FACT SHEET FOR BURDEN OF DISEASE (Ongoing activity)
WP 9 "An overview of country health profiles (i.e., GBD metrics) and a rational approach to perform a national burden of disease study in Europe"

Key outputs

1. Background: The country health profiles provide a measure of priority health conditions and risk factors, a summary breakdown of major causes, and an appreciation of health sector performance, according to the GBD methodology. There are three objectives of this study: 1. to compare the way GBD identifies top priorities in risk factors, health outcomes and health sector performance with a country's assessment based on their national health reporting, 2. to identify the potential differences in estimates due to different data sources and methods used and 3. to propose a rational approach to performing a national burden of disease study.

2. Most relevant results: There are three main results: 1. Overview of IHME produced measures of priority health conditions and risk factors across European countries. 2. Main differences in estimates due to data sources and method, and 3. A rational approach to performing a national burden of disease study (i.e., why does a country want to perform a BoD study, what are the methodologies available and what are the benefits of performing national BoD studies?)

3. Feasibility of being integrated in HIS and translated into policies: The rational approach to do a national BoD study would help to integrate the BoD approach into routine public health activities and health policies to improve the current EU-HIS (Health Information System).

Background and Rationale

The country profiles provide a measure of priority health conditions and risk factors, a summary breakdown of major causes, and an appreciation of health sector performance, according to the GBD methodology[1]. The country health profile approach highlights the usefulness and possible applications of a standardised, comprehensive methodology in Burden of Disease assessment and allows a standardised comparison with European peer countries. However, most European countries do not produce GBD metrics (YLLs, YLDs, DALYs). As a result, the national ranking of a given country based on risk factor prevalence could show that smoking is its main health problem, whereas GBD metrics (i.e., DALYs attributable to risk factors) may show that alcohol is more important.

There are three objectives of this study: 1. to compare the way GBD identifies top priorities in risk factors, health outcomes and health sector performance with a country's assessment based on their national health reporting (i.e., mortality, morbidity rates, risk factor prevalence, etc.), 2 to identify the potential differences in estimates due to different data sources and methods used by countries producing their own BoD estimates and 3. To propose a rational approach to performing a national burden of disease study.

Proposal

Using the 'standard' GBD metrics, we have produced a series of country health profiles. All charts have been produced using the same R code. All data used are publicly available, at https://vizhub.healthdata.org/gbd-compare/ and http://ghdx.healthdata.org/gbd-results-tool. Almost, 80,000 different data sources were used to produce these country health profiles. The information on data sources can be found here: http://ghdx.healthdata.org/gbd-2017/data-input-sources. After producing the charts for country health profiles of European countries, we uploaded them on an interactive website created only for 'Country Health Profiles' (https://espaces.santepubliquefrance.fr/espace_projets/Accueil/gbd). A username and password

was provided to each country, allowing to access this website of country health profiles and uploading their comments.

Expected results: We analysed and described the comments on country health profiles by taking into account the IHME estimations and the national health reporting of each country. There are three main results: 1. Overview of IHME produced measures of priority health conditions (i.e.,) and risk factors (i.e.,) across European countries. 2. Potential differences in estimates due to different data sources and methods used and 3. A rational approach to performing a national burden of disease study (i.e., why does a country want to perform a BoD study, what are methodologies available and what are the benefits for performing national BoD studies?).

The following challenges were identified by some of those countries who are performing their own BoD study when comparing GBD country health profiles with a country's own estimates: lack of comparable data, differences in data sources used, lack of information on the methods used to calculate these estimates, different methods used for age-standardized rates, differences in prevalence rates and duration parameters, different reference population[2], different life tables to estimate YLL and different methods used to redistribute garbage codes.

Recommendations for sustainability

This exercise highlighted the importance of standardised methodologies, so as to make Europe-wide BoD assessments comparable. The main intention of the BoD initiative is to integrate the BoD approach into routine public health activities and health policies to improve the current EU-HIS (Health Information System). Those countries, who are engaged in performing their national BoD studies, can provide support, guidance and recommendations to others to initiate and integrate the burden of disease approaches into their routine public health activities. At the end of three BoD workshops, we proposed the following rational approach based on a set of minimum requirements to perform a national BoD study, and its potential benefits, summarised in three main recommendations:

1. Why should a country want to perform a BoD study?
   Countries who intend to perform a national burden of disease study wish to gain a comprehensive insight into a country's health status, alongside the ability to monitor trends within a country and between countries or to produce comparable estimates at subnational and national levels.

2. What methodologies are available?
   IHME GBD manual 2020, WHO 2001 a practical guide on national BoD studies[3], some examples of national BoD studies and resource links to BoD related published studies, reports, websites, etc.

3. What are the benefits of performing national BoD studies?
   - Direct benefits: Health improvement - to inform health policy with a global and integrated approach for population health, rational allocation of resources, etc.
   - Indirect benefits: Capacity building - to build up local capacities and expertise, to use the best available data for your country.
   - Indirect benefits: Quality of HIS - to appraise and improve completeness and quality of the country's health information system.

References

1. IHME. Country Health Profiles: http://www.healthdata.org/results/country-profiles.
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3. WHO. National Burden of Disease studies: A Practical Guide: https://www.who.int/healthinfo/nationalburdenofdiseasemanual.pdf. 2001.

INFACT
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