US NGOs for use in three developing countries and found that 10%-42% of the donations were not considered essential medicines by WHO nor by the recipient countries. Moreover, 30% of the donated drugs had time-to-expiry of one year or less. Autier et al.⁴¹ conducted a study to assess the inappropriateness of drug donations in four low- and middle-income countries following armed conflict or natural disasters. Inappropriate drugs were defined as those meeting one or more of the following criteria: 1) did not correspond to the clinical or epidemiological setting; 2) were not included in WHO's list of essential drugs; 3) were labeled in an unfamiliar foreign language or unsorted; 4) were unusable due to damage or spoiling; or 5) had already expired.⁴² The authors discovered substantial evidence of inappropriate donations largely due to the actions of donor governments, small organizations, and local vendors. However, they found no evidence that the pharmaceutical companies themselves were at fault.

Information regarding the types of drugs donated by pharmaceutical companies would help researchers estimate their true value by determining the demand for these drugs in the US and world markets. Pharmaceutical companies, however, tend to guard this information from public scrutiny for fear of criticism. In reviewing the web sites of nine major companies (Merck, GlaxoSmithKline, Pfizer, Johnson & Johnson, AstraZeneca, Wyeth, sanofi-aventis, Novartis, and Bristol Meyers Squibb), we found that only one (Merck) listed the brand names as well as wholesale value of nearly all donated drugs.⁴³ Other companies gave less detailed information on product donations.

US NGOs are equally non-transparent about the drug donations they receive. The top US NGOs listed in Table 1, many of whom received over 69% of their total revenue in the form of in-kind donations, did not include detailed information about the drug names, brand names, and donors of these goods in their publicly available financial documents.



CHAPTER 5:

MULTILATERAL ORGANIZATIONS AND GLOBAL HEALTH INITIATIVES

A variety of international organizations are involved in mobilizing resources from both public and private sources and using them to extend development assistance to low- and middle-income countries around the world. They provide country-focused financial and technical assistance to developing countries, and contribute to the generation of global public goods, such as disease surveillance, norms and standards, data and knowledge, and aid coordination. Some of these international institutions, such as UN agencies and development banks, have been active in the sphere of development assistance for nearly six decades. In contrast, international public-private initiatives for global health like the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and the Global Alliance for Vaccines and Immunization (GAVI) are less than a decade old, but have emerged as significant actors in the global health landscape.

In this chapter, we review the health contributions of the UN agencies, development banks, and global health initiatives. In the three sections below, we briefly describe their role in the global health arena, and summarize the data we have captured to track their resource flows.

United Nations agencies

Numerous UN agencies undertake activities that directly or indirectly impact health. For the purposes of our resource-tracking exercise, we focused on UN

agencies that either work entirely in the health field or undertake significant health expenditures – the World Health Organization (WHO), United Nations Children’s Fund (UNICEF), Joint United Nations Programme on HIV/AIDS (UNAIDS), and United Nations Population Fund (UNFPA).

WHO was established in 1948 as the nodal agency for health within the UN. Funded by member states, private donors, and other intergovernmental agencies, WHO seeks to improve health worldwide by providing leadership on health issues, setting norms and standards, coordinating health research, and extending technical assistance to countries. UNICEF was originally created by the UN in 1946 to provide emergency food and health care to children in countries affected by the Second World War. It now works to improve the lives of children in 190 countries around the world. Financed by governments, private sources, and other intergovernmental organizations, it works to deliver medical supplies and health services to promote child health. Its other areas of work include education, advocacy for children’s rights, research, and disaster relief. UNFPA was established in 1967 to improve reproductive and maternal health around the world. It currently works in 150 countries to achieve this goal by procuring and distributing reproductive health supplies, providing reproductive health services, and undertaking information dissemination and advocacy

campaigns. UNFPA receives funding from both governments and private donors. Created in 1996, UNAIDS works with numerous other UN agencies to help over 80 nations carry out country-level HIV/AIDS plans. In its focus countries, UNAIDS coordinates HIV/AIDS interventions such as treatment, counseling and testing, social safety nets, health sector strengthening, prevention, training, and technical support with financial support from its 10 partner organizations as well as donations.

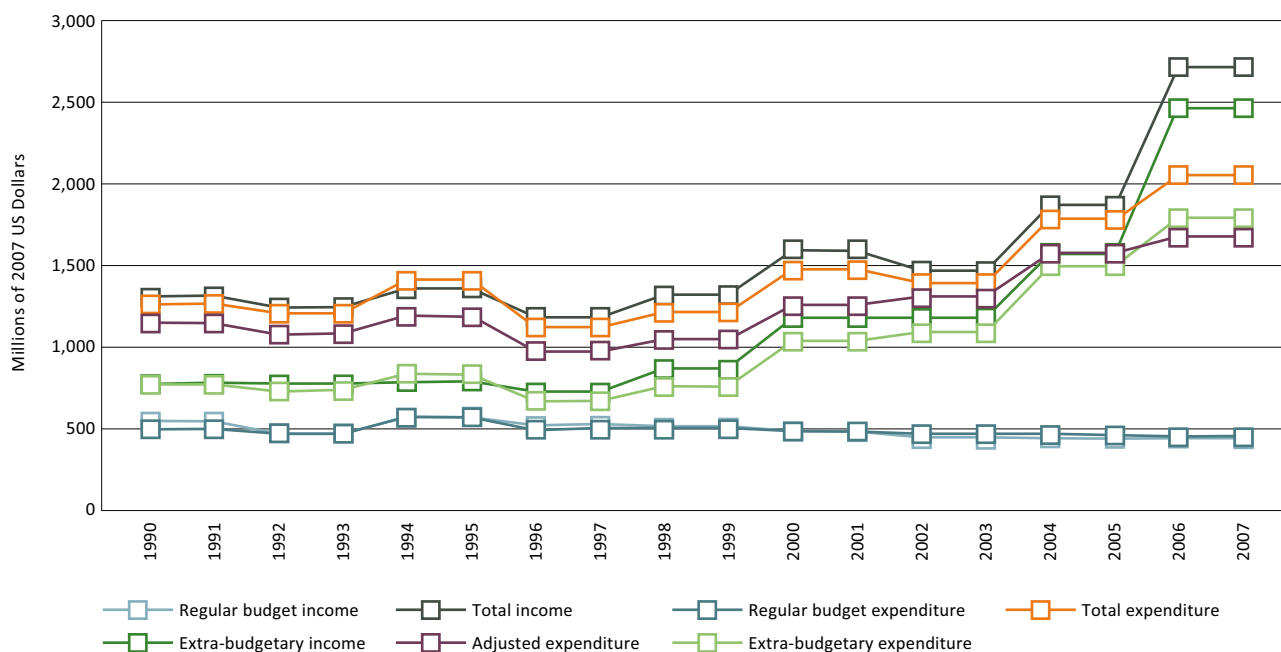
Several other UN agencies also work in the health sector, but their expenditures are relatively small in volume compared to the four UN agencies that we have included in our tracking exercise. We also excluded program expenditures associated with allied sectors like education, water and sanitation, food security, humanitarian assistance, economic development, and agriculture. While these programs undoubtedly affect health outcomes in developing countries, measuring health sector support is the goal of this study. For each of the UN agencies included in the study, we collected

data on their income and expenditure from audited financial reports. In all cases, the institutions differentiate between regular budgetary income, which reflects core or assessed contributions received from donors per previously agreed upon arrangements, and extra-budgetary income, which reflects voluntary contributions from donors. They each disaggregate their income and expenditure according to these two revenue streams. We collected data on both revenue streams.

For WHO, UNFPA and UNAIDS, we counted their total expenditure as DAH after adjusting for any transfers to other channels tracked by IHME. Since UNICEF's activities are not limited to the health sector alone, we estimated the fraction of its total expenditure that was for health. The methods annex explains these corrections and includes references to data sources used.

Figure 21 shows WHO's regular budgetary and extra-budgetary income and expenditure. It also shows the amount of its expenditure that we counted as DAH after adjusting for transfers to other institutions

FIGURE 21
Income and expenditure for WHO



Source: IHME DAH Database

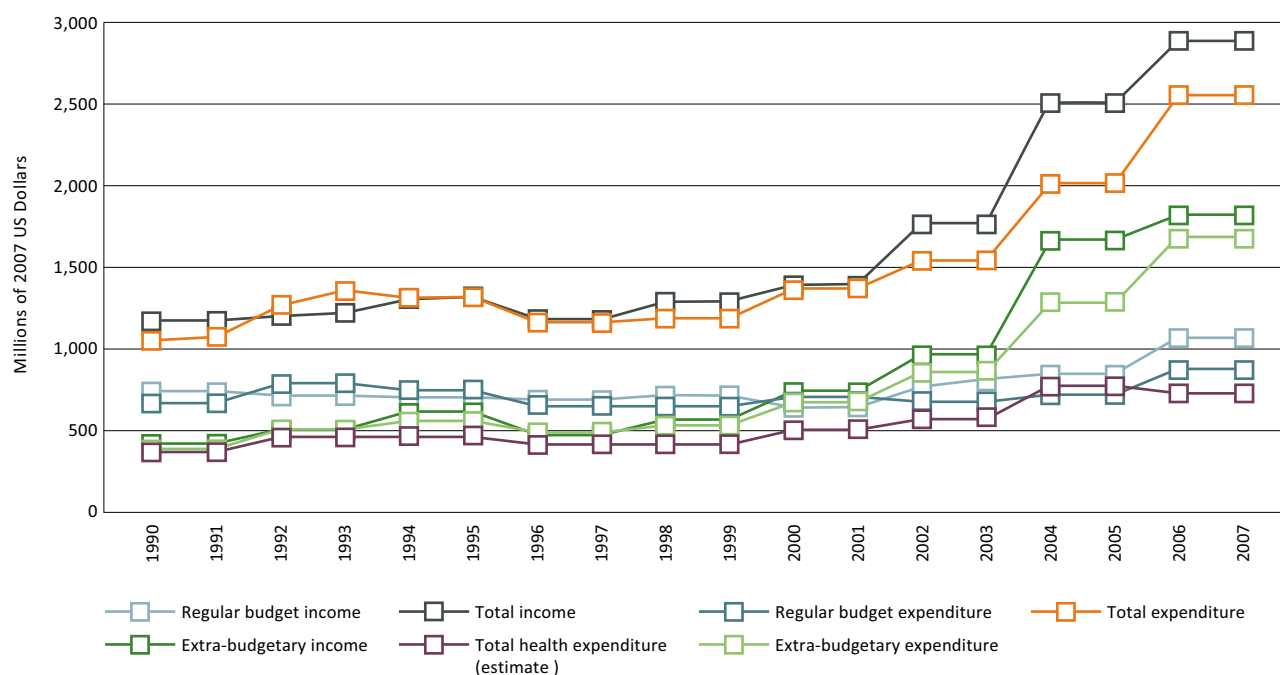
tracked in the study. It is worth noting that the total income of WHO, shown in black in the graph, has increased dramatically since 2003. While the regular budgetary income and expenditure, shown in shades of blue, have remained stable over the entire duration of the study, the extra-budgetary income of WHO doubled between 2003 and 2007, mostly due to the representation of trust fund income from GFATM in its financial accounts. Consequently, the extra-budgetary expenditure of WHO also increased during those years, but not as much as its income. WHO's extra-budgetary income and total income exceeded its extra-budgetary expenditure and total expenditure by \$669 million and \$659 million respectively in 2007.

Figure 22 shows comparable numbers for UNICEF. Much like WHO, UNICEF's income and expenditure have shown marked increases since 2003 and the gap between its total income and expenditure in 2007 was substantial. Figures 23 and 24 track UNFPA and UNAIDS. In magnitude, these organizations account for much smaller health expenditures than either WHO or UNICEF.

International development banks

International development banks are financial institutions that extend grants, loans, and technical assistance to low- and middle-income countries for development purposes. The most well-known among them is the World Bank, which is comprised of the International Development Association (IDA) and the International Bank for Reconstruction and Development (IBRD). When IBRD was established in 1944, its primary purpose was to assist European countries in their post-war reconstruction effort. Over time, IBRD's focus shifted to aiding development efforts in middle-income and certain low-income countries through low-interest loans and technical assistance. Financed through revenue from capital markets and loan repayments, IBRD helps client nations finance projects in several development-related sectors including health. Founded in 1960, IDA provides grants and zero-interest loans to low-income countries for development projects. The aid IDA extends is financed through contributions from member countries, as well as revenue from financial markets and transfers from IBRD.

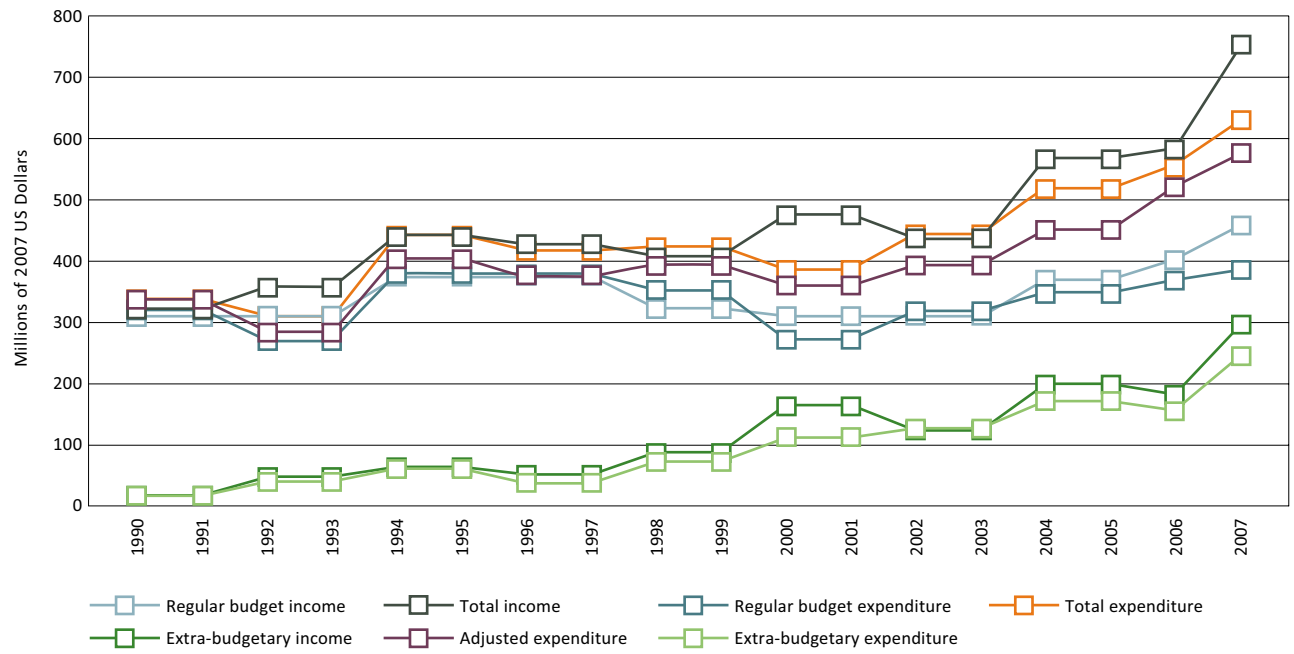
FIGURE 22
Income and expenditure for UNICEF



Source: IHME DAH Database

FIGURE 23

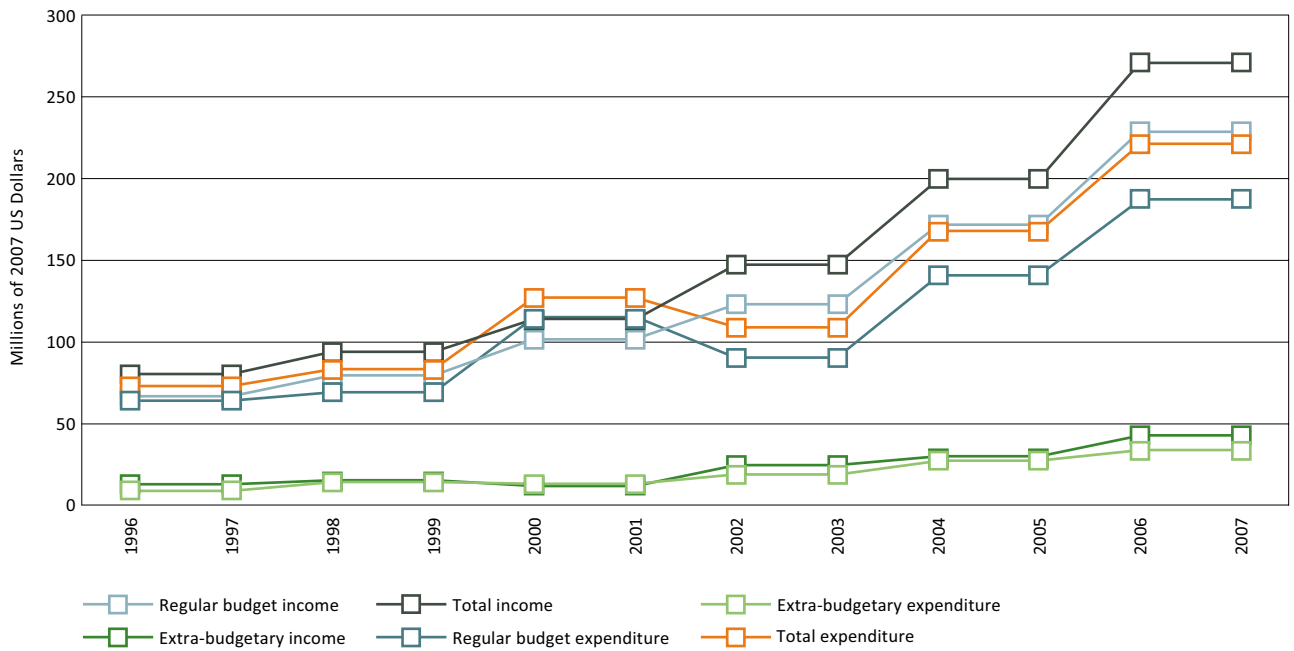
Income and expenditure for UNFPA



Source: IHME DAH Database

FIGURE 24

Income and expenditure for UNAIDS



Source: IHME DAH Database

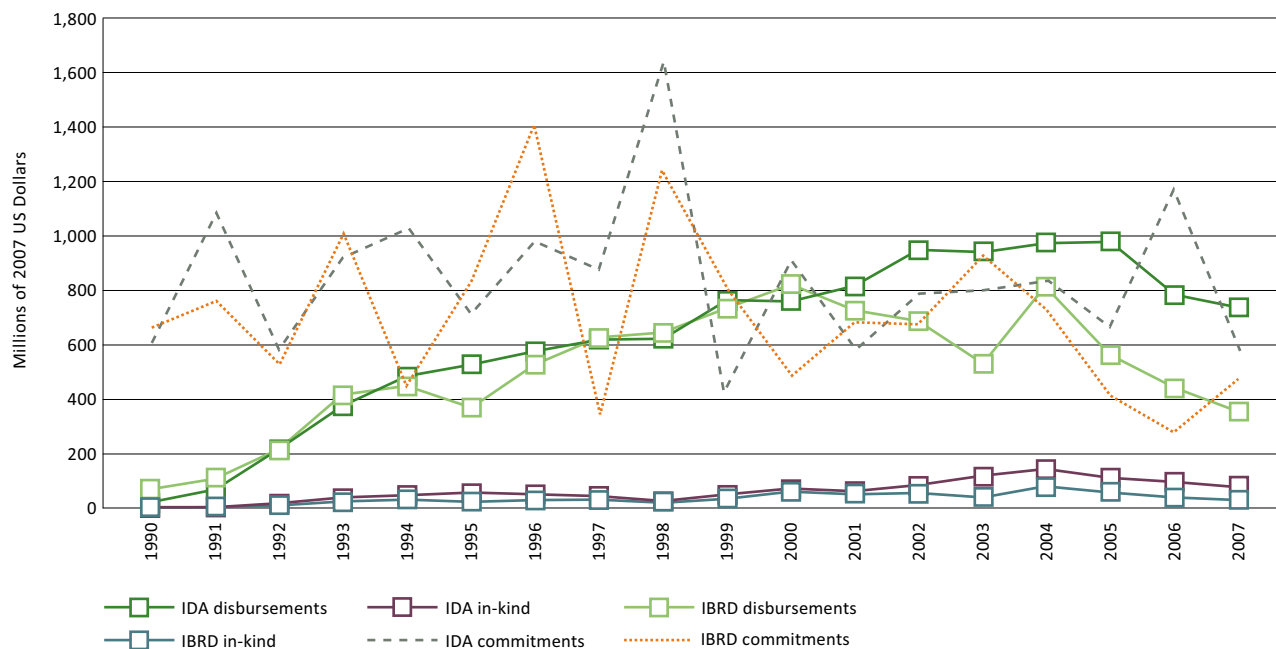
Several other regional development banks also provide targeted financial and technical assistance to developing countries within their region of focus. In this study, we tracked health contributions from the Asian Development Bank (ADB), the African Development Bank (AfDB), and the Inter-American Development Bank (IDB). Established in 1966, ADB uses revenue from member country governments, debt repayments, and financial investments to provide grants and technical assistance to governments and the private sector in 44 developing countries in Asia and the Pacific. Created in 1959, IDB's clients include governments and private sector institutions in 26 Latin American and Caribbean countries. Established by African governments in 1964, AfDB provides loans and grants to private companies, financial institutions, and governments in 53 African member countries.

For each of these international development banks, we extracted information on their income and project disbursements from audited financial statements, reports and online project databases. Since their

activities are not limited to health, we used their classification of projects by sectors and disaggregated sector-wise allocations to identify flows for health. In some instances, as was the case with the World Bank, identifying what was a health project required careful examination of the data and associated coding schema. The World Bank assigns a sector code as well as a theme code to each project. Sector codes represent economic, political or sociological subdivisions within society. Theme codes, on the other hand, indicate the goal of the activity. All projects coded to the health sector are also coded as having a health theme. The converse, however, is not true, since projects for allied sectors such as water and sanitation and education could also have health-related objectives. We included all projects coded as health in the sector field in the study and excluded any that were for other sectors but had health as a theme.

Where data on annual disbursements were not provided, we estimated them using information on project-wise cumulative disbursements and project

FIGURE 25
Health resource flows from IDA and IBRD



Source: IHME DAH Database

FIGURE 26

Health resource flows from ADB, IDB and AfDB

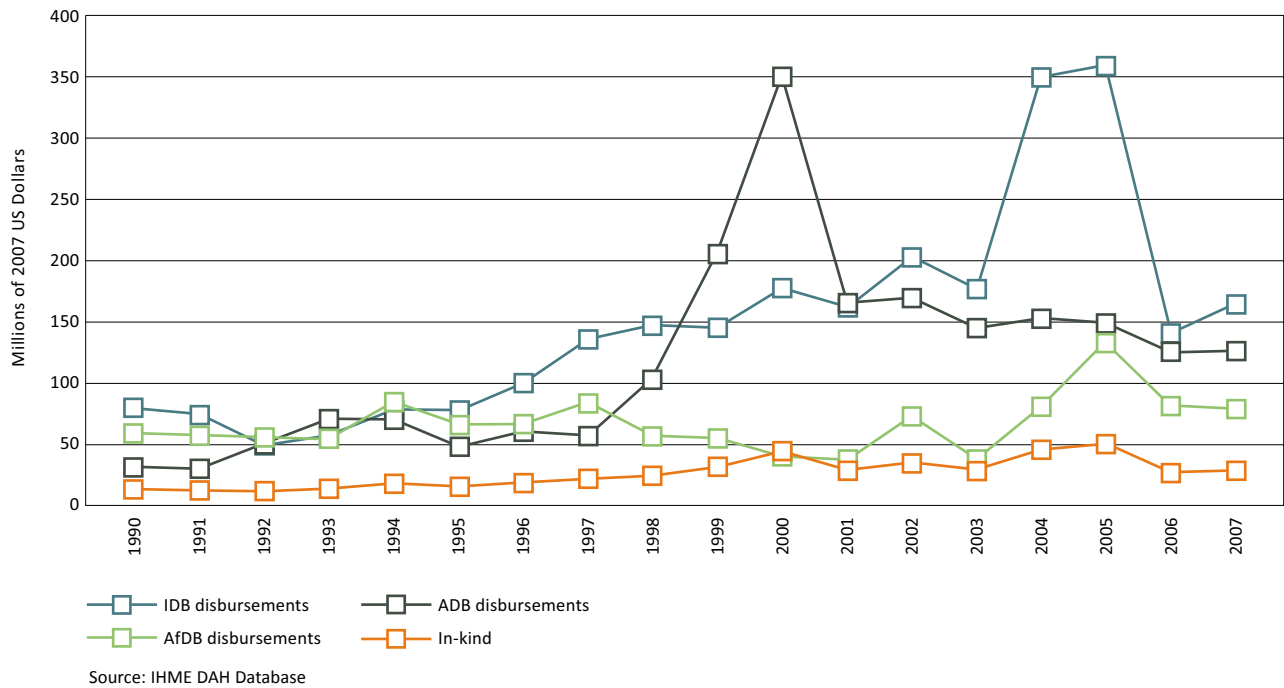
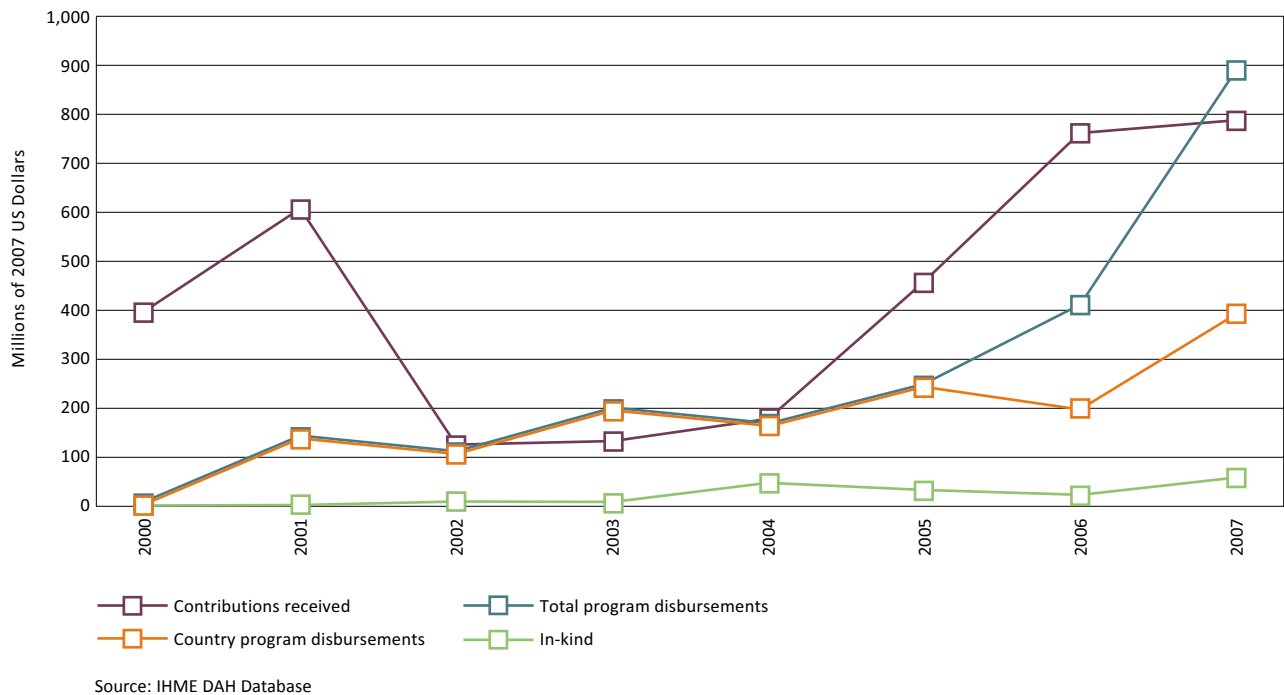


FIGURE 27

GAVI's health contributions



duration. Additionally, we separately estimated the in-kind component of the development banks' assistance, namely the costs associated with hiring staff to provide technical assistance and manage projects. The methods used for each institution as well as the in-kind calculations are described in detail in the methods appendix. Here, we highlight the main findings for this set of institutions.

Figure 25 shows aggregate health-related financial disbursements and in-kind contributions from IDA and IBRD. In the case of IDA, outlays for health programs increased steadily until 2005 but have declined over the past two years. Disbursements from IBRD for the health sector peaked in 2000 and appear to be in decline since then, with the exception of a sharp rise in 2004. These declines in disbursements mostly correspond to decreased health commitments, which are also shown in the figure for both IDA and IBRD. Funds committed for new health projects have been

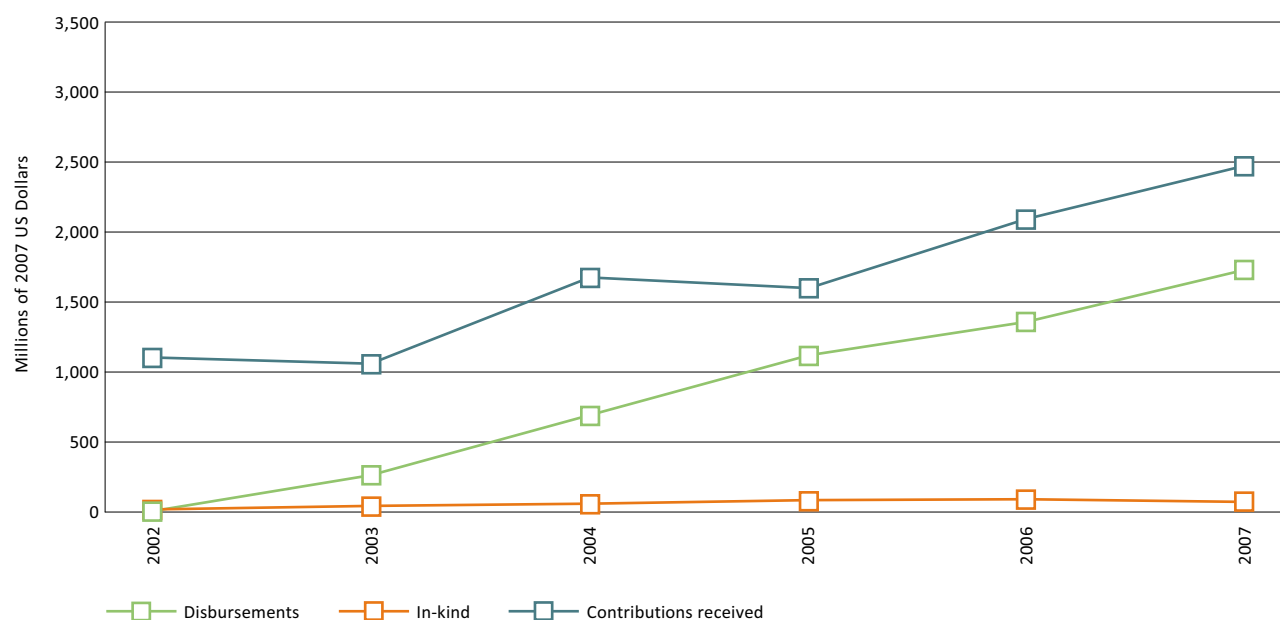
lower since 2000 than before for both organizations, though the drop is starker in the case of IBRD. IDA commitments spiked in 2006, which is likely to have led to higher disbursements in 2008 and 2009.

Figure 26 shows annual disbursements on health projects by the three regional banks included in the study, as well as their total in-kind contributions. ADB's outlays for health increased in the late 1990s but have declined steadily since then. In contrast, both AfDB's and IDB's investments in the health sector were higher post-2000 than before.

Global health initiatives

GFATM and GAVI have been heralded as new and innovative funding mechanisms for channeling health assistance to developing countries. Established in 2000 at the World Economic Forum, GAVI's goal is to increase vaccination coverage and reduce child mortality in developing countries by mobilizing

FIGURE 28
GFATM's health contributions



Source: IHME DAH Database

long-lasting funding, purchasing and distributing vaccines, providing technical assistance, and strengthening health systems. GAVI derives its funding from the International Finance Facility for Immunisation (IFFIm) and the Advanced Market Commitments (AMC), which are financed by governments and private donors. GFATM was founded in 2002 as a fund for increasing developing countries' access to new life-saving treatments for HIV/AIDS, tuberculosis, and malaria. Donations from governments and private donors have enabled GFATM to provide grants to governments, non-governmental organizations (NGOs), and multilateral institutions working in 140 countries for the prevention and treatment of these three diseases. Less than 10 years old, these global health initiatives have effectively mobilized resources from public and private sources and channeled them to disease-specific programs in developing countries. For both GFATM and GAVI, we extracted information about their revenue and global health contributions from project databases, audited financial statements, and project documents. We also calculated their administrative and management costs, which we count as in-kind support.

GAVI's country-based program expenditure, shown in orange in Figure 27, includes all grants for immunization services support (ISS), new and underused vaccines support (NVS), and health system strengthening (HSS), and has increased steadily since the inception of the organization. Total program disbursements, shown in blue, were the same as country program disbursements until 2005. In 2006 and 2007, total program disbursements rose sharply to more than double the volume of country program support. During this time, GAVI scaled up support to GAVI partners for new initiatives such as Global Polio Eradication and funding for pentavalent vaccine procurement using funds made available through IFFIm. We believe this explains the gap between total program expenditure and country-based expenditure in 2006 and 2007. GFATM's revenue as well as its program disbursements and in-kind assistance are shown in Figure 28. GFATM's health outlays have kept pace with its steadily increasing revenue since 2002.



CHAPTER 6:

DISTRIBUTION OF DEVELOPMENT ASSISTANCE FOR HEALTH

Building a foundation of knowledge that accurately accounts for the volume of global health funding is crucial, both for those who give aid and those who receive it. In this chapter, we build on that foundation by exploring whether the distribution of global health resources across different disease areas and geographical areas reflect current global health priorities. In light of the strong global interest in combating HIV/AIDS, tuberculosis, and malaria, we first analyze development assistance for health (DAH) for these three diseases. Next, we turn to the relationship of DAH to disease burden and the distribution of DAH across countries.

Both analyses require disaggregation of total global health flows, first by disease and then by country. This is not possible for all the channels of assistance tracked in the study, since detailed information on how and where health funds were used is not available in all cases. For example, the data on US-based NGOs compiled by United States Agency for International Development (USAID) do not provide a breakdown of how much each NGO spent on different diseases or in individual countries. Similarly, not all UN agencies subdivide their total expenditure by disease focus and recipient country in a way that can be tracked over time. Hence, the analysis presented in this chapter reflects the portion of health flows for which we have

additional information about where and to what end the funds were used.

More specifically, for channels where we had grant and loan information – namely, the bilateral agencies, European Commission (EC), the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), the Global Alliance for Vaccines and Immunization (GAVI), the World Bank, the Asian Development Bank (ADB), the Inter-American Development Bank (IDB), and the Bill & Melinda Gates Foundation (BMGF) – we combined their health contributions in an integrated project database. We used the database to calculate DAH received annually by developing countries. Using the same integrated project-level database, we analyzed global health dollars for HIV/AIDS, tuberculosis and malaria. We found information on WHO's expenditure for each of the three diseases, which we used in this analysis. Additionally, we assumed that all UNAIDS expenditure was for HIV/AIDS.

Development assistance for HIV/AIDS, tuberculosis and malaria by channel

Disaggregating the total flow of global health dollars by particular diseases, health interventions, and the health system components they target, is a central goal of *Financing Global Health*. In this first report, we provide a closer look at development assistance for HIV/AIDS, tuberculosis, and malaria. In future years,

we plan to undertake similar analyses for other priority diseases and public health interventions.

