



Institute for Health Metrics and Evaluation

Data Release Information Sheet

Data Summary

Dataset name: Low- and Middle-Income Country Child Growth Failure Geospatial Estimates 2000-2017

Date of release: January 8, 2020

Summary:

Annual estimates were produced for child growth failure (CGF), expressed as stunting, wasting, and underweight prevalence for children under 5 years of age, at the 5x5 km-level for 105 low- and middle-income countries (LMICs) between 2000-2017. These estimates were produced using 460 household surveys, including sources from the Demographic and Health Survey (DHS) and UNICEF Multiple Indicator Cluster Survey (MICS) series, and other country-specific surveys.

This dataset includes the following:

- GeoTIFF raster files for pixel-level estimates of under-5 stunting, wasting and underweight prevalence
- CSV files of aggregated stunting, wasting and underweight prevalence for each country at zero, first and second administrative divisions
- Code files used to generate the estimates

[Get Data Files](#)

Relevant publications and visualizations:

- Local Burden of Disease Child Growth Failure Collaborators. Mapping child growth failure across low- and middle-income countries. *Nature*. 8 January 2020.
- [Local Burden of Disease – Child Growth Failure](#)

Acknowledgements

Contributing organizations:

- Institute for Health Metrics and Evaluation (IHME)

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- Bill and Melinda Gates Foundation (BMGF)

Suggested Citation:

Institute for Health Metrics and Evaluation (IHME). Low- and Middle-Income Countries Child Growth Failure Geospatial Estimates 2000-2017. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020.

Data Files Information

NOTE: The estimates for Egypt, Sudan, and the Hala'ib Triangle have been updated since the October 2019 publication.

CSV files of Aggregated Estimates of Child Growth Failure

Stored in files named <MEASURE>_<LEVEL_OF_AGGREGATION>.CSV

(Example: IHME_LMIC_CGF_2000_2017_STUNTING_PREV_ADMIN_1_Y2020M01D08.CSV)

- **Measure:** Prevalence (%) (stunting, wasting or underweight)
- **Level of aggregation:** admin0, admin1, or admin2, corresponding to first and second administrative level areas as defined in the Database of Global Administrative Areas (GADM) shapefiles, with adjustments made in some countries. Each row in each table is unique by administrative unit and year.

Variable	Variable Label	Variable Definition
ADM0_CODE	GADM Admin 0 Code	GADM code identifying the administrative unit
ADM0_NAME	Admin 0 Name	Zero level administrative unit (Country) name as found in the GADM shapefile
ADM1_CODE	GADM Admin 1 Code	GADM code identifying the administrative unit (Only in the admin1 files)
ADM1_NAME	Admin 1 Name	First level administrative unit name as found in the GADM shapefile
ADM2_CODE	GADM Admin 2 Code	GADM code identifying the administrative unit (Only in the admin2 files)
ADM2_NAME	Admin 2 Name	Second level administrative unit name as found in the GADM shapefile (Only in the admin2 files)
year	Year	Time period of estimate. Possible values: years in the range 2000-2017

Variable	Variable Label	Variable Definition
age_group_id	Age Group ID	Unique numeric identifier for the age group generated and stored in an IHME database of data dimensions. Possible values: 1
age_group_name	Age Group Name	Age group estimated. Possible values: Under 5
sex_id	Sex ID	Unique numeric identifier for the sex generated and stored in an IHME database of data dimensions. Possible values: 3
sex	Sex	Sex estimated: Possible values: Both
measure	Measure	The measure (indicator) estimated. Possible values: <ul style="list-style-type: none"> • Stunting prevalence • Wasting prevalence • Underweight prevalence
metric	Metric	Metric/unit of measure for the estimate. Values: Percent
mean	Mean	Mean posterior population-weighted estimate for the administrative unit
upper	Upper Confidence Interval	97.5% population-weighted posterior quantile estimate for the administrative unit
lower	Lower Confidence Interval	2.5% population-weighted posterior quantile estimate for the administrative unit
cirange	Confidence Interval Range	Numeric range between the upper and lower confidence intervals for a given row

Codebooks

Variable names, labels, and value encoding for admin 0 files can be found in the machine-actionable codebook file [IHME_LMIC_CGF_2000_2017_CODEBOOK_ADMIN_0_Y2020M01D08.CSV](#)

Variable names, labels, and value encoding for admin 1 files can be found in the machine-actionable codebook file [IHME_LMIC_CGF_2000_2017_CODEBOOK_ADMIN_1_Y2020M01D08.CSV](#)

Variable names, labels, and value encoding for admin 2 files can be found in the machine-actionable [IHME_LMIC_CGF_2000_2017_CODEBOOK_ADMIN_2_Y2020M01D08.CSV](#)

GeoTIFF Raster Files for Pixel-level Estimates of Child Growth Failure

Stored in files named <MEASURE>_<STAT>_<YEAR>.TIF

(Example: IHME_LMIC_CGF_2000_2017_WASTING_PREV_MEAN_2003_Y2020M01D08.TIF)

- **Measure:** Prevalence (%) (Stunting, Wasting or Underweight)
- **Stat:** mean, upper, or lower summary statistics from the predictive posterior distribution at each pixel. Lower and upper correspond to 2.5% and 97.5% quantiles
- **Year:** From 2000 to 2017, corresponding to the time period of the estimate

Note that rasters mask (i.e., have NA values) for lakes and areas with low population (10 people per 1km and classified as barren/sparsely vegetated). Rasters are stacked, with a layer for each year from 2000-2017. The first layer corresponds to 2000, the 18th layer corresponds to 2017.

Disputed Territories

Information on disputed territories, including to which countries disputed territories are attributed, is available in this file: [IHME_LMICS_CGF_2000_2017_DISPUTED_TERRITORIES_Y2020M01D08.XLSX](#)

Data Input Sources

This file contains relevant metadata about the input sources as suggested in the [Guidelines for Accurate and Transparent Health Estimates Reporting \(GATHER\)](#), a statement that promotes best practices in reporting health estimates.

[IHME_LMIC_CGF_2000_2017_DATA_INPUT_SOURCES_Y2020M01D08.XLSX](#)

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.