



Institute for Health Metrics and Evaluation

Data Release Information Sheet

Data Summary

Dataset name: Africa Under-5 Diarrhea Incidence, Prevalence, and Mortality Geospatial Estimates 2000-2015

Date of release: September 19, 2018

Summary:

Estimates were produced for the prevalence and incidence of diarrhea and diarrhea-related mortality among children younger than 5 years of age at the 5x5 km-level in 52 countries in Africa between 2000-2015. These estimates were produced using data on diarrhea and geographical locations from censuses, several household survey series, including the Demographic and Health Survey (DHS) and Multiple Indicator Cluster Survey (MICS), and other country-specific surveys.

This dataset includes the following:

- GeoTIFF raster files for pixel-level estimates of diarrhea prevalence, incidence of severe diarrheal episodes, diarrhea-related mortality, annualized rates of change for severe incidence and diarrheal mortality, and the probability that a unit will reach Global Action Plan for the Prevention and Control of Pneumonia and Diarrhea (GAPPD) goals for the reduction of incidence and mortality for given years
- CSV files of aggregated estimates for each country at the first and second administrative divisions
- Code files used to generate the estimates

Relevant publications and visualizations:

- Reiner RC, Graetz N, Casey DC, Troeger C, Garcia GM, et al. Variation in Childhood Diarrheal Morbidity and Mortality in Africa, 2000–2015. *New England Journal of Medicine*. 19 September 2018.
- [Local Burden of Disease - Diarrhea](#)

Acknowledgements

Contributing organizations:

- Institute for Health Metrics and Evaluation (IHME)

Funders:

- Bill and Melinda Gates Foundation (BMGF)

Suggested Citation:

Institute for Health Metrics and Evaluation (IHME). Africa Under-5 Diarrhea Incidence, Prevalence, and Mortality Geospatial Estimates 2000-2015. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2018.

Data Files Information

CSV files of Aggregated Estimates of Educational Attainment

Stored in files named <MEASURE_TYPE>_<LEVEL_OF_AGGREGATION>.CSV or <MEASURE_TYPE>_<METRIC>_<LEVEL_OF_AGGREGATION>.CSV

(Example: IHME_AFRICA_DIARRHEA_2000_2015_MORT_PROB_ADMIN_1_Y2018M09D18.CSV)

- **Measure type:** Mortality (MORT), Prevalence (PREV) or Severe incidence (INC)
- **Metric:** Annualized rate of change (AROC) or Probability (PROB)
- **Level of aggregation:** admin1 or admin2, corresponding to first and second administrative level areas as defined in the 2014_2015 FAO Global Administrative Unit Layers (GAUL) shapefiles, with minor adjustments made where names were missing in the original shapefile. Each row in each table is unique by administrative unit and year

Variable	Variable Label	Variable Definition
ADM0_CODE	GAUL Admin 0 Code	GAUL code identifying the administrative unit
ADM0_NAME	Admin 0 Name	Zero level administrative unit (Country) name as found in the GAUL shapefile
ADM1_CODE	GAUL Admin 1 Code	GAUL code identifying the administrative unit (Only in the admin1 files)
ADM1_NAME	Admin 1 Name	First level administrative unit name as found in the GAUL shapefile
ADM2_CODE	GAUL Admin 2 Code	GAUL code identifying the administrative unit (Only in the admin2 files)
ADM2_NAME	Admin 2 Name	Second level administrative unit name as found in the GAUL shapefile (Only in the admin2 files)
year	Year	Time period of estimate. Possible values: <ul style="list-style-type: none">• Years in the range 2000-2015• 2025• 9999 (proxy when value year range rather than single year)

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"> • Mortality • Prevalence • Severe incidence
metric	Metric	Metric/unit of measure for the estimate. Values: <ul style="list-style-type: none"> • AROC (Annualized rate of change) • Count (Number) • Probability (the probability that a unit will reach the Global Action Plan for the Prevention and Control of Pneumonia and Diarrhea (GAPPD) goals for the reduction of diarrheal incidence and mortality for a given year) • Rate
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

Codebooks

Variable names, labels, and value encoding for admin 1 files can be found in the machine-actionable codebook file [IHME_AFRICA_DIARRHEA_2000_2015_CODEBOOK_ADMIN_1_Y2018M09D18.CSV](#)

Variable names, labels, and value encoding for admin 2 files can be found in the machine-actionable [IHME_AFRICA_DIARRHEA_2000_2015_CODEBOOK_ADMIN_2_Y2018M09D18.CSV](#)