Promoting the use of new and cost-effective health technologies to prevent and treat HIV/AIDS, tuberculosis, and malaria has emerged as a leading global health priority in recent years. In 1999, WHO warned that six diseases, including HIV/AIDS, tuberculosis, and malaria, were the primary causes of death worldwide and disproportionately affected developing countries.⁴⁴ Prioritization of these diseases can be traced to the 2000 G8 Summit in Okinawa⁴⁵ and the Abuja Declaration on HIV/AIDS, Tuberculosis, and Other Related Infectious Diseases in 2001.⁴⁶ The creation of GFATM with the express mandate to use innovative mechanisms to mobilize public and private funds and ensure that they are used effectively, was another manifestation of this commitment. Comprehensive data on the total flows of global health dollars for these priority diseases and the relative contributions of different channels are likely to be of interest to the

donor community, advocacy groups monitoring the flow of aid, and policymakers in recipient countries.

Figure 29 shows the total volume of aid for HIV/AIDS and a breakdown by the channel via which it flowed to low- and middle-income countries. As was noted in Chapter 2, we were able to estimate disease-specific health aid allocations for only those channels that provided project-level information. In 2007, for example, we could ascertain the target diseases for \$14.5 billion out of \$21.8 billion of total DAH in that year. HIV/AIDS-related development assistance grew from \$0.2 billion in 1990 to \$4.9 billion in 2007. The figure also shows that the rate of growth increased sharply starting in 2002. Given the extensive amount of attention given to HIV/AIDS by donors, recipient country governments, public-private partnerships, and multilateral institutions, it is surprising that DAH for HIV/AIDS only represented a third of disease-allocable DAH and a quarter of total DAH in 2007.^{46, 47-51} In the recent five years, the US government and GFATM have dominated

FIGURE 29
Development assistance for HIV/AIDS

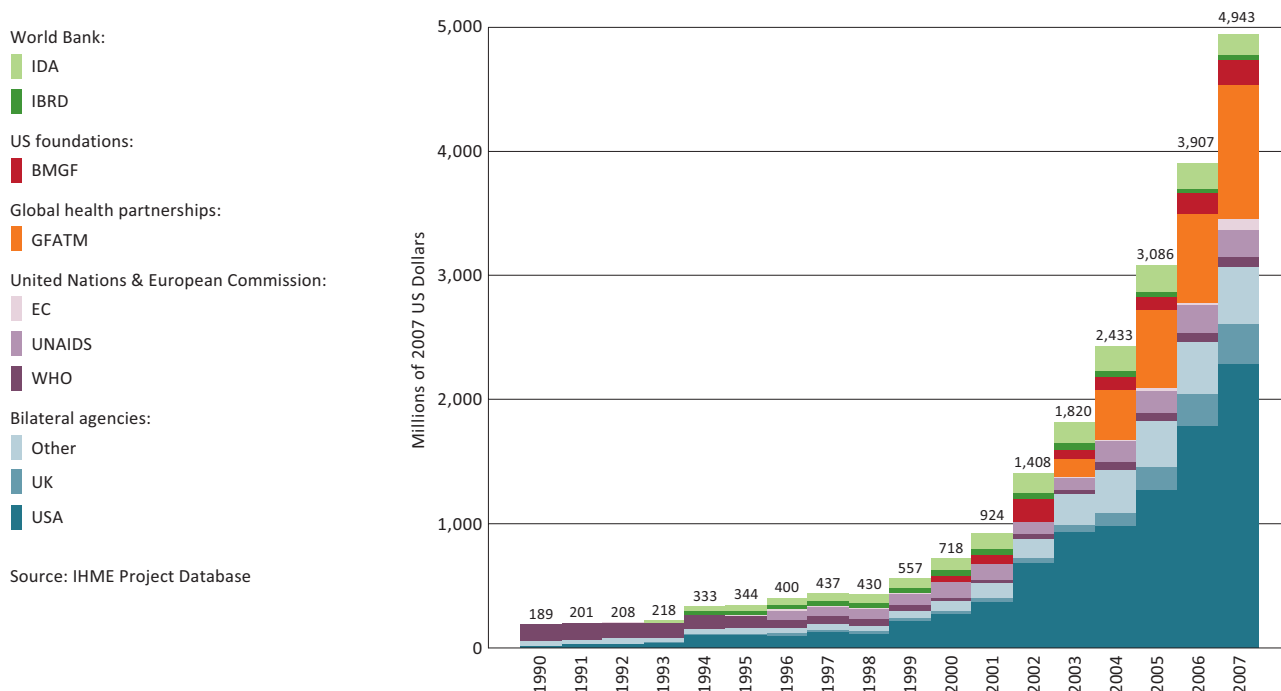


FIGURE 30

Development assistance for tuberculosis

- World Bank:
 - IDA
 - IBRD
- US foundations:
 - BMGF
- Global health partnerships:
 - GFATM
- United Nations & European Commission:
 - EC
 - UNAIDS
 - WHO
- Bilateral agencies:
 - Other
 - UK
 - USA

Source: IHME Project Database

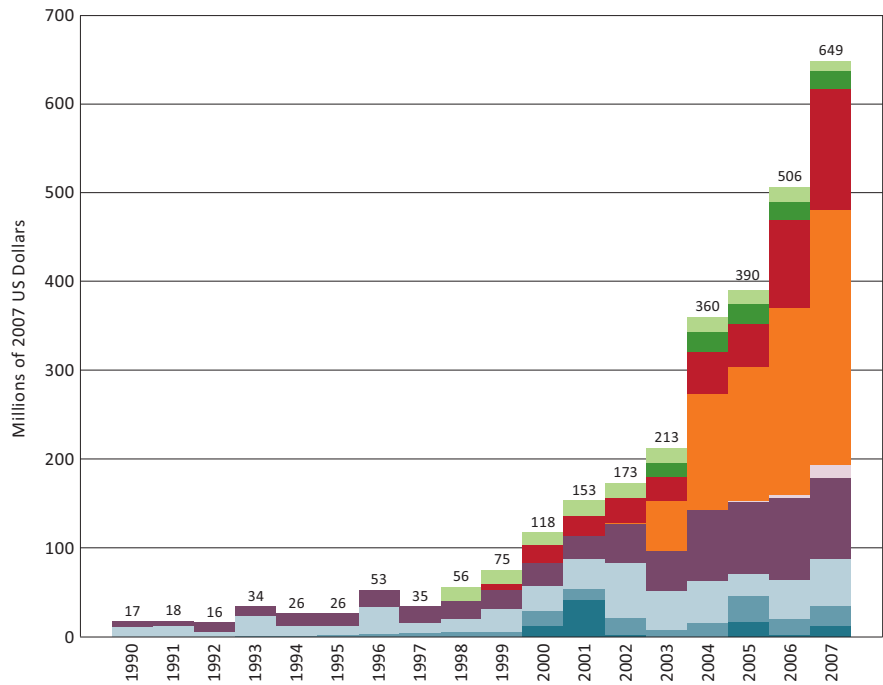
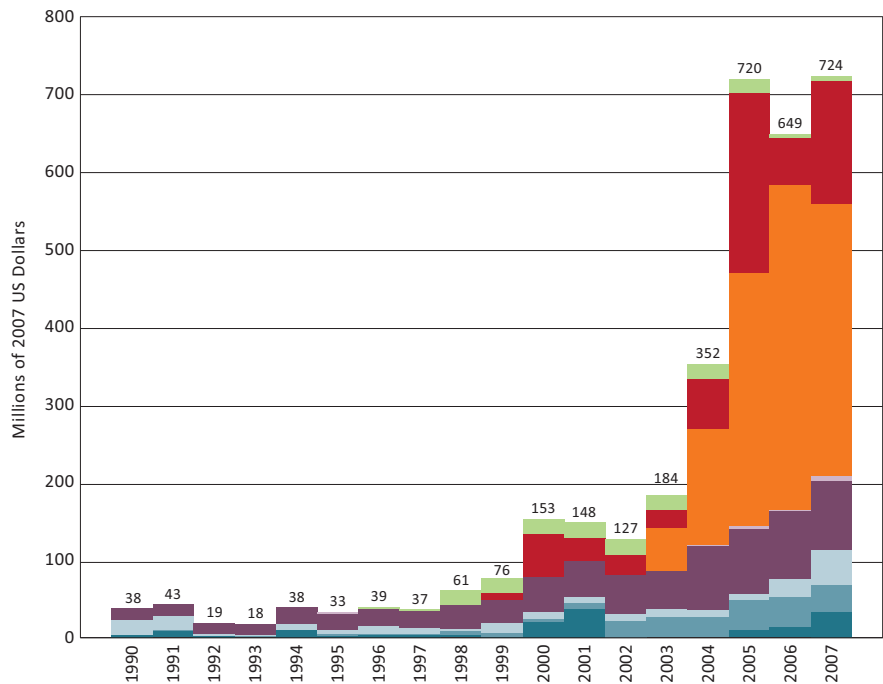


FIGURE 31

Development assistance for malaria

- World Bank:
 - IDA
 - IBRD
- US foundations:
 - BMGF
- Global health partnerships:
 - GFATM
- United Nations & European Commission:
 - EC
 - UNAIDS
 - WHO
- Bilateral agencies:
 - Other
 - UK
 - USA

Source: IHME Project Database



HIV/AIDS funding. The scale-up of US assistance for HIV/AIDS predates the US President's Emergency Plan for AIDS Relief (PEPFAR), which began disbursing funds in 2004. However, PEPFAR has retained that momentum and expanded aid for HIV/AIDS every year since it began granting funds. GFATM disbursements for HIV/AIDS programs, which started in 2003 at \$147.5 million, increased more than sevenfold to \$1.08 billion in 2007.

BMGF's contribution to aid for HIV/AIDS appears small in this graph. This is largely a result of how we count DAH and attribute the dollars to different channels. Specifically, the contribution of each global health actor is shown net of any funds it transferred to other actors tracked in the study. Hence, for BMGF, this graph shows its grants net of any funds it transferred to GFATM and other channels of assistance tracked in this study. BMGF as a source would account for a much larger share of HIV/AIDS dollars than BMGF as a channel.

Development assistance for tuberculosis and malaria, shown in Figures 30 and 31 respectively, is small in

comparison to global health dollars for HIV/AIDS. The primary goal of this research was to quantify the amount of DAH funding, not to determine the reasons for the discrepancies in funding for specific diseases. It is important to note, however, the relative health impact attributable to these three diseases. Disease burden, or the impact of ill health in terms of premature death, is measured here in terms of total disability-adjusted life years (DALYs). This measurement takes into account both years of life lost due to death and years lived with disability.⁵² While current burden estimates show that malaria and tuberculosis account for 4.9% of total burden of disease in low- and middle-income countries, compared to 4.1% for HIV/AIDS, funding for malaria and tuberculosis was only 6.3% of total DAH compared to 22.7% for HIV/AIDS in 2007.⁵³ Annual tuberculosis-related funding grew gradually from \$17 million in 1990 to \$118 million in 2000. Malaria funding increased from \$38 million to \$153 million in that same time span. As with HIV/AIDS, most of the growth has occurred post 2002. Monies for tuberculosis came largely from BMGF grants, GFATM,

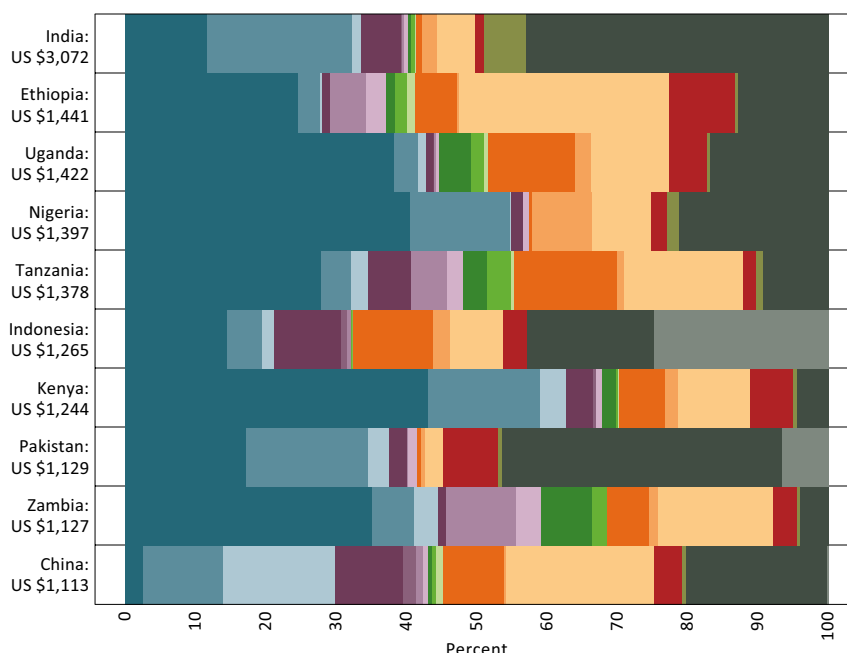
FIGURE 32

Top 10 recipients of development assistance for health from 2002 to 2007, disaggregated by channel of assistance

The amount of DAH received by each country is shown in millions of real 2007 US\$. Only DAH allocable by country is reflected in the figure.



Source: IHME Project Database



and WHO, with the US government playing a minimal role. Despite the US President's Malaria Initiative and the G8's commitments in 2005 to contribute an additional \$1.5 billion per year to malaria, the pattern for malaria, at least through 2007, appeared to be similar. Overall, these results show that while the amount of development assistance flowing for tuberculosis and malaria remained low as of 2007, GFATM and BMGF have emerged as the two biggest channels of assistance for these diseases.

The distribution of health aid across countries

While Figure 9 in Chapter 2 breaks down health assistance flowing to different geographical regions, here we explore the distribution of global health dollars from the recipient country's perspective in greater detail. The volume of aid received by low- and middle-income countries varies considerably, both in the aggregate and in ratio to the country's population. Figures 32 and 33 show the top 10 recipient countries in terms of total global health dollars and per capita global health dollars received between 2002 and 2007.

The first list of top health aid recipients consists of the most populous developing countries (India, China, Indonesia, and Pakistan), African countries that have attracted large amounts of health assistance through PEPFAR and GFATM (Uganda, Ethiopia, Tanzania, Zambia, Kenya), and one that fits both descriptions (Nigeria). The second list of countries receiving the highest amount of health dollars per person is comprised of small island nations (Micronesia, Tonga, Sao Tome and Principe, the Solomon Islands, Samoa, and Cape Verde) and countries with small populations (Zambia, Namibia, Suriname and Guyana).

The two figures also show the channels through which these countries received external aid for health. The World Bank, GFATM, and the US government are the primary channels of health aid in the first list. The composition is more varied in the second list and reflects the continuing strength of ties between donor countries and their ex-colonies and protectorates, as well as modern geo-political and economic considerations. For example, Australia and the Netherlands

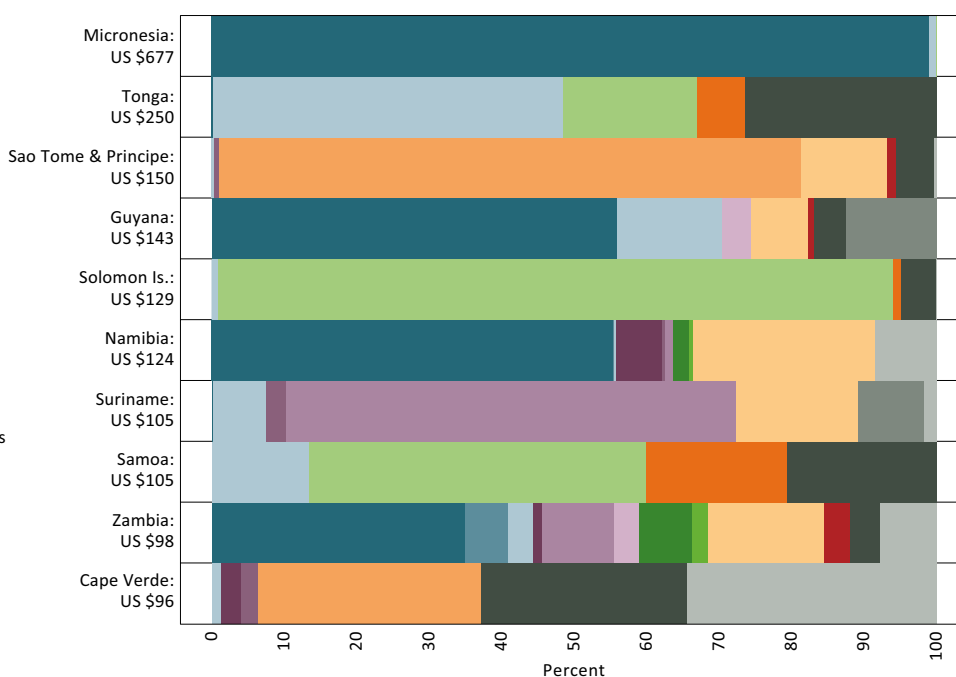
FIGURE 33

Top 10 countries in terms of per capita development assistance for health received from 2002 to 2007, disaggregated by channel of assistance

The amount of DAH received by each country in real 2007 US\$ is shown alongside the name of the country. Only DAH allocable by country is reflected in the figure.



Source: IHME Project Database and UN World Population Database



are the biggest donors of health aid to their erstwhile colonies, the Solomon Islands and Suriname, respectively. Micronesia, which entered a compact of free association with the US in 1986, receives almost all its health aid from the US, and, as a result, ranks higher than all other countries in per capita DAH funding. Japan, Tonga's largest donor, is the primary consumer of Tongan exports.⁵⁴

Notwithstanding historical, economic and political links, it is worth asking if the current distribution of health dollars reflects health needs across countries. To answer this question rigorously, one would have to develop measures of need for external health aid that take into account health outcomes in each country. In addition, one would need to assess the ability of national governments and health systems in those countries to finance and deliver health care from domestic resources, the costs of delivering health care given the geographical and demographic characteristics of the country, and the epidemiological profile of the population, to name just a few factors. While such a detailed analysis is beyond the scope of this paper, we examine the correlation between DAH and the burden of disease as a first approximation.

Figure 34 plots all health aid received by each low- and middle-income country from 2002-2007 against the country's respective disease burden. We make the comparison on a log-log scale because of the large range in amounts of health assistance and DALYs across small to large countries. The correlation coefficient is positive, indicating that countries with higher disease burden receive greater external aid. However, at the same level of burden, there can be vast variation in donor assistance. Consider Turkmenistan and Nicaragua, which received \$10.7 million and \$362.3 million respectively. This constitutes a 33-fold difference, despite the fact that the countries have the same level of burden. At the low end of total burden, a number of small island states such as Micronesia, Tonga, and the Marshall Islands receive very high levels of health aid per DALY. Computation of the correlation coefficient between health assistance and disease burden by year showed that the correlation had risen from 0.6 to 0.8 between 1997 and 2007. The drive to fund HIV/AIDS, tuberculosis, and malaria programs appears to

be channeling global health dollars to areas of higher burden than ever before.

Figure 34 depicts countries color-coded by income level and shows that there is little difference in the pattern for low-, lower middle-, and upper middle-income countries. The positive relationship between disease burden and DAH holds in all three groups. We also calculated the correlation between per capita health aid and per capita GDP; it was near zero until the mid-1990s, but it has decreased steadily from -0.1 in 1999 to -0.3 in 2007. This suggests that poorer countries are receiving increasing amounts of health aid. Figure 35 shows a series of maps of health aid per unit of disease burden both for total health assistance as well as aid for HIV/AIDS, tuberculosis, and malaria. The maps show tremendous variation in health aid per DALY across regions and within regions.

Figure 36 presents another perspective on the same question of how DAH compares with burden of disease. The top 30 recipients of health aid are ordered by rank in the left column, while countries are ranked in decreasing order of burden on the right. Their income group is indicated by the colored dot before the name; red, blue and green corresponds to low-, lower-middle-, and upper-middle-income respectively. India topped both lists. Some high-burden countries like China, Brazil, and Bangladesh had a much higher rank on the burden list than on the health aid list. In other words, they received much less assistance than would be expected purely on account of disease burden. The situation was the reverse in Ethiopia, Uganda, Tanzania, Kenya, and Mozambique, all of which received more funds than would be expected based on their disease burden. All of these five countries received health aid from PEPFAR from 2004 to 2007.

Countries that appeared in one list and not the other are underlined. On the left are countries that are in the top 30 in terms of aid received but are not among the top 30 in terms of disease burden. Zambia, Iraq, Colombia, Ghana, Argentina, Malawi, Rwanda, Cambodia, Zimbabwe, Senegal, Haiti and Peru fall in that category. All of them with the exception of Argentina are either low- or lower-middle-income countries. On the right side are countries that have high burdens

by global standards but are not the top recipients of aid. This describes the situation in Russia, Myanmar, Egypt, Thailand, Iran, Sudan, Turkey, Ukraine, Angola, Niger, Burkina Faso and Mali, all of which, with the exception of Russia and Turkey, are either low- or lower-middle-income countries. Colombia is an important ally of the US in the war against drugs, while the

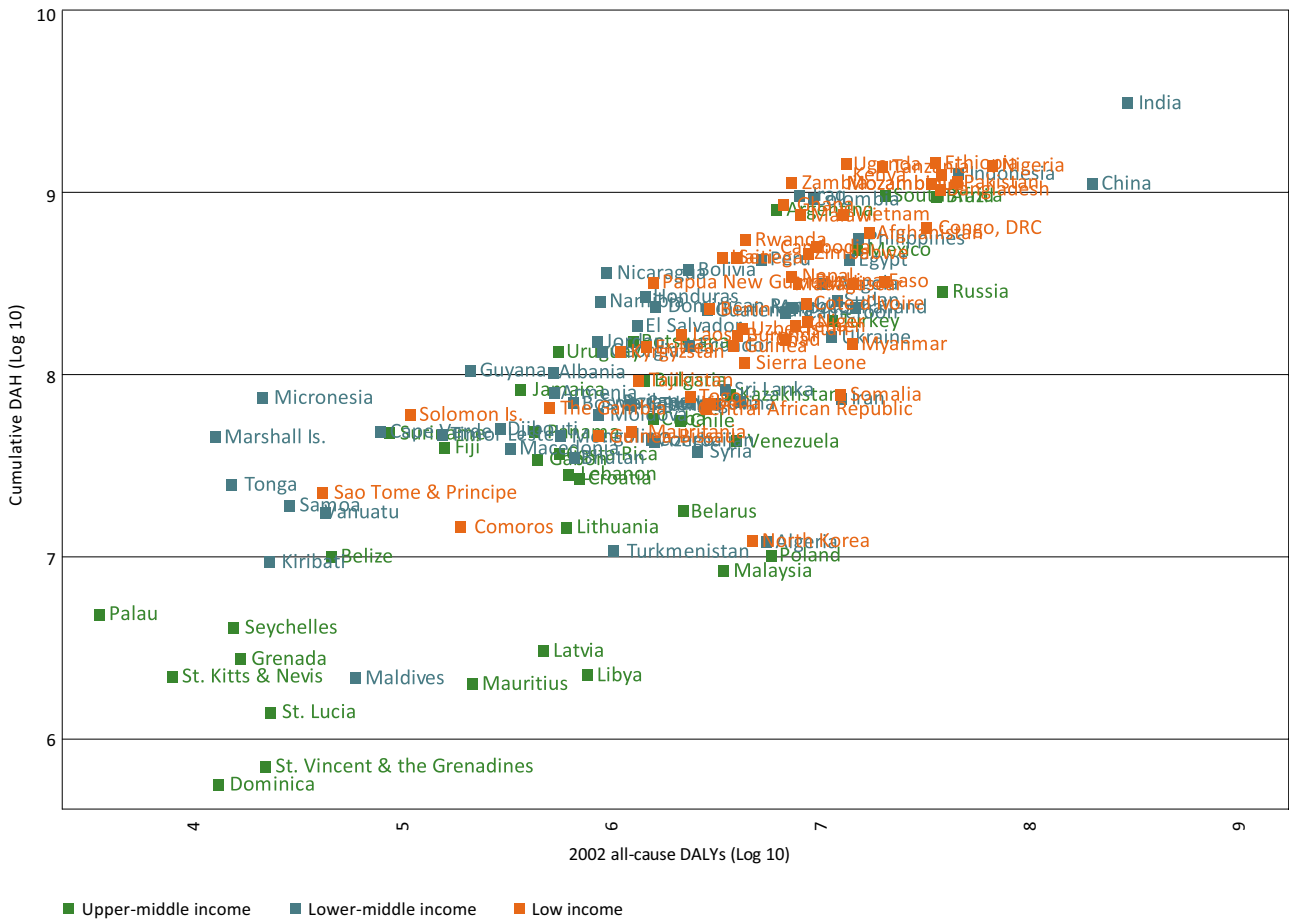
US military's efforts in Iraq may contribute to its high ranking on the DAH list.

In sum, these results indicate that country allocation of DAH appears to be driven by many considerations beyond the burden of disease, including historical, political and economic relationships between certain donors and recipient countries.

FIGURE 34

Development assistance for health from 2002 to 2007 versus all-cause DALYs in 2002

Low-, lower-middle-, and upper-middle-income countries are shown in orange, blue and green respectively. Aid is expressed in real 2007 US\$. All quantities are logged.



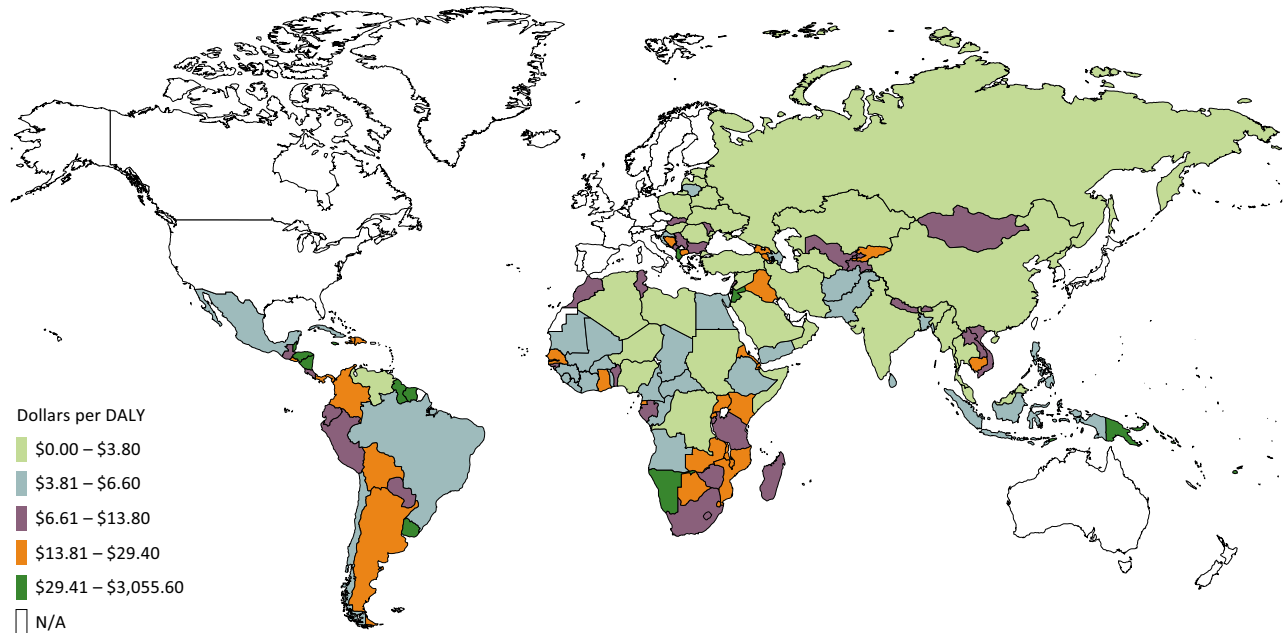
Source: IHME Project Database and WHO Burden of Disease Database

FIGURE 35

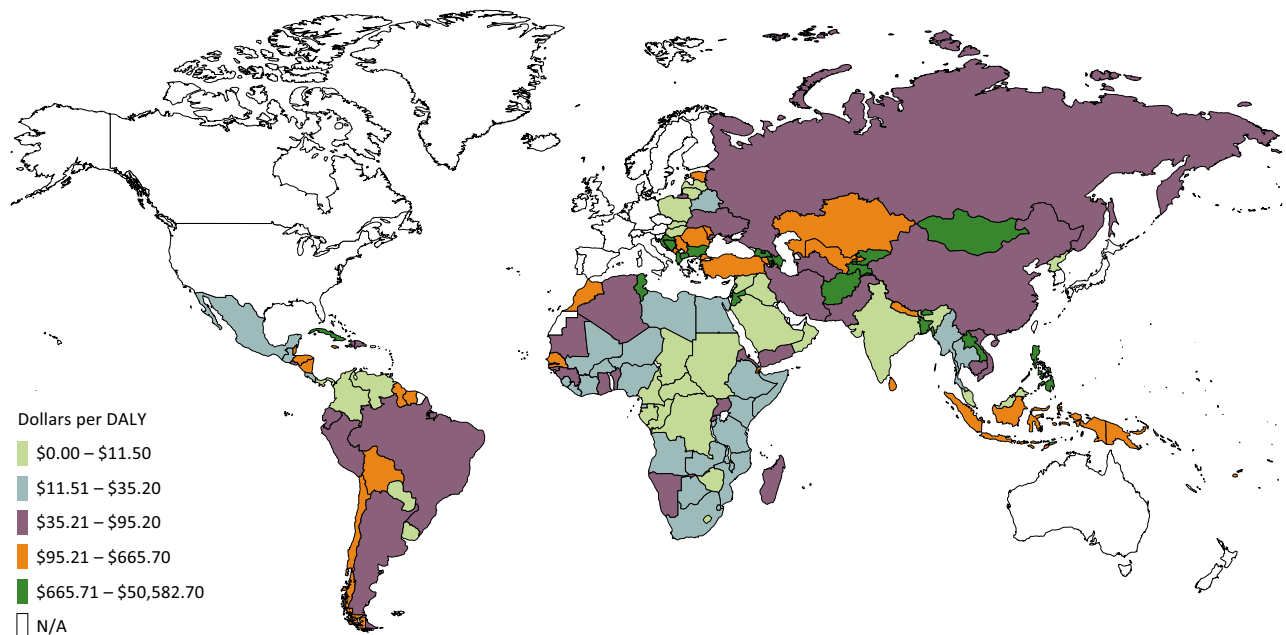
World maps of development assistance for health

(A) DAH from 2002 to 2007 per all-cause DALY (B) development assistance for HIV/AIDS from 2002 to 2007 per HIV/AIDS DALY (C) development assistance for tuberculosis from 2002 to 2007 per tuberculosis DALY, and (D) development assistance for malaria from 2002 to 2007 per malaria DALY. The maps reflect international boundaries in 2006. Since DALY data were only available for 2002, we used this as a proxy for burden in all subsequent years. Countries that received zero DAH over the study period and countries with zero or missing burden data are not shown. DAH received is shown in millions of real 2007 US\$.

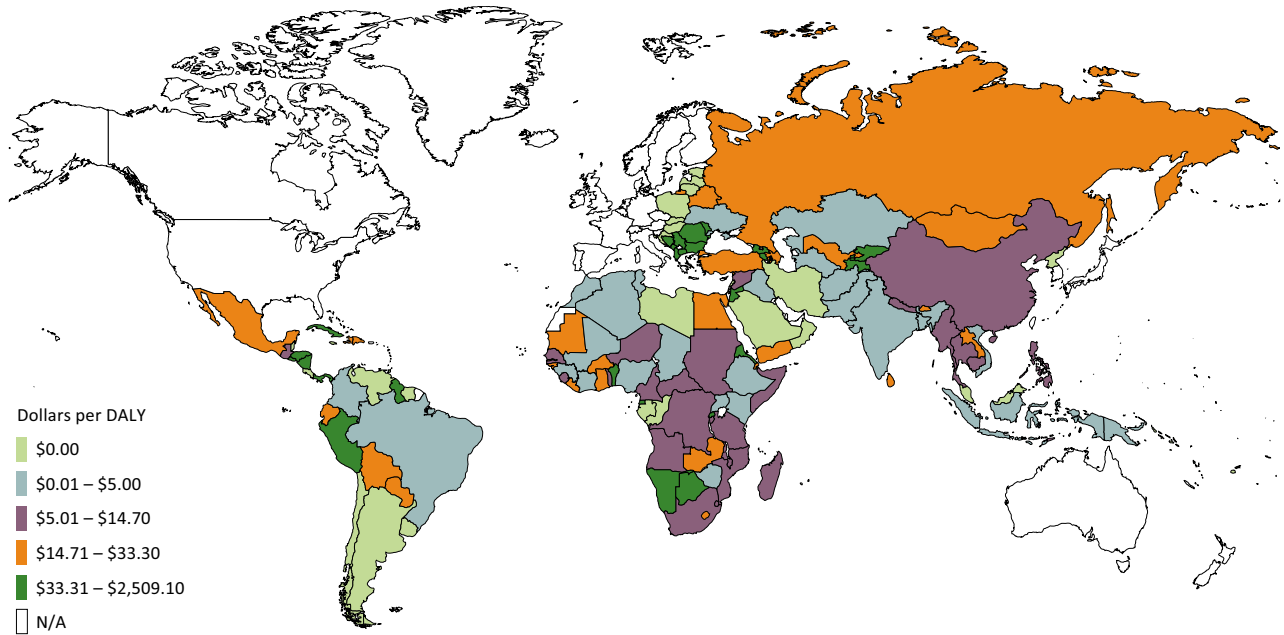
(A) DAH per All-Cause DALY, 2002 - 2007



(B) DAH for HIV/AIDS per HIV/AIDS DALY, 2002 - 2007



(C) DAH for Tuberculosis per Tuberculosis DALY, 2002 - 2007



(D) DAH for Malaria per Malaria DALY, 2002 - 2007

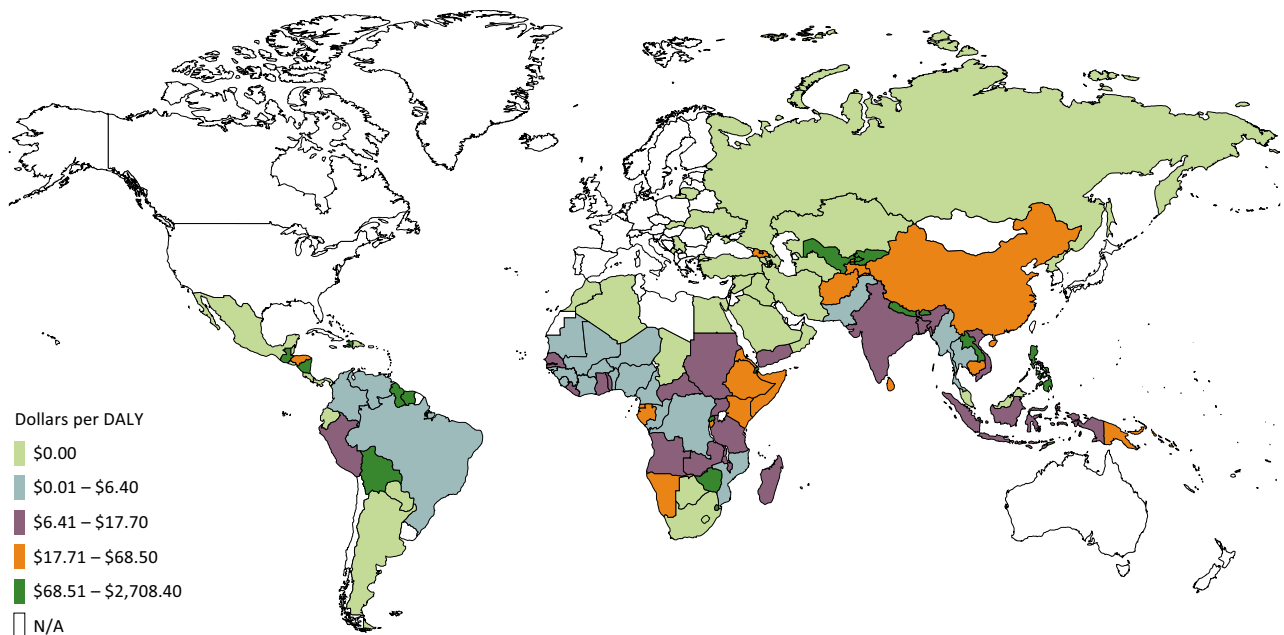


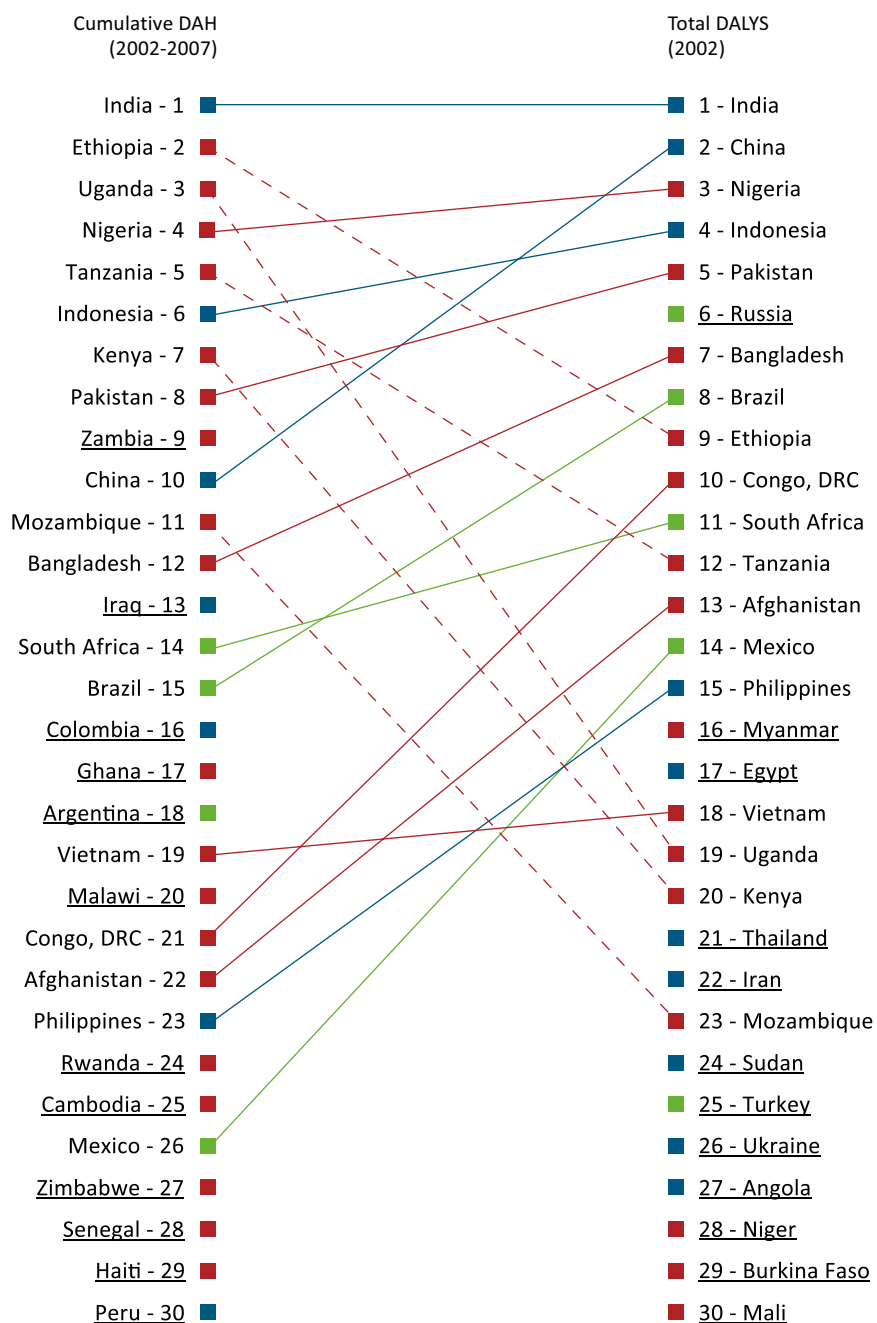
FIGURE 36

Top 30 country recipients of development assistance for health from 2002 to 2007, compared with top 30 countries in terms of all-cause burden of disease in 2002

Low-, lower-middle-, and upper-middle-income countries are shown with red, blue and green markers and arrows, respectively. Countries in either column that received a rank lower than 30 in the other column and are, therefore, unmatched in the figure, are underlined. Only DAH allocable by country is reflected in the figure.

