Over the past two decades, global health has become an increasingly urgent priority, with hundreds of billions spent to save lives and ease the burden of disease in developing countries. Individual success stories abound, but a lack of objective evidence prevents policymakers from knowing whether their efforts are actually improving people’s lives.

The Institute for Health Metrics and Evaluation (IHME) was created at the University of Washington to help fill that information gap.

We broke with tradition to build a hybrid organization like no other: an academic research institute with the independence and spirit of an NGO. By employing cutting-edge science — and standing apart from political considerations — IHME is working with others to quantify the major threats to health and build the base of evidence about what works and what does not work to improve health conditions and health systems worldwide. We do this by focusing on three critical questions: What are the world’s major health problems? How well is society addressing these problems? How do we best dedicate resources to maximize health improvement?

To answer these questions, we measure the extent of disease, injury, and death worldwide as well as the risk factors that can cut lives short. We track the performance of health programs and initiatives, as well as other factors that influence health, such as education and income. We also analyze trends in health financing to help understand the impact it is having around the world. And we look for ways to help guide health policy by identifying how to get the maximum health impact from scarce resources. By examining these elements together, we create a comprehensive picture of how societies are responding to health challenges and the steps needed to improve progress.

At the same time, we are committed to expanding the field of health metrics through collaboration and by training the next generation of global health leaders in a science that is both accountable and transparent. To help researchers replicate our work and to inspire new discoveries, IHME has created a Global Health Data Exchange where methods and results are shared and freely accessible to all.

Thanks to long-term funding from the Bill & Melinda Gates Foundation and support from the state of Washington, we have been able to set an ambitious agenda for the Institute. Through our research, we strive to provide the most accurate and comprehensive information on population health that will in turn create a stronger foundation for strategic decision-making and, ultimately, better health for people worldwide.

Christopher J.L. Murray, MD, DPhil
Institute Director
Measuring Health

Tracking Performance

Maximizing Impact

Innovative Measurement Systems

Critical Questions
- What are the world’s major health problems?
- How well is society addressing these problems?
- How do we best dedicate resources to maximize health improvement?

Research Areas

Measuring Health

Innovative Measurement Systems

Approach

By employing cutting-edge science to quantify the major threats to health worldwide, we are building the base of evidence about what works and what does not work to improve health conditions and health system performance around the world.

Answering the Critical Questions in Global Health
IHME’s work is organized around answering three critical questions that are essential to understanding the current state of population health and the strategies necessary to improve it:

- **What are the world’s major health problems?**
- **How well is society addressing these problems?**
- **How do we best dedicate resources to maximize health improvement?**

These questions provide the framework for IHME’s four research areas:

**Measuring Health.** To better understand the current state of population health, IHME provides rigorous, comparable, and timely scientific measurement of trends in diseases, injuries, risk factors, and death, analyzing data across countries and over time. Decision-makers need to know what is making people sick in order to design appropriate prevention programs and to best target the delivery of drugs, vaccines, and other interventions. Research teams in this area also produce estimates of population characteristics and functional health status, which is a gauge of life limitations from disease or injury. To help us gather better data, we are improving verbal autopsy methods, allowing us to determine the causes and circumstances of deaths in areas that lack strong vital registration systems.

**Tracking Performance.** We evaluate the impact of policies and interventions to understand the progress being made in health, always with an eye toward effective intervention coverage, which is the measure of how much of the population in need of a health service actually receives it. We analyze health financing by studying development assistance for health, government health spending, private health expenditures, and the cost of services, including hospitals and community health clinics. We also generate estimates for education, income, and other social determinants that can influence people’s health. Overall, we are attempting to track health system performance for every country, and, in some cases, such as the United States, we also assess county-level performance.

**Maximizing Impact.** IHME provides decision-makers with timely, comparable, and forward-looking information to inform choices about policies and funding – especially in countries with scarce resources. We measure health disparities among different groups and identify challenges to delivering health care. We also estimate the cost-effectiveness of health programs, analyze constraints on scaling up interventions, and examine the decision-making process to understand the impact on equity and fairness within health systems. Knowing the budget restrictions of national and local governments, as well as non-governmental organizations working in developing countries, we identify opportunities for optimal resource allocation.

