High-resolution maps show local detail and applications

The Local Burden of Disease project at IHME aims not only to produce estimates and maps of health outcomes and related measures that cover entire continents, but also to do so at a very fine, local resolution–in many cases, 5-by-5-kilometer areas. All results from the project are free and made publicly available so that anyone can use them in their work.

What we map

Our first focus is the biggest killers of children

- Under-5 mortality
- Malaria *(P.f. and P.v.)*
- Diarrhea
- Lower respiratory infections
- Tuberculosis
- HIV/AIDS
- Ebola and other hemorrhagic fevers
- Pandemic potential of five emerging zoonotic infectious diseases
- Water and sanitation
- Child growth failure
- Educational attainment
- Lymphatic filariasis
- Onchocerciasis
- Schistosomiasis
- Vaccine coverage

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

Monitor health trends and progress toward goals like the United Nations Sustainable Development Goals. Maps of local data show which areas within countries have been most successful at improving health.

TARGET

Make the best use of limited funds by directing them to the areas most in need. Subnational maps could help officials prioritize their health system strengthening efforts.

TREAT

Use precise information to direct health interventions where the need and potential benefits are greatest. High-resolution maps can show the localities that would benefit most from aid.
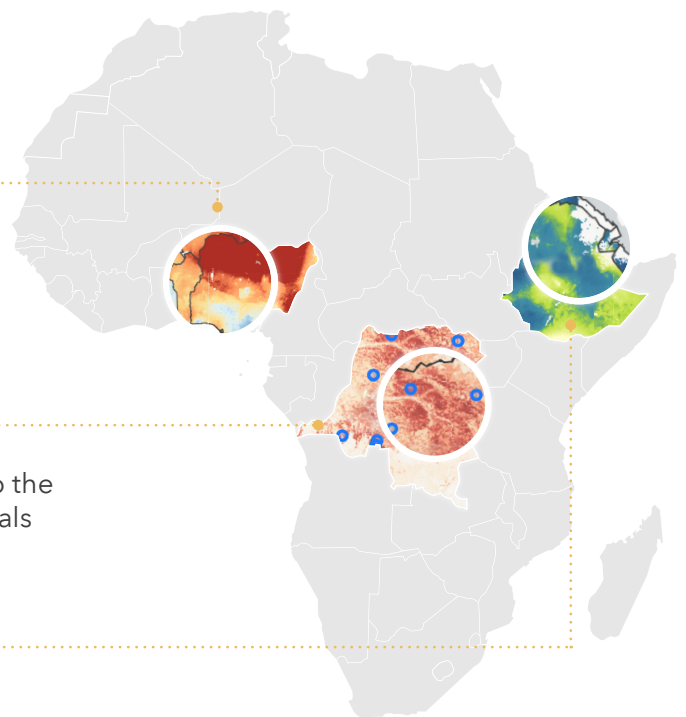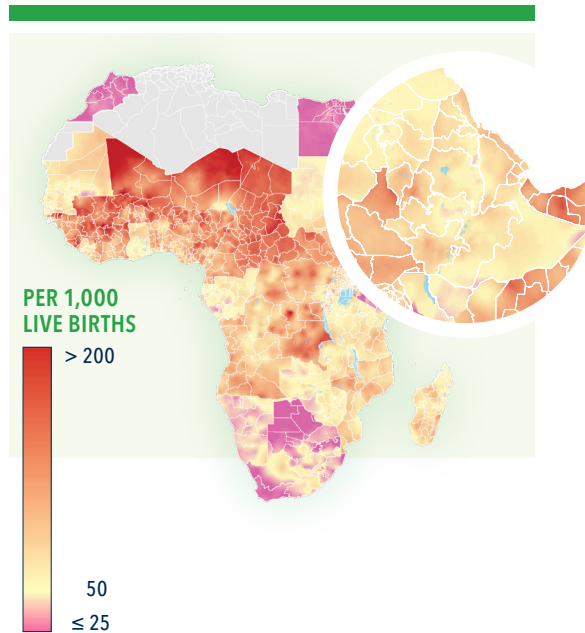
Explore our estimates

Explore maps of our estimates in two online data visualization tools:

UNDER-5 MORTALITY
2015

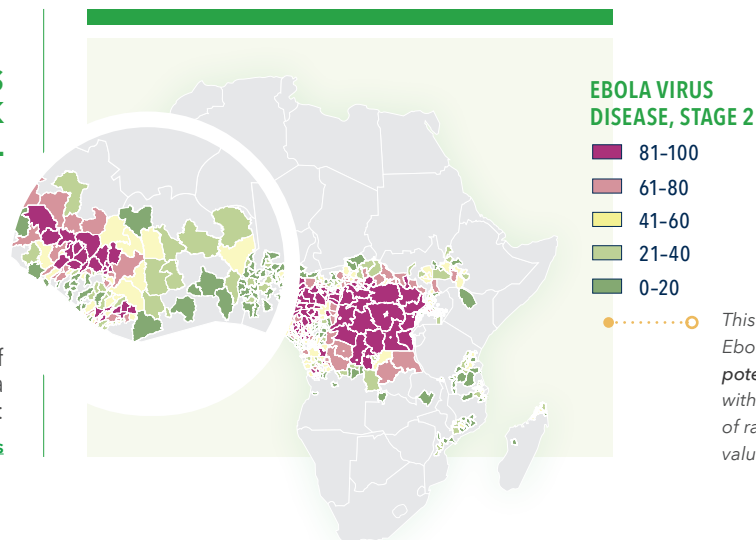Explore estimates of child mortality in Africa, from 2000 to 2015, at 5-by-5-km resolution:

🔗 **vizhub.healthdata.org/lbd/under5**

PER 1,000 LIVE BIRTHS

> 200

50

≤ 25

EBOLA VIRUS DISEASE OUTBREAK POTENTIAL

Explore estimates of pandemic potential in Africa at district-level resolution:

🔗 **vizhub.healthdata.org/lbd/pandemics**

EBOLA VIRUS DISEASE, STAGE 2

- 81–100
- 61–80
- 41–60
- 21–40
- 0–20

*This figure refers to pandemic potential for Ebola Virus Disease. **Stage 2 refers to outbreak potential.** Admin units colored in **red** are those with median values that rank in the top quintile of ranked units. Units in **dark green** have median values that rank in the lowest quintile.*

Data sources

To generate these maps, researchers use leading-edge statistical analysis techniques and a wealth of geolocated data, such as:

- National surveys with geographic coordinates (such as UNICEF's Multiple Indicator Cluster Surveys [MICS] and the Demographic and Health Surveys [DHS])

- Environmental data (precipitation or temperature, for example)

- Census information

- Program information on coverage of interventions (such as insecticide-treated bed nets)

- District Health Information Software 2 (DHIS 2) data

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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