



# Introducing the World Bank’s 2018 Health Equity and Financial Protection Indicators database

Among the many shifts of emphasis that have been evident in global health over the past 25 years or so, two stand out: a concern over the poor lagging behind the better off in progress towards global goals; and a concern to look beyond whether people get the services they need to the affordability of the out-of-pocket expenditures associated with these services. These concerns over health equity and financial protection were absent from the Millennium Development Goals (MDGs), but are integral to the Sustainable Development Goals (SDGs).

The World Bank’s 2018 Health Equity and Financial Protection Indicators (HEFPI) database<sup>1</sup> is a new global resource for tracking progress on both fronts. It is, in effect, the fourth in the series of such databases. The first two<sup>2,3</sup> (2000 and 2007) focused on maternal and child health and communicable diseases, and drew on data from Demographic and Health Surveys. The third<sup>4</sup> (2012) added data from Multiple Indicator Cluster Surveys and World Health Surveys, non-communicable disease (NCD) and financial protection indicators, and high-income countries. The 2018 database continues this broadening-out, including more health indicators, more countries, and more years of data. Disaggregated health data by wealth quintile are reported in all four datasets.

The 2018 database includes 18 indicators of service use (12 preventative, six curative) and 28 health outcome indicators. The financial protection indicators capture the proportions of the population incurring catastrophic

expenses (those exceeding a specified proportion of a household’s total consumption or income) or impoverishing expenses (expenses without which the household would have been above the poverty line, but because of the expenditures is below the poverty line). The health indicators include both MDG-era indicators and SDG-era (eg, NCD) indicators, and the financial protection indicators include those that reflect the SDG catastrophic expenditure threshold (10%) and the SDG international poverty line (US\$1.90 per day).

The data are calculated from household surveys, identified mostly through searches of data catalogues and websites of multicountry survey initiatives. None come from official reports by national governments, in part because such data do not lend themselves to disaggregation by household living standards, and in part because of concerns about accuracy, especially where governments do not face incentives to report accurate numbers.<sup>5-7</sup> Where we have been able to access the raw microdata, we have done so, mostly because indicator definitions can vary from one survey family to another, and sometimes even within a survey family. The estimates we report are simply direct (re) calculations of the quantities reported in the survey reports, harmonised as much as possible across surveys subject to the constraints imposed by the wordings of the original questions. In line with the growing concerns about the use of modelling in global health datasets,<sup>8,9</sup> we do not produce forecasts for country-years where there is no survey. Nor do we replace estimates directly

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	Number of indicators	Mean number of datapoints (population)*	Mean number of countries (population)*	Mean number of datapoints (quintiles)†	Mean number of countries (quintiles)†
Service coverage (MDGs: MCH, etc)	10	279	92	271	88
Service coverage (SDGs: NCDs)	17	182	81	122	55
Health outcomes (MDGs: MCH, etc)	5	217	75	217	75
Health outcomes (SDGs: NCDs)	14	157	96	84	48
Catastrophic expenditure	2	575	142	101	35
Impoverishing expenditure	3	548	141	96	34
Total	51	234	93	148	59

MDGs=Millennium Development Goals. MCH=maternal and child health. SDGs=Sustainable Development Goals. NCDs=non-communicable diseases. \*Estimates reported for the population as a whole. †Disaggregated data reported at the level of the (wealth or consumption) quintile.

**Table: Data availability in 2018 Health Equity and Financial Protection Indicators dataset**

calculated from the survey microdata by modelled estimates. The downside is that our dataset is full of gaps. The upside is that, insofar as the surveys we use are reliable, differences over time or across countries ought to reflect reality rather than modelling assumptions; conversely, when real changes occur on the ground, they ought to get reflected in our numbers, rather than being smoothed away by the modelling process.

The health data were checked against the reports and websites of the original surveys where possible; differences are typically small and due to our harmonisation of definitions across surveys. The health data were also checked to make sure they lie in the required range. The financial protection estimates were subject to several internal and external checks, which led to us to drop several household surveys, including several entire survey families.

The HEFPI database now covers 193 countries, up from 109 previously, and draws on over 1600 surveys, up from just 285. The table shows the variation across groups of indicators in terms of the number of datapoints and countries with data, for the population and quintile data. On average, across the 51 indicators, we have population data for just over 90 countries, with an average of 2.5 years of data per country. For the financial protection indicators, we have data for over 140 countries; for the SDG health service coverage indicators, we have fewer countries. We also have less disaggregated data, since we report disaggregated financial protection data only for high-income countries, and some NCD surveys do not collect the data necessary to disaggregate by household living standards.

The 2018 HEFPI dataset is freely downloadable, and a data visualisation tool is also available. To ensure the data are reproducible, and in line with the Guidelines for Accurate and Transparent Health Estimates Reporting,<sup>10</sup> we document our methods thoroughly in a working

paper<sup>1</sup> and highlight the differences between our definitions and others'; we also provide the essential computer code used to produce the estimates.

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We declare no competing interests.

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- 1 Wagstaff A, Eozenou P, Neelsen S, Smitz M. The 2018 health equity and financial protection indicators database: overview and insights. Washington, DC: World Bank, 2018. <http://documents.worldbank.org/curated/en/582871539784481127/The-2018-Health-Equity-and-Financial-Protection-Indicators-Database-Overview-and-Insights>.
- 2 Gwatkin D, Rutstein S, Johnson K, Pande R, Wagstaff A. Socioeconomic differences in health, nutrition, and population within developing countries: an overview. Washington, DC: World Bank, 2000.
- 3 Gwatkin D, Rutstein S, Johnson K, Suliman E, Wagstaff A, Amouzou A. Socio-economic differences in health, nutrition, and population within developing countries: an overview. Washington, DC: World Bank, 2007.
- 4 Bredenkamp C, Wagstaff A, Buisman L, Prencipe L, Rohr D. Health equity and financial protection datasheet : Sub-Saharan Africa. Washington, DC: World Bank, 2012.
- 5 Sandefur J, Glassman A. The political economy of bad data: evidence from African Survey and Administrative Statistics. *J Dev Stud* 2015; **51**: 116–32.
- 6 Lim SS, Stein DB, Charrow A, Murray CJL. Tracking progress towards universal childhood immunisation and the impact of global initiatives: a systematic analysis of three-dose diphtheria, tetanus, and pertussis immunisation coverage. *Lancet* 2008; **372**: 2031–46.
- 7 Murray CJL, Shengelia B, Gupta N, Moussavi S, Tandon A, Thieren M. Validity of reported vaccination coverage in 45 countries. *Lancet* 2003; **362**: 1022–27.
- 8 Boerma T, Victora C, Abouzahr C. Monitoring country progress and achievements by making global predictions: is the tail wagging the dog? *Lancet* 2018; **392**: 607–09.
- 9 AbouZahr C, Boerma T, Hogan D. Global estimates of country health indicators: useful, unnecessary, inevitable? *Glob Health Action* 2017; **10** (suppl 1): 1290370.
- 10 Stevens GA, Alkema L, Black RE, et al. Guidelines for Accurate and Transparent Health Estimates Reporting: the GATHER statement. *Lancet* 2016; **388**: e19–23.

For the dataset see <https://datacatalog.worldbank.org/dataset/hefpi>  
For the data visualisation tool see <http://datatopics.worldbank.org/hefpi>