- Low income
- Lower-middle income
- Upper-middle income

Source: IHME Project Database and WHO Burden of Disease Database



CONCLUSION

This study carefully documents a trend that is widely recognized in the field of global health, namely that development assistance for improving health in developing countries has expanded significantly in the last 18 years. The study provides the first systematic and comprehensive estimates of the total envelope of health aid from both public and private sources from 1990 to 2007, as well as an in-depth analysis of the individual contributions of different global health actors and the distribution of health aid across priority diseases and recipient countries.

Global health resources have more than quadrupled from 1990 to 2007, with the rate of growth accelerating beginning in 2002. The increase in aid for health has been fueled by a huge expansion of dollars for HIV/AIDS, but other areas of global health have also grown dramatically. The influx of resources has been not only from public sources but also from private philanthropy. Philanthropic contributions to US non-governmental organizations (NGOs) have been even larger than the dramatic scale-up of the Bill & Melinda Gates Foundation (BMGF). In addition to private contributions to NGOs and foundations, drugs and medical equipment from corporate donors have also expanded substantially.

Donated drugs and medical equipment have been counted as in-kind donations in this study. Other in-kind assistance includes all technical assistance, grant management, and aid coordination provided by global health actors. In-kind transfers accounted for \$8.6 billion out of \$21.8 billion in health assistance, the remainder being financial transfers in the form of grants and loans. The surprisingly large volume of in-kind health aid raises several questions both about how in-kind transfers are valued and what their opportunity costs are. First, the true value of drug donations to recipients in developing countries may be less than the book value that was recorded on US tax returns and is therefore reflected in this analysis. Second, the hiring of international experts from donor countries to administer health programs and provide technical assistance has often been decried as “phantom aid”

by many aid advocacy groups. Whether dollars spent on paying staff at global health institutions constitutes a waste of global health resources or is the necessary cost for generating useful and much-needed knowledge, policy guidance, and training is a research question in its own right about the cost-effectiveness of this mode of development assistance.

The expansion of resources for global health, especially in the last 10 years, has been accompanied by a major change in the institutional landscape. Two new and large channels of resource transfer, the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and the Global Alliance for Vaccines and Immunization (GAVI), constituted 12.5% of flows in 2007. While the UN system’s contribution has increased from \$1.8 billion to \$3.1 billion from 1990 to 2007, as a fraction of the total, it has declined from 32.3% to 14% over the same time period. The role of NGOs in terms of spending public monies and monies raised from the private sector has expanded tremendously, as has direct bilateral assistance to governments in developing countries. The shift is not only towards a smaller relative role for the UN system and the World Bank but also for the changed status of these organizations. Over time, the share of their expenditure from voluntary contributions as opposed to assessed contributions has grown steadily. *De facto*, to sustain their current role, the UN agencies, especially the World Health Organization (WHO) and the United Nations Children’s Fund (UNICEF), must compete with recipient countries, NGOs, and other organizations for available development assistance for health (DAH) funds. This steady shift to a competitive model of funding runs the risk of undermining the critical role of the UN agencies as trusted neutral brokers between the scientific and technical communities on the one hand and developing country governments on the other.

While aid for HIV/AIDS, tuberculosis, and malaria accounts for a significant part of the expansion in resources, there have been large increases in other areas of health as well. The rising tide of interest in global health appears to be having an effect on

funding across the sector. While there is much rhetoric about increasing funds transferred to developing countries through general health sector support, the data suggest that it remains a very small part of health aid, less than 5% in 2007. The disconnect between the rhetoric about the importance of shifting to sector support and the reality, as captured in these results, highlights the importance of data on the actual flows. Such a policy-evidence disconnect is perhaps perpetuated by the complexity and difficulty of tracking resource flows in the first place.

Examining the distribution of health assistance across countries reveals a complex picture. It appears that countries with higher disease burden and poorer countries are on the whole receiving more health assistance than their healthier and wealthier counterparts. However, this relationship is far from being completely predictable. At the same level of disease burden, countries received remarkably different amounts of health aid. Small island nations and target countries for leading global health programs, such as the US President's Emergency Plan for AIDS Relief (PEPFAR) and GFATM received considerably more assistance than their total disease burden would predict. Historical, economic and political factors that are unrelated to health also determine which developing countries donor governments favor. These facts, in and of themselves, do not mean that scarce global health dollars are either being misallocated or used inappropriately. However, they do suggest that the allocation of health dollars across countries is complex and more research is needed to understand the underlying patterns.

Any presentation or analysis of DAH will inevitably lead to debate about the validity of figures for each of the institutions presented here. Even financial officers of the organizations we are tracking may disagree with our exact figures. The differences can, in most cases, be understood in terms of differences in the financial years, cash or accrual accounting methods, techniques used to estimate disbursements from commitments, and our inclusion of administrative and

technical assistance costs in the total disbursements of institutions. The best way forward will be to foster a vigorous open debate about all of our figures so that a broader understanding of the intricacies involved will, we hope, engender better data in the future. For most of the key organizations included in these analyses, we believe that our figures provide an accurate portrayal of the reality of global health resource flows. Nevertheless, there are some key limitations of this study.

A first limitation is that we have not included private resources raised by non-US NGOs and foundations. We obtained data on health expenditure for one to seven years for some of the biggest non-US NGOs in the period 2000 to 2006, but we did not include these figures in our totals as we were missing information on health expenditure for years prior to 2000. A second major limitation is that our tracking efforts do not capture financial flows from developing countries to other developing countries, nor from non-Organisation for Economic Co-operation and Development (OECD) high-income countries to developing countries. The most important case in this category is likely to be China, which is believed to be scaling up international assistance to other low- and middle-income countries.⁵⁵ Third, we had to estimate disbursements from commitments for many donors. The validity of our results thus depends on the mapping of commitment to disbursement by donor. It would clearly be desirable to have donors provide the full sequence of disbursements going back in time to 1990. While some of the quantities are estimated using statistical methods, we are unable to report uncertainty for our estimates at this time. We will work to improve all these areas in future years.

In this study we report on health aid through 2007; due to the lags in data reporting, we were unable to report on global health disbursements or commitments in 2008. The current 14- to 20-month reporting lag in most of the data sources made it extremely difficult to track trends in a timely way. The importance of this has been highlighted by the current financial

crisis. Concerns that development assistance may drop have been widely expressed.¹⁰⁻¹³ At present, we have no real data on what is actually happening. Private giving to NGOs is likely income elastic, although formal analysis of this is not available. The key unknown is whether public monies for global health will grow at a slower rate, stay constant, or contract. A critical early indication of this will be the appropriation discussions for PEPFAR reauthorization. The need for timelier reporting of commitments and disbursements by institutions is only reinforced in this setting of global recession and financial turmoil.

In this report, we have not examined what happens when resources are received by an implementing government or NGO or what fraction of these resources is spent at different points in the system. Answering these questions is essential for advancing our understanding of the actual flow of resources within recipient countries. We believe that this requires a case-study approach. Following a random sample of projects in selected countries to understand where and when the resources are expended would be an important adjunct to this global analysis. A related issue is what developing country governments do with their own resources when they receive increased health aid. In related work, some of the authors of this report are using the country disbursement database and government expenditure data to investigate this critical question.

Our analysis of DAH provides one perspective on the global health landscape. However, there are important global public goods for the advancement of global health that are not included here.⁵⁶ Funding by major research councils and the pharmaceutical industry of products for diseases that predominantly impact low- and middle-income countries is an important example. In future work, we believe that it will be important to expand the types of analyses of global resource flows in support of global health to carefully quantify the funding of global public goods.

Timely and reliable information on global health resource flows is an essential ingredient for policy-making and planning at the national level. It is also needed for monitoring whether donors are honoring their commitments, for fostering greater transparency in aid reporting, and for accurately evaluating the impact of global health interventions. As the debate on aid effectiveness intensifies, careful documentation of the magnitude of global health resources can serve as a key building block for an evidence-based debate. The Institute for Health Metrics and Evaluation is committed to providing an annual assessment of DAH as a resource for an enhanced debate on the role of development aid in improving global health.

REFERENCES

- 1 Organisation for Economic Co-operation and Development. A system of health accounts. Paris: OECD, 2000. http://www.oecd.org/document/8/0,3343,en_2649_33929_2742536_1_1_1_37407,00.html#joint_oecd (accessed May 20, 2009).
- 2 World Health Organization. National health accounts (NHA). Geneva: WHO, 2009. <http://www.who.int/nha/en/> (accessed May 20, 2009).
- 3 Farmer P, Garrett L. From “marvelous momentum” to health care for all: success is possible with the right programs. *Foreign Affairs* 2007; 86: 155-61. <http://www.foreignaffairs.org/20070301faresponse86213/paul-farmer-laurie-garrett/from-marvelous-momentum-to-health-care-for-all-success-is-possible-with-the-right-programs.html>.
- 4 Farrar J. Global health science: a threat and an opportunity for collaborative clinical science. *Nat Immunol* 2007; 8(12): 1277-9.
- 5 Garrett L. The challenge of global health. *Foreign Affairs* 2007; 86: 14. <http://www.foreignaffairs.org/20070101faessay86103/laurie-garrett/the-challenge-of-global-health.html> (accessed March 11, 2009).
- 6 Moyo D. Dead aid: why aid is not working and how there is a better way for Africa. New York: Farrar, Straus and Giroux, 2009.
- 7 Schieber GJ, Gottret P, Fleisher LK, Leive AA. Financing global health: mission unaccomplished. *Health Aff (Millwood)* 2007; 26(4): 921-34.
- 8 Brugha R, Starling M, Walt G. GAVI, the first steps: lessons for the Global Fund. *Lancet* 2002; 359(9304): 435-8.
- 9 Lim SS, Stein DB, Charrow A, Murray CJ. Tracking progress towards universal childhood immunisation and the impact of global initiatives: a systematic analysis of three-dose diphtheria, tetanus, and pertussis immunisation coverage. *Lancet* 2008; 372(9655): 2031-46.
- 10 Kaiser Daily HIV/AIDS Report. Global financial crisis could harm HIV/AIDS funding, Piot says. October 29, 2008. http://www.globalhealthreporting.org/article.asp?DR_ID=55258.
- 11 Marmot MG, Bell R. How will the financial crisis affect health? *BMJ* 2009; 338: b1314.
- 12 McNeil DG Jr. Global Fund is billions short. *The New York Times*. February 2, 2009; D6. http://www.nytimes.com/2009/02/03/health/research/03glob.html?_r=2.
- 13 UN News Centre. Financial crisis threatens push to boost global health, says top UN official. November 12, 2008. <http://www.un.org/apps/news/story.asp?NewsID=28911&Cr=financial&Cr1=crisis>.
- 14 Eiseman E, Fossum D. The challenges of creating a global health resource tracking system. Santa Monica: Rand Corporation, 2005.
- 15 Global Health Resource Tracking Working Group. Following the money in global health. Washington DC: Center for Global Development, 2005. http://www.cgdev.org/doc/ghprn/FollowingMoney_GlobalHealth.pdf (accessed March 11, 2009).
- 16 Levine R, Blumer K. Gaps and missing links: what do we know about resources in global health? Paper presented at Forum 8, Mexico City, November 2004. Washington DC: Center for Global Development, 2004.
- 17 Powell-Jackson T, Mills A. A review of health resource tracking in developing countries. *Health Policy Plan* 2007; 22(6): 353-62.

- 18 Sridhar D, Batniji R. Misfinancing global health: a case for transparency in disbursements and decision making. *Lancet* 2008; 372(9644): 1185-91.
- 19 Ethelston S, Bechtel A, Chaya N, Kantner A, Vogel CG. Progress and promises: trends in international assistance for reproductive health and population, 2004. Washington, DC: Population Action International, 2004.
- 20 Narasimhan V, Attaran A. Roll back malaria? The scarcity of international aid for malaria control. *Malar J* 2003; 2: 8.
- 21 Organisation for Economic Co-operation and Development. Focus on aid to health. Paris: OECD. http://www.oecd.org/document/44/0,3343,en_2649_34469_24670956_1_1_1_1,00.html (accessed March 11, 2009).
- 22 Organisation for Economic Co-operation and Development. International development statistics (IDS): online databases on aid and other resource flows. Paris: OECD. www.oecd.org/dac/stats/idsonline (accessed December 2, 2008).
- 23 Powell-Jackson T, Borghi J, Mueller DH, Patouillard E, Mills A. Countdown to 2015: tracking donor assistance to maternal, newborn, and child health. *Lancet* 2006; 368(9541): 1077-87.
- 24 Waddington C, Martin J, Walford V. Trends in international funding for malaria control. Prepared for the Roll Back Malaria Partnership. London: HLSP Institute, August 2005.
- 25 Organisation for Economic Co-operation and Development. Measuring aid to health. Paris: OECD-DAC, October 2008. <http://www.oecd.org/dataoecd/20/46/41453717.pdf> (accessed March 11, 2009).
- 26 Hudson Institute. The index of global philanthropy 2008. Washington, DC: Hudson Institute Center for Global Prosperity, 2008. <http://www.global-prosperity.org> (accessed May 12, 2009).
- 27 Kates J, Morrison JS, Lief E. Global health funding: a glass half full? *Lancet* 2006; 368(9531): 187-8.
- 28 Michaud C. Development assistance for health: recent trends and resource allocation. Boston: Harvard Center for Population Development, 2003.
- 29 Michaud C, Murray CJ. External assistance to the health sector in developing countries: a detailed analysis, 1972-90. *Bull World Health Organ* 1994; 72(4): 639-51.
- 30 Ravishankar N, Gubbins P, Cooley RJ, Leach-Kemon K, Michaud CM, Jamison DT et al. Financing global health: tracking development assistance for health from 1990 to 2007. *Lancet* 2009; 373: 2113-24.
- 31 ActionAid International. Real aid: an agenda for making aid work. Johannesburg: ActionAid International, June 2005. http://www.actionaid.org.uk/_content/documents/real_aid.pdf (accessed May 20, 2009).
- 32 Scott S. Philanthropic foundations and development co-operation. Off-print of the DAC Journal 2003; 4(3). Paris: Organisation for Economic Co-operation and Development, Development Assistance Committee, 2003. <http://www.oecd.org/dataoecd/23/4/22272860.pdf> (accessed May 20, 2009).
- 33 Davies TR. The rise and fall of transnational civil society: the evolution of international non-governmental organizations since 1839. Working Papers on Transnational Politics, Working Paper CUTP/003. London: City University London, Centre for International Politics, April 2008. <http://www.city.ac.uk/intpol/dps/WorkingPapers/> (accessed May 20, 2009).

- 34 Teegan H, Doh J, Vachani S. The importance of nongovernmental organizations (NGOs) in global governance and value creation: an international business research agenda. *Journal of International Business Studies* 2004; 35(6): 463-83.
- 35 Brinkerhoff DW, Brinkerhoff JM. Government-non-profit relations in comparative perspective: evolution, themes, and new directions. *Public Administration and Development* 2002; 22(1): 3-18.
- 36 Edwards M, Hulme D. Too close for comfort? The impact of official aid on nongovernmental organizations. *World Development* 1996; 24(6): 961-73.
- 37 United States Agency for International Development. USAID VolAg report of voluntary agencies. Washington, DC: USAID. <http://dec.usaid.gov/index.cfm> (accessed February 1, 2009).
- 38 Center for Global Development. Newly available PEPFAR data. Washington DC: Center for Global Development, 2009. http://cgdstage.forumone.com/section/initiatives/_active/hivmonitor/pepfar_data (accessed May 19, 2009).
- 39 GlaxoSmithKline plc. Community investment. Brentford, United Kingdom: GlaxoSmithKline plc., March 24, 2009. <http://www.gsk.com/responsibility/community-investment.htm> (accessed April 10, 2009).
- 40 Reich MR, Wagner AK, McLaughlin TJ, Dumbaugh KA, Derai-Cochin M. Pharmaceutical donations by the USA: an assessment of relevance and time-to-expiry. *Bull World Health Organ* 1999; 77(8): 675-80.
- 41 Autier P, Gray R, Hogerzeil H, Schmets G, Russo J, Kerstiens B et al. Drug donations in post-emergency situations. AEDES, PQMD, WHO, World Bank, 2002. http://www.pqmd.org/cms/fileshare/files/68/Disaster/Drug_Donations_in_Post-Emergency_Situations.pdf (accessed May 20, 2009).
- 42 Berckmans P, Dawans V, Schmets G, Vandenberghe D, Autier P. Inappropriate drug-donation practices in Bosnia and Herzegovina, 1992 to 1996. *N Engl J Med* 1997; 337(25): 1842-5.
- 43 Merck & Co. I. Merck medical outreach program. Whitehouse Station, NJ: Merck & Co., Inc., October 4, 2008. http://www.merck.com/corporate-responsibility/access/access-developing-emerging/medicine-vaccine-donations/performance_print.html (accessed April 10, 2009).
- 44 World Health Organization. Leading infectious killers. Geneva: World Health Organization, 1999. <http://www.who.int/infectious-disease-report/pages/graph5.html> (accessed June 3, 2009).
- 45 Ministry of Foreign Affairs of Japan. Okinawa international conference on infectious diseases. Tokyo: Ministry of Foreign Affairs of Japan, December 2000. <http://www.mofa.go.jp/policy/economy/summit/2000/infection.html> (accessed June 3, 2009).
- 46 Organisation of African Unity. African summit on HIV/AIDS, tuberculosis and other related infectious diseases. Abuja: Organisation of African Unity, 24-27 April 2001. http://www.un.org/ga/aids/pdf/abuja_declaration.pdf (accessed June 3, 2009).
- 47 G8 Leaders. Africa: An historic opportunity. London: Prime Minister's Office, July 8, 2005. <http://www.number10.gov.uk/Page7880> (accessed June 3, 2009).
- 48 The Global Fund to Fight AIDS, Tuberculosis, and Malaria. History of the Global Fund. Geneva: The Global Fund to Fight AIDS, Tuberculosis, and Malaria, 2009. <http://www.theglobalfund.org/en/history/?lang=en> (accessed June 3, 2009).
- 49 Bush's State of the Union speech. CNN.com, January 29, 2003. <http://www.cnn.com/2003/ALLPOLITICS/01/28/sotu.transcript/> (accessed June 3, 2009).

- 50 Ministry of Foreign Affairs of Japan. The Okinawa International Conference on Infectious Diseases Chair's Summary. Tokyo: Ministry of Foreign Affairs of Japan, December 2000. <http://www.mofa.go.jp/policy/economy/summit/2000/genoa/infection1.html> (accessed June 3, 2009).
- 51 Secretary general proposes global fund for fight against HIV/AIDS and other infectious diseases at African leaders summit. New York: United Nations, April 26, 2001. <http://www.un.org/News/Press/docs/2001/SGSM7779R1.doc.htm> (accessed June 3, 2009).
- 52 Murray CJL, Lopez AD, eds. The global burden of disease: a comprehensive assessment of mortality and disability from diseases, injuries, and risk factors in 1990 and projected to 2020. Cambridge: Harvard University Press on behalf of the World Health Organization and the World Bank, 1996.
- 53 World Health Organization. GBD 2004 summary tables. Geneva: World Health Organization, October 2008. http://www.who.int/entity/healthinfo/global_burden_disease/DALY7%202004.xls (accessed June 3, 2009).
- 54 Ministry of Foreign Affairs of Japan. Japan-Tonga relations. Tokyo: Ministry of Foreign Affairs of Japan, March 2008. <http://www.mofa.go.jp/region/asia-paci/tonga/> (accessed June 3, 2009).
- 55 Woods, N. Whose aid? Whose influence? China, emerging donors and the silent revolution in development assistance. *International Affairs* 2008; 84: 1205-1221.
- 56 Jamison DT, Frenk J, Knaul F. International collective action in health: objectives, functions, and rationale. *Lancet* 1998; 351(9101): 514-7.



METHODS ANNEX

PAGE FIGURES

69	1.1	Commitments and disbursements by bilateral agencies
70	1.2	Disbursement schedules for the 22 DAC member countries
71	1.3	Commitments and estimated disbursements by bilateral agencies
72	1.4	EC's commitments
72	1.5	Estimated disbursements by the EC
75	2.1	World Bank's annual commitments
75	2.2	World Bank's estimated disbursements
77	2.3	IDA's estimated disbursements
77	2.4	IBRD's estimated disbursements
78	2.5	Commitments and disbursements by AfDB
78	2.6	Commitments and disbursements by ADB
79	2.7	Commitments and disbursements by IDB
80	3.1	Contributions received by GFATM
80	3.2	GFATM's commitments, disbursements, and grant expenses
81	3.3	GAVI's income and disbursements
86	6.1	Total revenue received by US NGOs
86	6.2	Expenditure by US NGOs
88	7.1	In-kind contributions by loan- and grant-making DAH channels of assistance

PAGE TABLES

67	1.1	Summary of data sources
74	2.1	Summary of data sources for the World Bank
76	2.2	World Bank's health sector and theme codes
76	2.3	Summary of data sources for the regional development banks
81	3.1	Summary of data sources for GAVI
83	4.1	Health expenditure by UNICEF
85	6.1	Summary of US NGOs in the study
88	7.1	Summary of data sources for calculating in-kind contributions
89	8.1	Terms for keyword searches

OVERVIEW OF DATA COLLECTION AND RESEARCH METHODS

We extracted all available data on health-related disbursements and expenditures, and income from existing project databases, annual reports, and audited financial statements. The channels included in the study and the corresponding data sources are summarized in Table 1.1 We constructed two integrated databases from the data: one reflecting aggregate flows and a second project-level database for channels that provided project-level information, namely the bilateral agencies, EC, GFATM, GAVI, the World Bank, ADB, IDB, and BMGF.

We counted as development assistance all health-related disbursements from bilateral donor agencies, excluding funds that they transferred to any of the other channels tracked to avoid double-counting. We extracted this information from the OECD-DAC Creditor Reporting System (CRS) database. Most donor agencies did not report disbursement data to the CRS prior to 2002. Consequently, we developed a method for predicting disbursements from observed data (see Part 1).

For other grant- and loan-making institutions, we similarly included their annual disbursements on health grants and loans, excluding transfers to any other channels and ignoring any repayments on outstanding debts (see Part 2 for development banks, Part 3 for global health initiatives, and Part 5 for foundations). The annual disbursements for grant- and loan-making institutions only reflect the financial transfers made by these agencies. Therefore, we estimated separately in-kind transfers from these institutions in the form of staff-time for providing technical assistance and the costs of managing programs (see Part 7).

For the UN agencies, we included their annual expenditure on health both from their core budgets and

from voluntary contributions. For UNICEF, we also estimated the fraction of its total expenditure that was spent on health (see Part 4).

For NGOs, we used data from US government sources and a survey of health expenditure for a sample of NGOs to estimate development assistance for health from NGOs registered in the US. The amount for 2007, which has not been released yet, was estimated based on data from previous years (see Part 6). We were unable to include NGOs and foundations registered in other donor countries due to data limitations.

We used the project-level database to analyze the composition of health aid by recipient country. Next, we assessed development assistance for HIV/AIDS, tuberculosis, malaria, and health sector budget support using keyword searches within the descriptive fields (see Part 8). We chose to focus on these areas given their relevance to current policy debates about global health finances. We plan to analyze more diseases and interventions in the future. We extracted separately from the CRS data on GBS and debt relief and estimated total disbursements for both (see Part 1).

Lastly, we explored the relationship between health assistance and the burden of disease measured in DALYs,¹ as well as between per capita health assistance² and income measured by the gross domestic product of recipient countries.³⁻⁵

We present all results in real 2007 US dollars by first converting figures from local currencies into nominal US dollars using OECD's exchange rates and then adjusting these nominal dollar sequences into real 2007 US dollars.³

All analyses were conducted in Stata 10.0 and R 2.7.1.

TABLE 1.1**Summary of data sources**

Bilateral agencies in OECD-DAC member countries	OECD-DAC Aggregates database & the Creditor Reporting System (CRS) ⁶
EC	OECD-DAC and CRS ⁶ databases and annual reports ⁷
UNAIDS	Financial reports and audited financial statements ⁸
UNICEF	Financial reports and audited financial statements ⁹
UNFPA	Financial reports and audited financial statements ¹⁰
WHO	Financial reports and audited financial statements ¹¹
World Bank	Online project database ¹²
ADB	Online project database ¹³
AfDB	Compendium of statistics and correspondence ¹⁴
IDB	Online project database ¹⁵
GAVI	GAVI annual reports, country fact sheets, and correspondences ¹⁶⁻¹⁸
GFATM	Online grant database ^{19,20}
NGOs registered in the US*	USAID Volunteer Agency reports, tax filings, annual reports, financial statements, and correspondences ^{21,22}
BMGF	Online grant database and IRS 990 tax forms ^{23,24}
Other private US foundations*	Foundation Center's grants database ²⁵

*Non-US private foundations and NGOs were not included because of data unavailability.

PART 1:

TRACKING DEVELOPMENT ASSISTANCE FOR HEALTH FROM BILATERAL AID AGENCIES AND THE EC USING DATA FROM THE OECD-DAC

OECD-DAC maintains two databases on aid flows: 1) the DAC annual aggregates database, which provides summaries of the total volume of flows from different donor countries and institutions and 2) the Creditor Reporting System (CRS), which contains project- or activity-level data.⁶

These two DAC databases track the following types of resource flows:²⁶

a. Official development assistance (ODA), defined as “flows of official financing administered with the promotion of the economic development and welfare of developing countries as the main objective”²⁷ from its 23 members (Belgium, Canada, Japan, the Netherlands, Portugal, France, the UK, Germany, the US, Italy, Australia, Luxembourg, Austria, New Zealand, Denmark, Norway, Finland, Spain, Greece, Sweden, Ireland, Switzerland, and the EC). ODA includes:

- Bilateral ODA, which is given directly by DAC members as aid to recipient governments, core contributions to NGOs and public-private partnerships, and earmarked funding to international organizations.
- Multilateral ODA, which includes core contributions to multilateral agencies like WHO, UNFPA, GFATM, GAVI, UNAIDS, UNICEF, the World Bank, and other regional development banks. Only regular budgetary contributions to these institutions can be reported to the OECD-DAC; hence, extra-budgetary funds, including earmarked contributions that donors can report as bilateral ODA, are not included as multilateral ODA. Only 70% of core contributions to WHO can be counted as multilateral ODA.

b. Official development finance (ODF), which includes grants and loans made by multilateral agencies. The DAC aggregate tables include all multilateral development banks, GFATM, operational activities of UN agencies and funds, and a few other multilateral agencies. The project-level data in the CRS cover a smaller subset of multilateral institutions including UNAIDS, UNFPA, GFATM, UNICEF, and

some development banks, but do not reflect the core-funded operational activities of WHO, disbursements by GAVI, or loans from the World Bank.

For the purposes of tracking bilateral development assistance for health (DAH), we relied principally on the CRS. This is both because the DAC aggregate tables report only commitments and not disbursements, and because they do not contain detailed project-level information about the recipient country and disease focus of the flows. We identified all health flows in the CRS using the OECD sector codes for general health (121), basic health (122), and population programs (130).

To avoid double-counting, we subtracted from bilateral official development assistance (ODA) all identifiable earmarked commitments and disbursements made by DAC members via GAVI, International Finance Facility for Immunisation (IFFIm), GFATM, WHO, UNICEF, UNAIDS, and UNFPA using the channel of delivery fields as well as keyword searches in the descriptive project fields (project title, short description, and long description). Research funds for HIV/AIDS channeled by the US government through the National Institutes for Health (NIH) were also removed from the total since they do not meet our definition of DAH as contributions from institutions whose primary purpose is development assistance. We did not count ODF from the CRS due to the fact that we collected data on multilateral institutions relevant to our study directly from their annual reports, audited financial statements, and project databases. We also disregarded multilateral ODA. To avoid double-counting, we only counted as health assistance flows *from* multilateral institutions to low- and middle-income countries and not transfers *to* multilateral institutions.

Both the DAC tables and the CRS rely on information reported by DAC members and other institutions to the OECD-DAC. Hence, the quality of the data varies considerably over time and across donors. There were two main challenges in using the data from the CRS for this research. The first had to do with the under-reporting of aid activity by DAC members to the CRS. Prior to 1996, the sum of the project-wise flows

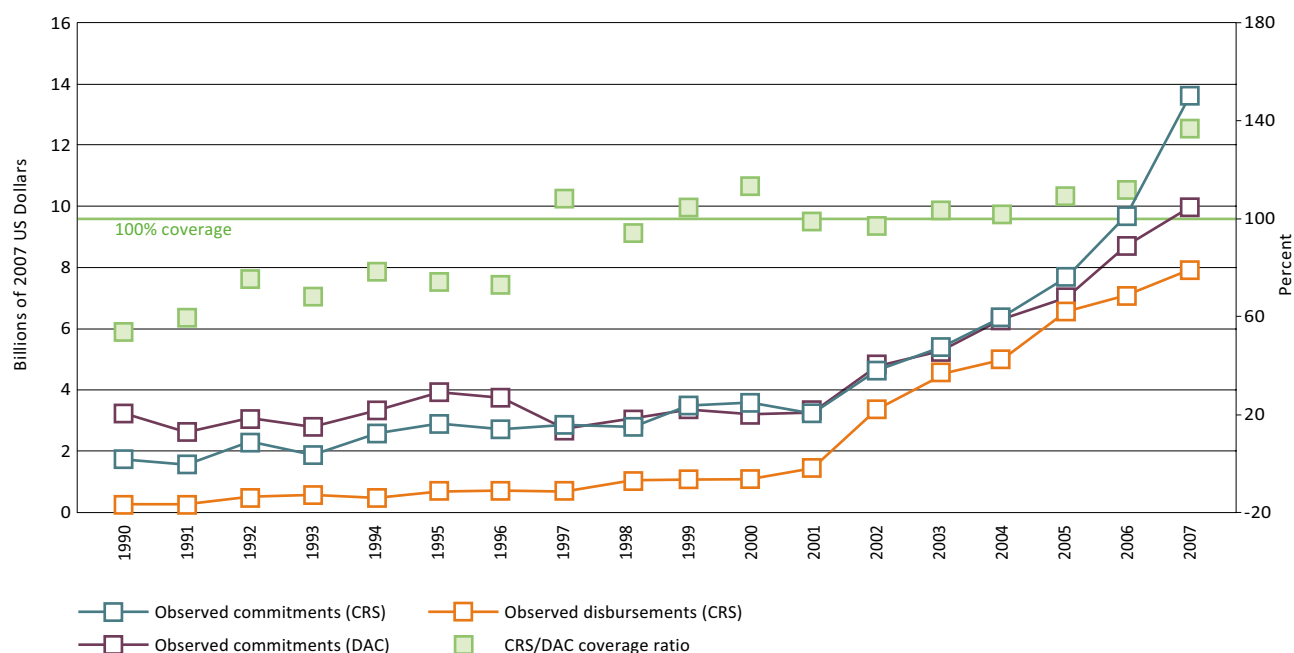
reported to the CRS by donors was less than the total aggregate flows they reported to the DAC aggregate tables. OECD uses total CRS commitments as a fraction of DAC aggregate commitments to construct a coverage ratio for the CRS database.²⁸ Figure 1.1 displays total health commitments from the DAC and the CRS, disbursements from the CRS (the DAC does not report disbursements), and the aggregate coverage ratio of health commitments in the CRS to health commitments in the DAC from 1990 to 2007. The coverage in the CRS was well below 100% prior to 1996, but it has improved considerably since then. In some years, notably 2007, members appear to be reporting more commitments to the CRS than the DAC. The second problem relates to the under-reporting of disbursement data to the CRS. Several donor countries did not report their annual disbursements and only reported project-wise commitments to the CRS prior to 2002. The orange line for observed disbursements in Figure 1.1 shows that the variable is more complete in recent years, but it drops well below commitments in years prior to 2002.

