



Institute for Health Metrics and Evaluation

Data Release Information Sheet

Data Summary

Dataset name: Global Burden of Disease Study 2016 (GBD 2016) Healthcare Access and Quality Index Based on Amenable Mortality 1990–2016

Date of release: May 23, 2018

Summary:

Global Burden of Disease Study 2016 (GBD 2016) estimates were used in an analysis of personal healthcare access and quality for 195 countries and territories, as well as selected subnational locations, over time. This dataset includes the following global, regional, national, and selected subnational estimates for 1990-2016: age-standardized risk-standardized death rates from 24 non-cancer causes considered amenable to healthcare; age-standardized mortality-to-incidence ratios for 8 cancers considered amenable to healthcare; and the Healthcare Access and Quality (HAQ) Index and individual scores for each of the 32 causes on a scale of 0 to 100. Code used to produce the estimates is also included.

Results were published in *The Lancet* in May 2018 in "Measuring performance on the Healthcare Access and Quality Index for 195 countries and territories and selected subnational locations: a systematic analysis from the Global Burden of Disease Study 2016."

Relevant publications and visualizations:

- GBD 2016 Healthcare Access and Quality Collaborators. Measuring performance on the Healthcare Access and Quality Index for 195 countries and territories and selected subnational locations: a systematic analysis from the Global Burden of Disease Study 2016. *The Lancet*. 24 May 2018.
- [GBD Compare](#)

Acknowledgements

Contributing organizations:

- Global Burden of Disease Collaborative Network

Funders:

- Bill and Melinda Gates Foundation (BMGF)

Suggested Citation:

Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2016 (GBD 2016) Healthcare Access and Quality Index Based on Amenable Mortality 1990–2016. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2018.

File Inventory

File Name	Description	Version Date
IHME_GBD_2016_HAQ_INDEX_1990_2016_SC ALED_CAUSE_VALUES_Y2018M05D23.CSV	HAQ Index: Scaled Cause Values	May 23, 2018
IHME_GBD_2016_HAQ_INDEX_1990_2016_UN SCALED_CAUSE_VALUES_Y2018M05D23.CSV	HAQ Index: Unscaled Cause Values	May 23, 2018
IHME_GBD_2016_HAQ_INDEX_1990_2016_CO DEBOOK_SCALED_CAUSE_VALUES_Y2018M05D 23.CSV	Codebook: Scaled Cause Values	May 23, 2018
IHME_GBD_2016_HAQ_INDEX_1990_2016_CO DEBOOK_UNSCALED_CAUSE_VALUES_Y2018M 05D23.CSV	Codebook: Unscaled Cause Values	May 23, 2018
IHME_GBD_2016_HAQ_INDEX_1990_2016_CO DE.zip	R code used to produce the estimates	May 23, 2018
IHME_GBD_2016_HAQ_INDEX_1990_2016_INF O_SHEET_Y2018M05D23.PDF	Data Release Information Sheet	May 23, 2018

Data Files Information

Variable	Variable Label	Variable Definition
location_ID	Location ID	Unique numeric identifier for the location generated and stored in an IHME database of data dimensions.

ihme_loc_id	Abbreviated location name	ISO 3661-1 alpha-3 code for countries and bespoke alpha-numeric codes for GBD super-regions, regions, and subnational locations.
location_name	Location Name	Location of the estimate.
indicator_id	Indicator ID	Unique numeric identifier for the indicator. generated and stored in an IHME database of data dimensions. (Indicators are all equivalent to GBD causes with the exception of "Healthcare Access and Quality Index," ID = 100).
indicator_name	Indicator name	The indicator estimated.
measure	Measure	<p>The measure of the estimate.</p> <p>For the scaled cause values data, there is one value: Index value (0 to 100).</p> <p>For the unscaled cause values data, there are two values:</p> <ul style="list-style-type: none"> • Age- and risk-standardized death rate per 100,000 • Age-standardized mortality-to-incidence ratio
year	Year	Time period of the estimate.
val	Mean value	Posterior mean estimate.
lower	95% uncertainty interval (lower bound)	2.5% percentile estimate.
upper	95% uncertainty interval (upper bound)	97.5% percentile estimate.
parent_location	Name of the "parent" location for subnational locations	<p>Name of the "parent" location for subnational locations (e.g., China for Beijing).</p> <p>Please note: the parent value for global, super-region, region, and country locations are the locations themselves.</p>
sdi_quintile	SDI quintile	The quintile of the Socio-demographic Index (SDI) in which the location is grouped, based on

		its 2016 SDI value.
super_region_name	GBD super-region name	Name of the GBD super-region containing the location (or the super-region itself, if the location is the super-region).
region_name	GBD region name	Name of the GBD region containing the location (or the region itself, if the location is the region).

Codebooks

Variable names, labels, and value encoding can be found in the machine-actionable codebook files

- [IHME_GBD_2016_HAQ_INDEX_1990_2016_CODEBOOK_SCALED_CAUSE_VALUES_Y2018M05D23.CSV](#)
- [IHME_GBD_2016_HAQ_INDEX_1990_2016_CODEBOOK_UNSCALED_CAUSE_VALUES_Y2018M05D23.CSV](#)

Code

The IHME_GBD_2016_HAQ_INDEX_1990_2016_CODE.zip archive contains the R code used to produce the estimates contained in the dataset.

Order for scripts to be run in.

1. prep_noncancer_inputs.R [Organizes and saves PAFs]
2. set_scalars.R [Sets scalar for PAFs that are > 1]
3. Risk standardizers
 - a. risk_standardizer.R [Uses PAFs to risk-standardize non-cancer deaths, age-standardizes outputs]
 - b. controller_risk_standardizer.R [Parallelizes risk_standardizer.R]
4. MI ratios
 - a. cancer_mi_ratios.R [Creates mortality/incidence ratios, age-standardizes outputs]
 - b. controller_mi_ratios.R [Parallelizes cancer_mi_ratio.R]
5. calc_index.R [Runs principal component analysis creates HAQ index]

* utilities.R is used as an auxillary script throught all scripts to load custom functions

Additional Information

Terms and Conditions

<http://www.healthdata.org/about/terms-and-conditions>

Contact information

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These files may be updated periodically, so we appreciate hearing feedback or additional information about how these data are being used.