

Global burden of infectious diseases: not just numbers

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At the beginning of the third millennium communicable diseases continue to cause worldwide -mostly in developing countries- the death of several million people each year with the greatest impact on morbidity and life expectancy. Communicable diseases do not respect national borders and the failure of control measures in one country can put neighbours and global health at risk.

There is evidence that the impact of these diseases is increasing due to continuing and worsening levels of poverty, the effect of population growth, the increase in man-made and natural disasters resulting in displacement of populations, the behavioural changes, the emergence of resistance to anti-infectives, climatic changes and deteriorating sanitation. Infectious diseases can be partially controlled through improved living conditions and effective public health and education systems.

The Global Burden of Disease (GBD) Study, established since 1992, is an assessment for evidence-based decisions in public health. The term was coined by epidemiologists and economists to study international variations in the patterns of disability-adjusted life expectancy (DALYs) for the World Bank.

Among the top 10 diseases for mortality and burden, 4 are infectious diseases. The methods to estimate health gaps changed over the years as the number of conditions (diseases, injuries and risk factors) considered. The GBD now quantifies the burden of about 500 sequelae of more than 100 major causes of death and disability disaggregated by eight geographic regions and ten age-sex groups, with projections to 2020.

The goal of GBD is now to systematically collect data for assessment of health status; to ensure that all estimates and projections were derived, in an independent way, on the basis of objective epidemiological and demographic methods; to measure the burden of disease using a metric that could also be used to assess the cost-effectiveness of interventions (Disability-Adjusted Life Years, or DALYs)

The latest round of GBD (2010 study) is in progress and the results will be published in 2011. The report will be based on improved methods allowing full use of the increasing amount of health data, particularly from developing countries, and will include a comprehensive and consistent revision of disability weights.

The data of GBD represent a policy framework to provide information for a coherent, comprehensive and accelerated response to communicable diseases, securing adequate resources to produce better health outcomes towards a sector-wide approach, setting a broad policy framework and establishing longer-term partnerships.

Now the term Global Burden is largely used also outside the GBD study and several estimates of "Burden" have been performed for several communicable diseases.

Examples related to viral infections, methodological aspect, use of data and their integration with social and political information will be presented and discussed.