We developed methods for accounting for both these sources of discrepancy and arrived at consistent estimates of disbursements. Since the method followed for the EC differed from that followed for the 22 member countries of the DAC, they are described in different sections below. The final section describes how we estimated disbursements for GBS and debt relief. Refer to Part 7 for details on how we estimated the cost of providing technical assistance and program support for these institutions.

We converted all disbursement sequences into real 2007 US dollars by converting disbursements in other currencies into nominal US dollars in the year of disbursement using OECD's exchange rates, and then adjusted these nominal dollar sequences into real 2007 US dollars. We also explored converting disbursements from current to constant local currency units using local currency deflator sequences, and then to US dollars using exchange rates in a single year. The alternative methods led to significant differences in the case of some currencies. We picked the first method to make

FIGURE 1.1
Commitments and disbursements by bilateral agencies

The graph compares estimates from the CRS and DAC tables from 1990 to 2007. "Observed" refers to the fact that these quantities are taken as reported by donors to the OECD, without any corrections for missing data or discrepancies between the CRS and the DAC.



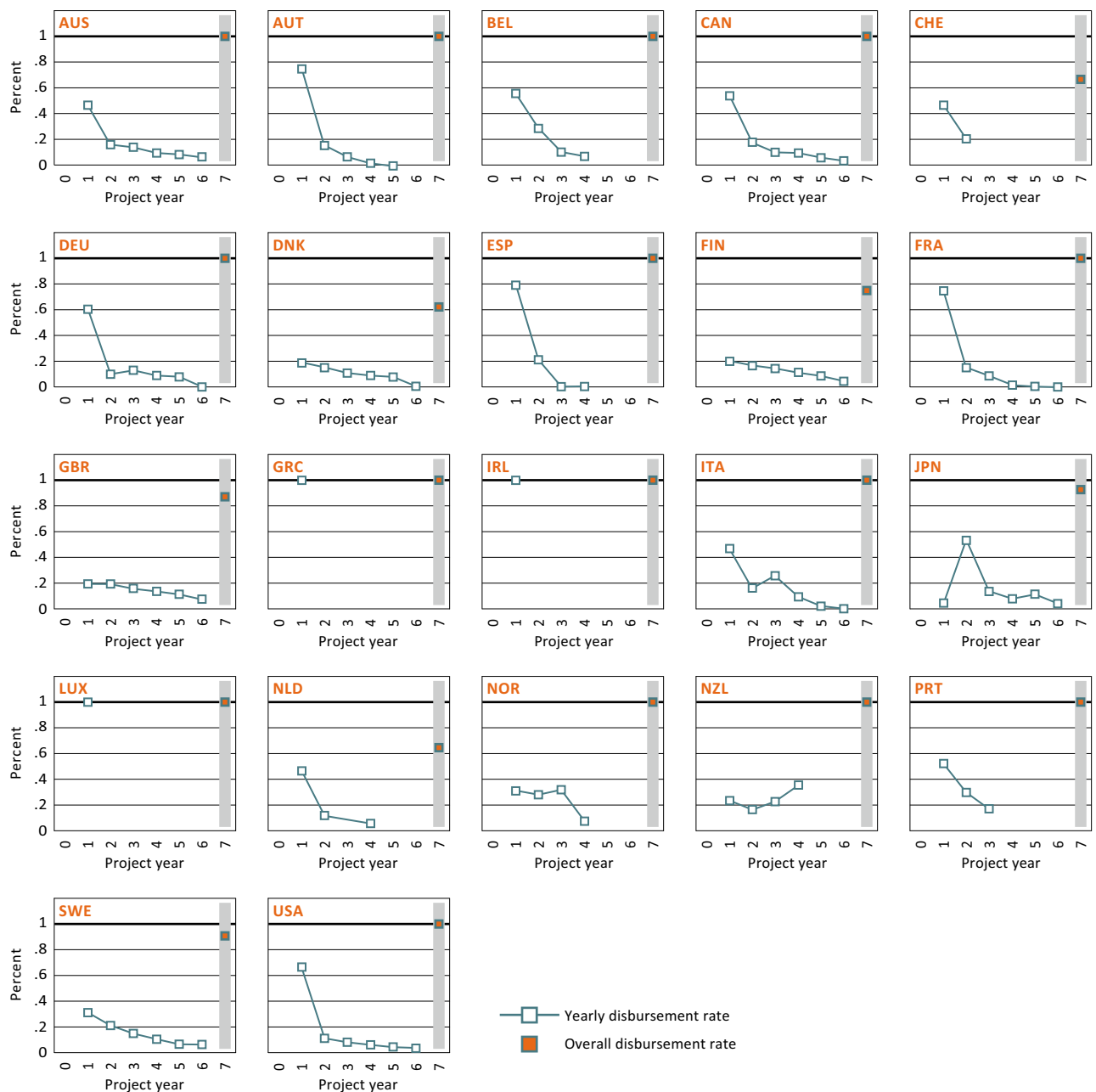
bilateral flows comparable with other flows in the study that are all denominated in dollars.

Estimating disbursements for 22 DAC member countries

Given the low coverage of commitments in the CRS between 1990 and 1996, we adjusted all CRS commitments for the health sector upwards using the coverage

ratios observed for each donor. To correct for missing disbursements, we pooled completed projects in the CRS for each donor and computed both yearly project disbursement rates (the fraction of total commitments disbursed for each observed project year) and overall project disbursement rates (the fraction of total commitments disbursed over the life of each project). We produced six-year disbursement schedules by

FIGURE 1.2
Disbursement schedules for the 22 DAC member countries



taking the median yearly disbursement rates for each donor and normalizing the yearly rates using the median overall disbursement rates. Figure 1.2 shows the disbursement schedules and overall disbursement rates for each of the 22 member countries. To estimate yearly disbursements, we applied the disbursement schedule to each donor’s observed commitments net of grants through IHME’s channels of assistance. While incomplete reporting of disbursements is primarily of concern prior to 2002, disbursement information for some donors, notably Japan, Denmark, Italy, and New Zealand, are missing in 2007, the most recent year for which data are available. Therefore, we used disbursement estimates for the entire time period.

Figure 1.3 shows the results. The blue “corrected commitments” line corresponds to aggregate commitments both net of transfers to other institutions tracked by this project and corrected for coverage deficits prior to 1996. The orange “adjusted disbursements” line shows disbursements from the CRS after adjusting for funds transferred to other global health channels of assistance. The green “corrected disbursement”

line corresponds to our estimate of annual disbursements modeled from the corrected commitments. Prior to 2002, the corrected disbursements are well above adjusted disbursements, reflecting the under-reporting of disbursements in the CRS; after 2002, adjusted disbursements and corrected disbursements track each other closely.

Estimating disbursements for the EC

Europe Aid annual reports released by the EC are available online from 2001 onwards.⁷ Starting in 2003, the reports included data on annual disbursements. Figure 1.4 shows commitment time series from different sources. Flows shown in the EC report include regular and extra-budgetary contributions to multilateral agencies resulting in numbers that are larger than those in the CRS for the same years. We applied a hybrid approach to generate a time series of disbursements for the EC, combining data from both sources.

Specifically, from 1990 to 2003, we started with the sequence of commitments from the CRS, net of any transfers to other channels of assistance in our study. This is shown in Figure 1.5 in blue. We estimated

FIGURE 1.3

Commitments and estimated disbursements by bilateral agencies

Total commitments net of transfers to other channels, after correcting for low coverage in the CRS, are shown in blue; total disbursements reported in the CRS net of transfers to other channels, are in orange; and the corrected disbursement series based on the corrected commitment sequence and the estimation model are shown in green.

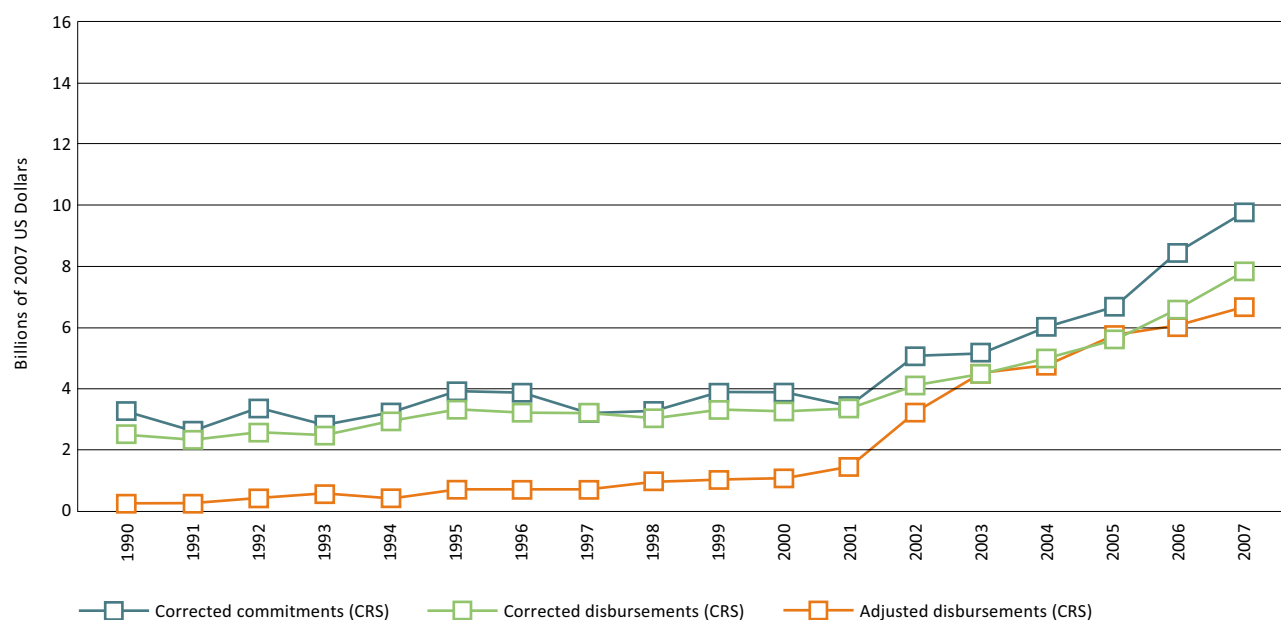


FIGURE 1.4

EC's commitments

Commitments as reported by the EC to the CRS, the DAC tables, and in its annual reports are shown in blue, purple, and orange, respectively. The discrepancy between the CRS and the DAC tables is shown by the coverage ratio shown in green.

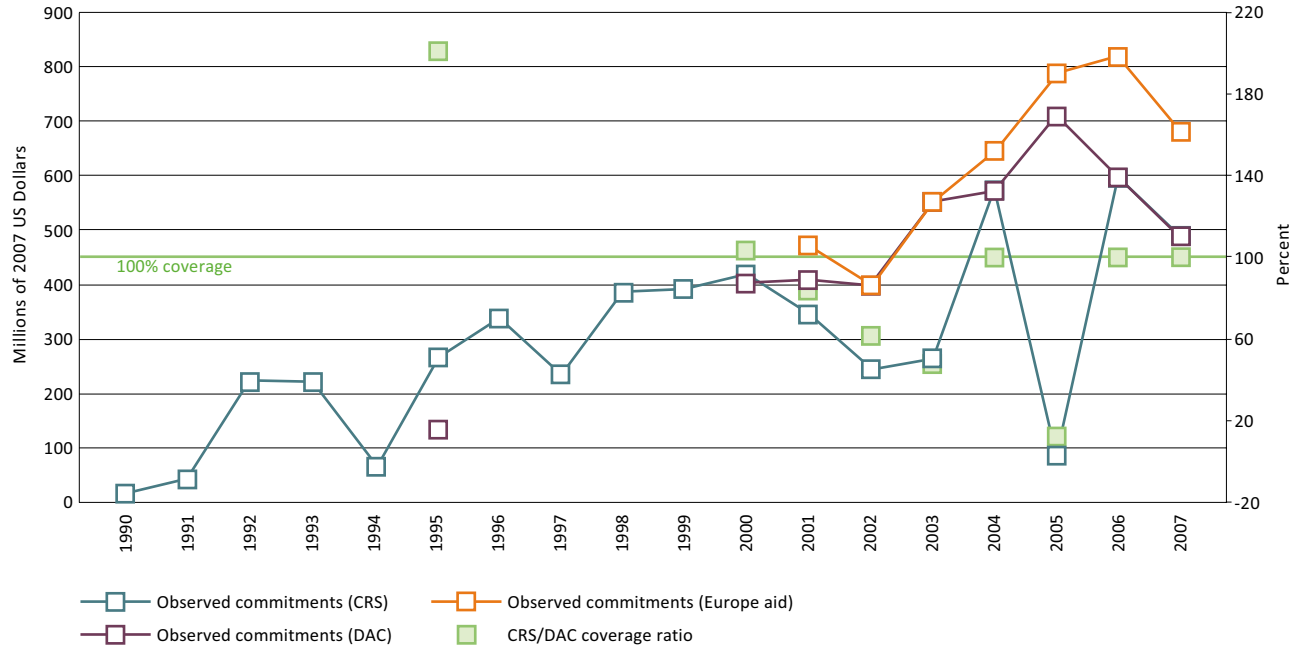
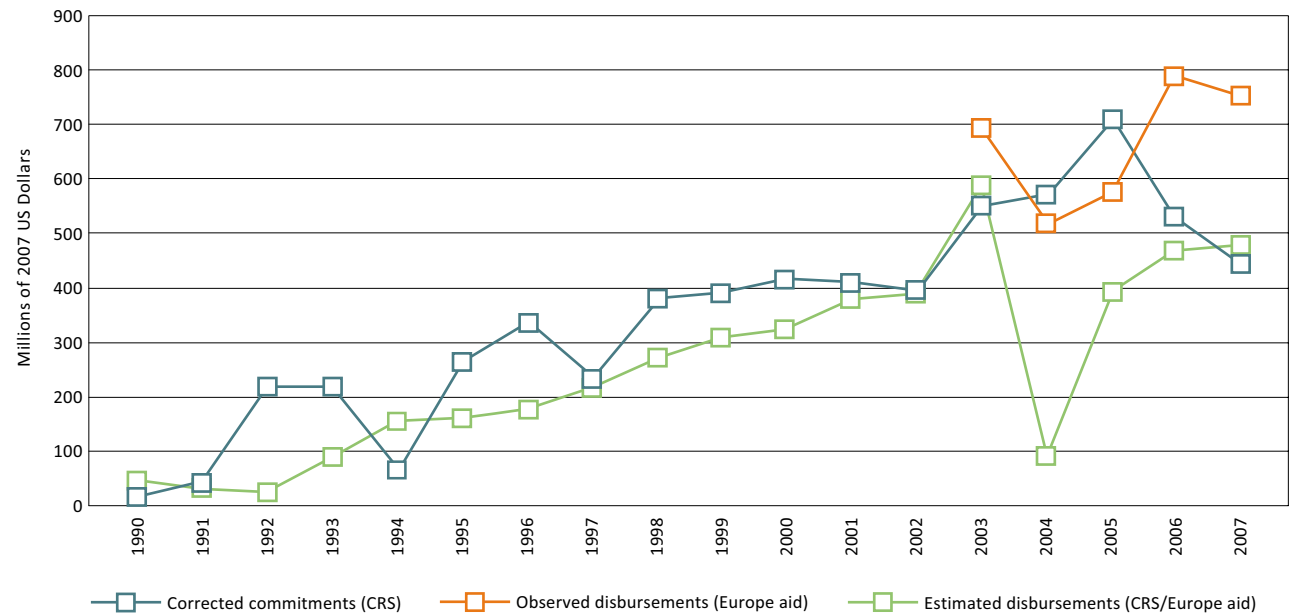


FIGURE 1.5

Estimated disbursements by the EC

The green line shows the complete time series included in estimates of development assistance for health.



disbursements using a three-year moving average of past commitments, shown in this figure in green from 1990 to 2003. From 2003 onwards, we used disbursements reported by the EC in its annual reports (shown in orange) and subtracted from it any transfers to other channels of assistance, as reported by the channels. The green line from 2003 to 2007 shows the result of this calculation. The dip in 2004 is the result of EC's grant of \$264.4 million to GFATM as well as \$184 million in extra-budgetary contributions to WHO and UNFPA in that year.

Estimating disbursements for GBS and debt relief

To estimate aggregate disbursements on general budget support (GBS) commitments, disbursement schedules were estimated for each donor as described above. The disbursement schedules were applied to

observed commitments to predict disbursements prior to 2002 when reported disbursements were highly incomplete. The CRS database tracks seven types of debt relief operations: debt forgiveness, rescheduling and refinancing, relief of multilateral debt, debt for development swap, other debt swap, debt buy-back, and other action related to debt. All debt relief commitments, except for other action related to debt, were pooled. As debt relief commitments are reported in a lump sum amount that is equivalent to the forgiven principal and interest due in the future, we estimated the stream of yearly principal and interest payments due each year in the future by assuming an average duration of forgiven loans at 10 years. We uniformly allocated debt relief commitments evenly over this duration to obtain estimates of yearly disbursements.

PART 2:

TRACKING DEVELOPMENT ASSISTANCE FOR HEALTH FROM THE DEVELOPMENT BANKS

The World Bank

We considered five different sources of information for tracking DAH from the two arms of the World Bank, IDA and IBRD. The CRS reports commitments for IDA loans and annual disbursements for a fraction of those loans. The World Bank's project database contains data on commitments and cumulative disbursements for each loan but does not provide information on annual disbursements.¹² Both the World Bank's annual reports and the Health, Nutrition, and Population (HNP) Thematic and Sector Commitment reports provide information on commitments but do not report disbursements.²⁹ Upon request, the World Bank sent us project-level data on all its health, nutrition, and population loans, which included information on annual disbursements. These different sources are summarized in Table 2.1.

In the interest of making our estimates replicable by others, we relied on the online loans database, even though it did not contain annual disbursement data, which was included in the data sent to us by the World Bank. Up to five sector codes and five theme codes can be assigned to each project in the online database. Sectors codes represent economic, political, or

sociological subdivisions, while theme codes represent the goals or objectives of World Bank activities. These codes are summarized in Table 2.2. We used the sector codes in the database to calculate what fraction of the loan was for the health sector. We divided the cumulative disbursement for the loan by the observed duration of the loan to estimate annual disbursements on a calendar year basis.

Figure 2.1 shows annual commitment totals from the different sources. The discrepancy between them is a cause for concern and is an example of the data quality challenges that plague this work. Differences in commitments are likely a result of either or both of the following: 1) whether sector codes or theme codes (or a combination) are used to identify health projects and 2) for projects spanning multiple sectors or themes, whether the loan dollars for a project are fully assigned to each sector or theme, or whether the dollars are distributed according to the relative share of the project that was for each sector or theme. We used the sector codes in the online projects database to identify health loans and assigned dollars based on World Bank estimates of the share of the loan going to the health sector. In contrast, HNP Thematic Commitment Reports

use theme codes, while the annual reports have shifted between using sector and theme codes. Neither of the sources clearly state how dollars on projects spanning multiple sectors and/or themes are assigned.

Figure 2.2 shows our estimated annual disbursement series in green. Our estimates are considerably smoother than annual disbursements from the HNP projects database due to the fact that we assumed a uniform disbursement schedule in our estimation method. In the future, we would prefer to use annual disbursement data that are in the public domain, if they are made available by the World Bank. The database distinguishes between loans from IDA and IBRD. Figures 2.3 and 2.4 show estimated disbursements for each. The CRS contains some information on IDA disbursements, which is shown in Figure 2.3. The CRS data appear to be a severe undercount of IDA disbursement.

In order to disaggregate IDA flows by source, we obtained data on yearly government contributions from the DAC statistics.⁶ We also collected information on debt repayments and IBRD transfers to IDA

from the audited financial statements.³⁰ Refer to part 7 for details on how we estimated the cost of providing technical assistance and program support for these institutions.

Regional Development Banks

For the ADB, AfDB, and IDB, the CRS contains project-level commitments but does not provide annual disbursement data. ADB and IDB also maintain their own loan databases. The ADB only reports commitments. Hence, we estimated its annual disbursements by dividing each commitment reported in its loan database¹³ by the duration of the project, and then summing the amounts in each year. The IDB's project database¹⁵ provides cumulative disbursements. We divided those by the duration of the project to obtain annual disbursements. We could not find a project database for AfDB. Therefore, we used disbursement data from its compendium of statistics.¹⁴ Table 2.3 summarizes the data sources. Figures 2.5, 2.6, and 2.7 summarize commitment and disbursement time series for each of the three banks. Refer to Part 7 for details on how we estimated the cost of providing technical assistance and program support for these institutions.

TABLE 2.1
Summary of data sources for the World Bank

Source document/database	Commitments	Cumulative disbursement	Yearly disbursement	Notes
Annual Report	X	–	–	Health sector rolled in with other sectors from 2003 to 2007.
Health Nutrition & Population – Thematic Commitments Report	X	–	–	Commitments assigned thematically (for credits and loans spanning both health & non-health themes, unclear if dollars are distributed according to their share for health).
Health Nutrition & Population – Sector Commitments Report	X	–	–	Commitments assigned sectorally (for multisectoral credits and loans, unclear if dollars are distributed according to their share for health).
Health Nutrition & Population – Projects Database	X	X	X	Obtained through correspondence with World Bank staff
World Bank Online Projects Database	X	X	–	We used the sector coding system used by the World Bank to compute the share of total dollars for each project allocated to Health. As yearly disbursement amounts are not provided in the online database, we estimated yearly disbursements by uniformly allocating cumulative disbursements over each year of the project.
OECD Creditor Reporting System (CRS)	X	–	–	Commitments are reported only for IDA and disbursements are only partially available for Population Health Programs.

FIGURE 2.1

World Bank's annual commitments

The graphs show commitments for health sector loans according to different sources of data on a fiscal year basis.

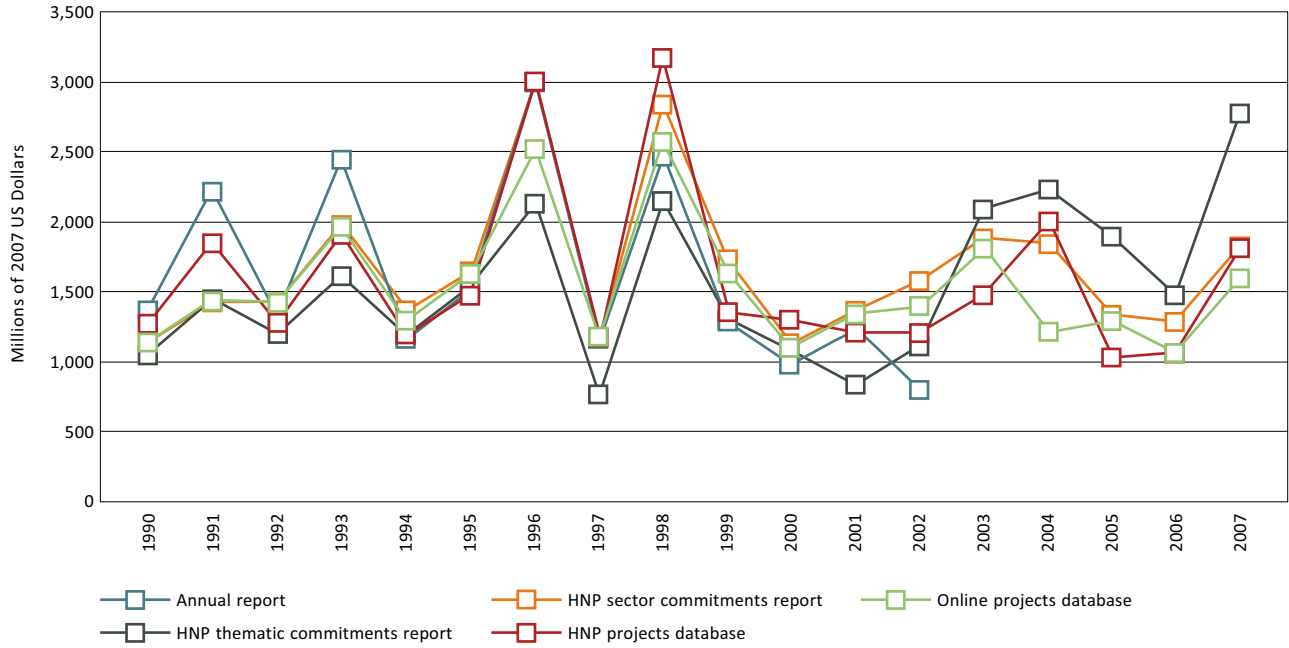


FIGURE 2.2

World Bank's estimated disbursements

Annual disbursements from the data sent to us upon request are in purple, while those estimated from the online database are shown in green.

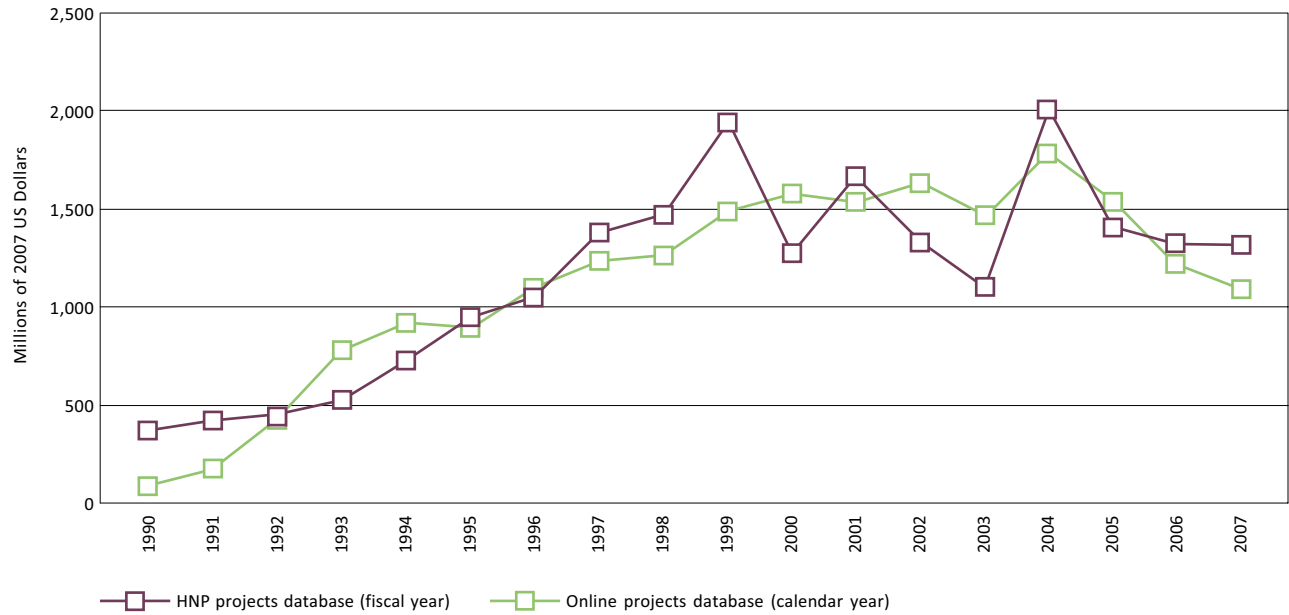


TABLE 2.2

World Bank’s health sector and theme codes

Health sector codes	Health theme codes
<p>Sector codes represent economic, political or sociological subdivisions within society. World Bank projects are classified by up to five sectors.</p> <p>Historic (prior to 2001):</p> <ol style="list-style-type: none"> 1. Basic Health 2. Other population health and nutrition 3. Targeted Health 4. Primary health, including reproductive health, child health & health promotion <p>Current (as of 2001):</p> <ol style="list-style-type: none"> 1. Health 	<p>Theme codes represent the goals or objectives of World Bank activities. World Bank projects are classified by up to five themes.</p> <p>Current:</p> <ol style="list-style-type: none"> 1. Child Health 2. HIV/AIDS 3. Health system performance 4. Nutrition and food security 5. Population & reproductive health 6. Other communicable diseases 7. Injuries & non-communicable diseases

TABLE 2.3

Summary of data sources for the regional development banks

Institution	Data source	Commitments	Cumulative disbursements	Yearly disbursements	Notes
African Development Bank	Compendium of Statistics	X	–	X (Aggregate - not at the project level)	The compendium of statistics was not available for 1990-1993, 1995 and 1998-1999; we estimated yearly disbursements using the average of neighboring disbursements.
	OECD - Creditor Reporting System	X	–	–	
Asian Development Bank	Online Projects Database	X	–	–	As yearly disbursement amounts are not provided in the online database, we estimated yearly disbursements by uniformly allocating commitments over each year of the project.
	OECD - Creditor Reporting System	X	–	–	
Inter-American Development Bank	Online Projects Database	X	X	–	As yearly disbursement amounts are not provided in the online database, we estimated yearly disbursements by uniformly allocating cumulative disbursements over each year of the project.

FIGURE 2.3

IDA's estimated disbursements

The green line shows our estimate based on data from World Bank's online project database. The orange line reports disbursements from the CRS.

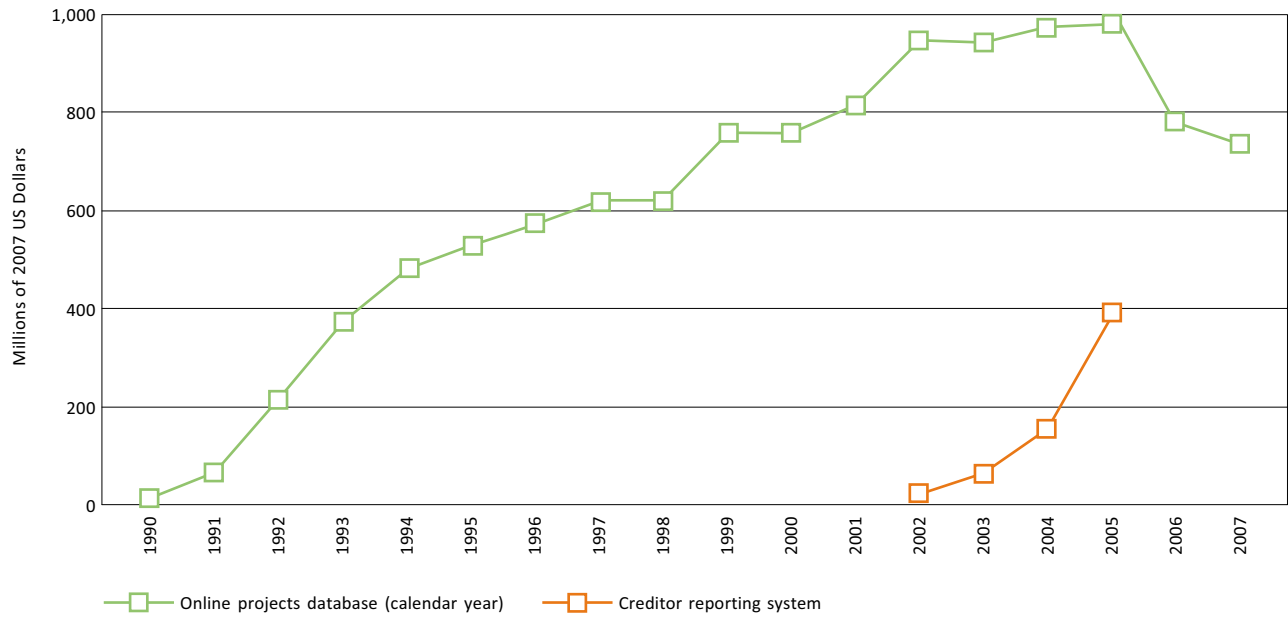


FIGURE 2.4

IBRD's estimated disbursements

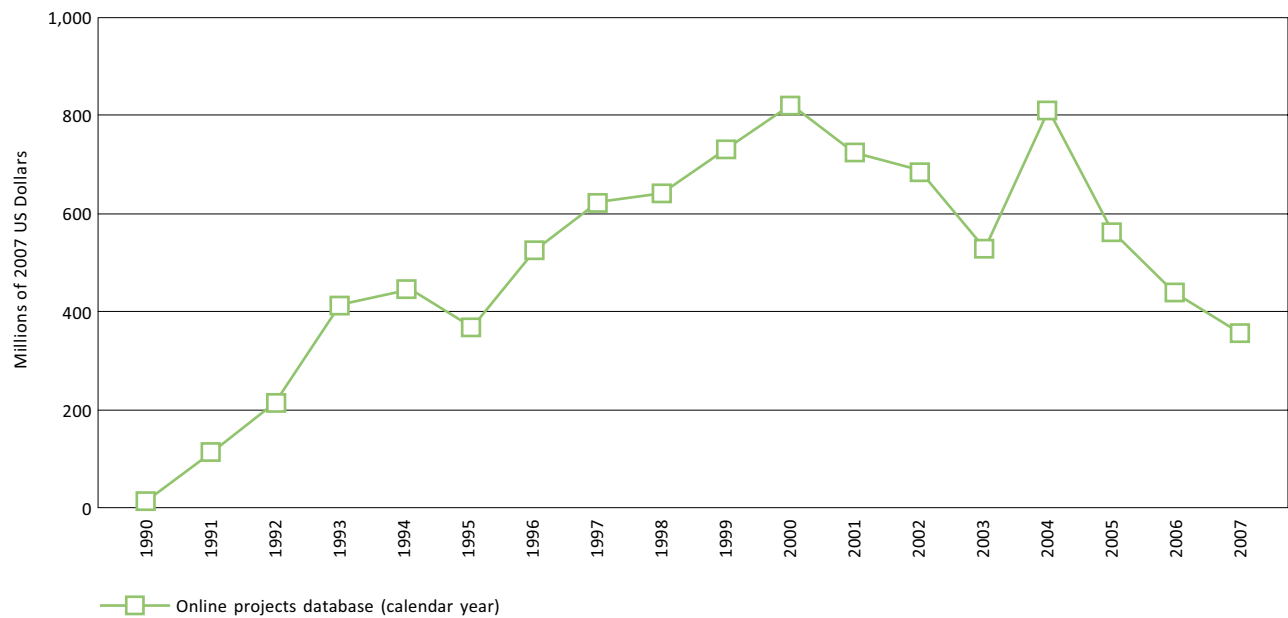


FIGURE 2.5

Commitments and disbursements by AfDB

The green lines show data from AfDB's compendium of statistics, while commitment data from the CRS are shown in orange. The red squares correspond to years in which disbursement data were missing, and were estimated from neighboring values. A combination of the blue and red squares was used in the DAH estimates.