GeoTIFF Raster Files for Pixel-level Estimates of Years and Disparity

Stored in files named <MEASURE_TYPE>_<METRIC>_<STAT>_<YEAR>.TIF

(Example: IHME_AFRICA_DIARRHEA_2000_2015_PREV_RT_MEAN_2005_Y2018M09D18.TIF)

- **Measure type:** Mortality (MORT), Prevalence (PREV) or Severe incidence (INC)
- **Metric:** Annualized rate of change (AROC), Count (CT), Probability (PROB), or Rate (RT)

- **Level of aggregation:** admin1 or admin2, corresponding to first and second administrative level areas as defined in the 2014_2015 FAO Global Administrative Unit Layers (GAUL) shapefiles, with minor adjustments made where names were missing in the original shapefile. Each row in each table is unique by administrative unit and year
- **Year:** 2000-2015, 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).

Data Input Sources

This CSV 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.

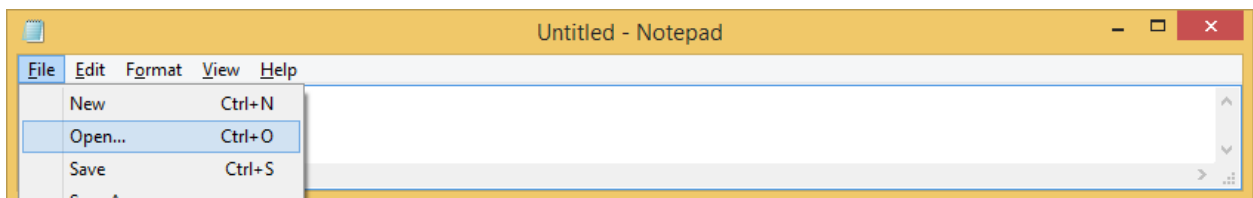
Additional Information

Opening CSV Files with Special Characters in Excel

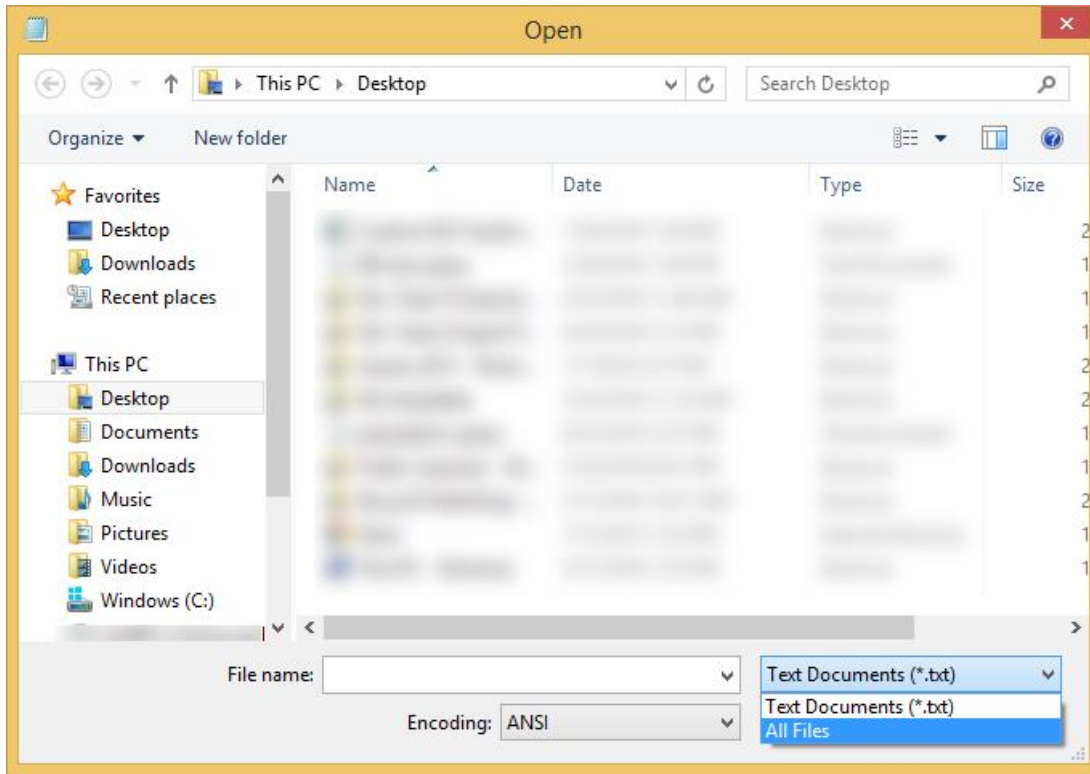
Some values in the CSV file contain special characters, such as place names with accents like “Côte d'Ivoire.” These characters may not display properly when the CSV file is opened in Excel.

