

Burden of disease and health situation analysis: results of the Global Burden of Disease (GBD) Brazil network

Carga da doença e análise da situação de saúde: resultados da rede de trabalho do Global Burden of Disease (GBD) Brasil

Maria de Fatima Marinho de Souza^I, Elisabeth Barboza França^{II}, Adeilson Cavalcante^{III}

Health information and indicators have been described as the “eyes” of those responsible for formulating health policies¹. Observing and describing the occurrence of diseases, disabilities, and deaths in the population, with data that feed health statistics, increases visibility of the health problems and results of health policies. However, managers are often unable to “see through the fog” caused by poor data or lack of data, making it difficult to develop valid and reliable indicators that express the real health situation and assess the performance of policies and programs.

To boost the use of data and new metrics in health, the Ministry of Health has taken the decision to join the Global Burden of Disease (GBD) network in order to insert Brazil into the estimates and analyses of the burden of disease at the subnational level.

The publication of the GBD study, approximately 20 years ago, represents a systematic scientific effort to quantify the comparative magnitude of health loss due to diseases, injuries and risk factors by age, gender, and time².

In October 2014, a workshop on “Disease Burden in Brazil” was held, coordinated by the Ministry of Health. At the time, the objectives and methodology of the GBD Brazil were presented, and several public health professionals and researchers were able to express interest to participate in the study.

The GBD Brazil 2015 project was the result of an agreement between the Ministry of Health, the *Universidade Federal de Minas Gerais* (UFMG), and the Institute for Health

^IUniversidade do Estado do Rio de Janeiro – Rio de Janeiro (RJ), Brazil.

^{II}Universidade Federal de Minas Gerais – Belo Horizonte (MG), Brazil.

^{III}Health Surveillance, Ministry of Health – Brasília (DF), Brazil.

Corresponding author: Maria de Fatima Marinho de Souza. Organizacao Pan Americana da Saude. 525 23rd Street NW, Washington, Estados Unidos. E-mail: mfmsouza@gmail.com

Metrics and Evaluation (IHME) of the University of Washington. The network of collaborators such as Brazilian researchers and technicians from the Ministry of Health helped providing methodological support and evaluating the estimates of the GBD study at the subnational level, as well as compiling and analyzing the burden of disease in the country and Brazilian states.

Brazil counts on high-level professionals with diverse expertise, which allowed the construction of a multidisciplinary network that is inserted in the network of international collaboration coordinated by Dr. Christopher Murray, Director of IHME.

With the development of the project, several initiatives have been carried out to support the dissemination of the methodology of the study in Brazil, both in academia and in health services. This is held through face-to-face training courses at UFMG and in several other institutions in the country, with the collaboration of several researchers of the IHME, in particular of Prof. Mohsen Naghavi.

UFMG thus reaffirms its commitment to contribute to the improvement of the quality of health services. The growing partnership with IHME and the Ministry of Health, through the Graduate Program in Public Health and with the participation of several academic institutions in the country, has provided the unique opportunity to encourage more qualified epidemiological analyses on the burden of disease in the Brazilian states. This is an important step toward the formation of a task force to identify and address the most pressing health issues.

Health information is a priority for the management of the Unified Health System (SUS), especially with the introduction of the processes of agreement of health indicators – Pact for Health³, Health Surveillance Pact, etc. These strategies strengthen the information and analysis of the health situation and value the information systems with the expansion of their use. Despite the difficulties in gathering data that still exist, such as lack of structure (material and human resources, for example), which often make information precarious, much progress has been made in Brazil with the important improvement in the coverage and quality of health information.

Brazil has experienced a process of changing the profile of illness and death of the population, with a marked decrease in mortality due to communicable diseases, under-five mortality⁴ and a significant reduction in preventable causes of death⁵. This has had a positive impact on the increase in life expectation. There has also been an increase in non-communicable chronic diseases such as diabetes, cardiovascular diseases, and cancer, among others, as well as deaths due to violence, such as traffic accidents.

This new health–disease profile requires renewed attention to health and a national health policy that seeks to use new metrics of the health status of the population, and thus informing and evaluating health care, testing, constructing, and aggregating concepts and metrics not yet applied in health management in the most diverse levels at SUS.

After two and a half years of the beginning of the GBD Brazil Project, results of the study of the burden of disease in Brazil were presented. The articles of this issue of the Brazilian Journal of Epidemiology are the result of efforts to estimate and analyze the burden of

disease in Brazil and in its states. Among others, health metrics such as potential years of life lost (YLL) and years of healthy life lost (disability-adjusted life year – DALY) were used.

The articles present the methodology of the GBD study in Portuguese, analyze the quality of available information on mortality, develop analyses on important causes of death in Brazil, morbidity, disability/limitations, risk factors, and loss of health due to various causes.

The release of this supplement does not conclude the study. This publication aims at disseminating the concepts and methods of GBD in Brazil, to welcome criticism, to deepen the analyses and to expand the network of collaborators in the country, in an ongoing process of improvement.

What is not measured is not known, and if it is not known, it is not actionable.

Awareness enables action⁶. This is how good science begins, and this is the commitment of the GBD Brazil Network.

REFERENCES

1. AbouZahr C, Adjei S, Kanchanachitra C. Data to policy: good practices and cautionary tales. *The Lancet* 2007; 369: 1039-46.
2. Murray C, Lopez A. Evidence-based health policy – lessons from the global burden of disease study. *Science* 1996; 274(5288): 740-3.
3. Brasil. Ministério da Saúde. Secretaria Executiva. Departamento de Apoio à Descentralização. Série Pactos pela Saúde. Brasília: Ministério da Saúde; 2006. v. 1.
4. GBD Child Mortality Collaborators, Wang H, Bhutta Z, Coates MM, Coggeshall M, Dandona L, et al. Global, regional, national, and selected subnational levels of stillbirths, neonatal, infant, and under-5 mortality, 1980–2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet*. 2016; 388: 1725-74.
5. Lindelow M, Nahrgang S, Dmytraczenko T, Marinho F, Alencar L. Assessing Progress toward Universal Health Coverage: Beyond Utilization and Financial Protection. In: Dmytraczenko T, Almeida G, organizers, Toward Universal Health Coverage and Equity in Latin America and the Caribbean: Evidence from Selected Countries. World Bank; 2015. p.147-184.
6. Editorial. GBD 2015: from big data to meaningful change. *The Lancet*. 2016; 10053: 1447.