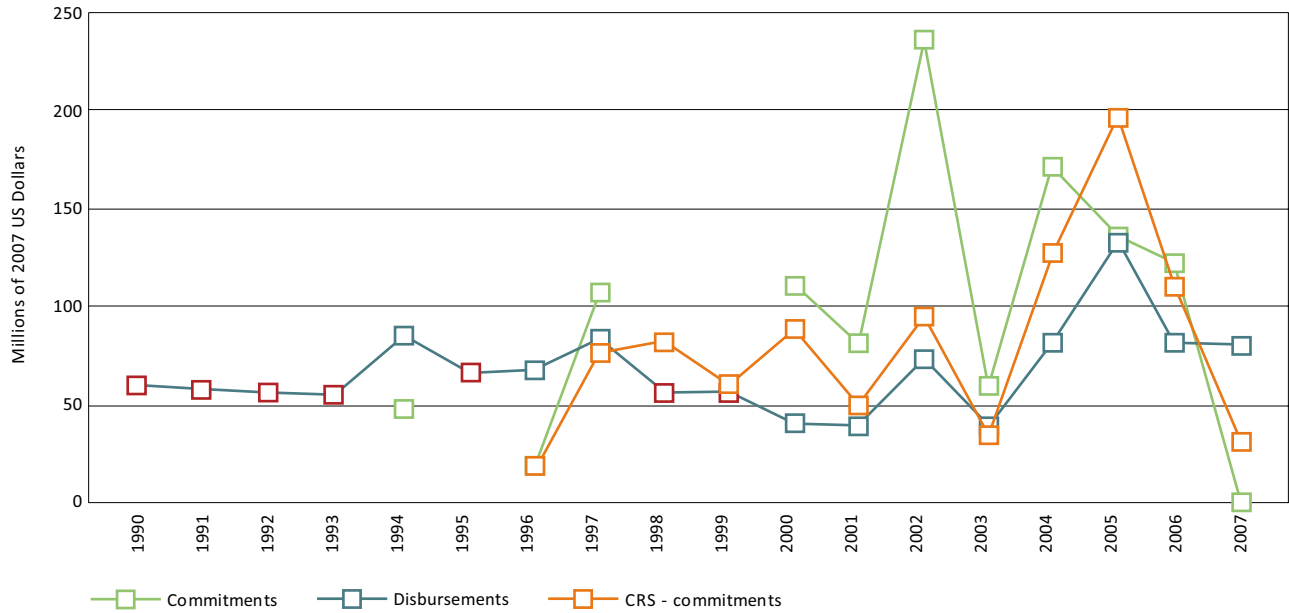


FIGURE 2.6

Commitments and disbursements by ADB

Disbursement data from ADB's project database, shown here in blue, were the basis for our DAH estimate.

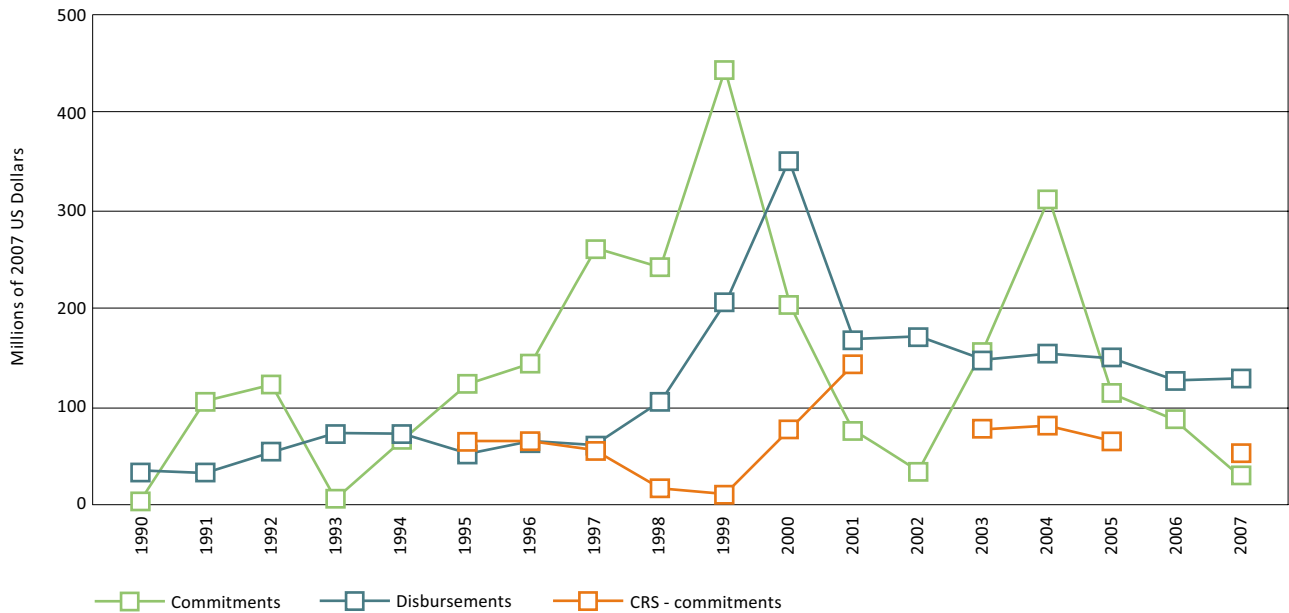
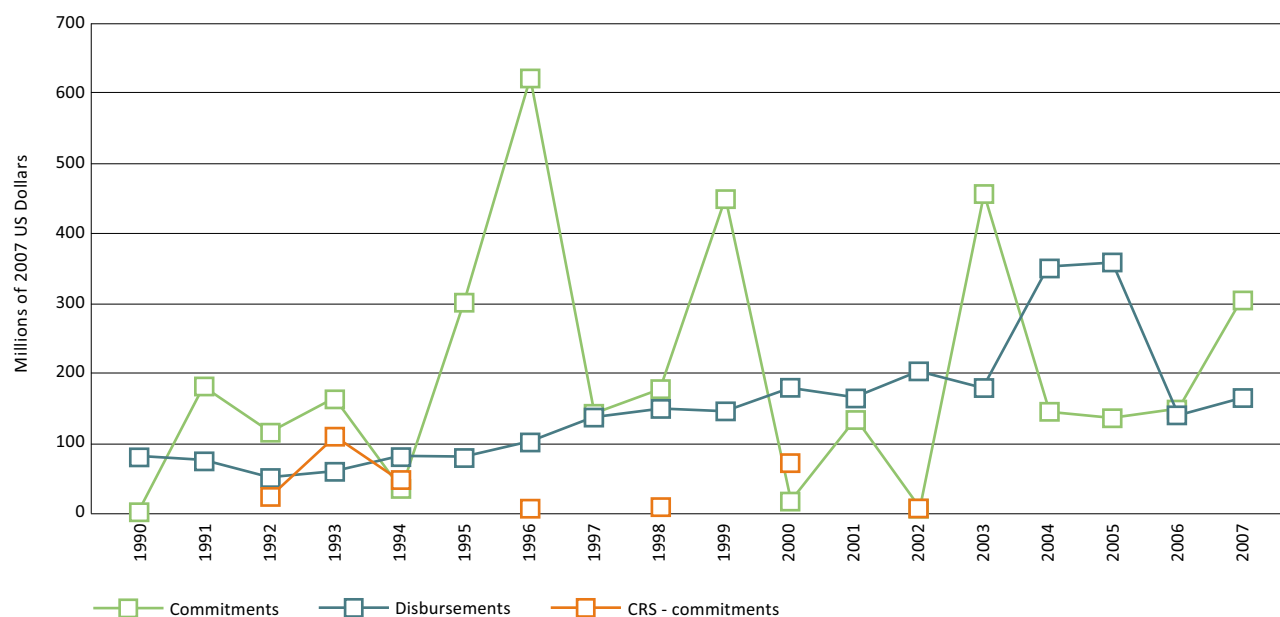


FIGURE 2.7

Commitments and disbursements by IDB

Disbursement data from IDB's project database, shown here in blue, were the basis for our DAH estimate.



PART 3:

TRACKING CONTRIBUTIONS FROM GFATM AND GAVI

GFATM

The grants database made available online by GFATM provides grant-wise commitments and annual disbursements.¹⁹ In addition, we used the contributions dataset which can also be found on the Web site, to compile data on the source of funding for GFATM.²⁰ Finally, we extracted information on annual income and expenditure from the GFATM's audited financial statements.

Figure 3.1 shows GFATM's annual contributions received from public and private sources. Figure 3.2 shows GFATM's annual commitments and disbursements from its project database, and total grant expenses reported by GFATM in its financial statements. Grant expenses, shown in the graph in green, include both grants disbursed in that year as well as

movements in undisbursed grants (which represent the portion of approved grants that had not been disbursed as of the date of the financial statement). Due to the accrual basis of accounting, grant expenses are consistently higher than actual grants disbursed during the year, shown in orange in the graph, which is the quantity we counted towards development assistance for health. Refer to Part 7 for details on how we estimated the cost of providing technical assistance and program support for GFATM.

GAVI

From GAVI's annual report in 2007, we drew its program disbursements for every year since 2000.¹⁶ GAVI provides data on contributions received from different sources on its Web site.¹⁸ The Country Fact Sheets¹⁷ provided on the Web site also report GAVI's

FIGURE 3.1

Contributions received by GFATM

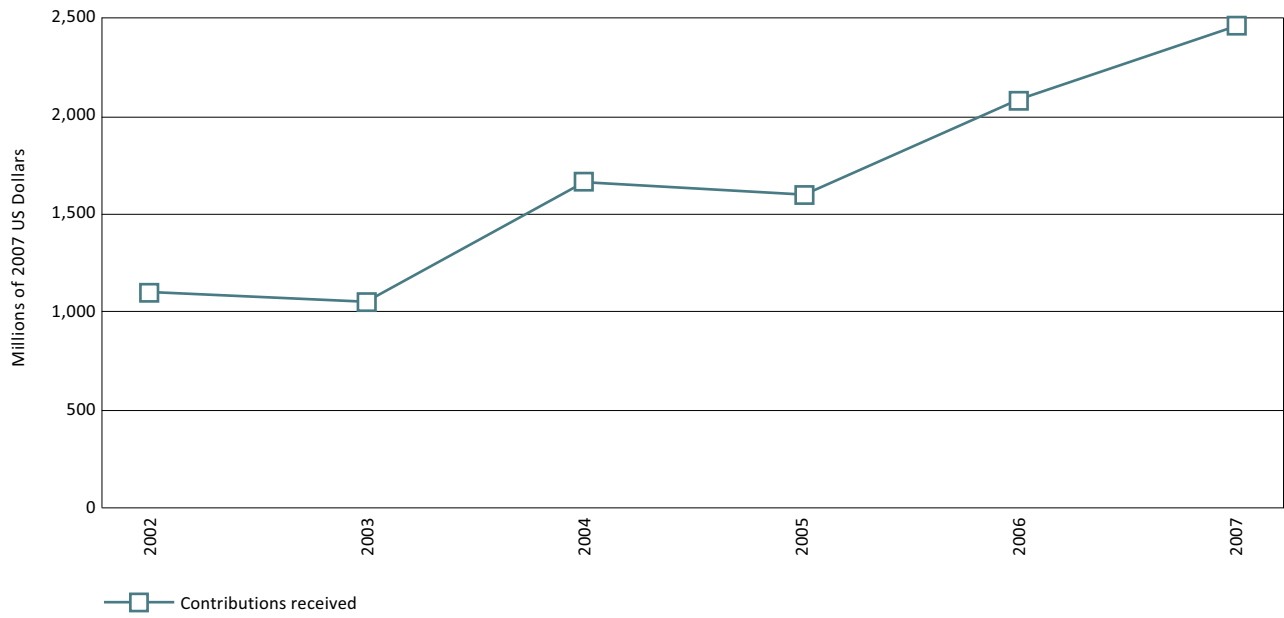


FIGURE 3.2

GFATM's commitments, disbursements, and grant expenses



FIGURE 3.3

GAVI's income and disbursements

Contributions received by GAVI, its country disbursements, and its total program disbursements are shown.

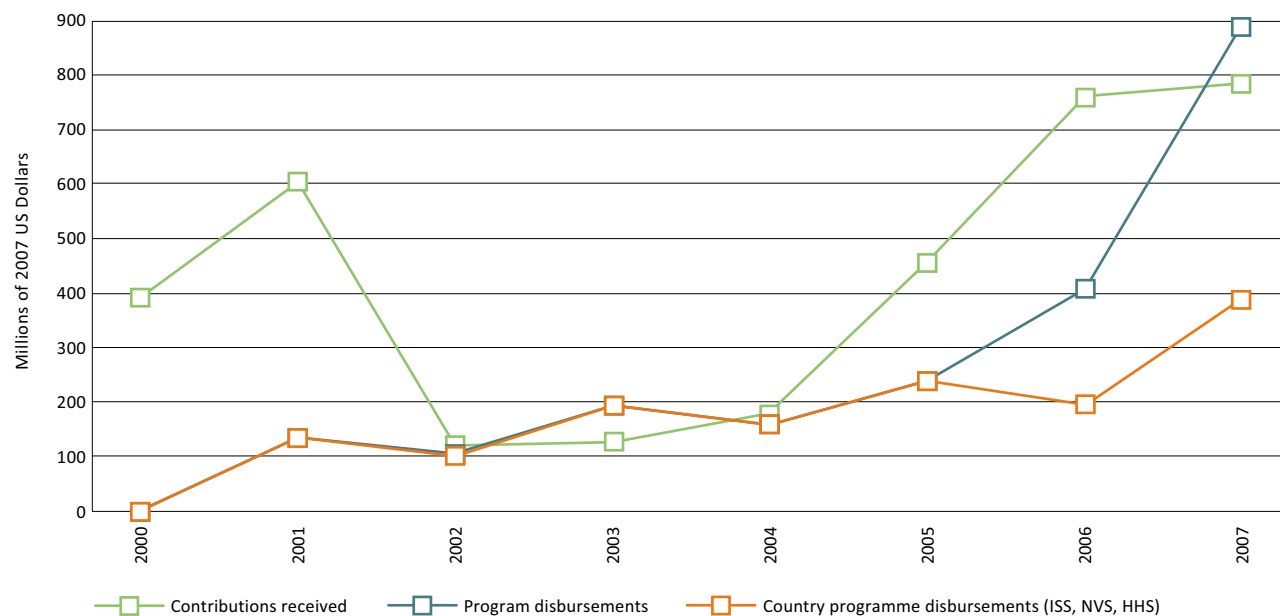


TABLE 3.1

Summary of data sources for GAVI

Source document/database	Contributions by donor	Expenditure	Disbursements	Notes/Modification to data
Annual Progress Reports	–	X	X	
Contributions data available on GAVI Web site	X	–	–	
Country fact sheets on GAVI Web site	–	–	X	Disbursements are only shown graphically. Our annual estimates are based on the underlying data provided upon request.
Country Reports on GAVI Web site	–	–	X	Disbursements reported in dollars for Immunization Support Services. For new and under-used vaccine support, the number of vaccine doses delivered is reported.
Financial Statements	–	X	–	–

disbursements for each recipient country; however, the transfers are shown graphically and the underlying data were not provided. From 2000 to 2005, we were able to obtain the underlying data from GAVI upon request. For 2006 and 2007, we constructed estimates of country-wise GAVI disbursements from the graphs contained in the country fact sheets. There are differences in the accounting method (cash versus accrual) between these various sources, which complicate the assessment. The different data sources for GAVI are summarized in Table 3.1.

GAVI's income from contributions and disbursements is shown in Figure 3.3. Total program disbursements,

shown in blue, were the same as country program disbursements until 2005. Since then, using funds made available through IFFIm, GAVI has scaled up support to GAVI partners (for new initiatives such as Global Polio Eradication and Measles) and funds for pentavalent vaccine procurement. We believe that this explains the gap between total program expenditure and country-based expenditure in 2006 and 2007.

Refer to Part 7 for details on how we estimated the cost of providing technical assistance and program support for GAVI.

PART 4:

TRACKING EXPENDITURE BY UN AGENCIES ACTIVE IN THE HEALTH DOMAIN

For the purposes of this research, we collected data on income and expenditure for four UN agencies: WHO, UNICEF, UNFPA, and UNAIDS. The data sources and calculations for each are described in detail below.

WHO

We used annual reports and audited financial statements released by WHO for compiling data on its budgetary and extra-budgetary income and expenditure.¹¹ Specifically, we extracted data on its assessed and voluntary contributions on the income side, and both budgetary and extra-budgetary spending on the expenditure side from these documents. As the financial statements represent activities over a two-year period, both income and expenditure data were divided by two to approximate yearly amounts. Dollars were deflated using the US GDP deflator specific to the reporting year. We excluded expenditures from trust funds and associated entities not part of WHO's program of activities, such as UNAIDS and GFATM trust funds. We also excluded expenditure from supply services funds as these expenditures pertain to services provided by WHO but paid for by recipient countries.

UNFPA

We extracted data on income and expenditure for UNFPA from its audited financial statements.¹⁰ As these statements represent activities over a two-year period, income and expenditure data were divided by two to approximate yearly amounts. Dollars were deflated using the US GDP deflator specific to the reporting year. The only exceptions to this rule were 2006 and 2007, for which annual data were available. We excluded income and expenditures associated with procurement and cost sharing activities from our estimates of health assistance. UNFPA uses cost-sharing accounts when a donor contributes to UNFPA for a project to be conducted in the donor's own country. Since this money can be considered domestic spending that goes through UNFPA before being returned to the country in the form of a UNFPA program, we do not include it in our totals. UNFPA's additional expenditures for these projects come from trust funds or regular resources and are therefore captured in our estimates. By excluding cost-sharing expenditures, we exclude only the amount spent on UNFPA projects that originally came from the recipient country. Income and expenditure for procurement services relate to

services provided by UNFPA and WHO but paid for by recipient countries, and hence are excluded from our totals.

UNICEF

We extracted data on income and expenditure for UNICEF from its audited financial statements.⁹ As these statements represent activities over a two-year period, income and expenditure data were divided by two to approximate yearly amounts. Dollars were deflated using the US GDP deflator specific to the reporting year.

Since UNICEF's activities are not limited to the health sector alone, we attempted to estimate the fraction of UNICEF's expenditure that was for health. UNICEF's annual reports in the early 1990s reported this number, but reporting categories changed over time making it difficult to arrive at consistent estimates of health expenditure. One of the authors of this report (CMM) received information on UNICEF's health program costs

and total program costs for the years 2001 to 2004 from officials at UNICEF; it is reported in Table 4.1. We calculated the fraction of expenditure for health for regular and supplementary funds from these data and applied them to the expenditure reported in the financial reports for those years. In remaining years, we assumed that, on average, 30% of regular funds and 44% of extra-budgetary funds were utilized for health. In the future, we would like to use annual data on health expenditure if they are made available by UNICEF.

UNAIDS

UNAIDS income and expenditure data for both its core and non-core budgets were extracted from its audited financial statements.⁸ As financial data are provided on a biennium basis, we divided the quantities by two to obtain yearly amounts. Dollars were deflated using the US GDP deflator specific to the reporting year.

TABLE 4.1

Health expenditure by UNICEF

Year	Regular resources expenditures (in thousands of US dollars)			Extra-budgetary expenditure (in thousands of US dollars)		
	Health	Total	Health fraction	Health	Total	Health fraction
2001	114,362	379,575	0.30	285,540	632,654	0.45
2002	102,511	347,593	0.30	310,340	695,188	0.45
2003	113,779	392,354	0.29	368,629	834,852	0.44
2004	118,885	399,256	0.30	408,236	944,486	0.43
Average health fraction applied to other years			0.30			0.44

PART 5:

TRACKING DEVELOPMENT ASSISTANCE FOR HEALTH FROM PRIVATE FOUNDATIONS

Previous studies on foundations outside the US have documented the severe paucity of reliable time-series data and lack of comparability across countries.³¹ Hence, we focused our research efforts on tracking US foundations. The Wellcome Trust, a foundation based in the UK, is reputed to be the single largest non-US foundation active in the area of health. However, since the Wellcome Trust is principally a source of funding for technology including drugs and vaccines research and development, it does not meet our definition of a channel of development assistance. Other studies have estimated that the amount of resources contributed by non-US foundations for global health is small in comparison to resources from US-based foundations.³² Therefore, we do not think excluding them significantly impacts the overall estimate of health aid. In future years, we hope to find better sources of data for tracking the contributions of non-US foundations.

The Foundation Center maintains a database of all grants of US\$ 10,000 or more awarded by over 1,000 US foundations.²⁵ The Center codes each grant by sector and international focus and, therefore, is able to identify global health grants, regardless of whether the principal recipient was located in the US or in developing countries. We received a customized data feed from the Foundation Center with estimates of total global health grant-making for each year from 1990 to 2006, as well as the global health grant totals for the top 50 US foundations. BMGF has been the

single most important and influential grant-making institution in the health domain since 2000; hence we undertook additional research to accurately capture its annual disbursements, which we describe below. We used the estimate provided by the Foundation Center for all remaining US foundations. One limitation of using the Foundation Center's database is that it does not distinguish between commitments and disbursements. Thus, the total grant-making figure for US foundations, except BMGF, derived from these data is not a precise estimate of total disbursements by these foundations. However, since the Foundation Center draws most of its data from the tax filings with the US Internal Revenue Service (IRS), it is likely to capture disbursement figures for most foundations. Disbursement for 2007 is projected based on growth rates observed in previous years.

We collected BMGF's IRS 990PF filings wherein it reports all global health grants disbursed.²³ We also collected information on annual commitments from BMGF's online grants database.²⁴ We then manually coded all BMGF grants disbursed by recipient type, distinguishing between awards to other foundations, NGOs, universities and research institutions, UN agencies, public-private partnerships, and governments.

Refer to Part 7 for details on how we estimated the cost of providing technical assistance and program support for US foundations.

PART 6:

TRACKING NON-GOVERNMENTAL ORGANIZATIONS

Currently, there is no centralized and easily accessible database for tracking the program expenses of the thousands of NGOs based in high-income countries that are active in providing development assistance and humanitarian relief worldwide. For this study, we relied on the only data source we could identify for a large subset of these NGOs, namely the report²² issued by USAID for NGOs incorporated in the US that received funding from the US government. The report

provides data on domestic and overseas expenditure for these NGOs, as well as their revenue from US and other public sources, from private contributions, and from in-kind donations.

We encountered three challenges in using these data. First, with the exception of BMGF, we were unable to track the amount of funding from US foundations routed through US NGOs, which may have led

to double-counting in our estimates of total health aid. The second relates to the incompleteness of the universe of NGOs captured through the USAID report. The report provides data on NGOs registered in the US that received funding from the US government. While this covers many of the largest US-based NGOs, it is not a comprehensive list. A related problem is that the report only includes NGOs that received funds in a given year. While many of the largest NGOs are consistently funded by the US government and are therefore in the report every year, not all NGOs have data every year. Finally, its coverage of NGOs registered in other donor countries only began in 1998. We attempted to compile data on the health expenditures of the top 10 non-US NGOs in terms of overseas expenditure by searching their Web sites for financial documents and contacting them directly. Getting reliable time-series data before 2000 proved to be extremely difficult for even this small sample of non-US NGOs. Consequently, only NGOs registered in the US for which data were available in the USAID reports from 1990 to 2006 are included in this study. Since USAID has not yet released data for 2007, we used the annual

growth rate from 2001 to 2006 to estimate the volume of overseas health expenditure in 2007.

While we hope to find data on non-US NGOs in future years, we do not think their exclusion from this study is a source of bias for the following reasons. First, many of the top non-US NGOs have US-based chapters that are registered in the US and with USAID, and are therefore covered by the Volunteer Agency data (for example, Save the Children and International Planned Parenthood Federation both have arms registered in the US and receive funds from the US government). Second, the health expenditure numbers that we were able to collect for the top non-US NGOs from 2000 onwards suggest that they still account for a relatively small amount of development assistance in comparison to US-based NGOs; the top eight non-US NGOs (Oxfam, Save the Children, International Planned Parenthood Federation, Christian Aid, German Agro Action, ActionAid, International Union Against Tuberculosis and Lung Disease, and Marie Stopes International) accounted for \$230 million in overseas health expenditure in 2006, while the top eight US-based NGOs accounted for \$1.9 billion in the same year.

TABLE 6.1

Summary of US NGOs in the study

Year	Number of US NGOs in VolAg report	Number of US NGOs in IHME sample	Number of US NGOs from sample for which we found data on health expenditures
1990	267	15	11
1991	334	18	14
1992	385	17	14
1993	411	16	12
1994	424	16	10
1995	416	16	11
1996	423	20	13
1997	425	22	17
1998	435	23	21
1999	438	31	27
2000	433	31	27
2001	442	30	25
2002	486	29	26
2003	507	27	25
2004	508	30	25
2005	494	26	25
2006	536	37	31

FIGURE 6.1

Total revenue received by US NGOs

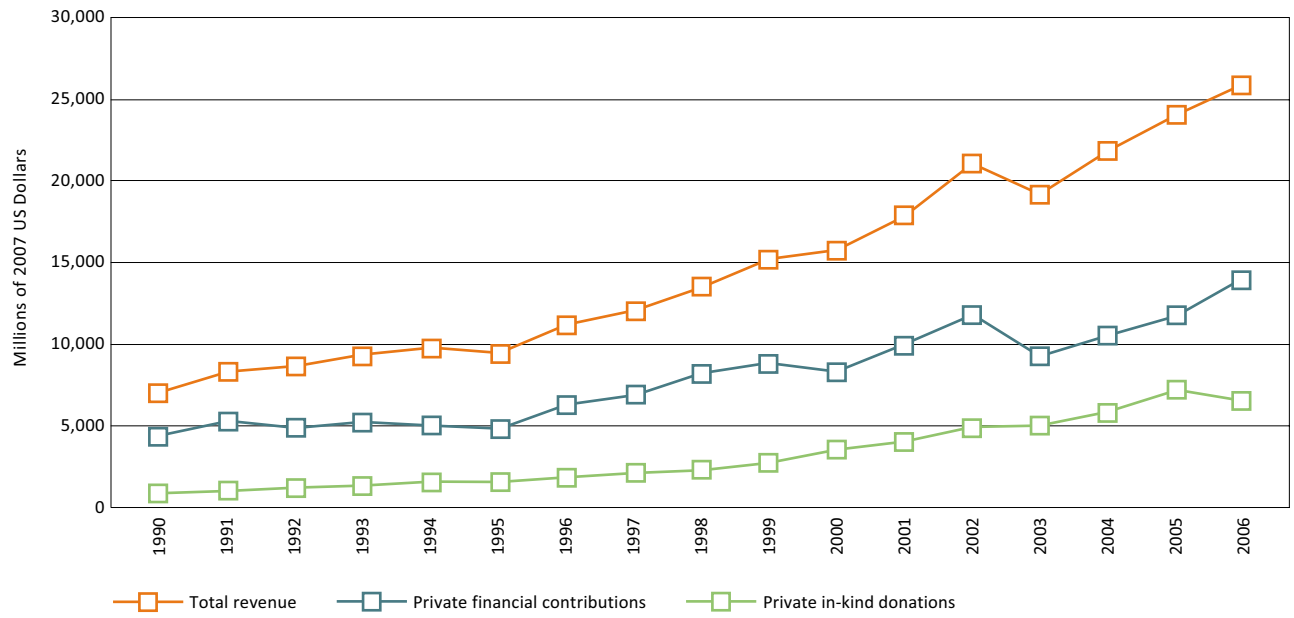
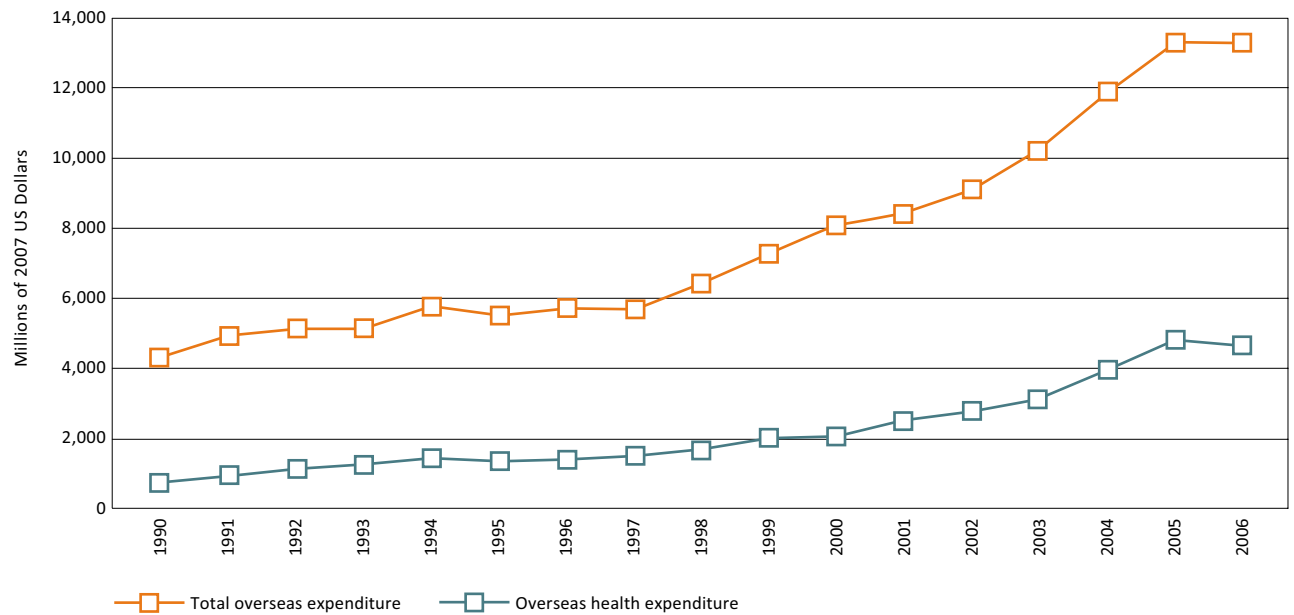


FIGURE 6.2

Expenditure by US NGOs

Total overseas expenditure and estimates of overseas health expenditure by US NGOs are shown in orange and blue, respectively.



The third challenge in using the data from the USAID reports for this study relates to the fact that the reports do not subdivide overseas expenditure by sector. Collecting financial data on health expenditures for each NGO would have been prohibitively time consuming. Therefore, a sample of NGOs was drawn from the list each year; the sample included the top 10 NGOs in terms of overseas expenditure, as well as 10 randomly selected NGOs from the remaining pool, with the probability of being selected set proportional to their overseas expenditure. Next, we collected health expenditure data for each NGO in our sample using annual reports, audited financial statements, 990 tax forms, Web sites, and personal communications. Health expenditure was carefully reviewed to ensure that expenditure on food aid, food security, disaster relief, and water and sanitation projects were not included. Table 6.1 summarizes the number of NGOs included each year in the USAID report, the number of NGOs in our sample from each year, and the number of NGOs for which we successfully found health expenditure data.

We fit a linear regression model for predicting health expenditure as a fraction of total expenditure using

the data in the sample and used it to predict health fractions for the remaining NGOs. Since several NGOs in the sample were observed for multiple years, we included random effects for each NGO. Variables used to predict the health fraction were the fraction of revenue from in-kind donations, fraction of revenue from the US government, fraction of revenue from private financial contributions, overseas expenditure as a fraction of total expenditure, calendar year, and receipt of US government food aid; all these variables were drawn from the USAID reports. To ensure that the predicted health fractions were bounded between zero and one we used the logit-transformed health fraction as the dependent variable.

Overseas health expenditure was calculated for individual NGOs in each year by multiplying the health fraction and total overseas expenditure. Figure 6.1 shows the income of the NGOs in our tracking universe. Figure 6.2 shows estimated overseas health expenditure for these from 1990 to 2007 in constant 2007 dollars. The estimates for 2007 were projected from previous years since data for 2007 have yet to be published.

PART 7:

CALCULATING THE TECHNICAL ASSISTANCE AND PROGRAM SUPPORT COMPONENT OF DEVELOPMENT ASSISTANCE FOR HEALTH FROM LOAN- AND GRANT-MAKING CHANNELS OF ASSISTANCE

We used the following method to estimate the costs incurred by loan- and grant-making institutions for administering and supporting health sector loans and grants, which includes costs related to staffing and program management. We collected data on the total administrative costs for a subset of institutions in our universe for which this data were readily available: IDA, IBRD, BMGF, GFATM, GAVI, USAID, and the UK Department for International Development (DFID). The sources of data for the institutions in our sample are summarized in Table 7.1. For each of them, we calculated the ratio of total administrative

costs to total grants and loans, by year. We assumed that the percentage of operating and administrative costs devoted to health would be equal to the percentage of grants and loans that were for health. In other words, if 20% of a foundation's grants were for health, we assumed that 20% of administrative costs of the foundation were spent on facilitating these health grants. Given this assumption, we used the observed administrative costs to grants/loans ratios to estimate the in-kind contribution made by each of these organizations towards maintaining their health grants and loans. For the institutions not

TABLE 7.1

Summary of data sources for calculating in-kind contributions

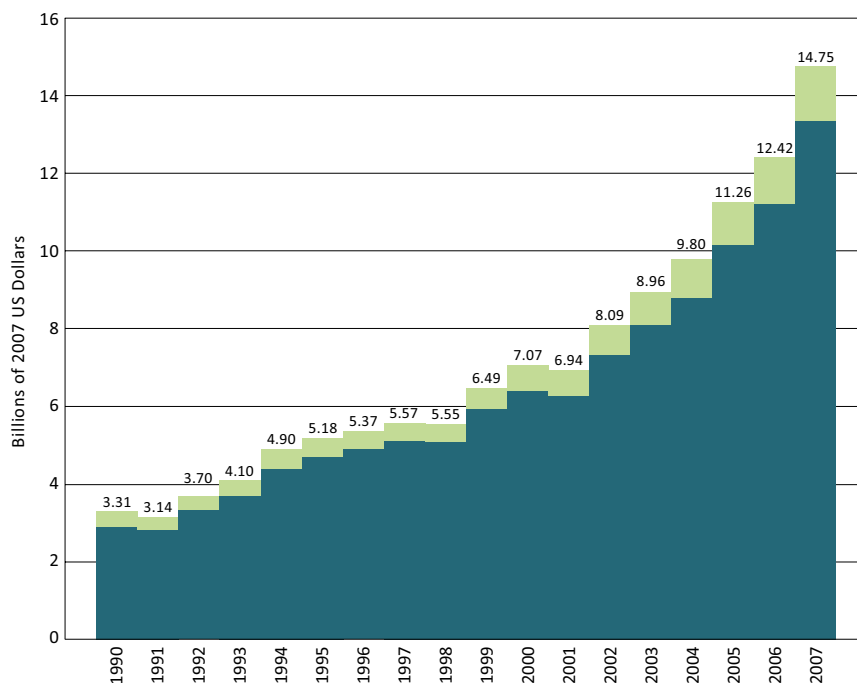
Organization	Source	Notes
BMGF	990 Tax Returns	Used “cash basis” column to calculate ratio of total operating and administrative expenses to grants paid.
GFATM	Annual Report Financial Statements	Calculated ratio of operating expenses to grants disbursed.
GAVI	Annual Report Financial Statements	Calculated ratio of management, general and fundraising expenses to program expenses.
USAID	US Government Budget Database	Used outlays spreadsheet to calculate ratio of total outlays for USAID operating account to sum of outlays for bilateral accounts.
DFID	Annual Report Expense Summary	Calculated ratio of DFID’s administration expenses to DFID’s bilateral program expenses from 2002 onwards.
IDA	World Bank Audited Financial Statements	Calculated ratio of management fee charged by IBRD to development credit disbursements.
IBRD	World Bank Audited Financial Statements	Calculated ratio of administrative expenses to loan disbursements

FIGURE 7.1

In-kind contributions by loan- and grant-making DAH channels of assistance

The graph reflects the bilateral agencies in the 22 DAC member countries, the EC, the development banks, US foundations, the GFATM, and GAVI.

Transfers:
■ In kind
■ Financial



in this sample, we used the ratio from the institution most similar to it to arrive at an estimate of in-kind contributions.

We used the average ratio observed for IDA and IBRD for all other development banks; the average of the ratios for BMGF for all other US foundations; the average ratio for DFID from 2002 to 2006 to calculate the in-kind component for DFID in other years; and the average ratio for USAID and DFID for all other bilateral agencies and the EC.

Total in-kind contributions from all grant- and loan-making global health institutions are shown in Figure 7.1. It shows that the in-kind contributions by these channels ranged from 9.2% to 13.7% of the financial transfers between 1990 and 2007. These data mask considerable variation across institutions in the ratio of staffing and administrative costs to loans and grants extended in a year. At the high end, the ratio for USAID was on average 0.18 over the study period, while the comparable ratio for IBRD was 0.06 over the same time-span.

