

UNIVERSITY of WASHINGTON

Master of Science Health Metrics Sciences

Dr. Laura Dwyer-Lindgren Sarah N Dillard





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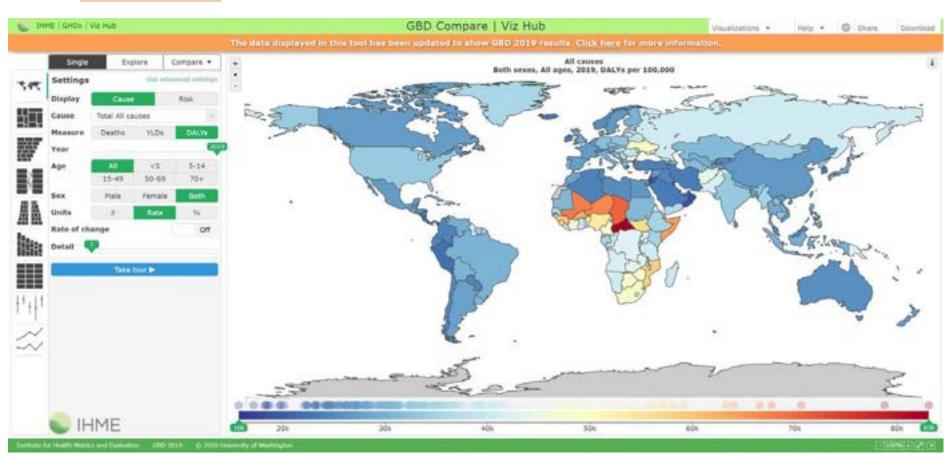
Health Metrics Sciences



Health metrics sciences is an integrated scientific field that is interdisciplinary, bringing together notions, methods, and techniques from statistics, demography, epidemiology, economics, and other social sciences aimed at providing rigorous measurement, using tested and high-performing instruments, to produce indicators that provide the empirical basis to understand the levels, relationships, and trends amongst health outcomes, drivers, and systems. It is a field that relies upon specialized knowledge and is deeply driven by data analysis.

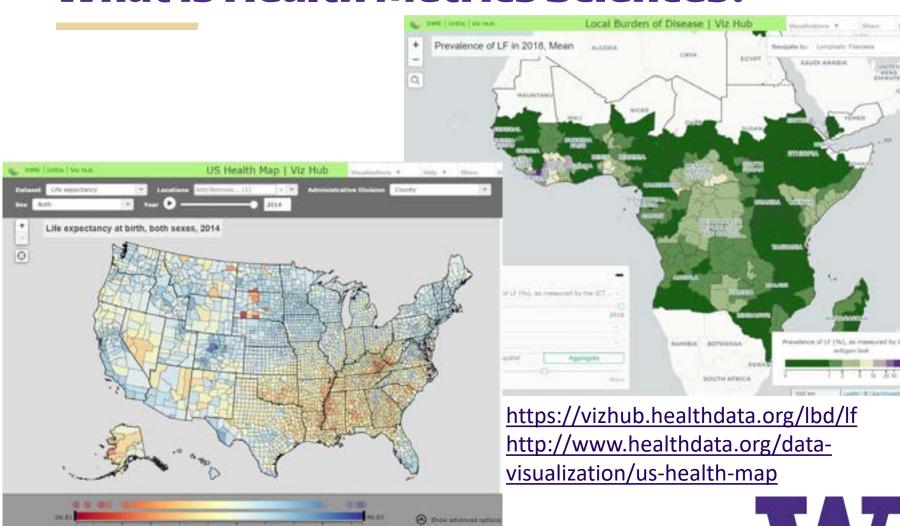
https://depts.washington.edu/healthms/about/https://doi.org/10.1016/S0140-6736(08)60526-7



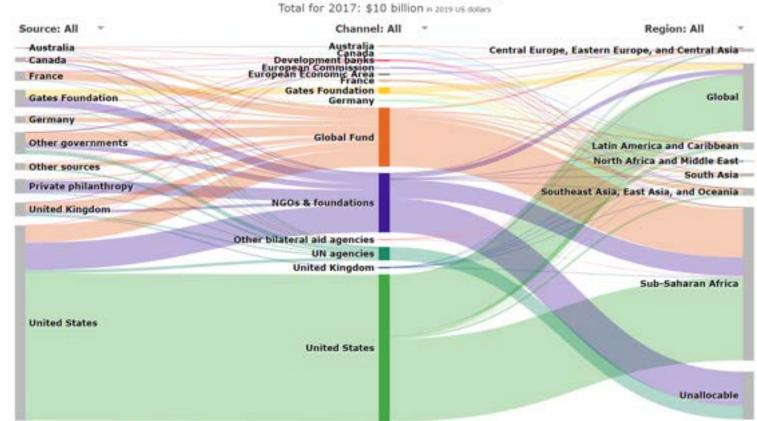








Flows of global health financing



https://vizhub.healthdata.org/fgh/





https://covid19.healthdata.org/



Department of Health Metrics Sciences

- > **First** department of Health Metrics Sciences in the world, formed in 2018
- > Two degree programs:
 - MS in Health Metrics Sciences (launched 2020)
 - PhD in Global Health Metrics Track
- > People:
 - 31 core faculty, 25 affiliate faculty, and 6 adjunct faculty
 - 18 master's students; 8 doctoral students
 - 9 post-doctoral fellows
 - 2 staff



Department of Health Metrics Sciences

> Vision:

All people living long lives in full health.