To solve this problem:

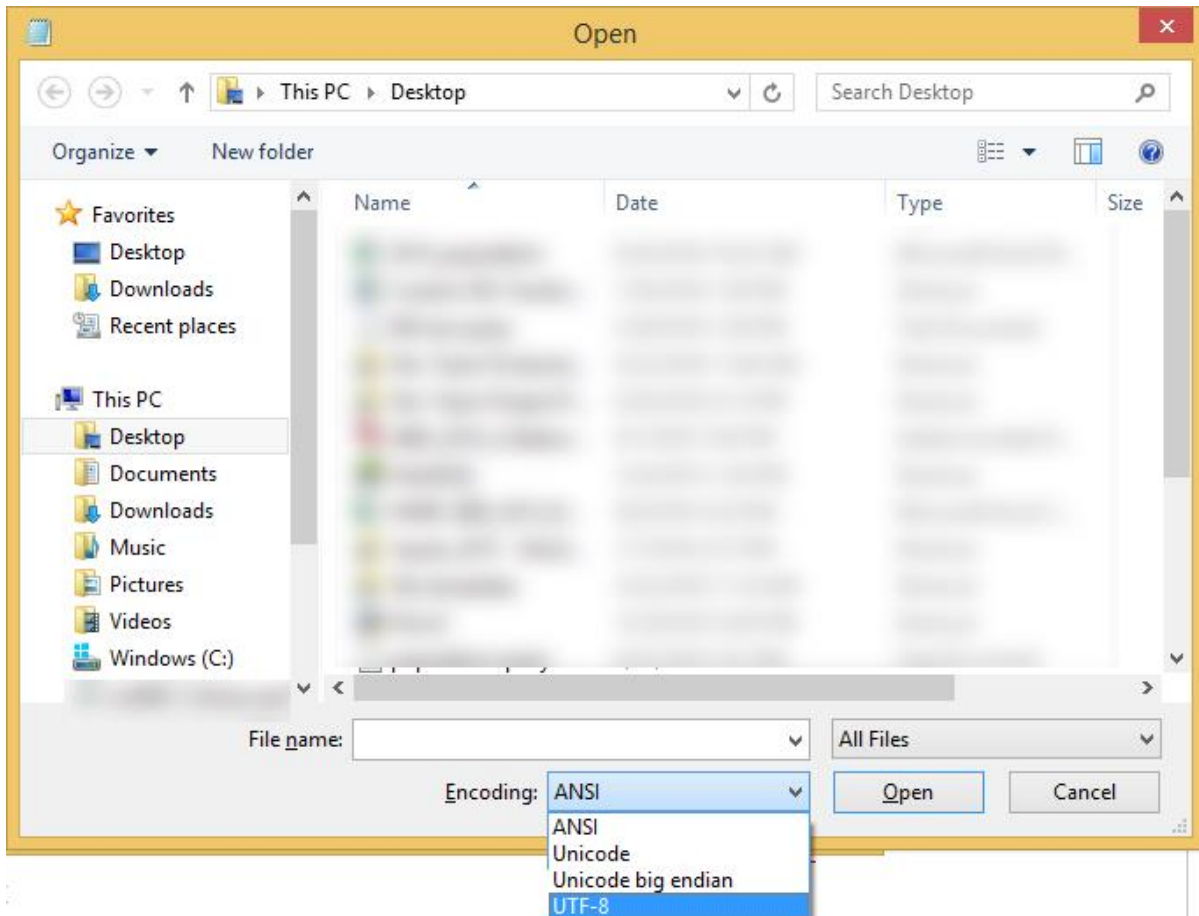
1. Open Notepad.
2. Click File > Open (Ctrl + O).



3. Browse to and open the exported CSV, making sure to select "All Files" in the bottom right.



4. In the Encoding drop-down menu at the bottom, change from ANSI to UTF-8.



Save the file. When you reopen it in Excel, the special characters should render correctly.

Terms and Conditions

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

Contact information

To request further information about this dataset, please contact IHME:

Institute for Health Metrics and Evaluation

2301 Fifth Ave., Suite 600

Seattle, WA 98121

USA

Telephone: +1-206-897-2800

Fax: +1-206-897-2899

Email: data@healthdata.org

www.healthdata.org

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