PART 8: KEYWORD SEARCHES

To identify health aid for HIV/AIDS, tuberculosis, malaria, and health sector support, we searched for keywords associated with each in the descriptive fields of our integrated project database, as is shown in Table 8.1. The project database includes a subset for the global health channels for which project-level

information was available, namely the bilateral development assistance agencies from 22 DAC member countries, the EC, GFATM, GAVI, the World Bank, ADB, IDB, and BMGF. When a project was matched to two or more areas, the dollar value of the grant was divided evenly across the matched areas.

TABLE 8.1
Terms for keyword searches

Project type	Search terms
HIV	HIV, HIV/AIDS, H.I.V., AIDS, human immunodeficiency virus, reverse transcriptase inhibitor, acquired immune deficiency syndrome, retroviral
Tuberculosis	TB, tuberculosis, anitubercular, tuberculostatic, DOTS, directly observed treatment, mycobacterium tuberculosis, XDR-TB, MDR-TB, rifampicin, isoniazid
Malaria	Malaria, paludisme, plasmodium falciparum, anopheles, bednets, insecticide, artemisinin, indoor residual spraying
Health sector support	SWAP, sector wide approach in health, sector programme, sector program, budget support

METHODS ANNEX REFERENCES

- 1 World Health Organization. WHO burden of disease data. Previous estimates: 2000-2002. Geneva: WHO, 2004. http://www.who.int/healthinfo/global_burden_disease/estimates_2000_2002/en/index.html (accessed February 1, 2009).
- 2 United Nations. Population Division. World population prospects: the 2008 revision. Population database. New York: United Nations, 2008. <http://esa.un.org/unpp/index.asp>. (accessed August 1, 2008).
- 3 International Monetary Fund. World economic outlook database. Washington, DC: IMF, 2008. <http://www.imf.org/external/pubs/ft/weo/2008/02/weodata/index.aspx>. (accessed August 1, 2008).
- 4 United Nations. Statistics Division. National accounts main aggregates database. New York: United Nations, 2008. <http://unstats.un.org/unsd/snaama/dnllist.asp>. (accessed August 1, 2008).
- 5 World Bank. World development indicators online. Washington, DC: World Bank, 2008. <http://web.worldbank.org>. (accessed August 1, 2008).
- 6 Organisation for Economic Co-operation and Development. International development statistics (IDS): online databases on aid and other resource flows. Paris: OECD. www.oecd.org/dac/stats/idsonline (accessed December 2, 2008).
- 7 European Commission. Annual reports 2002-2007. Brussels: European Commission. <http://ec.europa.eu/europeaid/multimedia/publications/> (accessed November 15, 2007).
- 8 Joint United Nations Programme on HIV/AIDS. Audited financial reports 1996-2007. Geneva: UNAIDS. <http://www.unaids.org/en/AboutUNAIDS/Governance/PCBArchiveManual.asp> (accessed December 2, 2008).
- 9 United Nations Children's Fund. Annual reports 1989-2006. Geneva: UNICEF. http://www.unicef.org/publications/index_pubs_ac.html (accessed December 2, 2008).
- 10 United Nations Population Fund. Annual reports and audited financial statements. New York: UNFPA. <http://www.unfpa.org/about/report/> (accessed December 2, 2008).
- 11 World Health Organization. Annual reports and audited financial statements, 1990-2006. Geneva: WHO. <http://www.who.int/gb/> (accessed December 2, 2008).
- 12 World Bank. Online project database. Washington, DC: World Bank. <http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/> (accessed December 2, 2008).
- 13 Asian Development Bank. Online project database. Manila: ADB. <http://www.adb.org/projects/> (accessed September 25, 2008).
- 14 African Development Bank. Compendium of statistics. Tunis: African Development Bank. http://www.afdb.org/portal/page?_pageid=473,8878258&_dad=portal&_schema=PORTAL (accessed December 2, 2008).
- 15 Inter-American Development Bank. Online project database. Washington, DC: IDB. <http://www.iadb.org/projects/> (accessed September 25, 2008).
- 16 GAVI Alliance. GAVI Alliance progress report 2007. Geneva: GAVI. http://www.gavialliance.org/media_centre/publications/progress_reports.php (accessed February 22, 2009).
- 17 GAVI Alliance. Country data for GAVI-supported countries. Geneva: GAVI. http://www.gavialliance.org/performance/country_results/index.php (accessed March 12, 2009).

- 18 GAVI Alliance. GAVI contributions report. Geneva: GAVI. http://www.gavialliance.org/resources/Cash_recieved_at_at_Q1_2008.pdf. (accessed April 24, 2008).
- 19 The Global Fund to Fight AIDS, Tuberculosis and Malaria. Current grant commitments & disbursements. Geneva: GFATM. <http://www.theglobalfund.org/en/commitmentsdisbursements/> (accessed December 2, 2008).
- 20 The Global Fund to Fight AIDS, Tuberculosis and Malaria. GFATM pledges & contributions report. Geneva: GFATM. <http://www.theglobalfund.org/en/resources/?lang=en> (accessed March 17, 2008).
- 21 GuideStar USA, Inc. Tax filings. Washington, DC: GuideStar USA, Inc. <http://www.guidestar.org>. (accessed February 1, 2009).
- 22 United States Agency for International Development. USAID VolAg report of voluntary agencies. Washington, DC: USAID. <http://dec.usaid.gov/index.cfm> (accessed February 1, 2009).
- 23 GuideStar USA, Inc. Bill & Melinda Gates Foundation. IRS 990 tax forms. Washington, DC: GuideStar USA, Inc. <http://www.guidestar.org>. (accessed November 1, 2008).
- 24 Bill & Melinda Gates Foundation. Online grant database. Seattle, WA: Bill & Melinda Gates Foundation. <http://www.gatesfoundation.org/grants/Pages/search.aspx> (accessed November 1, 2008).
- 25 Foundation Center. Grants database. New York: Foundation Center. <http://foundationcenter.org> (custom research received August 15, 2008).
- 26 Organisation for Economic Co-operation and Development. Measuring aid to health. Paris: OECD-DAC, October 2008. <http://www.oecd.org/dataoecd/20/46/41453717.pdf> (accessed March 11, 2009).
- 27 Organisation for Economic Co-operation and Development. Glossary of statistical terms. Paris: OECD. <http://stats.oecd.org/glossary/detail.asp?ID=6043> (accessed March 12, 2009).
- 28 Organisation for Economic Co-operation and Development. Reporting directives for the creditor reporting system. Paris: OECD, DCD/DAC, September 4, 2007. <http://www.oecd.org/dataoecd/16/53/1948102.pdf> (accessed March 12, 2009), page 12.
- 29 World Bank. Washington, DC. <http://web.worldbank.org/>.
- 30 World Bank. IDA special purpose financial statements located in Annual Reports 1990 - 2007. Washington, DC: World Bank. <http://web.worldbank.org/> (accessed March 1, 2008).
- 31 Schulter A, Then V, Walkenhorst P, eds. Foundations in Europe. Washington, DC: Brookings Institution, 2001.
- 32 Scott S. Philanthropic foundations and development co-operation. Off-print of the DAC Journal 2003; 4(3). Paris: Organisation for Economic Co-operation and Development, Development Assistance Committee, 2003. <http://www.oecd.org/dataoecd/23/4/22272860.pdf> (accessed May 20, 2009.)



STATISTICAL ANNEX

PAGE TABLES

94	1	Development Assistance for Health by Channel of Assistance, 1990-2007, 2007 US\$ (Millions)
96	2	Development Assistance for Health by Funding Source, 1990-2007, 2007 US\$ (Millions)
98	3	Development Assistance for Health by Country of Origin, 1990-2007, 2007 US\$ (Millions)
100	4	Development Assistance for Health by Target Region, 1990-2007, 2007 US\$ (Millions)
102	5	Financial Development Assistance for Health by Target Country, 1990-2007, 2007 US\$ (Millions)
110	6	Financial Development Assistance for Health by Health Focus, 1990-2007, 2007 US\$ (Millions)
111	7	Development Assistance for Health by Type of Transfer, 1990-2007, 2007 US\$ (Millions)
112	8	Bilateral Commitments & Disbursements, 1990-2007, 2007 US\$ (Millions)
114	9	World Bank Financial and In-kind Development Assistance for Health (DAH), 1990-2007, 2007 US\$ (Millions)
114	10	Financial and In-kind Development Assistance for Health (DAH) from Regional Development Banks, 1990-2007, 2007 US\$ (Millions)
115	11	WHO, Regular and Extra-budgetary Income and Expenditure, 1990-2007, 2007 US\$ (Millions)
116	12	UNFPA, Regular and Extra-budgetary Income and Expenditure, 1990-2007, 2007 US\$ (Millions)
117	13	UNICEF, Regular and Extra-budgetary Income and Expenditure, 1990-2007, 2007 US\$ (Millions)
117	14	UNAIDS, Regular and Extra-budgetary Income & Expenditure, 1990-2007, 2007 US\$ (Millions)
118	15	US NGO Expenditures, 1990-2006, 2007 US\$ (Millions)
120	16	Financial and In-kind Contributions by GFATM and GAVI, 2000-2007 US\$ (Units)
120	17	Bill & Melinda Gates Foundation Global Health Commitments, Disbursements & In-kind Contributions, 1999-2007, 2007 US\$ (Millions)

TABLE 1**Development Assistance for Health by Channel of Assistance, 1990-2007, 2007 US\$ (Millions)**

Channel	1990	1991	1992	1993	1994	1995	1996
Bilateral Development Agencies	2,613	2,219	2,410	2,268	2,714	3,121	3,122
Regional Development Banks							
African Development Bank (AfDB)	63	61	60	58	91	70	72
Asian Development Bank (ADB)	34	33	54	76	75	52	65
Inter-American Development Bank (IDB)	86	79	52	61	84	83	108
World Bank							
International Development Association (IDA)	18	72	234	410	529	582	624
International Bank for Reconstruction and Development (IBRD)	72	118	224	435	477	383	545
United Nations							
Joint United Nations Programme on HIV/AIDS (UNAIDS)							74
United Nations Population Fund (UNFPA)	336	336	283	283	402	402	377
United Nations Children's Fund (UNICEF)	368	368	457	457	468	468	414
World Health Organization (WHO)	1,099	1,099	1,052	1,052	1,155	1,155	954
European Commission (EC) ¹	50	38	27	98	168	174	192
Global Health Partnerships							
Global Alliance for Vaccines & Immunization (GAVI)							
Global Fund to Fight AIDS, Tuberculosis & Malaria (GFATM)							
Bill & Melinda Gates Foundation (BMGF)							
Other Foundations ²	114	111	135	167	145	136	167
Non-Governmental Organizations (NGOs) ²	733	938	1,123	1,245	1,456	1,386	1,391
Total	5,587	5,472	6,112	6,609	7,764	8,011	8,104

Notes:

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 development assistance 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.

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
3,054	2,894	3,048	3,001	2,955	3,757	4,118	4,394	5,096	6,156	7,398
90	60	59	43	41	78	41	87	143	88	85
61	111	221	377	178	182	156	164	160	135	135
146	158	156	191	174	217	190	377	387	141	167
662	646	808	827	877	1,028	1,059	1,117	1,092	880	819
653	669	767	881	778	738	569	887	622	473	370
74	82	82	125	125	106	106	167	167	226	220
377	391	391	360	360	391	391	451	451	510	575
414	427	427	504	504	573	573	771	771	742	722
954	1,033	1,033	1,236	1,236	1,276	1,276	1,542	1,542	1,584	1,541
234	293	335	352	412	423	639	99	427	509	521
			3	141	114	200	210	272	432	918
					16	297	742	1,194	1,444	1,799
		160	366	270	401	523	330	454	663	855
161	206	263	334	314	277	242	234	247	284	287
1,538	1,683	2,046	2,094	2,541	2,859	3,165	4,028	4,879	4,727	5,375
8,419	8,654	9,797	10,694	10,905	12,438	13,546	15,600	17,904	18,995	21,788

TABLE 2

Development Assistance for Health by Funding Source, 1990-2007, 2007 US\$ (Millions)

Funding source	1990	1991	1992	1993	1994	1995	1996
National Treasuries							
Australia	27	33	61	71	108	119	161
Austria	37	16	12	40	41	38	25
Belgium	73	98	109	120	109	121	111
Canada	131	132	113	119	146	175	113
Denmark	95	108	130	146	154	159	214
Finland	104	107	73	64	50	50	54
France	674	404	362	325	428	498	465
Germany	197	218	264	340	506	589	615
Greece	2	2	2	2	2	9	15
Ireland	4	4	6	3	13	30	30
Italy	284	259	247	229	183	162	199
Japan	338	420	465	547	809	803	609
Luxembourg	1	1	9	9	4	18	18
Netherlands	162	142	229	204	187	224	319
New Zealand	2	3	3	4	53	52	5
Norway	124	120	128	123	101	101	152
Portugal	1	1	3	3	9	11	14
Spain	19	39	117	120	93	183	253
Sweden	358	329	366	349	285	287	268
Switzerland	77	71	59	50	76	72	68
United Kingdom	132	148	234	275	333	343	369
United States	1,315	1,316	1,398	1,369	1,705	1,781	1,648
Other	109	110	141	142	200	199	98
Private Philanthropy							
Bill & Melinda Gates Foundation (BMGF)							
Corporate Donations	244	271	347	417	516	482	604
Other ¹	466	480	589	655	662	653	669
Debt Repayments (IBRD)	86	130	236	449	495	398	563
Other	250	250	139	139	181	181	89
Unallocable	274	264	269	296	316	275	357
Total	5,587	5,472	6,112	6,609	7,764	8,011	8,104

Notes:

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 source of development assistance funds.

¹ Includes private contributions through foundations and NGOs.

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
135	116	149	193	169	164	180	179	192	209	219
76	36	104	65	36	35	52	43	58	55	63
107	108	119	128	133	181	169	159	203	185	229
144	114	130	164	143	239	304	371	506	434	555
181	138	163	133	111	119	144	152	178	180	193
47	47	50	48	55	64	75	71	78	90	87
388	400	392	330	381	446	506	584	664	791	848
535	478	532	418	427	394	638	599	489	728	783
17	18	12	14	18	17	41	32	48	52	51
7	30	29	40	50	109	138	147	165	249	261
121	192	205	152	210	224	249	207	457	378	414
908	762	684	894	809	829	843	753	931	887	579
28	30	23	33	40	46	46	53	48	65	73
274	258	310	407	391	400	440	440	463	575	477
7	6	8	7	9	12	14	16	20	26	26
155	126	150	158	213	277	325	362	362	383	536
18	18	17	19	18	21	26	18	24	23	25
208	182	222	162	179	183	224	210	255	341	438
249	212	215	205	155	296	207	319	461	452	501
86	61	77	76	77	71	107	99	98	84	99
387	442	458	780	836	813	1,147	976	1,296	1,534	1,956
1,699	1,677	1,885	1,964	2,130	2,890	2,906	3,650	3,921	4,497	5,680
101	308	332	90	91	85	98	123	157	177	229
		169	420	471	515	597	428	688	846	1,124
654	709	805	763	1,037	1,210	1,427	2,005	2,501	2,205	2,507
718	941	1,104	1,256	1,260	1,240	1,298	1,436	1,734	1,988	2,183
675	693	798	925	806	773	597	932	672	500	398
89	102	102	124	129	137	171	221	234	352	514
405	452	551	724	521	647	578	1,014	999	705	739
8,419	8,654	9,797	10,694	10,905	12,438	13,546	15,600	17,904	18,995	21,788

TABLE 3**Development Assistance for Health by Country of Origin, 1990-2007, 2007 US\$ (Millions)**

Country/Region	1990	1991	1992	1993	1994	1995	1996
Australia	28	33	63	73	112	122	165
Austria	37	16	13	41	41	38	25
Belgium	74	99	111	122	111	122	112
Canada	137	138	119	126	153	182	118
Denmark	95	108	131	146	154	159	215
Finland	105	108	74	65	51	51	54
France	675	405	364	326	431	501	468
Germany	203	224	276	352	519	603	629
Greece	2	2	2	2	3	9	15
Ireland	4	4	6	3	14	30	30
Italy	286	261	252	233	187	166	202
Japan	354	436	482	565	832	827	632
Luxembourg	1	2	9	9	4	18	18
Netherlands	170	150	244	218	200	237	325
New Zealand	2	3	3	4	53	52	5
Norway	124	121	128	123	101	102	153
Portugal	1	1	3	3	9	11	14
Spain	24	43	122	125	100	190	261
Sweden	358	329	366	349	285	287	268
Switzerland	81	75	64	56	80	76	73
United Kingdom	135	152	240	280	339	348	373
United States	1,934	1,974	2,193	2,299	2,727	2,760	2,769
Other countries	108	109	141	141	200	198	107
Unallocable by country ¹	250	250	139	139	181	181	89
Unspecified ²	395	430	566	807	876	738	984
Total	5,587	5,472	6,112	6,609	7,764	8,011	8,104

Notes:

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 the origin country of development assistance funds.

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.

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
139	118	151	195	171	165	182	183	196	211	220
77	37	105	65	37	35	52	45	60	56	65
107	109	120	129	134	182	170	163	208	187	231
149	119	134	168	147	243	308	380	515	438	559
181	138	163	134	112	119	145	154	180	185	194
48	48	51	49	55	65	75	72	79	90	88
391	403	395	336	387	452	512	603	683	801	857
549	492	545	434	444	412	657	630	520	743	798
17	18	13	14	18	17	41	32	48	52	51
7	30	29	41	50	110	139	148	166	249	261
123	193	206	155	212	228	253	217	467	382	418
931	769	692	909	823	841	855	764	942	893	585
28	30	24	33	41	47	47	54	49	66	73
280	266	319	411	395	404	444	453	476	580	483
7	6	8	7	9	12	14	16	20	26	26
155	129	153	158	213	278	325	362	363	384	536
18	18	17	19	18	21	26	18	24	23	25
216	187	227	167	185	187	228	217	262	355	451
249	212	215	206	156	297	208	322	464	474	522
91	62	79	80	81	86	122	113	111	98	113
391	454	470	789	845	847	1,182	994	1,314	1,573	1,993
2,919	3,056	3,693	4,220	4,715	5,640	6,010	7,246	8,573	9,191	11,135
110	103	126	97	98	94	106	144	178	202	232
89	102	102	124	129	137	171	221	234	352	514
1,144	1,556	1,760	1,753	1,431	1,519	1,276	2,049	1,772	1,381	1,357
8,419	8,654	9,797	10,694	10,905	12,438	13,546	15,600	17,904	18,995	21,788

TABLE 4**Development Assistance for Health by Target Region, 1990-2007, 2007 US\$ (Millions)**

Year	Sub-Saharan Africa	Middle East & North Africa	South Asia
1990	541	118	294
1991	552	160	304
1992	653	155	486
1993	649	196	584
1994	653	200	656
1995	706	197	566
1996	911	191	619
1997	916	248	585
1998	929	217	631
1999	978	259	657
2000	1,016	255	687
2001	1,504	268	740
2002	1,587	232	857
2003	2,288	297	948
2004	3,095	351	941
2005	3,433	714	1,167
2006	4,021	712	1,158
2007	4,957	517	1,333

Notes:

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 region intended to benefit from the assistance. World Bank regional groupings are used.

¹ Global denotes activities or projects that are not oriented to a specific country.

East Asia & Pacific	Europe & Central Asia	Latin America & Caribbean	Global ¹	Unallocable by region	Total
285	14	349	43	3,944	5,589
263	15	389	52	3,739	5,474
256	58	381	67	4,060	6,115
409	141	471	173	3,989	6,612
402	190	454	465	4,749	7,767
342	115	545	608	4,934	8,015
401	133	742	446	4,663	8,106
470	223	893	512	4,573	8,420
484	235	887	436	4,834	8,654
701	341	1,027	652	5,183	9,797
947	279	1,110	863	5,540	10,697
755	269	993	890	5,489	10,907
616	222	1,011	1,453	6,463	12,440
812	272	1,001	1,808	6,123	13,548
975	329	1,530	1,306	7,075	15,603
1,030	601	1,324	1,792	7,846	17,907
1,124	468	1,018	1,938	8,558	18,997
1,186	532	1,033	2,595	9,638	21,791

TABLE 5

Financial Development Assistance for Health by Target Country, 1990-2007, 2007 US\$ (Millions)

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 & Pacific																
China	51.37	0.04	42.92	0.04	52.85	0.04	47.49	0.04	61.86	0.05	92.10	0.08	107.51	0.09	99.07	0.08
Cook Is.	0.00		0.00		0.00		0.00		0.00		0.01		0.01		0.01	
Fiji	0.67	0.92	0.77	1.05	11.13	15.07	18.16	24.26	1.62	2.13	1.45	1.89	1.01	1.30	1.17	1.49
Micronesia	0.00	0.00	0.00	0.00	3.74	36.90	0.61	5.87	0.45	4.23	0.33	3.07	0.24	2.24	0.18	1.65
Indonesia	98.52	0.54	54.09	0.29	40.67	0.22	72.59	0.38	68.58	0.35	72.74	0.37	61.26	0.31	106.90	0.53
Cambodia	0.00	0.00	1.62	0.16	5.99	0.58	7.41	0.69	36.62	3.31	53.95	4.73	54.34	4.64	45.09	3.76
Kiribati	5.43		3.77		0.01		2.41		0.07		0.09		0.21		0.21	
South Korea	13.21	0.31	27.07	0.63	0.00	0.00	101.95	2.31	93.76	2.10						
Laos	0.10	0.02	0.53	0.13	2.20	0.51	0.79	0.18	1.85	0.40	2.39	0.51	7.08	1.47	5.77	1.17
Marshall Is.	0.00		0.00		0.00		0.07		0.07		1.65		1.62		1.59	
Myanmar	2.68	0.07	2.09	0.05	0.08	0.00	0.09	0.00	0.12	0.00	0.19	0.00	0.25	0.01	0.25	0.01
Mongolia	0.18	0.08	3.05	1.35	3.11	1.35	1.79	0.77	2.50	1.06	3.13	1.31	2.77	1.15	3.22	1.33
Northern Mariana Is.	0.00		2.43		0.40		0.29		0.21							
Malaysia	38.30	2.12	40.51	2.18	37.72	1.98	35.62	1.82	40.84	2.03	30.04	1.46	41.02	1.94	30.63	1.41
New Caledonia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Niue	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Nauru	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Philippines	45.91	0.75	45.87	0.73	42.99	0.67	35.00	0.53	40.88	0.61	40.06	0.58	48.04	0.69	60.83	0.85
Palau	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Papua New Guinea	14.08	3.41	16.59	3.91	24.10	5.54	26.99	6.04	13.18	2.88	9.52	2.02	40.88	8.45	22.03	4.43
North Korea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solomon Is.	1.53	4.87	1.38	4.28	1.88	5.65	2.01	5.87	2.71	7.71	2.10	5.80	2.42	6.49	1.65	4.30
Thailand	2.77	0.05	1.79	0.03	0.80	0.01	12.74	0.23	3.32	0.06	2.56	0.04	8.49	0.15	21.98	0.37
Tokelau	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Timor Leste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tonga	0.07	0.73	0.07	0.70	0.05	0.48	0.13	1.37	0.32	3.33	0.23	2.37	0.17	1.78	1.47	14.99
Tuvalu	0.00		0.00		0.00		0.00		0.00		0.09		0.06		0.08	
Vietnam	3.49	0.05	11.38	0.17	19.56	0.28	27.46	0.39	16.29	0.23	14.66	0.20	16.28	0.22	49.16	0.65
Vanuatu	0.30	2.00	0.70	4.52	0.33	2.10	0.40	2.46	0.51	3.05	0.45	2.61	0.38	2.13	0.83	4.62
Wallis & Futuna	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Samoa	0.00	0.01	0.00	0.00	0.00	0.00	0.38	2.29	0.63	3.78	0.30	1.78	0.35	2.07	0.32	1.85
Europe & Central Asia																
Albania	0.00	0.00	0.00	0.00	2.79	0.85	0.87	0.27	2.80	0.88	2.72	0.86	3.89	1.25	3.28	1.06
Armenia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.63	4.14	2.53	0.79	3.12	0.98	2.35	0.75
Azerbaijan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.69	0.74	0.93	0.12	0.89	0.11	0.56	0.07
Bulgaria	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.79	0.58
Bosnia & Herzegovina	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.11	0.98	0.28	0.50	0.15	2.05	0.60	20.89	6.03
Belarus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Estonia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.03	0.04	0.03
Georgia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.66	1.49	1.50	0.30	1.84	0.37	3.98	0.81
Gibraltar	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Croatia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.16	6.76	1.45	11.57	2.49	10.82	2.34
Hungary	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.81	0.66	6.67	0.65	6.55	0.63	6.44	0.63
Kazakhstan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.57	0.28	3.60	0.23	4.32	0.27	4.98	0.32

1998		1999		2000		2001		2002		2003		2004		2005		2006		2007	
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	DAH	DAH per capita	DAH	DAH per capita
100.74	0.08	92.10	0.07	133.28	0.10	122.23	0.10	118.83	0.09	135.58	0.10	211.86	0.16	174.13	0.13	230.43	0.17	242.33	0.18
0.01		0.00		0.14		0.14		0.29		1.46		1.85		0.50		1.40		0.66	
0.69	0.87	11.27	14.16	7.85	9.79	3.95	4.89	5.13	6.31	13.30	16.26	5.93	7.21	2.74	3.31	5.60	6.72	7.42	8.84
0.00	0.00	5.68	53.00	1.03	9.57	0.74	6.90	0.00	0.00	4.32	39.74	17.04	155.79	18.73	170.20	17.04	154.01	17.46	157.16
132.55	0.64	188.89	0.90	405.82	1.92	254.27	1.19	170.62	0.78	211.47	0.96	243.51	1.09	202.55	0.90	227.50	0.99	209.60	0.90
32.33	2.64	29.07	2.32	36.77	2.88	41.59	3.19	34.15	2.58	69.64	5.16	74.77	5.45	107.37	7.69	100.59	7.09	110.98	7.68
0.18		0.14		0.28		0.16		0.19		0.19		0.15		1.99		2.67		4.24	
0.00	0.00	0.05	0.00	0.00	0.00														
6.07	1.21	11.46	2.24	21.34	4.08	15.60	2.93	14.67	2.72	32.10	5.85	25.07	4.50	35.28	6.23	26.10	4.53	32.63	5.57
1.52		3.93		1.74		1.59		1.22		3.79		10.06		14.87		7.21		8.38	
0.55	0.01	2.01	0.04	3.03	0.07	3.35	0.07	9.69	0.21	26.14	0.55	24.55	0.52	37.82	0.79	20.68	0.43	27.72	0.57
6.54	2.68	12.65	5.16	7.41	3.00	17.00	6.83	3.16	1.26	6.24	2.46	6.58	2.57	7.82	3.03	7.20	2.76	14.69	5.59
								0.00		0.00		0.00		0.00		0.00			
11.14	0.50	13.38	0.59	11.08	0.48	8.57	0.36	1.16	0.05	2.67	0.11	1.36	0.05	1.45	0.06	0.82	0.03	0.95	0.04
0.00		0.00		0.00		0.00		0.12		0.03		0.29		3.97		0.73		1.28	
0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.40		1.75		3.89	
85.46	1.17	83.00	1.11	78.44	1.03	88.61	1.14	46.05	0.58	75.80	0.93	73.13	0.88	113.22	1.34	113.49	1.32	133.30	1.52
0.00		1.62		0.26		0.19		0.00		1.28		1.16		1.29		0.89		0.28	
41.54	8.14	43.79	8.35	30.33	5.64	43.31	7.85	50.68	8.96	49.95	8.61	52.93	8.92	53.90	8.88	57.68	9.30	54.81	8.66
0.25	0.01	0.21	0.01	0.04	0.00	0.00	0.00	1.24	0.05	1.27	0.05	1.95	0.08	3.42	0.14	2.36	0.10	2.00	0.08
1.20	3.06	2.07	5.11	2.57	6.18	6.21	14.55	7.04	16.07	10.52	23.41	11.79	25.59	10.04	21.26	10.17	21.01	10.81	21.82
1.99	0.03	112.07	1.87	125.45	2.07	11.71	0.19	14.31	0.23	27.58	0.44	47.44	0.76	35.05	0.56	50.19	0.79	59.94	0.94
0.00		0.00		0.00		0.00		0.07		0.25		0.06		0.00		0.00		0.00	
0.00	0.00	0.27	0.33	0.49	0.60	2.48	2.92	0.70	0.79	2.28	2.39	3.86	3.81	8.64	8.09	15.42	13.85	16.15	13.99
0.15	1.51	0.08	0.82	0.89	9.03	0.90	9.16	0.92	9.33	1.97	19.93	4.02	40.57	10.94	110.06	3.94	39.47	3.12	31.06
0.12		0.00		0.14		0.14		4.84		2.00		0.05		0.42		0.13		0.14	
51.17	0.67	72.14	0.93	66.68	0.84	81.30	1.01	85.17	1.05	95.46	1.16	112.23	1.34	141.34	1.66	159.97	1.86	160.62	1.84
1.12	6.17	1.64	8.84	1.55	8.18	2.79	14.36	2.26	11.34	3.39	16.57	3.49	16.62	3.39	15.74	2.31	10.47	2.80	12.40
0.00		0.00		0.00		32.98		30.26		12.85		6.49		0.99		0.97		3.40	
1.15	6.59	0.60	3.42	0.45	2.53	2.10	11.72	2.39	13.27	3.54	19.50	3.42	18.72	3.19	17.35	4.50	24.25	2.16	11.56
6.80	2.20	12.05	3.91	11.26	3.66	19.80	6.42	10.68	3.45	19.92	6.40	19.45	6.21	24.55	7.79	11.28	3.56	17.40	5.45
4.95	1.59	6.27	2.02	11.61	3.77	4.81	1.57	11.15	3.66	6.79	2.23	4.24	1.40	20.58	6.82	17.39	5.78	19.08	6.35
0.51	0.06	9.18	1.14	11.40	1.40	3.74	0.46	4.45	0.54	2.61	0.32	2.31	0.28	8.90	1.07	13.09	1.56	12.23	1.44
4.73	0.58	4.67	0.58	4.57	0.57	11.46	1.44	6.88	0.87	9.06	1.15	10.66	1.37	25.81	3.33	26.77	3.48	14.09	1.84
22.80	6.38	44.18	11.96	16.90	4.46	13.52	3.52	13.03	3.36	13.04	3.35	9.35	2.39	9.96	2.54	10.77	2.74	13.47	3.42
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	0.14	4.40	0.45	4.44	0.46	7.62	0.79
0.04	0.03	0.04	0.03	0.04	0.03	0.00	0.00	0.00	0.00	1.13	0.83	1.96	1.46	2.45	1.82				
6.78	1.40	10.53	2.20	17.68	3.75	13.72	2.94	16.23	3.52	11.94	2.62	12.46	2.76	29.19	6.52	27.15	6.12	37.38	8.50
0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
10.62	2.32	10.14	2.24	5.34	1.19	5.17	1.15	5.20	1.15	6.53	1.44	5.31	1.17	7.52	1.65	1.91	0.42	0.51	0.11
6.37	0.62	6.28	0.61	6.14	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7.59	0.50	17.08	1.13	20.24	1.35	17.05	1.14	12.68	0.85	17.10	1.14	12.92	0.86	10.08	0.66	14.61	0.95	10.25	0.66

(continued on next page)

TABLE 5: Financial Development Assistance for Health by Target Country, 1990-2007, 2007 US\$ (Millions), 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
Kyrgyzstan	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.02	1.51	0.33	0.29	0.06	8.08	1.74	8.26	1.75
Kosovo	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Lithuania	0.00	0.00	0.00	0.00	0.00	0.00	6.64	1.81	6.50	1.78	6.37	1.76	0.00	0.00	0.00	0.00
Latvia	0.00	0.00	0.00	0.00	0.00	0.00	8.80	3.43	8.62	3.41	0.00	0.00	0.00	0.00	0.00	0.00
Moldova	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.12
Macedonia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.44	3.26	6.06	3.06
Malta	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.01	0.02	0.00	0.01	0.00	0.00
Montenegro	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Poland	0.00	0.00	0.00	0.00	0.00	0.00	12.04	0.31	11.79	0.31	11.55	0.30	11.34	0.29	11.15	0.29
Romania	0.00	0.00	0.00	0.00	24.80	1.07	24.24	1.06	23.74	1.04	23.26	1.03	22.83	1.01	22.45	1.00
Russia	0.00	0.00	0.00	0.00	0.00	0.00	69.14	0.46	67.70	0.45	0.00	0.00	0.00	0.00	64.55	0.43
Serbia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Slovakia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tajikistan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.11	0.90	1.76	0.30	1.58	0.27	1.96	0.33
Turkmenistan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.33	0.32	1.80	0.43	1.01	0.24	1.26	0.29
Turkey	12.42	0.22	11.73	0.20	27.52	0.46	17.10	0.28	15.30	0.25	37.10	0.59	33.61	0.53	28.15	0.43
Ukraine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uzbekistan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.42	0.06	2.71	0.12	11.20	0.48	7.23	0.31
Yugoslavia	0.00		0.00		0.85		0.38		1.92		1.95		0.95		0.38	
Latin America & Caribbean																
Anguilla	0.00		0.00		0.23		0.31		0.35		0.32		0.26		0.20	
Netherlands Antilles	0.17	0.90	0.05	0.24	0.01	0.07	0.13	0.68								
Argentina	13.05	0.40	24.31	0.74	60.67	1.81	15.90	0.47	30.61	0.89	71.57	2.05	76.10	2.16	67.68	1.90
Antigua & Barbuda	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Belize	2.71	14.58	2.47	12.95	2.05	10.44	1.66	8.19	0.89	4.26	1.05	4.91	0.69	3.14	0.61	2.68
Bolivia	16.20	2.43	19.51	2.86	35.03	5.01	31.70	4.43	36.32	4.96	33.31	4.45	38.92	5.09	42.85	5.48
Brazil	46.09	0.31	41.28	0.27	46.66	0.30	43.32	0.28	77.34	0.49	76.31	0.47	74.43	0.45	141.98	0.85
Barbados	3.71	13.68	0.00	0.00	0.12	0.44	0.12	0.42	0.11	0.41	0.11	0.40	0.11	0.39	0.11	0.38
Chile	10.40	0.79	29.27	2.18	26.76	1.96	38.22	2.75	28.02	1.98	30.71	2.13	25.34	1.73	24.65	1.66
Colombia	5.23	0.15	6.43	0.18	3.99	0.11	19.02	0.52	16.49	0.44	14.85	0.39	42.80	1.10	41.39	1.04
Costa Rica	1.58	0.51	0.89	0.28	1.36	0.42	6.03	1.82	8.45	2.49	8.29	2.39	8.55	2.40	7.95	2.18
Cuba	0.05	0.00	0.02	0.00	0.26	0.02	0.33	0.03	0.23	0.02	0.56	0.05	0.28	0.03	0.95	0.09
Dominica	5.48		1.30		0.06		1.12		0.25		0.15		0.04		0.42	
Dominican Republic	3.48	0.48	5.43	0.73	4.27	0.56	10.14	1.31	6.61	0.84	6.10	0.76	21.10	2.59	15.24	1.84
Ecuador	10.07	0.98	7.34	0.70	7.75	0.72	17.04	1.55	16.31	1.46	15.03	1.32	15.32	1.32	18.96	1.61
Falkland Is.	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Grenada	1.56	16.31	2.72	28.35	0.32	3.35	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.16	1.64
Guatemala	10.72	1.20	8.31	0.91	9.83	1.05	25.95	2.72	13.41	1.37	13.91	1.39	20.01	1.96	84.09	8.03
Guyana	4.17	5.71	4.03	5.52	3.94	5.38	5.01	6.82	4.49	6.09	4.40	5.95	4.32	5.85	4.38	5.94
Honduras	24.60	5.03	20.92	4.16	17.76	3.44	30.09	5.67	18.61	3.42	14.70	2.64	29.61	5.19	42.49	7.30
Haiti	20.98	2.95	24.35	3.36	19.32	2.61	32.49	4.31	33.68	4.38	81.04	10.34	29.51	3.70	28.01	3.45
Jamaica	19.80	8.36	18.28	7.65	16.48	6.83	13.49	5.54	13.63	5.54	10.47	4.21	12.93	5.16	13.69	5.41
St. Kitts & Nevis	0.03		0.02		0.00		0.01		0.00		0.49		0.00		0.11	
St. Lucia	1.08	7.87	0.79	5.62	0.22	1.59	0.12	0.87	0.76	5.24	0.16	1.09	1.10	7.45	0.65	4.37
Mexico	59.01	0.70	55.75	0.65	10.58	0.12	3.99	0.05	0.64	0.01	0.72	0.01	151.10	1.62	142.93	1.50
Montserrat	0.00		0.00		0.00		0.00		0.77		1.33		1.19		0.98	
Nicaragua	7.79	1.88	19.32	4.56	16.74	3.85	31.80	7.14	31.10	6.82	24.90	5.34	32.04	6.73	36.21	7.46

