

Local Burden of Disease: DATA NEEDS

The Local Burden of Disease project at the Institute for Health Metrics and Evaluation (IHME) produces estimates of health and health-related measures for local areas, including regions, districts, and 5-by-5square-kilometer areas. Such estimates are intended to enable the practice of "precision public health," in which public health solutions are tailored for local conditions. To produce those estimates, IHME needs help in assembling a comprehensive database of the world's geolocated health data.

We want location information for all available health data

That information lets us make locallevel estimates. Maps of those estimates show local nuances that maps of national averages do not.

What types of data do we need?

Any geospatial data related to all the health-related measures we map, including their associated risk factors and covariates.

"Geospatial" data are any data that are "tagged" with a specific place on the Earth:

POINTS

Latitude and longitude coordinates or the name of a small place, such as a village.

POLYGONS

A larger area of the earth, such as a county or province. The smaller the polygon, the more geographically specific its data, and the better it is for analyses.

The best location "tags" are the most specific. Greater detail leads to better estimates:

- A small administrative unit, such as a county or province (good)
- The place names where health data were collected; our team can apply coordinates to place names retrospectively (better)
- Latitude/longitude coordinates where health data were collected (best)



This project depends on researchers and officials around the world sharing data to produce freely available estimates to promote the public good.



How can local-level estimates be used?

Local estimates of health and health-related measures allow officials and researchers to tailor health interventions in innovative ways, such as:

- Track indicators, such as the Sustainable Development Goals, at the local level
- Target health interventions where they could have the greatest impact
- Direct resources where they are most needed

What we map

We are producing free, publicly available maps of the following health and healthrelated measures:

Under-5 mortality

and P.vivax)

Diarrhea

infections

HIV/AIDS

Tuberculosis

Ebola and other

hemorrhagic fevers

Malaria (P.falciparum

Lower respiratory

- Pandemic potential of five emerging zoonotic infectious diseases
 - Water and sanitation
 - Child growth failure
 - **Educational attainment**
 - Lymphatic filariasis
 - **Onchocerciasis**
- **Schistosomiasis**
 - Vaccine coverage

Work published so far

We are already publishing some high-resolution estimates, but obtaining more data will let us further that work in two ways. First, it will allow for the refinement of existing estimates, increasing their accuracy and utility. Second, it will let us expand our work to include more places around the world. To view the work done so far, visit our website:

To use our interactive data visualization tools:

A healthdata.org/lbd/data-visualizations

To access all Local Burden of Disease project materials:

For access to published scientific papers, methodological information, and estimates:



PREVALENCE OF MILD-TO-SEVERE STUNTING (MSS) IN CHILDREN UNDER 5, 2015

Gray areas are unmapped due to low population density and/or data unavailability.

PREVALENCE OF MSS (%)

≥50 <10 20 30 40

Privacy concerns

Local Burden of Disease estimates and maps will NEVER link raw health data to any specific community or individual. IHME has experts available to discuss any privacy concerns with data providers.

The terminology and structure of data like these can be complex, so our researchers are ready to help anyone who would like to share data or further this research in any other way. If you are interested in helping the Local Burden of Disease effort, we hope you will reach out to us.

About IHME

The Institute for Health Metrics and Evaluation (IHME) is an independent global health research center at the University of Washington that provides rigorous and comparable measurement of the world's most important health problems and evaluates the strategies used to address them. IHME is recognized as one of the leading health metrics organizations in the world.

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