VIEWPOINT

Global Health Spending and Development Assistance for Health

Joseph L. Dieleman, PhD
Institute for Health Metrics and Evaluation, Seattle, Washington.

Angela E. Micah, PhD
Institute for Health Metrics and Evaluation, Seattle, Washington.

Christopher J. L. Murray, MD, DPhil
Institute for Health Metrics and Evaluation, Seattle, Washington.

In 2015, member states of the United Nations adopted the ambitious Sustainable Development Goals (SDGs), which included 17 global goals that targeted economic and social development.[1] Goal 3, "to ensure healthy lives and promote well-being for all at all ages," targets specifically marked progress in universal health coverage; improved access to safe, effective, and affordable medicines; and the end of the HIV, malaria, and tuberculosis epidemics by 2030. Although these goals can spur innovation, social and political commitment, and a drive to achieve greater health gains for less money, financial support is necessary to achieve them. Financial resources enable building of new clinics, training of medical personnel, and development and procurement of new drugs. Money is needed to staff clinics and hospitals, as well as for organizing and administering public health programs and the broader health system. Without sufficient resources for health, the health system is forced to become selective about which patients receive care or which diseases get treated.

Fortunately, national spending on health is increasing in nearly all countries. Among 195 countries, 173 spent more per person on health in 2016 than they did in 1995, even after adjusting for price inflation.[2] Health spending has increased so much in high-income countries (ranging up to $10 802 per person) that health expenditures account for a substantial amount of national spending in many countries. Still, these high-income countries remain outliers when health spending worldwide is considered. Together, the 61 high-income countries made up 81.0% of total health spending in 2016, even though they included only 16.6% of the global population and 13.7% of the disability-adjusted life-years (ie, health burden).[3] The United States alone accounts for 41.7% of global health spending, although it accounts for only 4.4% of the global population. At the other extreme, 48.9% of the global population lives in a lower-middle- or low-income country, where only 3.3% of global spending occurs, with annual spending ranging from $15 to $329 per person.[2] Even with lower prices, this spending falls short of what is needed to provide basic health care services in some lower-middle- or low-income countries, let alone to make progress toward the SDGs.

Historically, one method to boost health spending in the poorest countries is provision of development assistance for health (DAH), the financial or in-kind assistance provided to low- and middle-income countries by international development agencies to maintain or improve health. In 2018, $38.9 billion of DAH was provided, 5 times the amount of DAH provided in 1990, with much of the growth in annual disbursements coming between 2000 and 2009.[2] Although DAH comprises less than 1% of the total global spending on health, it accounts for 25.4% of the health spending in low-income countries, and in some countries accounts for more than 50%.

In 2018, the single sources that provided the most DAH were the US (33.8%) and UK (8.4%) governments, the Bill & Melinda Gates Foundation (8.3%), and the German (4.2%) and Japanese (3.1%) governments (**Table**). The individual development agencies that disbursed the most DAH included the US Agency for International Development (USAID; ie, US bilateral), the Global Fund, and the World Health Organization. In 2018, more DAH targeted sub-Saharan Africa than any other region, and 32.1% of all DAH targeted reproductive, maternal, and child health; 24.3% targeted HIV/AIDS; and 14.3% targeted health system strengthening.

Although the health sector has been heralded as one in which foreign aid has had the greatest effect, it is increasingly suggested that low-income countries should contribute more toward their own health systems. One such example is the Africa Union's recent launch of a $200 million commitment to health initiatives from African governments and the private sector.[4] These steps are critical, and having domestic health financing systems capable of generating all the funds needed for health within a country is an important long-term goal for all countries in the world. However, economic conditions in the poorest countries suggest that, at least in the near term, increased domestic spending on health care alone is unlikely to make up for the gaps associated with underspending and is unlikely to generate the funds needed to meet the ambitious health goals laid out in the SDGs.

Across the 34 countries considered low income by the World Bank in 2018, domestic health spending, measured as a fraction of the country's gross domestic product, ranged between 1.2% and 9.1%.[2] This is not that different from the fraction of gross domestic product spent on health in high-income countries, which was 1.2% to 17.1%, which includes outliers such as the United States. Furthermore, even if the low-income countries increased their domestic spending on health to the median level of high-income countries, it would lead to only an additional $104 per person in health spending. While this would double health spending in some countries, it still would fall substantially short of closing the gap between countries with the least health spending and those with the most. In the short run at least, there is an ongoing demand for DAH to fund critical programs providing care to the poorest countries.

With the need for DAH expected to persist, it is increasingly important that DAH be disbursed in accordance with best practices. For example, DAH should be

Corresponding Author: Joseph L. Dieleman, PhD, Institute for Health Metrics and Evaluation, 2301 Fifth Ave, Ste 600, Seattle, WA 98121 (dieleman@uw.edu).

