Institute for Health Metrics and Evaluation

Data Release Information Sheet

Data Summary

Dataset name: Africa Onchocerciasis Environmental Suitability Geospatial Estimates

Date of release: July 28, 2021

Summary:

Estimates were produced for environmental suitability of onchocerciasis presence at the 5x5 km-level in endemic countries across Africa. These estimates were produced using a boosted regression tree (BRT) analysis trained on reported onchocerciasis presence data from endemicity mapping surveys, surveillance during elimination programs, and other sources. The model was trained using data from 1974–2015; final estimates were produced using covariate values for 2013.

This dataset includes the following:

- GeoTIFF raster files for pixel-level estimates of environmental suitability for onchocerciasis presence.
- Code files used to generate the estimates.

Relevant publications and visualizations:

- Cromwell E, Hay SI, LBD 2019 Neglected Tropical Diseases Collaborators. Predicting the environmental suitability for onchocerciasis in Africa as an aid to elimination planning. *PLOS Neglected Tropical Diseases*. 28 July 2021.

Acknowledgements

Contributing organizations:

- Institute for Health Metrics and Evaluations (IHME)

Funders:

- Bill & Melinda Gates Foundation (BMGF)
- Neglected Tropical Disease Modelling Consortium
- Medical Research Council (United Kingdom)
- Department for International Development (DFiD) (United Kingdom)

Suggested Citation:

Institute for Health Metrics and Evaluation (IHME). Africa Onchocerciasis Environmental Suitability Geospatial Estimates. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020.

Data Files Information

File Inventory

File Name	Description	Version Date
IHME_AFRICA_ONCHO_ENV_SUIT_MEAN_Y2020M10D13.TIF	Mean Estimates	October 13, 2020
IHME_AFRICA_ONCHO_ENV_SUIT_LOWER_Y2020M10D13.TIF	Lower Estimates	October 13, 2020
IHME_AFRICA_ONCHO_ENV_SUIT_UPPER_Y2020M10D13.TIF	Upper Estimates	October 13, 2020
IHME_AFRICA_ONCHO_ENV_SUIT_DATA_INPUT_SOURCES_Y2020M10D13.XLSX	Data Input Sources	October 13, 2020
IHME_AFRICA_ONCHO_ENV_SUIT_INFO_SHEET_Y2021M07D28.PDF	Data Release Information Sheet	July 28, 2021

GeoTIFF Raster Files for Pixel-level Estimates

Stored in files named <INDICATOR>_<MEASURE>_<STAT>_<DATE>.TIF
(Example: IHME_AFRICA_ONCHO_ENV_SUIT_MEAN_ Y2020M10D13.TIF)

- **Indicators:** Onchocerciasis environmental suitability (scale from 0-1)

- **Measure:** Environmental suitability

- **Stat:** Mean, upper, or lower summary statistics from bootstrapped BRT model

- **Date**: Date on which the file was produced, indicating year, month and day

Note that lakes and areas with low population density (10 people per 1 km^2 and classified as barren/sparsely vegetated) are masked from summary estimates.

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_AFRICA_ONCHO_ENV_SUIT_DATA_INPUT_SOURCES_Y2020M10D13.CSV

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:

Address:

Institute for Health Metrics and Evaluation

Population Health Building/Hans Rosling Center

3980 15th Ave. NE, Seattle, WA 98195 USA

UW Campus Box #351615

Telephone: +1-206-897-2800

Fax: +1-206-897-2899

Email: data@healthdata.org

Website: www.healthdata.org

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