



Institute for Health Metrics and Evaluation

Data Release Information Sheet

Data Summary

Dataset name: Africa Diphtheria-Pertussis-Tetanus Vaccine Coverage Geospatial Estimates 2000-2016

Date of release: April 5, 2019

Summary:

Estimates were produced for diphtheria-pertussis-tetanus (DPT) vaccine coverage and dropout for children ages 12-23 months at the 5x5 km-level in 52 countries in Africa between 2000-2016. These estimates were produced using data from 183 population-based household surveys conducted in Africa between 2000 and 2016 that included dose-specific information on DPT coverage (from vaccine cards or maternal recall in the absence of vaccine cards) and subnational geographical location for children ages 12-59 months.

This dataset includes the following:

- GeoTIFF raster files for pixel-level estimates of DPT1 coverage (the proportion of children who received one or more doses of DPT), DPT3 coverage (three or more doses), and relative and absolute DPT1-3 dropout
- 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:

- Mosser JF, Gagne-Maynard W, Rao PC, Osgood-Zimmerman A, Fullman N, Graetz N, et. Mapping diphtheria-pertussis-tetanus vaccine coverage in Africa, 2000–2016: a spatial and temporal modelling study. *The Lancet*. 5 April 2019.
- [Local Burden of Disease - Vaccine Coverage](#)

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 Diphtheria-Pertussis-Tetanus Vaccine Coverage Geospatial Estimates 2000-2016. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2019.

Data Files Information

CSV files of Aggregated Estimates of DPT Coverage and Absolute and Relative Dropout

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

(Example: IHME_AFRICA_DPT_2000_2016_DPT1_COVERAGE_PREV_ADMIN_1_Y2019M04D01.CSV)

- **Measure:** DPT1 coverage (DPT1_COVERAGE), DPT3 coverage (DPT3_COVERAGE), Relative DPT1-3 dropout (REL_DROPOUT) and Absolute DPT1-3 dropout (DROPOUT)
- **Metric:** Prevalence [%, Percent] (PREV) or Difference (2016-2000, percentage points) (DIFF)
- **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: Years in the range 2000-2016
year_start	Year Start	Start year of range. Possible values: 2000
year_end	Year End	Start year of range. Possible values: 2016
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: 238
age_group_name	Age Group Name	Age group estimated. Possible values: 12-23 months

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"> • DPT1 Coverage • DPT3 Coverage • DPT 1-3 Relative Dropout • DPT 1-3 Absolute Dropout
metric	Metric	Metric/unit of measure for the estimate. Values: <ul style="list-style-type: none"> • Percent • Difference (Percentage Points)
mean	Mean	Mean posterior population-weighted estimate for the administrative unit
lower	Lower Confidence Interval	2.5% population-weighted posterior quantile estimate for the administrative unit
upper	Upper Confidence Interval	97.5% population-weighted posterior quantile estimate for the administrative unit
cfb	Coffey-Feingold-Bromberg Measure	Coffey-Feingold-Bromberg measure, a normed measure of the uncertainty of a distribution of proportions
p_above_0.8	Posterior Probability of the Given Metric Exceeding 80%	Posterior probability of the given metric exceeding 80% (i.e., probability of exceeding GVAP subnational target)

Codebooks

Variable names, labels, and value encoding for DTP coverage prevalence admin 1 files can be found in the machine-actionable codebook file

[IHME_AFRICA_DPT_2000_2016_CODEBOOK_COVERAGE_PREV_ADMIN_1_Y2019M04D01.CSV](#)

Variable names, labels, and value encoding for DTP coverage prevalence admin 2 files can be found in the machine-actionable

[IHME_AFRICA_DPT_2000_2016_CODEBOOK_COVERAGE_PREV_ADMIN_2_Y2019M04D01.CSV](#)

Variable names, labels, and value encoding for DTP dropout prevalence admin 1 files can be found in the machine-actionable codebook file

[IHME_AFRICA_DPT_2000_2016_CODEBOOK_DROPOUT_PREV_ADMIN_1_Y2019M04D01.CSV](#)

Variable names, labels, and value encoding for DTP dropout prevalence admin 2 files can be found in the machine-actionable

[IHME_AFRICA_DPT_2000_2016_CODEBOOK_DROPOUT_PREV_ADMIN_2_Y2019M04D01.CSV](#)

Variable names, labels, and value encoding for percentage point difference (2000-2016) admin 1 files can be found in the machine-actionable codebook file

[IHME_AFRICA_DPT_2000_2016_CODEBOOK_DIFF_ADMIN_1_Y2019M04D01.CSV](#)

Variable names, labels, and value encoding for percentage point difference (2000-2016) admin 2 files can be found in the machine-actionable

[IHME_AFRICA_DPT_2000_2016_CODEBOOK_DIFF_ADMIN_2_Y2019M04D01.CSV](#)

GeoTIFF Raster Files for Pixel-level Estimates of DPT Coverage and Dropout (prevalence)

Stored in files named <MEASURE >_<METRIC >_<STAT>_<LEVEL_OF_AGGREGATION>.TIF

(Example: [IHME_AFRICA_DPT_2000_2016_ABS_DROPOUT_PREV_MEAN_2009_Y2019M04D01.TIF](#))

- **Measure:** DPT1 coverage (DPT1_COVERAGE), DPT3 coverage (DPT3_COVERAGE), Relative DPT1-3 dropout (REL_DROPOUT) and Absolute DPT1-3 dropout (DROPOUT)
- **Metric:** Prevalence [%, Percent] (PREV) or Difference (2016-2000, percentage points) (DIFF)
- **Stat:** Mean (MEAN), Upper (UPPER), or Lower (LOWER) summary statistics from the predictive posterior distribution at each pixel, or CFB
 - Lower and upper correspond to 2.5% and 97.5% quantiles.
 - CFB corresponds to the Coffey-Feingold-Bromberg measure, a normed measure of the uncertainty of a distribution of proportions
- **Year:** From 2000 to 2016, corresponding to the time period of the estimate (or 2000-2016 for differences)

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).

Additional Information

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.