**Innovative Measurement Systems.** As part of IHME’s commitment to advance the science of health measurement and evaluation, we constantly look for ways to remove the barriers that prevent accurate and comparable health measurement. We develop new analytical methods and computer software that allow us to harness the value from existing health data by correcting for errors and filling in gaps in the data. We use existing patterns in the data to arrive at local estimates of key national-level indicators. To improve the quality of the data collected, we create and disseminate new surveys, survey techniques, and health information systems that can be adapted to an array of settings.
IHME publishes an annual policy report, *Financing Global Health*, which tracks more than $200 billion in public and private contributions to global health. As part of that work, IHME has advised non-governmental organizations, international agencies, and national policymakers on accountability in health funding, including Oxfam International, the International Aid Transparency Initiative, and the United States government.

For decades, the global health community lamented that a half-million women died every year from complications related to pregnancy and childbirth, a number that did not appear to be declining despite increasing amounts of policy attention and resources. IHME collaborated with other researchers to re-examine the trends in maternal mortality since 1980 and found that there had been considerable progress. An estimated 343,000 women died in 2008 from maternal causes—a significant drop that gives new reason for optimism. To help countries better understand their own trends in maternal mortality, we are training policymakers in our new methods, including agencies from Brazil, Cambodia, India, the Philippines, and Sri Lanka.

In 2010, just as countries were looking for ways to accelerate progress toward the Millennium Development Goal for reducing child mortality, published IHME research attributed 51% of the decline in child mortality since 1990 to increased educational attainment in women of reproductive age. The World Bank’s education director wrote that the study was “powerful evidence” of the importance of achieving international goals for broad access to education. “A good-quality education is the most powerful tool we can give our children to help them escape poverty and lead happier, healthier, and more productive lives.”

One of the Institute’s main goals is to create tools for developing countries to better monitor their population health and identify ways to improve it. For example, simply developing an accurate count of the number of children who die every year in a low-resource country can be difficult and costly. IHME created a low-cost way for countries to more accurately track child mortality through existing survey and census programs to help them better assess health priorities.

IHME, working with other researchers, developed a more detailed and timely way of analyzing risk factors in small geographic areas, such as US counties. They found that salt alone leads to more than 100,000 deaths every year in the US. As a result, New York City called on IHME to help it develop local estimates for a range of risk factors as it leads a nationwide effort to lower the amount of salt in prepared foods.

**IMPACT**

**GUIDING BETTER HEALTH POLICIES LOCALLY AND WORLDWIDE**

Through the Global Burden of Diseases, Injuries, and Risk Factors Study 2010, IHME is sharing new methodological tools and the latest estimates for mortality and causes of death worldwide with researchers in 73 countries. These researchers will use the new techniques and data to develop detailed analyses of health conditions both within their countries and for the population globally.
Training
IHME trains researchers from around the world in advanced methods and tools created to capture the most accurate picture possible of population health and to identify ways to improve it. Through workshops, conferences, and regular seminars, we foster a robust exchange of ideas. IHME also works closely with policymakers at the local, state, and national levels to teach them key health metrics concepts and to provide timely data that help guide evidence-based policy decisions.

Innovation
IHME strives to make its data freely and easily accessible. We proactively disseminate our data and methods to researchers, decision-makers, donors, United Nations agencies, NGOs, public health workers, and the media. IHME has created dynamic data visualizations to allow anyone who visits IHME’s website to clearly view complicated health trends over time. We also devised a geographic information system mapping tool that displays information on health outcomes, health spending, intervention coverage, and other factors across countries. These tools bring data to life in a way that offers new insights into how best to fund, design, and implement effective health policy programs. IHME also is gathering as much global health data as possible into a Global Health Data Exchange (GHDX). The GHDX mission is threefold. It aims to catalog all known health data sources, encompassing more than 10,000 surveys, studies, and censuses. It provides all research results generated by IHME, extensive documentation for all datasets, and, in selected areas, the source data. In addition, the GHDX will serve as a library where global health researchers and institutions will be encouraged to post their data for public use.

