Institute for Health Metrics and Evaluation

Data Release Information Sheet

Data Summary

Dataset name: WHO Americas Region Bacterial Antimicrobial Resistance Burden Estimates 2019

Date of release: August 8, 2023

Summary:

Researchers at IHME and the University of Oxford produced estimates of deaths, disability-adjusted life years (DALYs), years lived with disability (YLDs), and years of life lost (YLLs) associated with and attributable to bacterial antimicrobial resistance (AMR) in 88 pathogen-drug combinations for the WHO Region of the Americas and for 35 countries within this geographical region in 2019. This study extends the results of the 2019 Global Burden of AMR study and uses its overall methodological approach to provide more granular estimates. A variety of data were gathered to inform these estimates, including multiple cause of death data, hospital discharges, minimally invasive tissue sampling, systematic literature reviews, and microbiology lab results from hospitals and national and multi-national surveillance systems, with a total of 343 million individual records or isolates and11,361 study-location-years collected. These data informed 8 modelling components which were then combined with results from GBD 2019 to estimate the burden of AMR. Estimates were produced for two counterfactual scenarios: no infection and drug-susceptible infection.

Relevant publications and visualizations:

Antimicrobial Resistance Collaborators. The burden of bacterial antimicrobial resistance in the Americas in 2019: a cross-country systematic analysis. *The Lancet Regional Health - Americas*. 8 August 2023.

Acknowledgements

Contributing organizations:

- Institute for Health Metrics and Evaluation (IHME)
- University of Oxford

Funders:

- Bill and Melinda Gates Foundation (BMGF)
- The Fleming Fund
- Wellcome Trust

Data Files Information

File Inventory

File Name	Description	Version Date
IHME_AMERICAS_AMR_2019_DEATHS_Y2023M08D08.CSV	Bacterial AMR burden estimates 2019: number and rate of deaths	August 8, 2023
IHME_AMERICAS_AMR_2019_DALYS_Y2023M08D08.CSV	Bacterial AMR burden estimates 2019: number and rate of Disability-Adjusted Life Years (DALYs)	August 8, 2023
IHME_AMERICAS_AMR_2019_YLLS_Y2023M08D08.CSV	Bacterial AMR burden estimates 2019: number and rate of Years of Life Lost (YLLs)	August 8, 2023
IHME_AMERICAS_AMR_2019_YLDS_Y2023M08D08.CSV	Bacterial AMR burden estimates 2019: number and rate of Years Lived with Disability (YLDS)	August 8, 2023
IHME_AMERICAS_AMR_2019_CODEBOOK_Y2023M08D08.CSV	Codebook	August 8, 2023
IHME_AMERICAS_AMR_2019_DATA_INPUT_SOURCES_Y2022M08D08.XLSX	Data input source list	August 8, 2023
IHME_AMERICAS_AMR_2019_INFO_SHEET_Y2023M08D08.DOCX	Data Release Information Sheet	August 8, 2023

Variable Information

Variable	Variable Label	Variable Definition
measure_id	Measure ID	A unique numeric identifier for the measure generated and stored in an IHME database of data dimensions.
measure_name	Measure Name	The measure (indicator) for the estimate.

Variable	Variable Label	Variable Definition
location_id	Location ID	A unique numeric identifier for the location generated and stored in an IHME database of data dimensions.
location_name	Location Name	The location for the estimate.
sex_id	Sex ID	A unique numeric identifier for the sex generated and stored in an IHME database of data dimensions.
sex_name	Sex Name	The gender for the estimate.
age_group_id	Age Group ID	A unique numeric identifier for the age group generated and stored in an IHME database of data dimensions.
age_group_name	Age Group Name	The age group for the estimate.
cause_id	Cause ID	A unique numeric identifier for the cause generated and stored in an IHME database of data dimensions.
cause_name	Cause Name	The primary disease or injury for the estimate.
year_id	Year ID	The time period for the estimate.
measure_id	Measure ID	A unique numeric identifier for the measure.
measure_name	Measure Name	The measure for the estimate.
metric_id	Metric ID	A unique numeric identifier for the metric.
metric_name	Metric Name	The metric/unit of measure for the estimate.
infectious_syndrome	Infectious Syndrome	The infectious syndrome for the estimate.
pathogen	Pathogen	The pathogen for the estimate.
antibiotic_class	Antibiotic Class	The antibiotic drug class (or in some cases, antibiotic drug or combination of drugs) for the estimate.
counterfactual	Counterfactual	The counterfactual scenario used to produce the estimate (no infection or drug-susceptible infection).

Variable	Variable Label	Variable Definition
val	Value	Mean estimate.
upper	95% Uncertainty Interval (Upper Bound)	97.5% percentile estimate.
lower	95% Uncertainty Interval (Lower Bound)	2.5% percentile estimate.

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.