Table. Top Sources, Channels, and Health Focus Areas of Development Assistance for Health (DAH), 2018[a]

Leading Sources of DAH	Amount, 2018 $, in Billions	Primary Channels of DAH	Amount, 2018 $, in Billions	Principal Program(s) of DAH	Amount, 2018 $, in Billions
United States	13.15	Nongovernmental organizations	10.78	Health system strengthening, excluding pandemic preparedness and human resources for health	3.33
United Kingdom	3.28	US bilateral	6.75	HIV/AIDS treatment	3.12
Bill & Melinda Gates Foundation	3.24	Global Fund	3.19	Reproductive, maternal, newborn, and child health, excluding vaccines, nutrition, family planning, and health system strengthening	3.12
Germany	1.65	World Health Organization	2.57	Vaccines	2.82
Japan	1.19	World Bank	2.30	Human resources for health	1.89
Canada	0.91	Bill & Melinda Gates Foundation	2.18	Reproductive, maternal, newborn, and child health system strengthening	1.68
France	0.76	United Nations Children's Fund (UNICEF)	1.90	Other infectious diseases, excluding health system strengthening, Ebola virus, and Zika virus funding	1.55
Sweden	0.70	Gavi, Vaccine Alliance	1.52	Maternal health, excluding family planning and health system strengthening	1.44
Netherlands	0.70	UK bilateral	0.83	HIV/AIDS prevention	1.43
Norway	0.67	United Nations Population Fund (UNFPA)	0.83	Family planning	1.26

[a] Data from the Global Burden of Disease Health Financing Collaborator Network.[2] Channels are the last development agency to have the DAH before it is provided to an implementing agency. They include bilateral and multilateral aid agencies, private foundations and nongovernmental organizations, and public-private partnerships such as the Global Fund and Gavi.

provided in a predictable manner such that it can be available on a yearly basis for a defined time period, is complementary to broader domestic health system financing needs, and aligns with goals set by the people and governments of the countries in which it is provided. These principles are in accordance with the Paris Declaration on Aid Effectiveness, which was signed by major DAH donors in 2005. The Paris Declaration asserts that DAH recipients should set their own health system goals and determine the programs needed to achieve those goals, that donor funding should align with these goals and be harmonized to complement domestic programs in these countries, and that development projects should be designed to promote mutual accountability and development of capacity. With these principles, DAH can be more complementary to domestic health programming and even be a catalyst for developing a sustainable domestic health financing system capable of generating and allocating funds for health.

In addition to funding essential health programs in low-income countries, DAH also plays a critical role in funding global public goods such as research and development to counter new infectious diseases, as well as developing tools for and ensuring global pandemic preparedness.[5] As the world becomes increasingly interconnected, the threat of pandemics to global health security increases substantially. In the same way that it is unrealistic to expect low-income countries to substantially increase domestic spending on their own health systems in the short term, it is unrealistic to expect low-income countries to play a major role in funding these critical global public goods. This financing burden should be shared by all nations, with the majority of the support coming from high-income countries with more available resources. It is critical for donors to provide international support for these important global functions.

In 2018, the gap between how much is spent on health by the richest and the poorest countries was larger than ever before.[2] Similarly, the need for global public goods to ensure global health security continues to increase. Although not a replacement for building a sustainable domestic health financing system in low-income countries, DAH can be a critical stopgap for countries unable to fully fund their own health systems and for pandemic preparedness. As 2030 approaches and the end of the SDG era nears, it is critical that key donors invest in health in a manner that supports the domestic health systems in low- and middle-income countries, as well as invest in global public goods.

ARTICLE INFORMATION

Published Online: April 25, 2019. doi:10.1001/jama.2019.3687

Conflict of Interest Disclosures: All authors reported receipt of grants from the Bill & Melinda Gates Foundation.

REFERENCES

1. United Nations. About the Sustainable Development Goals. https://www.un.org/sustainabledevelopment/sustainable-development-goals/. Accessed February 23, 2019.

2. Global Burden of Disease Health Financing Collaborator Network. Past, present, and future of global health financing: a review of development assistance, government, out-of-pocket, and other private spending on health for 195 countries, 1995-2050 [in press]. *Lancet*. doi:10.1016/S0140-6736(19)30841-4

3. GBD 2017 Mortality Collaborators. Global, regional, and national age-sex-specific mortality and life expectancy, 1950-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*. 2018;392(10159):1684-1735. doi:10.1016/S0140-6736(18)31891-9

4. AIDS Watch Africa. Africa's leaders gather to launch new health financing initiative aimed at closing funding gap and achieving universal health coverage. http://aidswatchafrica.net/index.php/press-centre/hot-news/59-africa-s-leaders-gather-to-launch-new-health-financing-initiative-aimed-at-closing-funding-gap-and-achieving-universal-health-coverage. Accessed April 15, 2019.

5. Patel V, Saxena S, Lund C, et al. The Lancet Commission on global mental health and sustainable development. *Lancet*. 2018;392(10157):1553-1598. doi:10.1016/S0140-6736(18)31612-X