Collaboration
In addition to our research collaborations with universities, United Nations agencies, and other organizations, we also work with governments – such as Brazil, India, Lebanon, and the United States – aid agencies, and other groups to put our methods and findings into action. We are part of a growing movement in science to make research methods understandable and applicable in both high-income countries and low-resource settings. For a health minister in sub-Saharan Africa investigating new approaches for improving the country’s child mortality rate, IHME provides concrete techniques for weighing the differences between interventions. And for a county health official in the United States trying to identify who is most at risk for diabetes, IHME provides specific data to help tailor intervention and outreach programs. From local to national to international solutions for improving population health, we are putting global health’s best minds to the task.

We are committed to expanding the field of health metrics by training the next generation of global health leaders in a science that is both accountable and transparent.
These guiding principles permeate everything IHME does, from our research in the field to our data analysis and public outreach.

**Excellence:** We will apply the best scientific methods to the challenges of health measurement and evaluation.

**Relevance:** We will measure what is important for population health, not just what is easy to measure.

**Independence:** We will ensure the independence of the Institute and its staff from political influence, policy advocacy, and other conflicting influences.

**Comparability:** We will make measurements comparable across time and populations.

**Comprehensibility:** We will make measurements comprehensible by broad audiences, including the public, policymakers, health professionals, and researchers.

**Coherence:** We will base our measurements on systematic assessments of available data and objectively portray the uncertainty in measurements.

**Transparency:** We will foster transparency and accountability by providing an explicit data audit trail that provides enough detail for results to be replicated by others.

**Efficiency:** We will seek to use our resources where the Institute can make the greatest contribution.

**Collaboration:** We will work with other institutions to make the greatest contribution to the field of health metrics and evaluation.

**Consultation:** We will consult with the global health community to better understand what is important to measure and evaluate and will consult with those who are affected by an analysis. We recognize that consultation does not necessarily lead to consensus.

**Dialogue:** We will foster an open and constructive debate and dialogue about all aspects of health metrics and evaluation, including our own methods and results.
LEADERSHIP

OUR FACULTY
Christopher J.L. Murray, Institute Director and Professor
Jed Blore, Lecturer
Lalit Dandona, Professor
Abraham Flaxman, Assistant Professor
Emmanuela Gakidou, Associate Professor
Michael Hanlon, Lecturer
Santosh Kumar, Lecturer
Jill Oviati, Director, Communications
Peter Sprey, Director, Data Development

OUR EXECUTIVE TEAM
Christopher J.L. Murray, Institute Director
Kelly Campbell, Director, Administration and Operations
Emmanuela Gakidou, Director, Education and Training
Michael Macintyre, Director, Strategy and Special Projects

OUR SCIENTIFIC OVERSIGHT GROUP
George Alleyne, Chancellor, University of the West Indies; Director Emeritus, Pan American Health Organization
Barry R. Bloom, Dean of the Faculty, Harvard School of Public Health
Alex Chika Ezeh, Executive Director, African Population and Health Research Center
Richard G.A. Feachem, Director of Global Health Group, University of California, San Francisco
Roger I. Glass, Director, Fogarty International Center
Gary King, Director, Institute for Quantitative Social Science, Harvard University
Ana Langer, Coordinator, Dean's Special Initiative on Women and Health, Harvard School of Public Health
Nora C. Lustig, Samuel Z. Stone Professor of Latin American Economics, Tulane University
Anne Mills, Head of the Department of Public Health and Policy, London School of Hygiene & Tropical Medicine
Gideon Barak Agembo Okelo, Secretary General and Executive Director, African Academy of Sciences
Vikram Patel, Professor of International Mental Health, London School of Hygiene & Tropical Medicine
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Richard Peto, Professor of Medical Statistics and Epidemiology, University of Oxford
Christina Paxson, Dean, Woodrow Wilson School of Public and International Affairs, Princeton University

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IHME is drawing together people with a passion for addressing health challenges efficiently and effectively. We are always looking for opportunities to find new data, collaborate with new partners, and improve the science of health measurement. We invite you to explore these opportunities with us.

Please visit IHME’s website: www.healthmetricsandevaluation.org
Contact us at: +1-206-897-2800 or comms@healthmetricsandevaluation.org