1998		1999		2000		2001		2002		2003		2004		2005		2006		2007	
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	DAH	DAH per capita	DAH	DAH per capita
8.74	1.82	8.54	1.75	16.42	3.32	7.78	1.56	12.15	2.40	22.62	4.43	14.16	2.75	25.28	4.86	26.81	5.10	32.24	6.06
0.00		0.00		0.00		0.00		0.00		0.00		0.12		0.11		0.11		0.11	
0.00	0.00	0.00	0.00	3.19	0.91	3.12	0.90	3.06	0.88	3.00	0.87	2.92	0.85	2.83	0.82	2.74	0.80	0.00	0.00
0.00	0.00	1.11	0.46	1.09	0.46	1.06	0.45	1.05	0.45	1.02	0.44	0.99	0.43	0.00	0.00	0.00	0.00	0.00	0.00
1.03	0.24	10.73	2.55	13.80	3.33	8.97	2.19	5.95	1.48	6.30	1.58	9.08	2.31	14.56	3.76	9.61	2.51	14.67	3.87
3.71	1.86	19.29	9.64	3.35	1.67	10.30	5.11	3.28	1.62	4.64	2.29	3.49	1.72	12.73	6.26	6.86	3.37	8.46	4.15
		0.00	0.00			0.00	0.00												
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.58	4.24	5.13	8.54	4.99	8.34
11.03	0.29	10.87	0.28	10.64	0.28	10.39	0.27	10.21	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.21	0.99	21.89	0.98	0.00	0.00	10.97	0.50	10.78	0.49	16.95	0.78	27.56	1.27	15.00	0.69	10.73	0.50	13.21	0.62
69.65	0.47	69.51	0.47	68.23	0.46	66.43	0.45	13.71	0.09	13.43	0.09	36.05	0.25	48.14	0.33	75.36	0.53	97.42	0.68
0.47	0.05	13.09	1.29	11.03	1.09	11.22	1.11	7.30	0.73	25.00	2.51	34.25	3.46	20.91	2.12	20.39	2.07	14.58	1.48
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.18	2.26	11.80	2.19	11.43	2.12		
1.33	0.22	3.92	0.64	4.20	0.68	3.83	0.61	6.70	1.06	10.26	1.61	17.52	2.71	15.66	2.39	17.55	2.64	25.06	3.72
6.24	1.42	2.71	0.61	2.11	0.47	1.86	0.41	1.84	0.40	2.11	0.45	1.66	0.35	1.70	0.35	1.64	0.33	1.76	0.35
26.13	0.40	27.00	0.40	17.58	0.26	12.64	0.18	17.93	0.26	18.00	0.25	17.58	0.24	15.64	0.21	39.88	0.54	87.61	1.17
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.45	0.05	11.94	0.25	13.91	0.29	32.40	0.69	52.17	1.12	47.67	1.03
7.13	0.30	21.95	0.90	12.84	0.52	20.27	0.81	29.86	1.17	24.88	0.96	32.23	1.23	32.30	1.21	29.01	1.08	29.47	1.08
0.06		0.09		0.19		0.12		3.38		0.34		7.38		0.47		1.67		1.43	
0.06		0.21		0.13		0.35		0.18		0.02		0.24		0.70		0.00		0.00	
106.57	2.95	83.95	2.30	78.93	2.14	63.00	1.69	62.81	1.67	68.91	1.81	222.72	5.80	173.37	4.47	159.62	4.08	115.02	2.91
0.00		0.17		1.25		0.09				0.02		0.09							
0.77	3.33	0.66	2.75	1.43	5.83	2.77	11.04	1.69	6.57	1.55	5.89	1.63	6.05	1.61	5.85	1.90	6.73	1.74	6.03
52.54	6.58	40.93	5.02	69.00	8.30	56.24	6.63	51.66	5.96	72.43	8.20	78.80	8.75	53.47	5.82	56.15	6.00	62.53	6.57
120.56	0.71	129.10	0.75	211.92	1.22	152.80	0.86	152.09	0.85	169.59	0.93	337.22	1.83	113.98	0.61	89.28	0.47	89.79	0.47
0.11	0.38	0.11	0.37			0.10	0.35			2.52	8.68	2.47	8.50	2.34	8.02				
18.89	1.26	6.08	0.40	2.46	0.16	2.95	0.19	1.11	0.07	7.33	0.46	15.22	0.94	16.42	1.01	7.12	0.43	8.71	0.52
22.46	0.56	20.20	0.49	18.76	0.45	22.59	0.53	54.82	1.27	97.78	2.24	260.15	5.87	323.29	7.19	92.84	2.04	84.20	1.82
8.75	2.34	17.18	4.47	19.59	4.99	9.96	2.48	8.12	1.98	7.09	1.70	9.61	2.26	3.97	0.92	3.77	0.86	4.24	0.95
0.57	0.05	4.68	0.42	3.16	0.28	3.64	0.33	4.29	0.38	11.83	1.05	11.97	1.06	7.41	0.66	7.72	0.68	13.96	1.24
0.34		0.00		0.00		0.00		0.00		0.15		0.10		0.06		0.16		0.10	
33.16	3.92	47.42	5.52	30.29	3.46	24.76	2.79	27.02	2.99	37.17	4.05	36.39	3.90	67.74	7.15	33.63	3.50	35.10	3.60
26.48	2.21	24.17	1.99	26.66	2.17	24.97	2.00	10.92	0.87	13.95	1.09	27.61	2.14	23.57	1.80	26.54	2.01	42.28	3.17
0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
0.15	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	1.88	0.30	2.91	0.75	7.14	0.80	7.58	0.72	6.77
33.14	3.09	44.99	4.10	33.87	3.02	48.12	4.18	33.68	2.86	46.17	3.82	31.32	2.53	30.94	2.43	37.74	2.90	44.41	3.33
3.31	4.49	3.66	4.99	0.73	1.00	1.49	2.03	2.45	3.32	10.05	13.62	23.14	31.31	19.04	25.75	26.05	35.25	24.71	33.49
19.52	3.28	64.49	10.62	64.60	10.43	28.27	4.47	24.92	3.87	40.67	6.19	57.23	8.54	45.51	6.66	45.07	6.47	54.24	7.63
34.01	4.11	42.56	5.05	37.91	4.42	32.75	3.76	23.62	2.67	47.94	5.32	60.47	6.61	63.61	6.84	112.17	11.88	130.74	13.62
14.66	5.75	17.84	6.94	16.04	6.20	14.16	5.43	27.26	10.37	9.56	3.61	11.03	4.14	10.12	3.77	12.63	4.68	12.22	4.50
0.06		0.09		0.95		3.49		1.36		0.02		0.22		0.21		0.21		0.20	
0.67	4.44	0.03	0.17	0.07	0.46	0.15	0.96	0.10	0.61	0.25	1.61	0.22	1.36	0.28	1.71	0.30	1.84	0.27	1.63
144.11	1.49	210.89	2.14	230.01	2.31	257.33	2.55	263.65	2.59	55.98	0.55	42.88	0.41	40.66	0.39	36.29	0.34	44.39	0.42
4.01		1.99		2.34		2.72		2.14		1.74		0.18		0.37		0.19		0.00	
35.15	7.11	64.72	12.87	54.51	10.67	38.48	7.42	47.97	9.13	56.20	10.55	51.70	9.59	62.61	11.46	67.29	12.16	75.32	13.44

(continued on next page)

TABLE 5: Financial Development Assistance for Health by Target Country, 1990-2007, 2007 US\$ (Millions), continued

Region/Country	1990		1991		1992		1993		1994		1995		1996		1997	
	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita	DAH	per capita
Panama	0.24	0.10	4.24	1.72	0.77	0.31	3.84	1.50	10.88	4.16	10.58	3.96	21.57	7.92	15.98	5.75
Peru	14.85	0.68	12.57	0.57	13.00	0.57	49.47	2.15	38.59	1.64	49.99	2.10	60.31	2.49	50.62	2.06
Paraguay	0.48	0.11	0.26	0.06	0.22	0.05	0.12	0.03	0.07	0.02	0.06	0.01	0.06	0.01	3.33	0.66
St. Helena	0.00		0.00		0.51		0.50		0.53		0.46		0.37		1.23	
El Salvador	26.01	5.09	34.26	6.58	39.64	7.47	25.46	4.71	18.44	3.34	17.47	3.10	10.82	1.88	15.12	2.58
Suriname	4.81	11.95	9.50	23.46	10.93	26.81	4.78	11.66	4.22	10.22	12.50	30.06	7.16	17.06	3.47	8.19
Turks & Caicos Is.	0.17		0.19		0.19		0.15		0.14		0.12		0.08		0.01	
Trinidad & Tobago	0.01	0.01	0.01	0.01	0.98	0.79	1.03	0.82	0.98	0.78	0.97	0.76	0.92	0.72	12.56	9.78
Uruguay	0.16	0.05	0.23	0.07	0.36	0.11	15.55	4.90	3.64	1.14	1.16	0.36	1.44	0.45	0.98	0.30
St. Vincent & the Grenadines	0.15	1.41	0.16	1.50	0.10	0.91	0.01	0.11	0.04	0.31	0.19	1.65	0.05	0.47	0.64	5.57
Venezuela	0.00	0.00	9.73	0.48	9.52	0.46	21.16	1.00	20.85	0.96	29.33	1.33	35.48	1.57	34.87	1.52
Middle East & North Africa																
Bahrain	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Djibouti	0.92	1.64	1.33	2.30	6.71	11.33	1.07	1.77	0.73	1.19	1.60	2.56	1.47	2.29	6.48	9.77
Algeria	0.00	0.00	0.00	0.00	1.75	0.07	1.71	0.06	1.31	0.05	0.92	0.03	0.29	0.01	0.06	0.00
Egypt	57.06	1.03	63.69	1.13	56.11	0.98	77.03	1.32	81.72	1.37	79.19	1.31	68.40	1.11	66.75	1.06
Iran	0.00	0.00	0.91	0.02	0.59	0.01	0.31	0.01	16.21	0.26	15.93	0.26	15.25	0.24	15.00	0.23
Iraq	0.99	0.05	0.00	0.00	0.10	0.01	0.34	0.02	0.64	0.03	2.85	0.13	2.54	0.11	0.48	0.02
Jordan	2.39	0.73	5.05	1.47	2.25	0.61	5.17	1.32	17.72	4.30	11.25	2.61	14.03	3.16	12.47	2.75
Lebanon	2.63	0.89	3.88	1.27	2.20	0.70	0.58	0.18	0.82	0.24	11.06	3.17	6.52	1.83	7.79	2.14
Libya	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Morocco	8.39	0.34	25.68	1.02	24.21	0.94	59.59	2.28	25.35	0.95	28.58	1.06	20.89	0.76	31.39	1.13
Oman	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Palestinian Territory, Occupied	0.07	0.03	0.04	0.02	0.02	0.01	0.05	0.02	8.63	3.43	5.49	2.10	13.19	4.85	34.25	12.14
Saudi Arabia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Syria	0.02	0.00	0.15	0.01	0.05	0.00	0.91	0.07	0.15	0.01	0.19	0.01	0.06	0.00	4.38	0.29
Tunisia	0.98	0.12	0.38	0.05	10.66	1.25	10.28	1.18	10.39	1.18	10.02	1.12	9.87	1.08	9.46	1.03
Yemen	2.99	0.24	10.80	0.84	16.63	1.23	15.68	1.10	12.74	0.86	16.74	1.08	19.76	1.23	25.35	1.52
South Asia																
Afghanistan	28.85	2.28	23.23	1.72	13.24	0.90	10.82	0.68	5.09	0.29	3.37	0.18	3.90	0.21	4.03	0.21
Bangladesh	66.25	0.59	76.05	0.66	171.79	1.45	128.74	1.06	173.03	1.40	116.23	0.92	111.46	0.86	114.45	0.87
Bhutan	3.66	6.69	3.10	5.69	1.97	3.68	1.60	3.06	1.40	2.74	0.29	0.57	0.19	0.38	1.98	3.83
India	96.73	0.11	125.62	0.14	226.87	0.25	345.69	0.38	396.23	0.42	315.74	0.33	343.61	0.35	290.15	0.29
Sri Lanka	23.36	1.36	20.21	1.17	20.25	1.15	22.69	1.28	13.20	0.74	10.49	0.58	12.28	0.67	23.16	1.26
Maldives	0.00	0.00	0.00	0.00	0.25	1.10	9.03	38.35	0.00	0.00	0.00	0.00	0.00	0.00	0.68	2.63
Nepal	16.05	0.84	15.51	0.79	19.00	0.95	12.09	0.59	7.88	0.37	14.30	0.66	17.91	0.81	21.88	0.96
Pakistan	57.34	0.51	37.05	0.32	30.75	0.26	51.90	0.43	56.84	0.46	101.99	0.80	127.93	0.98	116.83	0.87
Sub-Saharan Africa																
Angola	16.36	1.55	14.29	1.32	20.35	1.81	12.12	1.05	11.70	0.98	19.80	1.61	58.23	4.61	36.63	2.83
Burundi	1.38	0.24	0.93	0.16	4.78	0.80	14.37	2.37	8.33	1.35	10.54	1.69	9.63	1.52	5.89	0.92
Benin	7.65	1.48	1.98	0.37	10.66	1.91	8.03	1.39	6.19	1.03	5.45	0.88	12.53	1.95	12.05	1.82
Burkina Faso	8.23	0.93	8.04	0.88	7.98	0.85	8.29	0.86	9.67	0.97	42.80	4.17	17.22	1.63	18.63	1.71
Botswana	7.95	5.81	1.91	1.35	2.61	1.80	3.15	2.12	5.05	3.31	8.43	5.38	5.18	3.23	5.67	3.46
Central African Republic	2.14	0.71	2.01	0.65	3.04	0.96	2.98	0.91	2.99	0.89	4.31	1.25	1.54	0.44	2.93	0.81
Cote d'Ivoire	11.41	0.89	8.15	0.62	48.72	3.56	36.91	2.62	29.24	2.01	33.19	2.21	53.97	3.50	28.86	1.82
Cameroon	10.47	0.86	16.59	1.32	12.60	0.97	11.84	0.89	7.43	0.54	4.74	0.34	10.77	0.75	11.88	0.80
Congo, DRC	15.84	0.42	13.58	0.35	7.13	0.17	3.99	0.09	8.00	0.18	7.86	0.17	15.98	0.34	16.72	0.35

1998		1999		2000		2001		2002		2003		2004		2005		2006		2007	
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	DAH	DAH per capita	DAH	DAH per capita
13.45	4.74	12.90	4.46	10.83	3.67	8.90	2.96	13.96	4.56	8.61	2.76	8.11	2.55	6.67	2.06	5.86	1.78	5.35	1.60
62.65	2.51	53.83	2.13	77.36	3.01	74.45	2.86	41.72	1.59	85.73	3.22	96.58	3.58	96.50	3.54	57.51	2.08	49.55	1.78
22.19	4.33	29.88	5.70	19.57	3.66	11.17	2.05	7.27	1.30	12.62	2.22	13.04	2.25	10.25	1.74	10.56	1.76	16.69	2.72
1.19		0.57		1.08		1.01		1.22		2.12		1.99		1.87		1.96		2.77	
23.10	3.86	22.66	3.72	21.65	3.49	33.24	5.28	26.89	4.21	25.26	3.90	32.16	4.89	35.18	5.28	33.22	4.91	31.48	4.59
15.30	35.74	9.56	22.12	4.32	9.90	6.66	15.14	7.65	17.24	8.99	20.12	8.93	19.86	10.25	22.66	4.43	9.73	7.21	15.75
0.00		0.17		0.16		0.02		0.02		0.00		0.08		0.21		0.00		0.00	
12.45	9.66	12.05	9.30	11.33	8.71	11.10	8.50	10.91	8.33	10.76	8.19	13.20	10.00	12.80	9.67				
0.94	0.29	1.12	0.34	0.85	0.26	0.98	0.29	44.74	13.45	42.75	12.86	7.74	2.33	7.73	2.32	23.82	7.15	6.79	2.03
1.16	10.14	0.68	5.91	0.11	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.42	0.18	1.50	0.31	2.56	0.18	1.50
34.50	1.47	33.97	1.42	25.43	1.04	14.35	0.58	14.87	0.59	8.51	0.33	7.98	0.30	8.54	0.32	1.47	0.05	1.75	0.06
0.02	0.03	0.03	0.04	0.02	0.03														
7.71	11.23	8.68	12.24	3.87	5.30	0.73	0.98	1.20	1.57	3.53	4.54	6.53	8.26	13.55	16.85	10.80	13.20	14.84	17.81
0.60	0.02	1.45	0.05	0.78	0.03	1.43	0.05	0.78	0.02	0.34	0.01	2.55	0.08	2.53	0.08	2.67	0.08	3.24	0.10
57.19	0.89	73.74	1.13	83.63	1.26	78.89	1.16	61.30	0.89	50.79	0.72	62.65	0.88	61.66	0.85	95.55	1.29	92.87	1.23
15.00	0.23	14.93	0.23	14.62	0.22	26.27	0.39	12.00	0.18	11.83	0.17	11.57	0.17	12.55	0.18	12.81	0.18	13.01	0.18
0.37	0.02	1.78	0.07	1.11	0.04	0.38	0.01	0.37	0.01	22.62	0.84	64.60	2.35	416.33	14.87	316.48	11.10	149.62	5.16
18.13	3.93	35.74	7.61	33.69	7.02	35.50	7.22	44.02	8.71	39.91	7.67	36.31	6.76	12.35	2.23	10.67	1.86	8.53	1.44
6.91	1.88	8.16	2.19	7.87	2.09	7.35	1.92	5.86	1.51	6.57	1.68	3.79	0.96	3.23	0.81	1.44	0.35	7.54	1.84
0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.04	0.49	0.08	1.56	0.25
39.60	1.41	27.01	0.95	29.16	1.01	29.28	1.00	27.96	0.95	42.64	1.43	30.38	1.01	34.98	1.15	62.31	2.02	35.24	1.13
0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.05	0.02	0.05	0.02	0.03	0.01	0.00	0.00		
25.59	8.74	22.80	7.51	26.57	8.44	26.51	8.12	23.79	7.02	40.16	11.44	60.72	16.70	54.20	14.41	48.18	12.39	67.74	16.86
0.16	0.01	0.23	0.01	0.04	0.00	0.06	0.00	0.12	0.01	0.26	0.01								
2.45	0.16	0.10	0.01	0.13	0.01	0.06	0.00	3.06	0.18	2.27	0.13	5.25	0.29	13.66	0.72	2.96	0.15	10.66	0.53
9.85	1.05	16.81	1.78	11.82	1.24	15.07	1.56	12.82	1.31	14.10	1.43	4.52	0.45	3.87	0.38	25.94	2.54	7.24	0.70
9.10	0.53	13.12	0.74	13.22	0.73	17.75	0.95	18.40	0.95	27.03	1.36	20.32	0.99	43.07	2.04	31.33	1.44	44.40	1.98
2.14	0.11	3.71	0.18	3.68	0.18	3.56	0.17	18.35	0.83	26.51	1.15	101.59	4.22	140.18	5.59	141.49	5.42	168.74	6.22
122.97	0.92	139.55	1.02	146.37	1.05	172.56	1.21	144.83	1.00	154.70	1.05	159.60	1.06	162.04	1.06	224.44	1.44	191.59	1.21
4.84	9.14	2.65	4.88	4.87	8.73	4.27	7.44	2.92	4.95	6.95	11.44	5.54	8.89	9.10	14.29	4.63	7.14	5.85	8.88
358.35	0.35	398.28	0.39	434.20	0.42	443.17	0.42	497.23	0.46	488.09	0.44	459.29	0.41	575.02	0.51	469.61	0.41	582.39	0.50
35.04	1.89	12.55	0.67	6.74	0.36	10.58	0.56	16.01	0.85	10.71	0.56	11.19	0.59	16.48	0.86	14.81	0.77	13.57	0.70
0.00	0.00	0.11	0.40	0.37	1.36	0.19	0.70	0.10	0.36	0.09	0.32	0.02	0.08	0.20	0.68	0.26	0.86	1.49	4.87
30.69	1.32	31.55	1.32	29.65	1.21	42.37	1.70	41.43	1.63	47.27	1.82	63.68	2.40	63.74	2.35	69.48	2.51	62.15	2.20
72.04	0.52	59.65	0.42	52.88	0.37	54.35	0.37	128.21	0.85	196.65	1.29	130.06	0.84	170.64	1.08	218.22	1.36	285.70	1.74
14.58	1.10	18.23	1.34	18.25	1.31	26.10	1.82	27.77	1.88	36.94	2.43	48.44	3.10	93.94	5.84	48.05	2.90	61.20	3.59
5.68	0.88	3.61	0.55	4.34	0.65	8.25	1.21	15.50	2.20	21.93	3.01	25.54	3.38	27.28	3.47	40.05	4.90	33.42	3.93
15.35	2.26	17.95	2.56	14.84	2.05	17.95	2.41	20.04	2.60	31.91	4.01	40.50	4.92	52.23	6.15	44.72	5.10	39.79	4.41
18.09	1.62	16.05	1.39	20.06	1.69	27.57	2.25	31.25	2.47	37.81	2.89	61.36	4.54	65.51	4.70	53.07	3.70	76.40	5.17
1.89	1.13	0.39	0.23	0.34	0.20	1.82	1.04	9.87	5.56	13.44	7.49	33.36	18.38	19.88	10.83	29.53	15.89	45.46	24.16
3.46	0.93	11.07	2.92	3.91	1.01	5.62	1.43	9.40	2.35	5.66	1.39	16.79	4.07	11.31	2.70	15.75	3.69	5.99	1.38
21.39	1.31	17.91	1.07	10.21	0.60	15.19	0.87	25.38	1.43	40.47	2.25	39.57	2.17	42.02	2.26	37.30	1.97	60.14	3.12
12.35	0.82	15.14	0.98	8.98	0.57	11.47	0.71	13.50	0.81	23.69	1.39	41.11	2.36	38.39	2.16	39.48	2.17	63.02	3.40
21.09	0.43	20.18	0.41	25.13	0.50	33.07	0.64	41.67	0.78	75.11	1.36	91.08	1.60	127.01	2.16	152.68	2.52	148.37	2.37

(continued on next page)

TABLE 5: Financial Development Assistance for Health by Target Country, 1990-2007, 2007 US\$ (Millions), 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
Congo	7.90	3.26	2.24	0.90	0.68	0.27	1.89	0.72	3.08	1.13	3.15	1.13	3.74	1.30	3.61	1.22
Comoros	0.19	0.36	0.14	0.25	0.06	0.11	0.03	0.05	1.45	2.46	2.80	4.61	1.58	2.53	2.87	4.47
Cape Verde	0.26	0.72	0.01	0.03	0.11	0.31	0.44	1.15	0.47	1.19	0.27	0.66	0.57	1.38	1.93	4.60
Eritrea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.06	1.59	4.60	1.43	7.16	2.19	4.98	1.49
Ethiopia	29.03	0.57	21.83	0.41	26.05	0.48	13.13	0.23	24.24	0.41	35.98	0.60	36.47	0.59	36.71	0.57
Gabon	1.23	1.34	0.42	0.44	0.95	0.97	5.26	5.25	2.04	1.98	1.10	1.04	2.22	2.05	3.72	3.36
Ghana	5.33	0.34	22.33	1.39	15.12	0.92	27.86	1.64	25.51	1.46	23.35	1.31	22.91	1.25	33.05	1.76
Guinea	1.15	0.19	5.93	0.94	4.33	0.66	5.05	0.74	5.63	0.79	6.40	0.87	10.47	1.39	15.29	1.98
The Gambia	3.69	3.83	3.12	3.12	4.44	4.28	6.23	5.78	2.77	2.48	1.55	1.33	0.83	0.69	0.65	0.52
Guinea-Bissau	4.83	4.75	5.40	5.15	4.30	3.97	2.32	2.07	4.44	3.84	9.59	8.05	4.69	3.82	3.26	2.59
Equatorial Guinea	0.13	0.39	0.07	0.21	0.12	0.33	0.68	1.86	1.55	4.16	0.79	2.06	1.96	5.00	1.15	2.86
Kenya	48.87	2.08	42.86	1.77	50.07	2.00	43.61	1.69	37.05	1.39	46.24	1.69	72.67	2.58	69.79	2.41
Liberia	3.12	1.46	1.24	0.59	1.03	0.50	0.75	0.36	0.53	0.26	0.22	0.10	0.19	0.08	1.64	0.66
Lesotho	5.94	3.71	4.93	3.03	4.24	2.57	3.20	1.91	2.46	1.45	1.97	1.14	1.72	0.98	1.88	1.05
Madagascar	3.52	0.29	8.22	0.66	16.51	1.29	14.98	1.14	17.49	1.29	18.06	1.29	21.49	1.50	21.70	1.47
Mali	12.25	1.60	17.15	2.18	12.86	1.59	15.92	1.92	23.55	2.77	26.98	3.09	16.54	1.84	22.69	2.46
Mozambique	43.38	3.20	63.53	4.58	57.15	3.99	39.36	2.65	63.38	4.11	49.06	3.08	83.17	5.06	69.38	4.11
Mauritania	16.26	8.36	3.30	1.65	6.81	3.32	8.58	4.08	3.58	1.65	3.16	1.42	8.54	3.73	6.44	2.74
Mauritius	0.05	0.05	0.03	0.03	0.02	0.02	0.02	0.02	0.54	0.48	0.15	0.13	0.66	0.58	0.40	0.35
Malawi	25.77	2.73	11.46	1.19	26.09	2.66	31.13	3.16	24.36	2.45	31.17	3.09	41.32	4.00	42.55	4.01
Mayotte			0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Namibia	1.81	1.27	3.74	2.55	5.80	3.82	12.78	8.16	12.71	7.89	9.07	5.48	13.98	8.21	9.36	5.34
Niger	8.58	1.10	11.82	1.46	20.01	2.39	12.11	1.40	11.76	1.31	12.27	1.32	12.74	1.32	18.79	1.88
Nigeria	27.56	0.29	24.23	0.25	19.63	0.20	33.35	0.32	20.55	0.19	18.66	0.17	16.77	0.15	16.12	0.14
Rwanda	8.55	1.17	8.10	1.15	10.84	1.64	7.28	1.19	7.40	1.29	10.93	1.94	11.55	1.97	16.21	2.55
Sudan	9.42	0.36	3.69	0.14	4.79	0.18	15.42	0.55	1.76	0.06	3.46	0.12	6.95	0.23	4.71	0.15
Senegal	11.02	1.40	14.49	1.78	13.63	1.63	14.98	1.75	14.03	1.59	13.72	1.51	9.75	1.05	20.27	2.12
Sierra Leone	0.40	0.10	0.12	0.03	0.56	0.13	4.48	1.09	1.07	0.26	1.09	0.26	1.76	0.42	4.10	0.97
Somalia	15.44	2.30	4.27	0.64	2.34	0.36	3.41	0.54	3.94	0.63	2.74	0.44	2.49	0.40	1.90	0.30
Sao Tome & Principe	1.40	12.02	0.28	2.38	0.16	1.29	1.82	14.74	2.31	18.36	1.71	13.36	1.51	11.56	1.54	11.59
Swaziland	3.13	3.62	3.46	3.90	1.86	2.06	1.17	1.26	7.11	7.55	2.96	3.09	0.99	1.01	1.19	1.20
Seychelles	0.07		0.00		0.37		0.36		0.38		0.79		0.34		0.78	
Chad	12.96	2.12	6.59	1.04	7.29	1.12	9.32	1.39	5.27	0.76	8.62	1.20	13.63	1.85	14.73	1.93
Togo	1.41	0.36	5.09	1.25	7.54	1.81	1.83	0.43	1.39	0.32	1.25	0.28	1.32	0.28	5.29	1.09
Tanzania	38.27	1.50	45.49	1.73	48.64	1.79	53.08	1.89	40.30	1.39	39.15	1.31	57.29	1.87	61.76	1.96
Uganda	18.85	1.06	41.95	2.27	39.56	2.06	40.89	2.06	42.94	2.09	43.73	2.06	71.38	3.26	61.69	2.73
South Africa	1.36	0.04	0.00	0.00	2.16	0.06	3.37	0.09	11.66	0.29	9.20	0.22	18.28	0.43	23.46	0.54
Zambia	7.03	0.87	3.97	0.48	18.66	2.18	29.03	3.30	30.38	3.37	45.83	4.95	57.01	6.00	46.57	4.78
Zimbabwe	11.24	1.07	10.45	0.97	39.08	3.53	43.43	3.84	50.44	4.36	47.34	4.01	47.06	3.92	49.82	4.09

Notes:

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 & IBRD), AfDB, ADB, GFATM, GAVI and BMGF.

1998		1999		2000		2001		2002		2003		2004		2005		2006		2007	
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	DAH	DAH per capita	DAH	DAH per capita
2.62	0.86	0.41	0.13	0.53	0.17	0.67	0.20	2.19	0.65	3.73	1.08	10.26	2.91	7.31	2.02	10.32	2.80	10.33	2.74
5.31	8.02	3.92	5.76	3.43	4.91	2.17	3.03	2.77	3.75	2.17	2.87	3.51	4.52	3.33	4.17	1.45	1.77	1.33	1.59
0.87	2.03	1.07	2.44	1.02	2.27	6.80	14.74	1.67	3.54	7.53	15.56	6.64	13.41	8.89	17.54	13.10	25.26	11.08	20.90
11.54	3.36	15.64	4.40	17.99	4.88	23.64	6.17	23.92	5.98	28.82	6.90	27.68	6.36	21.20	4.68	20.54	4.38	18.93	3.90
31.04	0.47	51.68	0.77	53.63	0.77	77.93	1.09	74.42	1.02	167.92	2.24	126.81	1.65	234.90	2.97	326.92	4.03	510.53	6.14
4.88	4.30	2.28	1.97	4.09	3.46	4.75	3.94	2.64	2.15	3.16	2.53	6.66	5.25	7.29	5.65	7.47	5.70	7.24	5.44
24.29	1.26	47.01	2.39	46.69	2.32	75.87	3.68	78.89	3.74	76.46	3.54	158.66	7.19	157.26	6.98	178.15	7.74	202.19	8.61
13.11	1.66	18.08	2.25	19.26	2.35	21.98	2.63	27.24	3.20	23.53	2.71	25.38	2.87	23.09	2.56	24.87	2.71	19.06	2.03
0.20	0.16	3.95	2.95	4.79	3.46	5.24	3.66	8.05	5.45	8.02	5.26	10.89	6.93	16.45	10.17	10.21	6.14	11.81	6.91
4.47	3.45	3.74	2.81	4.00	2.92	6.90	4.89	6.31	4.33	4.84	3.22	6.78	4.38	8.35	5.23	8.07	4.90	11.56	6.82
1.06	2.57	2.44	5.79	4.07	9.45	3.65	8.27	2.10	4.64	2.95	6.38	3.83	8.09	7.64	15.78	10.32	20.82		
73.89	2.49	72.73	2.39	48.62	1.56	106.10	3.31	101.35	3.08	144.20	4.27	193.85	5.59	196.11	5.51	307.58	8.41	301.41	8.03
1.62	0.60	3.13	1.08	6.80	2.21	4.61	1.45	3.34	1.03	5.75	1.75	12.23	3.65	14.46	4.20	16.17	4.52	17.80	4.75
1.97	1.08	0.30	0.16	2.01	1.06	3.97	2.08	4.41	2.28	8.58	4.40	12.07	6.14	12.23	6.18	12.51	6.27	19.11	9.52
24.03	1.57	24.75	1.57	30.15	1.86	30.58	1.84	26.69	1.56	46.13	2.62	51.07	2.82	73.24	3.93	53.03	2.77	64.13	3.26
17.17	1.81	28.89	2.97	26.91	2.69	43.83	4.26	16.88	1.59	46.12	4.22	44.41	3.94	65.33	5.63	66.84	5.58	76.38	6.19
61.14	3.53	63.37	3.57	71.83	3.95	96.00	5.14	111.42	5.82	129.07	6.58	197.92	9.86	167.97	8.18	209.93	10.01	296.04	13.84
6.02	2.49	10.25	4.11	9.73	3.79	11.12	4.21	7.06	2.59	8.25	2.95	10.28	3.57	5.92	2.00	6.43	2.11	10.31	3.30
0.28	0.24	0.52	0.44	0.88	0.74	0.24	0.20	-0.00	-0.00	0.16	0.13	0.18	0.15	0.32	0.26	0.54	0.43	0.82	0.65
33.60	3.07	44.75	3.96	54.85	4.72	62.51	5.23	70.22	5.73	88.02	7.00	115.82	8.98	103.63	7.84	152.65	11.25	215.61	15.48
0.00		0.00		0.00		39.44		35.33		25.07		37.24		0.55		0.00		6.31	
6.19	3.44	10.91	5.93	12.89	6.86	9.51	4.97	9.76	5.02	17.88	9.08	28.84	14.47	32.04	15.87	74.13	36.22	90.72	43.74
19.65	1.90	12.11	1.13	12.27	1.10	14.17	1.23	17.59	1.47	25.03	2.02	41.61	3.25	28.10	2.12	35.91	2.61	47.42	3.33
13.46	0.11	22.23	0.18	43.72	0.35	70.45	0.55	82.58	0.63	134.22	1.00	261.35	1.89	194.86	1.38	332.42	2.30	391.23	2.64
19.37	2.76	20.97	2.74	20.71	2.53	28.60	3.35	36.58	4.18	40.85	4.58	72.29	7.99	102.06	11.05	141.37	14.94	153.61	15.80
6.89	0.22	6.82	0.21	7.34	0.22	6.27	0.18	15.84	0.46	14.42	0.41	31.99	0.89	59.19	1.60	68.58	1.82	64.50	1.67
29.80	3.04	39.26	3.90	34.89	3.38	59.07	5.57	44.18	4.06	91.68	8.20	86.88	7.57	96.27	8.18	56.22	4.66	65.44	5.29
3.48	0.81	6.19	1.41	5.21	1.15	6.39	1.36	5.44	1.11	15.51	3.00	20.72	3.84	18.80	3.37	25.52	4.44	30.39	5.18
3.25	0.49	3.06	0.45	2.76	0.39	3.05	0.42	4.16	0.56	3.96	0.51	13.38	1.68	15.37	1.88	18.90	2.24	21.99	2.53
1.44	10.66	4.81	34.97	5.09	36.31	4.69	32.86	4.07	28.01	3.54	23.96	4.18	27.86	4.17	27.30	3.69	23.81	2.94	18.66
4.84	4.74	1.20	1.16	2.13	2.01	1.03	0.96	0.84	0.77	9.16	8.31	5.12	4.60	23.07	20.52	13.12	11.58	19.99	17.51
0.65		0.51		0.09		0.22		0.34		1.12		1.12		1.21		0.16		0.14	
17.34	2.20	16.82	2.06	14.11	1.67	19.96	2.27	24.44	2.68	19.81	2.09	38.74	3.95	25.99	2.56	27.53	2.63	19.40	1.80
6.52	1.30	2.09	0.40	1.99	0.37	2.88	0.52	1.93	0.34	8.70	1.47	14.00	2.31	15.42	2.47	13.07	2.04	22.97	3.49
90.06	2.79	89.71	2.72	60.43	1.79	91.13	2.63	115.24	3.24	117.32	3.21	200.29	5.34	264.17	6.87	288.69	7.32	392.78	9.71
74.61	3.21	73.39	3.06	73.01	2.96	94.56	3.71	119.39	4.54	181.96	6.70	254.97	9.10	274.17	9.47	258.60	8.65	332.63	10.77
37.26	0.85	22.27	0.50	26.25	0.58	49.48	1.08	46.67	1.00	106.38	2.26	118.89	2.50	171.87	3.59	193.39	4.01	320.56	6.60
29.09	2.91	31.79	3.11	45.33	4.34	69.32	6.50	81.91	7.54	153.14	13.84	192.37	17.07	237.15	20.66	206.78	17.68	255.51	21.43
57.05	4.61	43.87	3.50	28.60	2.26	27.28	2.14	32.40	2.52	45.91	3.55	59.15	4.54	86.10	6.56	96.57	7.30	144.68	10.84

TABLE 6**Financial Development Assistance for Health by Health Focus, 1990-2007, 2007 US\$ (Millions)**

Year	HIV/AIDS	Malaria	Tuberculosis	Health sector support	Other	Unallocable by disease	Total
1990	189	38	17	–	2,544	2,800	5,589
1991	201	43	18	–	2,618	2,595	5,474
1992	208	19	16	–	2,891	2,980	6,115
1993	218	18	34	–	3,433	2,909	6,612
1994	333	38	26	–	3,807	3,564	7,767
1995	344	33	26	8	3,854	3,750	8,015
1996	400	39	53	3	3,924	3,686	8,106
1997	437	37	35	12	4,303	3,596	8,420
1998	430	61	56	2	4,317	3,788	8,654
1999	557	76	75	6	4,947	4,136	9,797
2000	718	153	118	13	5,407	4,288	10,697
2001	924	148	153	14	5,431	4,237	10,907
2002	1,408	127	173	72	5,495	5,165	12,440
2003	1,820	184	213	124	6,383	4,825	13,548
2004	2,433	352	360	215	6,740	5,502	15,603
2005	3,086	720	390	424	7,015	6,272	17,907
2006	3,907	649	506	776	6,270	6,888	18,997
2007	4,943	724	649	937	6,570	7,968	21,791

Notes:

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, malaria and tuberculosis specific activities as well as DAH provided as sector-wide support. We were able to allocate flow from the following channels of assistance by their disease focus: bilateral development agencies, World Bank (IDA & IBRD), AfDB, ADB, GFATM, GAVI and BMGF. Contributions from remaining channels are shown as unallocable by disease.

