

Investment in health data can drive economic growth



 Check for updates

By Lia Tadesse Gebremedhin

The Global Burden of Disease provides essential data for evidence-based healthcare, but could be improved by investment in health data systems in low- and middle-income countries

Reliable evidence is essential for health. Data are needed to formulate new health policies and strategies, to ensure quality and equity of health-care services and universal health coverage, to design effective health-care interventions, prioritize health challenges and mobilize resources, and to monitor progress at national and subnational levels. Low- and middle-income countries often lack strong vital statistics data, and health decisions are based on data from censuses, surveys, surveillance and administrative data sources. Studies such as the Global Burden of Disease (GBD), which quantifies health loss from hundreds of diseases, injuries and risk factors, are essential to complement local evidence sources and bridge evidence gaps. Ethiopia has a strong collaboration with the GBD, supported by grants from development partners, but this could be improved by greater collaboration and additional in-country investments.

Ethiopia established a collaboration between the Ethiopian Public Health Institute (EPHI), under the Ministry of Health, the Institute for Health Metrics and Evaluation (IHME), and an expert network of more than 800 GBD collaborators, who jointly produce national and subnational estimates of burdens of disease. This evidence informs our health sector transformation plan and is used to revise essential health service packages, develop non-communicable disease strategies, assess national health expenditures and mobilize resources, measure key health indicators and track progress, devise strategies to narrow disparities between subnational states, and respond to the COVID-19 pandemic.

The collaboration with IHME has helped us to establish a National Data Management and Analytics Center at EPHI. The center's

multi-disciplinary team works to enhance health data repository and governance systems, advance in-country health data analytics and generate quality scientific evidence, and translate evidence into policy and decisions. We are establishing similar centers at subnational levels that are helping us to understand our own health data landscape in Ethiopia, allowing us to identify future potential uses of health data, understand technical and data infrastructure limitations, and devise new strategies.

Our use of GBD data is not without challenges. Some findings have big uncertainties and may not be consistent between GBD iterations, which may be owing to lack of quality data inputs or new methods being used over time. But consistency of key health indicators is essential to measure progress and track disparities between and within countries. The advanced methods used by GBD can only be understood by trained experts, which requires a considerable in-country investment to understand the relevance of the findings for health policy and strategy. There are also challenges in accessing already available data, which is needed to improve the estimates.

Data powers the modern economy and data-driven health policies can help to drive development and economic growth in low- and middle-income countries. This would also help to improve disease estimates, such as those from GBD. A closer collaborative network between GBD and leaders in low- and middle-income countries such as Ethiopia would improve the reliability and consistency of estimates and help us to create national data management and analytics systems, build our technical capacity, and allow us to generate higher quality in-country data, all of which would further strengthen national health policies and research. All countries should build data repositories to archive existing and prospective health data, as well as invest in high performance computing for data analysis and visualizations, led by a multi-disciplinary team that understands the evidence demands of health systems.

Training in health metrics and data science in low- and middle-income countries is essential.

This could include GBD methods, data processing, standardizing data inputs and methods, analysis and synthesis, modeling, reviewing estimates and experience in using estimates for policy, strategy and decision-making. Training should be provided for people working in ministries of health, research institutes, public health institutes, academia, and other relevant stakeholders who generate health data. This will allow countries to jointly analyze national and subnational burden of disease estimates, to process and analyze their own data locally, and would also provide investment in the local health sector.

Low- and middle-income countries, in collaboration with GBD and funding organizations, also need to increase their investment in primary data collection systems to improve estimates and fill their data gaps. Data collection could include population and demography, causes of death, morbidity and disability, health risk factors, and social determinants of health.

The availability and accessibility of in-country data is important for local advanced analysis and better global estimates. Data sharing should be improved both within and between countries through the development of national and subnational data access strategies. Data interoperability can be achieved through health data exchanges that connect data repositories and observatories, but must be supported by a framework of national data regulations and protocols, so that data can be used safely and confidentially, for maximum impact. Advocacy will be needed so that the public are supportive of this investment in health data, but the benefits will be transformative: a healthier population and an economic boost.

Lia Tadesse Gebremedhin 
Ministry of Health, Addis Ababa, Ethiopia.
 e-mail: lia.tadesse@moh.gov.et

Published online: 10 October 2022

Acknowledgements

A. Misganaw assisted with the writing of this article.

Competing interests

The author reports no conflicts of interest.