> Mission:

The Department of Health Metrics Sciences (HMS) applies innovative, multidisciplinary and comprehensive health metrics science to critical health problems and their drivers, and collaborates worldwide in pursuit of policy impact, change in practice, and dissemination of information to improve health for all people. HMS advances the field and the Academy through nurturing and training the next generation of diverse and high-potential scientists and leaders with mentorship by renowned faculty, and with access to top tier data, resources, infrastructure, and networking strategies.

Department of Health Metrics Sciences

> Diversity, Equity, and Inclusion

 HMS is committed to developing and applying innovative data science to health challenges. This requires creativity and innovation, which is cultivated by an inclusive, diverse, and equitable environment that respects and appreciates differences, embraces collaboration, and invites the voices of all students, staff, faculty, and community members.

https://depts.washington.edu/healthms/diversity-equity-and-inclusion/



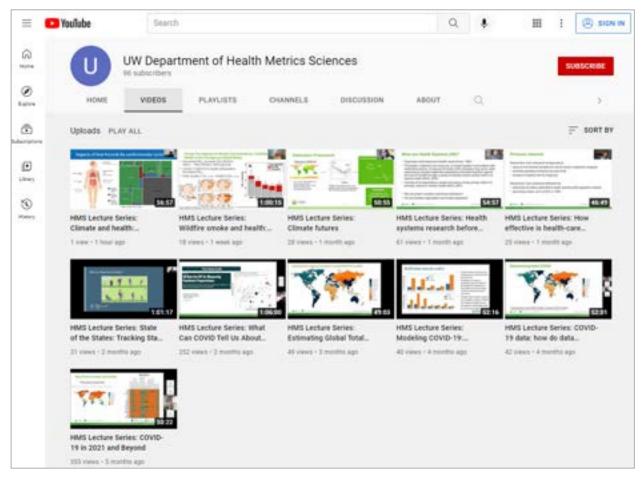
HMS & IHME



- > Institute for Health Metrics and Evaluation (IHME)
 - An independent population health research center at UW Medicine, part of 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
- > HMS & IHME are separate, but aligned, entities within the University of Washington
 - IHME is a research institute
 - HMS is an academic department



HMS Lecture Series



https://depts.washin gton.edu/healthms/g et-involved/lectureseries/





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MS in Health Metrics Sciences



MS Snapshot

- > 1 year (full-time) or 2-3 year (part-time) program
- > A rich, interdisciplinary curriculum
- > An engaging capstone experience in preparation for your career following graduation



MS Outcomes

> Skills

- Competence in applying health metrics concepts and methods
- Contextual understanding of major issues and trends in global health
- Comfort using a diversity of quantitative and analytic methods
- Ability to apply data science tools and techniques to a variety of data sources
- Capacity to conduct rigorous research

> Career

- Academia
- Governmental agencies
- Non-governmental organizations



MS Curriculum

- > Core coursework in...
 - Health Metrics
 - Statistics
 - Data Science
 - Demography, Epidemiology, or Economics
- > Elective coursework
 - Quantitative methods electives
 - Topical electives
- > HMS Seminar
- > HMS Capstone



MS Curriculum

Full-time students can complete this degree program in 1 year (4 quarters) **Part-time** students can complete this degree program in 2-3 years

Sample full-time course schedule*:

| Autumn | Winter | Spring | Summer |
|--|--|------------------------|-----------------------|
| • HMS Seminar (1) | • HMS Seminar (1) | • HMS Seminar (1) | • HMS Capstone II (4) |
| Principles of Health | Global Burden of | HMS Capstone I (2) | • Elective (2) |
| Metrics (3) | Disease (3) | • Health Economics (3) | |
| • Biostatistics I (4) | • Biostatistics II (4) | • Elective (5) | |
| Intro to Programming | Visualizing data (4) | | |
| (3) | Machine Learning (3) | | |
| • Elective (3) | | | |
| | | | |
| Credits: 14 | Credits: 15 | Credits: 11 | Credits: 6 |

^{*}Actual schedule will depend on course selections





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Admissions



Applicant profile

- > **Quantitative aptitude:** mathematics, statistics, economics, etc.
- > **Analytical aptitude:** logical reasoning, critical thinking, problem-solving, etc.
- > Can be demonstrated through...
 - Coursework
 - > Not limited to a particular discipline
 - Professional experience
 - Research experience



Applicant profile

> Interest in...

- Health data and metrics, data science
- Public health, population health, health inequalities
- Measuring health at the population level
- Generating knowledge that can be used to promote health and reduce health disparities
- Joining a collaborative and interdisciplinary educational environment



Application

- > Apply through UW's Graduate School
 - https://grad.uw.edu/admission/apply-now
- > Deadline: December 1, 2021
- > **Decisions:** communicated prior to **March 1, 2022**



Application components

- Unofficial transcript
- Resume or curriculum vitae
- Recommendations (2)
- Application fee





Application components

- Essays (2)
 - > Personal history statement:
 - Maximum of 500 words.
 - > Statement of purpose:
 - Maximum of 750 words.



Finances

- > Approximate degree costs:
 - Full-time resident: \$22,840
 - Full-time non-resident: \$39,757
 - More <u>tuition</u> levied each additional quarter
- > Limited funding available through UW's Graduate School
 - https://grad.uw.edu/graduate-student-funding
- > Admitted students can consult the Graduate Student Funding Service
 - Recorded workshop available here:
 https://www.youtube.com/watch?v=54xldOqu7aA





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DEPARTMENT OF HEALTH METRICS SCIENCES

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Questions?

Contact Sarah at healthms@uw.edu