TABLE 7**Development Assistance for Health by Type of Transfer, 1990-2007, 2007 US\$ (Millions)**

Year	Financial: Grants & loans	In-kind: Services, management, research & technical assistance	In-kind: Drugs & commodities
1990	2,907	2,435	244
1991	2,812	2,389	271
1992	3,318	2,447	347
1993	3,694	2,499	417
1994	4,396	2,852	516
1995	4,692	2,837	482
1996	4,895	2,605	604
1997	5,099	2,666	654
1998	5,084	2,862	709
1999	5,938	3,055	805
2000	6,442	3,489	763
2001	6,230	3,511	1,164
2002	7,307	3,823	1,308
2003	7,939	4,011	1,596
2004	8,709	4,760	2,131
2005	10,079	5,136	2,689
2006	11,098	5,515	2,381
2007	13,053	5,865	2,870

Notes:

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 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 under-used vaccine and injection safety support programs.

TABLE 8

Bilateral Commitments & Disbursements, 1990-2007, 2007 US\$ (Millions)

Donor	Observed/ Estimate ¹	1990 Comm ² Disb ³	1991 Comm Disb	1992 Comm Disb	1993 Comm Disb	1994 Comm Disb	1995 Comm Disb	1996 Comm Disb	1997 Comm Disb								
Australia	Observed	12.9	–	17.1	–	27.3	–	59.6	–	72.2	–	24.3	–	160.5	–	67.7	–
Australia	Estimate	12.9	8.9	17.1	11.5	66.7	36.2	61.1	42.6	88.5	61.8	91.4	72.0	160.5	111.7	71.3	86.5
Austria	Observed	34.7	5.3	2.9	10.7	–	–	25.8	1.2	18.5	32.9	11.5	36.5	11.6	7.3	62.3	24.7
Austria	Estimate	39.4	29.6	4.5	9.5	–	3.3	34.7	27.0	25.3	24.5	17.1	19.1	11.6	13.7	62.6	50.5
Belgium	Observed	3.7	–	2.3	2.3	–	–	–	–	55.9	–	61.9	–	73.3	–	64.8	–
Belgium	Estimate	96.3	53.3	88.2	74.9	93.9	85.5	89.9	89.8	70.1	77.9	61.9	68.0	73.3	69.9	72.1	70.5
Canada	Observed	48.4	–	52.6	–	26.5	28.0	19.6	25.9	67.4	26.9	112.9	36.6	59.4	49.9	35.9	28.1
Canada	Estimate	52.8	55.0	52.6	53.2	33.3	42.2	35.3	39.6	68.1	55.8	114.5	84.3	59.4	65.2	35.9	49.6
Switzerland	Observed	63.2	–	42.0	–	25.9	–	19.2	–	38.7	–	18.1	–	26.3	–	53.9	–
Switzerland	Estimate	63.2	38.0	42.0	31.8	25.9	20.3	20.0	14.4	38.7	21.9	18.1	16.0	26.3	15.8	53.9	30.2
Germany	Observed	50.3	6.6	29.0	6.8	79.9	52.4	79.8	12.8	205.4	114.0	177.6	81.2	88.0	80.1	304.6	77.7
Germany	Estimate	114.9	82.6	122.0	97.5	168.1	133.6	191.9	161.5	313.3	247.1	406.0	322.5	266.6	267.9	304.6	301.0
Denmark	Observed	47.4	–	105.7	–	137.9	–	128.8	–	44.4	–	108.0	–	300.6	–	36.7	91.4
Denmark	Estimate	47.4	30.7	111.1	41.9	166.1	61.8	128.8	71.3	55.8	60.3	108.0	64.5	306.5	103.5	39.4	79.6
European Commission	Observed	15.8	–	42.6	–	219.8	–	220.1	–	65.3	–	264.6	–	336.3	74.6	233.8	58.5
European Commission	Estimate	15.8	46.3	42.6	35.2	219.8	25.3	220.1	90.0	65.3	155.3	264.6	160.5	336.3	176.6	233.8	216.0
Spain	Observed	6.7	–	18.3	–	83.5	–	61.5	20.9	23.4	12.0	150.2	45.7	174.8	–	142.2	99.9
Spain	Estimate	6.7	5.3	27.2	22.8	116.2	97.3	91.2	95.9	48.1	56.8	150.2	128.5	227.4	210.6	142.2	159.3
Finland	Observed	54.1	39.0	50.9	40.5	32.9	29.1	6.4	20.2	20.5	20.7	27.1	–	14.7	16.9	8.9	13.4
Finland	Estimate	54.9	41.3	50.9	43.3	32.9	40.7	6.7	31.2	20.5	23.5	27.1	19.2	14.7	15.5	9.0	11.9
France	Observed	140.8	40.5	74.1	25.2	91.1	28.7	73.1	58.5	82.6	29.4	101.3	34.1	99.3	19.6	138.1	23.0
France	Estimate	735.9	570.8	273.9	320.5	234.5	276.4	195.1	212.1	288.2	269.0	359.5	330.9	284.0	292.2	219.1	239.7
United Kingdom	Observed	96.8	–	62.5	–	431.9	–	125.0	–	146.4	–	145.4	–	269.0	–	254.8	–
United Kingdom	Estimate	134.6	37.2	90.5	51.1	431.9	126.4	135.4	141.1	146.4	146.7	165.7	153.3	269.0	173.5	254.8	187.5
Greece	Observed	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Greece	Estimate	–	–	–	–	–	–	–	–	–	–	6.2	6.2	6.1	6.1	8.2	8.2
Ireland	Observed	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ireland	Estimate	2.5	2.5	2.6	2.6	3.4	3.4	–	–	6.8	6.8	21.5	21.5	21.1	21.1	–	–
Italy	Observed	144.1	4.8	157.8	1.1	97.3	5.2	69.3	11.1	9.1	3.8	38.2	0.8	53.2	0.3	27.2	0.4
Italy	Estimate	156.7	208.7	183.2	188.2	130.6	150.5	96.9	127.5	44.2	86.8	47.0	67.5	71.5	62.7	27.2	41.5
Japan	Observed	147.4	–	123.1	–	184.8	125.7	361.7	300.3	220.3	90.6	209.0	21.6	374.8	201.5	268.8	241.3
Japan	Estimate	314.4	173.6	301.2	237.6	298.8	255.3	543.8	263.0	414.8	394.6	460.2	364.2	578.2	393.3	458.3	473.5
Luxembourg	Observed	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Luxembourg	Estimate	–	–	–	–	6.1	6.1	6.1	6.1	–	–	12.0	12.0	11.8	11.8	20.8	20.8
Netherlands	Observed	60.8	1.9	66.5	–	129.0	–	107.9	–	113.4	–	164.4	–	224.7	–	139.5	–
Netherlands	Estimate	128.8	68.1	66.5	48.6	223.8	114.8	107.9	83.9	113.4	69.5	169.6	104.9	224.7	131.1	139.5	98.3
Norway	Observed	27.5	–	23.6	–	85.2	–	9.2	–	40.0	–	73.8	–	38.4	–	37.6	–
Norway	Estimate	27.5	30.0	23.6	25.6	85.2	43.7	9.2	35.8	40.0	43.2	73.8	43.4	38.4	45.8	37.6	48.6
New Zealand	Observed	–	–	–	–	–	–	–	–	–	–	2.4	–	–	–	–	–
New Zealand	Estimate	–	–	3.4	0.8	2.5	1.2	2.0	1.6	2.7	2.7	2.7	2.4	–	1.7	–	1.5
Portugal	Observed	–	–	–	–	–	–	–	–	0.0	–	0.3	0.0	1.0	0.4	0.1	0.6
Portugal	Estimate	–	–	–	–	2.7	1.4	–	0.8	5.8	3.5	8.8	6.4	10.9	9.3	13.3	11.7
Sweden	Observed	244.3	127.3	72.0	121.0	278.0	147.4	53.8	103.0	97.4	91.5	178.1	115.1	78.1	105.7	60.7	87.6
Sweden	Estimate	244.3	210.4	136.4	181.3	278.0	207.5	163.2	187.5	130.1	156.8	178.1	155.1	161.8	146.9	103.7	130.2
United States	Observed	487.2	11.5	613.4	9.1	523.4	10.0	673.7	1.7	1,229.6	0.0	1,220.0	–	633.1	–	1,126.7	–
United States	Estimate	1,032.8	854.1	1,013.3	892.4	934.4	877.7	861.3	848.3	1,286.3	1,139.0	1,401.0	1,266.3	1,056.6	1,077.3	1,126.7	1,116.2

Notes:

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	
Comm	Disb	Comm	Disb	Comm	Disb	Comm	Disb	Comm	Disb	Comm	Disb	Comm	Disb	Comm	Disb	Comm	Disb	Comm	Disb
67.4	28.5	118.4	41.2	186.9	71.1	110.2	84.0	73.5	87.8	118.8	100.8	46.1	101.8	108.6	110.8	158.1	157.4	135.8	156.7
67.7	82.6	118.4	101.8	186.9	138.2	110.2	116.4	95.2	105.7	118.8	113.8	100.9	108.1	108.6	108.3	158.1	126.3	158.6	134.7
13.8	35.0	104.8	64.0	33.7	39.3	4.0	35.1	9.2	5.9	16.1	7.0	25.4	8.1	30.5	7.4	19.0	11.2	28.1	10.9
13.9	21.4	104.8	85.4	33.7	43.8	4.1	15.6	10.4	12.6	16.1	14.6	25.4	22.3	30.5	28.1	19.0	21.0	28.1	26.5
70.0	-	75.7	75.7	69.7	69.7	77.7	77.4	143.8	79.0	96.9	96.1	92.5	82.9	112.9	93.9	123.3	107.6	174.8	133.6
73.4	71.7	75.7	73.9	73.3	73.0	77.7	74.9	143.8	112.7	96.9	105.2	92.5	96.3	112.9	105.4	123.3	113.4	174.8	146.7
40.7	30.7	45.2	16.5	96.8	50.7	97.3	42.2	99.6	45.5	162.9	85.0	157.0	107.9	131.4	298.5	219.6	156.4	388.7	275.8
44.7	50.8	45.2	49.2	96.8	74.4	101.7	83.7	99.6	88.3	162.9	127.0	167.0	142.9	140.4	136.6	219.6	180.0	388.8	286.1
30.4	-	46.1	-	39.7	-	33.1	-	62.4	37.9	35.1	43.4	63.5	45.2	37.3	48.6	35.1	43.0	67.5	45.2
30.4	24.9	46.2	27.5	39.7	27.6	41.7	27.2	62.4	37.2	35.1	28.6	63.5	36.4	38.9	30.5	44.1	28.1	67.5	40.0
219.1	109.9	184.6	91.2	122.9	69.2	143.3	164.9	197.1	113.3	241.3	202.3	252.9	253.9	212.1	225.3	481.5	249.5	368.4	340.1
219.1	253.1	195.4	230.6	122.9	165.9	143.3	163.2	234.7	203.2	259.7	222.0	267.8	236.5	212.1	214.9	481.5	381.3	368.4	334.9
7.6	69.0	134.0	-	31.0	20.4	38.7	30.3	73.8	-	94.5	55.2	158.5	68.6	112.3	80.0	137.8	69.4	139.4	-
7.9	54.1	134.0	65.6	31.0	53.1	38.7	31.3	75.3	35.5	99.3	46.4	158.5	58.8	119.6	65.3	137.8	73.6	139.4	79.5
380.6	78.0	390.9	62.3	416.3	55.2	342.7	81.4	244.7	83.5	262.9	106.9	572.4	216.1	85.0	189.8	532.4	595.5	443.4	531.1
380.6	270.4	390.9	308.6	416.3	324.3	408.7	379.6	397.1	389.5	551.8	588.6	572.4	91.0	709.6	393.5	532.4	469.3	443.4	480.4
123.7	87.6	160.6	111.5	91.3	126.6	85.2	104.8	97.2	70.6	96.6	101.8	135.4	126.4	128.4	153.5	148.9	134.1	226.2	167.6
124.6	128.0	160.6	152.6	91.3	105.2	106.4	102.8	108.6	107.8	118.9	116.2	135.4	131.2	153.2	148.6	148.9	148.8	226.2	209.1
26.1	10.5	15.6	12.0	12.6	12.4	26.5	21.6	38.8	15.9	38.2	20.2	25.6	-	23.8	-	52.3	28.9	23.5	31.3
32.6	14.8	22.1	15.6	12.6	13.8	26.5	15.1	41.7	19.6	38.6	22.4	27.4	22.0	26.3	21.7	52.3	26.4	23.5	24.0
140.9	37.5	74.9	58.7	83.0	49.3	167.1	185.6	175.8	184.1	212.2	219.4	327.3	280.1	264.4	325.2	76.8	34.4	150.9	97.8
261.8	257.4	211.1	219.7	148.4	167.3	187.7	183.3	229.5	214.8	212.2	210.3	341.9	307.9	300.9	295.1	239.7	253.7	176.1	195.9
437.5	200.1	566.2	202.6	957.3	220.0	349.5	229.7	688.5	456.2	643.8	388.8	609.4	408.6	1,154.3	612.8	1,534.1	774.7	1,688.5	918.8
437.5	220.7	566.2	294.1	957.3	431.1	349.5	434.1	688.5	481.0	643.8	517.0	609.4	522.6	1,154.3	617.6	1,534.1	773.0	1,688.5	970.7
-	-	-	-	-	-	-	-	4.1	4.1	13.3	13.3	24.4	24.4	29.7	29.7	32.6	32.6	34.0	34.2
9.3	9.3	4.2	4.2	4.8	4.8	6.4	6.4	4.1	4.1	24.4	24.4	24.4	24.4	34.0	34.0	32.6	32.6	34.0	34.0
-	-	-	-	18.0	2.0	30.0	2.8	73.1	73.1	100.4	100.4	107.4	107.4	111.5	111.5	159.7	159.7	172.9	171.5
20.2	20.2	18.4	18.4	25.9	25.9	32.9	32.9	78.8	78.8	100.4	100.4	107.4	107.4	112.7	112.7	159.7	159.7	172.9	172.9
16.7	-	45.8	-	55.1	-	28.0	-	84.9	9.8	83.2	45.0	62.5	53.0	74.4	56.0	101.0	19.2	115.6	-
16.7	35.0	45.8	38.1	55.1	41.0	28.0	35.1	84.9	62.1	83.2	65.1	62.5	66.7	99.5	84.3	101.0	86.6	115.6	101.1
272.6	261.0	224.0	312.4	169.3	285.0	155.8	184.9	173.4	135.4	354.0	312.5	621.8	289.6	254.0	279.7	250.9	311.4	255.8	-
454.3	426.7	427.1	416.6	385.7	403.4	361.0	366.9	375.3	344.1	354.0	340.7	621.8	332.7	254.0	448.1	259.0	290.4	255.8	264.5
-	-	-	-	-	-	28.2	-	29.3	-	27.8	-	27.7	27.7	24.1	24.1	34.2	34.2	38.7	38.7
23.8	23.8	17.6	17.6	21.3	21.3	28.2	28.2	29.3	29.3	27.8	27.8	32.5	32.5	26.7	26.7	34.2	34.2	38.7	38.7
161.8	58.1	191.0	-	171.7	-	161.3	151.4	248.9	179.2	150.6	237.8	211.7	210.7	221.9	218.5	540.8	213.1	175.9	272.2
161.8	101.8	191.0	121.1	171.7	110.7	161.3	104.6	248.9	146.0	164.9	116.1	211.7	127.2	221.9	141.9	540.8	287.5	175.9	157.6
45.0	-	101.4	-	37.1	-	148.6	39.1	114.1	82.0	106.3	78.4	97.9	121.3	158.1	211.9	152.4	160.1	352.8	184.8
45.0	42.3	101.4	59.2	37.1	56.7	148.6	91.6	114.1	96.3	109.7	115.2	113.0	111.8	158.1	122.4	152.4	133.5	352.8	209.3
-	-	-	-	-	-	-	-	4.3	2.8	11.5	9.0	9.3	9.3	15.4	15.1	26.1	15.7	14.6	-
5.7	2.3	6.5	2.5	4.5	3.4	4.9	5.3	4.3	5.0	11.5	6.0	9.3	6.7	15.4	9.1	26.1	14.5	14.6	14.1
0.6	0.5	10.5	0.4	7.1	0.2	9.1	9.1	8.6	8.6	9.1	9.1	10.8	10.8	10.7	10.6	10.7	10.7	11.2	11.2
8.8	10.4	10.5	10.4	7.3	8.4	9.1	8.7	9.1	8.7	9.1	9.0	10.8	9.8	10.7	10.3	10.7	10.5	11.2	10.7
105.2	55.6	113.7	40.2	79.0	34.4	49.6	48.8	130.4	83.2	135.2	106.3	142.7	156.5	317.8	204.9	282.4	242.5	142.4	248.9
105.2	113.4	113.7	107.4	79.0	93.9	49.6	74.1	130.4	85.8	135.2	96.8	171.2	115.7	317.8	173.2	282.4	200.9	250.2	213.1
994.7	-	1,260.8	-	1,270.5	-	1,444.0	-	1,900.1	1,525.1	2,361.8	2,240.7	2,648.7	2,247.7	3,008.1	2,613.9	3,662.8	3,032.8	4,879.4	3,519.9
1,077.8	1,089.6	1,260.8	1,210.1	1,270.5	1,222.9	1,444.0	1,340.1	2,163.9	1,848.5	2,361.8	2,077.4	2,648.7	2,357.7	3,008.8	2,686.5	3,663.4	3,224.8	4,879.4	4,178.0

¹ Observed represents unadjusted data while estimated represents that data have been imputed to correct for missingness.

² Commitment estimates have been corrected for missingness using the DAC/CRS coverage ratio.

³ Disbursement estimates were obtained by computing donor-specific disbursement schedules using information from complete projects where disbursements could be linked over time.

TABLE 9**World Bank Financial and In-kind Development Assistance for Health (DAH), 1990-2007, 2007 US\$ (Millions)**

Year	IDA		IBRD	
	Financial	In-kind	Financial	In-kind
1990	16.1	1.5	69.8	2.5
1991	67.4	4.9	112.0	5.5
1992	216.0	18.0	212.8	11.2
1993	374.4	35.6	413.1	21.4
1994	481.5	47.5	445.5	31.0
1995	528.8	53.0	368.8	24.3
1996	574.2	49.6	525.9	28.9
1997	618.2	44.1	624.0	29.3
1998	620.8	25.4	643.4	25.5
1999	760.0	47.9	732.5	34.1
2000	759.1	68.0	822.5	58.2
2001	813.8	63.3	725.1	53.2
2002	946.7	81.5	687.3	54.0
2003	943.6	115.7	529.7	39.6
2004	974.4	143.1	811.9	75.7
2005	979.6	112.6	562.7	59.4
2006	782.5	97.2	439.5	39.2
2007	737.5	81.1	355.5	32.0

TABLE 10**Financial and In-kind Development Assistance for Health (DAH) from Regional Development Banks, 1990-2007, 2007 US\$ (Millions)**

Year	African Development Bank		Asian Development Bank		Inter-American Development Bank	
	Financial	In-kind	Financial	In-kind	Financial	In-kind
1990	58.7	4.6	31.3	2.5	80.2	6.3
1991	56.8	4.4	30.4	2.4	73.4	5.7
1992	55.5	4.3	50.1	3.9	48.7	3.8
1993	54.2	4.2	70.4	5.5	57.1	4.5
1994	84.5	6.6	69.5	5.4	77.6	6.1
1995	65.3	5.1	48.1	3.8	77.3	6.1
1996	66.6	5.2	60.3	4.7	100.0	7.8
1997	83.2	6.5	56.4	4.4	135.4	10.6
1998	55.9	4.4	102.7	8.0	147.1	11.5
1999	55.1	4.3	204.8	16.0	145.0	11.3
2000	40.3	3.2	349.9	27.4	177.4	13.9
2001	37.8	3.0	165.3	12.9	161.7	12.7
2002	72.5	5.7	169.2	13.2	202.1	15.8
2003	37.8	3.0	144.6	11.3	176.7	13.8
2004	80.6	6.3	152.5	11.9	349.3	27.3
2005	133.0	10.4	148.8	11.7	358.7	28.1
2006	81.2	6.4	125.3	9.8	140.3	11.0
2007	78.9	6.2	126.3	9.9	163.8	12.8

Notes: The African Development Bank's disbursements in 1990-1993, 1995, & 1998-1999 are estimated.

TABLE 11**WHO, Regular and Extra-budgetary Income and Expenditure, 1990-2007, 2007 US\$ (Millions)**

Year	Regular budget income	Regular budget expenditure	Extra-budgetary income ¹	Extra-budgetary expenditure ¹	Total income	Total expenditure	Development assistance for health ²
1990	538.6	497.4	772.5	765.0	1,311.2	1,262.4	1,143.9
1991	538.6	497.4	772.5	765.0	1,311.2	1,262.4	1,143.9
1992	472.8	472.8	773.5	729.3	1,246.3	1,202.2	1,080.3
1993	472.8	472.8	773.5	729.3	1,246.3	1,202.2	1,080.3
1994	568.8	568.8	788.3	836.3	1,357.2	1,405.2	1,184.6
1995	568.8	568.8	788.3	836.3	1,357.2	1,405.2	1,184.6
1996	514.5	496.6	716.6	668.6	1,187.1	1,121.2	976.7
1997	514.5	496.6	716.6	668.6	1,187.1	1,121.2	976.7
1998	503.1	497.1	862.3	753.4	1,317.1	1,210.5	1,046.4
1999	503.1	497.1	862.3	753.4	1,317.1	1,210.5	1,046.4
2000	481.7	480.0	1,180.5	1,033.5	1,598.0	1,468.5	1,252.0
2001	481.7	480.0	1,180.5	1,033.5	1,598.0	1,468.5	1,252.0
2002	433.4	467.5	1,178.6	1,085.5	1,468.1	1,392.1	1,298.3
2003	433.4	467.5	1,178.6	1,085.5	1,468.1	1,392.1	1,298.3
2004	447.7	461.9	1,596.2	1,493.0	1,868.6	1,779.5	1,573.5
2005	447.7	461.9	1,596.2	1,493.0	1,868.6	1,779.5	1,573.5
2006	440.2	449.3	2,458.0	1,789.2	2,714.2	2,054.6	1,670.0
2007	440.2	449.3	2,458.0	1,789.2	2,714.2	2,054.6	1,670.0

Notes:

¹ Includes the Voluntary Fund for Health Promotion, other WHO funds & interagency trust funds.² Excludes expenditures from trust funds and associated entities not part of WHO's programme of activities and supply services funds.

TABLE 12**UNFPA, Regular and Extra-budgetary Income and Expenditure, 1990-2007, 2007 US\$ (Millions)**

Year	Regular budget income	Regular budget expenditure	Extra-budgetary income	Extra-budgetary expenditure	Total income	Total expenditure	Development assistance for health ¹
1990	309.6	319.6	13.2	16.2	322.8	335.8	335.8
1991	309.6	319.6	13.2	16.2	322.8	335.8	335.8
1992	310.3	269.1	45.9	39.1	356.3	308.2	283.2
1993	310.3	269.1	45.9	39.1	356.3	308.2	283.2
1994	375.9	381.4	63.7	60.6	439.5	442.0	402.0
1995	375.9	381.4	63.7	60.6	439.5	442.0	402.0
1996	375.7	379.2	50.1	38.4	425.8	417.6	376.6
1997	375.7	379.2	50.1	38.4	425.8	417.6	376.6
1998	321.3	352.5	84.3	71.0	405.6	423.5	391.5
1999	321.3	352.5	84.3	71.0	405.6	423.5	391.5
2000	311.6	272.2	162.6	111.2	474.2	383.4	360.3
2001	311.6	272.2	162.6	111.2	474.2	383.4	360.3
2002	310.9	317.3	123.1	127.5	438.4	444.8	392.2
2003	310.9	317.3	123.1	127.5	438.4	444.8	392.2
2004	367.7	346.4	198.1	170.4	565.8	516.8	450.9
2005	367.7	346.4	198.1	170.4	565.8	516.8	450.9
2006	401.7	367.0	180.2	153.0	581.9	551.0	520.0
2007	457.1	385.4	295.1	243.6	752.2	629.0	576.1

Notes:

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

TABLE 13**UNICEF, Regular and Extra-budgetary Income and Expenditure, 1990-2007, 2007 US\$ (Millions)**

Year	Regular budget income	Regular budget expenditure	Extra-budgetary income	Extra-budgetary expenditure	Total income	Total expenditure	Regular budget health expenditure (estimate)	Development assistance for health ¹
1990	735.6	672.2	419.3	381.8	1,154.9	1,047.2	201.7	369.7
1991	735.6	672.2	419.3	381.8	1,154.9	1,071.3	201.7	369.7
1992	716.3	787.1	506.5	504.8	1,222.7	1,263.5	236.1	458.2
1993	716.3	787.1	506.5	504.8	1,222.7	1,351.6	236.1	458.2
1994	697.1	744.5	614.5	558.2	1,311.6	1,302.7	223.3	469.0
1995	697.1	744.5	614.5	558.2	1,311.6	1,302.7	223.3	469.0
1996	689.6	659.3	469.5	492.6	1,159.1	1,151.9	197.8	414.5
1997	689.6	659.3	469.5	492.6	1,159.1	1,151.9	197.8	414.5
1998	710.2	648.8	565.4	530.7	1,275.6	1,179.5	194.6	428.2
1999	710.2	648.8	565.4	530.7	1,275.6	1,179.5	194.6	428.2
2000	642.8	689.0	731.4	677.0	1,374.2	1,366.1	206.7	508.0
2001	642.8	689.0	731.4	677.0	1,374.2	1,366.1	206.7	508.0
2002	802.3	679.0	958.1	861.6	1,760.5	1,540.5	196.9	580.3
2003	802.3	679.0	958.1	861.6	1,760.5	1,540.5	196.9	580.3
2004	837.2	723.9	1,662.7	1,285.8	2,499.9	2,009.6	217.2	776.5
2005	837.2	723.9	1,662.7	1,285.8	2,499.9	2,009.6	217.2	776.5
2006	1,066.6	872.4	1,815.8	1,679.5	2,882.4	2,551.9	340.3	729.0
2007	1,066.6	872.4	1,815.8	1,679.5	2,882.4	2,551.9	340.3	729.0

Notes:

¹ As UNICEF's activities are not limited to the health sector, we used the fraction of total expenditures attributable to health for 2001-2004 to obtain estimates for Development Assistance for Health.**TABLE 14****UNAIDS, Regular and Extra-budgetary Income & Expenditure, 1990-2007, 2007 US\$ (Millions)**

Year	Regular budget income	Regular budget expenditures	Extra-budgetary income	Extra-budgetary expenditures	Total income	Development assistance for health ¹
1996	66.8	64.1	12.7	8.7	79.5	72.8
1997	66.8	64.1	12.7	8.7	79.5	72.8
1998	79.6	68.9	13.9	14.1	93.5	82.9
1999	79.6	68.9	13.9	14.1	93.5	82.9
2000	101.0	114.0	11.8	12.7	112.8	126.7
2001	101.0	114.0	11.8	12.7	112.8	126.7
2002	122.7	90.1	24.5	18.3	147.2	108.4
2003	122.7	90.1	24.5	18.3	147.2	108.4
2004	171.4	140.5	28.4	26.9	199.7	167.4
2005	171.4	140.5	28.4	26.9	199.7	167.4
2006	228.5	187.2	42.4	33.3	271.0	220.5
2007	228.5	187.2	42.4	33.3	271.0	220.5

Notes:

¹ No adjustments were made to UNAIDS total expenditures to obtain Development Assistance for Health.

TABLE 15

US NGO Expenditures, 1990-2006, 2007 US\$ (Millions)

	1990	1991	1992	1993	1994	1995
Total overseas health expenditure	733.1	938.2	1122.9	1244.7	1456.3	1385.8
Amount of overseas health expenditure financed from						
Revenue from US government	226.9	347.9	435.8	451.3	533.3	506.5
Revenue from other governments	26.8	67.7	64.4	66.4	80.1	69.6
BMGF grants	–	–	–	–	–	–
Private financial revenue	235.2	251.8	276.1	310.5	326.9	327.4
Private in-kind revenue	244.3	270.7	346.6	416.5	515.9	482.3
Average percent of revenue from						
US government	19.8	17.5	18.3	19.8	20.6	20.8
Private financial contributions	60.4	62.9	61.0	59.0	57.0	56.8
Private in-kind contributions	15.3	14.5	15.6	16.1	16.8	16.2
Average health fraction	0.23	0.22	0.23	0.23	0.24	0.24
Number of US NGOs	267	334	385	411	424	416

Notes:

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 the US government, other governments, BMGF grants, private financial revenue, and private in-kind revenue represents the sum of the product of each US NGO's fraction of revenue from a given source and overseas health expenditure. Average percent of revenue from the US government, private financial contributions, and private in-kind contributions represents 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 total number of US NGOs in the dataset in a single year.

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1390.8	1538.4	1682.5	2045.8	2093.5	2541.2	2859.3	3165.4	4027.9	4879.2	4727.2
386.3	437.8	433.8	558.5	582.3	654.9	704.0	752.4	959.7	898.6	911.4
82.4	73.0	83.9	111.6	107.3	145.1	155.8	167.3	197.5	256.1	309.0
–	–	–	8.6	42.8	81.9	85.7	25.5	32.7	103.5	53.1
317.6	373.3	456.3	562.4	598.5	622.6	703.5	793.5	832.7	1119.5	1248.4
604.4	654.3	708.5	804.7	762.7	1036.8	1210.3	1426.8	2005.3	2501.5	2205.3
20.3	20.1	19.0	18.9	18.8	18.5	18.3	18.3	18.3	15.9	15.3
54.9	54.8	55.5	56.0	54.0	54.2	54.8	55.8	56.6	59.3	58.4
18.5	18.7	19.4	19.2	20.1	20.8	20.2	20.3	19.6	18.6	20.0
0.24	0.25	0.25	0.25	0.26	0.27	0.27	0.27	0.27	0.28	0.28
423	425	435	438	433	442	486	507	508	494	536

TABLE 16**Financial and In-kind Contributions by GFATM and GAVI, 2000-2007 US\$ (Units)**

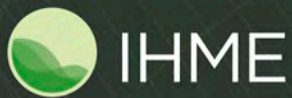
Year	GFATM		GAVI	
	Financial	In-kind	Financial	In-kind
2000			2.4	0.3
2001			136.9	3.6
2002	1.0	14.7	105.4	8.4
2003	260.3	36.7	194.5	5.0
2004	686.9	55.5	163.3	46.3
2005	1,115.1	78.1	241.7	30.1
2006	1,357.6	89.2	410.8	21.0
2007	1,727.0	78.0	889.0	58.0

TABLE 17**Bill & Melinda Gates Foundation Global Health Commitments, Disbursements & In-kind Contributions, 1999-2007, 2007 US\$ (Millions)**

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Commitments	1395.6	830.1	454.1	707.6	501.6	737.8	1308.3	2008.4	1978.5
Disbursements	418.1	669.5	985.7	579.1	630.1	471.1	875.6	922.2	1,253.4
Country Governments	–	2.4	1.2	2.1	0.1	–	2.9	2.7	4.6
UN Agencies	78.5	57.1	29.5	46.7	38.3	33.0	72.6	116.0	74.3
World Bank	--	44.7	12.4	80.5	4.5	4.4	0.1	19.2	13.8
GAVI	214.2	179.7	497.3	–	3.9	5.5	163.6	–	75.0
GFATM	–	–	–	57.5	56.3	54.7	0.7	105.0	100.0
Public-private Partnerships (Excluding GAVI and GFATM)	2.0	34.7	20.8	152.1	64.2	118.5	145.4	150.4	208.0
Universities & Research Institutions	75.2	203.9	146.9	113.5	381.0	149.3	186.8	328.2	437.4
NGOs ¹ and Corporations	48.2	147.0	277.6	126.7	81.8	105.7	303.4	200.7	340.3
In-kind	1.8	27.5	44.3	34.5	40.6	30.6	73.1	93.7	108.8

Notes:

¹ Includes non-research focused non-governmental organizations and foundations based in low-, middle-, and high-income countries.



Institute for Health Metrics and Evaluation
2301 5th Avenue, Suite 600
Seattle, WA 98121
USA

Telephone: +1 206 897 2800
Fax: +1 206 897 2899
Email: comms@healthmetricsandevaluation.org
www.healthmetricsandevaluation.org