

## **GBD 2017: A fragile world**

The Global Burden of Disease Study (GBD) is the most comprehensive worldwide observational epidemiological study to date. It describes mortality and morbidity from major diseases, injuries and risk factors to health at global, national and regional levels. Examining trends from 1990 to the present and making comparisons across populations enables understanding of the changing health challenges facing people across the world in the 21st century. Since The Lancet published the first GBD study, every new report has shown improvements in health world-wide. The results of GBD 2017, published this month, explode the comforting trend of gradual improvement and instead show plateauing mortality rates on a background of faltering and uneven progress, era-defining epidemics, and dramatic health worker shortages. Instead of the progress updates we have become accustomed to, GBD 2017 comes as an urgent warning signal from a fragile and fragmented world.

The 2017 study reports that the previous trend of decreasing global adult mortality rates has plateaued, and in some cases, mortality rates have increased. Conflict and violence have become two of the fastest growing causes of death globally (increasing by 118% between 2007 and 2017). Epidemics such as opioid dependence, non-communicable diseases, depression and dengue fever have become more severe. Opioid dependence has grown to an unprecedented scale, with 4 million new cases in 2017 and 110,000 deaths. Non-communicable diseases accounted for 73% of all global deaths in 2017, with over half (28.8 million) attributable to just four risk factors: high blood pressure, smoking, high blood glucose, and high body-mass index. Obesity prevalence has risen in almost every country in the world, leading to more than a million deaths from type 2 diabetes, half a million deaths from diabetes-related chronic kidney disease, and 180,000 deaths related to non-alcoholic steatohepatitis - a type of fatty liver disease, characterized by inflammation with fat accumulation in the liver, associated with obesity and diabetes. In 2017, depressive disorders became the third leading cause of years lived with disability, after low back pain and headache disorders, and deaths from dengue fever, a disease often associated with struggling development and urbanisation, increased substantially in most tropical and subtropical countries, rising from 24,500 deaths globally in 2007 to 40,500 in 2017.

The improvement in sex-specific disaggregation of data in GBD 2017 reveals areas where the gendered aspects of health, often overlooked, need to be addressed. Estimates show that substantial differences in health for men and women that underlie the overall headline figures are still pervasive. Whereas deaths among adult men remain stagnant in many parts of the world, in some areas, mortality has increased: women are living longer, but with more years spent in poor health. The greatest sex differences in health outcomes: substance use disorders, transport injuries, and self-harm and interpersonal violence, are socially driven, suggesting that more attention and action are needed in response to underlying factors.

For the first time in the history of the GBD study, estimates of health worker density have been included. These show that the global shortage and unequal distribution of health workers requires urgent attention in order not to undermine reaching the Sustainable Development Goals (SDGs). The report estimates

that in 2017 only half of all countries had the health-care workers required to deliver quality health care (The standard estimated to be 30 physicians, 100 nurses or midwives, and five pharmacists per 10,000 people). Although many European countries have highly-resourced health workforces, countries across sub-Saharan Africa, southeast Asia, south Asia, and some countries in Oceania were estimated to have the greatest shortfalls.

Alarming, the GBD 2017 report estimates that no country is on track to meet all of WHO's health-related SDGs by 2030. Under-five mortality, neonatal mortality, maternal mortality, and malaria indicators had the most countries with at least 95% probability of success. However, for many other targets, including child malnutrition and violence reduction goals, no country in the world has attained the pace of change that is required for these goals to be met.

GBD 2017 is disturbing. Not only do the amalgamated global figures show a worrying slowdown in progress, but the data reveal exactly how patchy progress has been. The report provides a reminder that without vigilance and constant effort, progress can easily be reversed. But the GBD is also an encouragement to think differently in this time of crisis. By cataloguing inequalities in health-care delivery and patterns of disease geography, the new version of the GBD presents an opportunity to move away from the *generic* application of UHC, towards a more *tailored* approach to UHC. The shock of GBD 2017 should be used to galvanise national governments and international agencies to amplify their efforts to avoid the loss of hard-won gains and also to adopt fresh and effective approaches to growing threats.

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