FOUNDING MOTIVATION

To advance transdisciplinary collaborations between Earth, space, and health sciences to better safeguard humanity.
GEOHEALTH IN CLIMATE & HEALTH

Examples of the GeoHealth approach
Initiatives in Climate-Health collaboration
Challenges
Opportunities
AIR QUALITY AND URBAN CLIMATE PLANNING

How can health impacts of air pollution inform climate actions?
How can health impacts of air pollution inform climate actions?

Start with information needs: C40 Cities staff

Include local expertise

Engage atmospheric, remote sensing, epidemiology, and public health scientists

Collaborate to communicate outcomes
ENTERIC INFECTIOUS DISEASES

Can climate services inform interventions?
Can climate services inform interventions?

Pathogen-specific EID studies have not included collection of environmental data, so health officials are unable to make climate-informed risk assessments.
Can climate services inform interventions?

Pathogen-specific EID studies have not included collection of environmental data, so health officials are unable to make climate-informed risk assessments.

Combine tools for environmental analysis and an understanding of climate variability with expertise in pathogen and host biology and public health.

This allows us to understand and project risk, and to inform interventions.
How can we maximize equity of benefits when mitigating the urban heat island?
How can we maximize equity of benefits when mitigating the urban heat island?

The UHI varies in space and time, and it responds non-linearly to different mitigation efforts.

High resolution heat mapping and simulation can be paired with health and social data to produce dynamic vulnerability analyses.

Codeveloping these analyses with communities enhances their accuracy and value.
INITIATIVES FOR COLLABORATION
INITIATIVES FOR COLLABORATION

GEO HEALTH COMMUNITY OF PRACTICE

USING ENVIRONMENTAL OBSERVATIONS TO IMPROVE HEALTH DECISION-MAKING
INITIATIVES FOR COLLABORATION

NASA HEALTH AND AIR QUALITY
APPLIED SCIENCES TEAM

Connecting NASA Data and Tools with Health and Air Quality Stakeholders

Tiger Teams

What is a Tiger Team?

A Tiger Team is a short-term, high-impact collaborative effort between HAQAST members and public stakeholders to identify and solve an immediate problem using NASA data and products. Each Tiger Team draws on the expertise of multiple HAQAST PIs to find the best, multifaceted solutions to pressing health and air quality issues.
INITIATIVES FOR COLLABORATION

Providing Climate Services for Health with the WHO-WMO Joint Office

1 January 2020 | Highlights | Reading time: 1 min (311 words)

The WHO/WMO Joint Office for Climate and Health promotes the coordinated development and use of climate services to improve public health. It was established in 2014 under the auspices of the Global Framework for Climate Services (GFCS). The Joint Office between the two specialized UN agencies aims to increase awareness, build capacity, and connect meteorological services with experts in the health sector in an active partnership for climate adaptation and risk management.
INITIATIVES FOR COLLABORATION

Providing Climate Services for Health with the WHO/GFCS Joint Office

The WHO/WMO Joint Office services to improve public health capacity, and connect meteorology with adaptation and risk management.

Health | COVID-19 Research Task Team | Activities

ACTIVITY AREAS (1)

- Health

Symposium

Framework for Research
INITIATIVES FOR COLLABORATION

NIHHIS
National Integrated Heat Health Information System

GLOBAL HEAT HEALTH INFORMATION NETWORK

Extreme heat is a silent emergency.

Billions of people are at risk of preventable death and illness from extreme heat. The Global Heat Health Information Network is helping to increase awareness and capacity to better manage and adapt to the health risks of dangerously hot weather in a changing climate.
CHALLENGES
CHALLENGES

1. Data exchange and integration
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2. Interdisciplinary training programs and team building
CHALLENGES

1. Data exchange and integration
2. Interdisciplinary training programs and team building
3. Mechanisms to incentivize transdisciplinary collaboration
CHALLENGES

1. Data exchange and integration
2. Interdisciplinary training programs and team building
3. Mechanisms to incentivize transdisciplinary collaboration
4. Real and perceived difficulties in funding GeoHealth research
OPPORTUNITIES
Center health in discussions of climate change adaptation and mitigation
OPPORTUNITIES

Center health in discussions of climate change adaptation and mitigation

Global Health Impacts for Economic Models of Climate Change: A Systematic Review and Meta-Analysis


https://doi.org/10.1513/AnnalsATS.202110-1193OC
OPPORTUNITIES

Organize transdisciplinary networks . . . and support them with resources.
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OPPORTUNITIES

Broaden the definition of a recognized research product
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Broaden the definition of a recognized research product

Leading Practices, Resources, And Information Around Community Science

Community Science Exchange is a new platform, led by a coalition of societies and partners, aimed at developing and promulgating leading practices, resources, and information around community science.

Community Science (noun): \
\`
\lav a 'muyonkili s-a-n(f)\`
\`
The equitable collaboration of science with communities aimed at outcomes for the benefit of communities. Work can be collaboratively or community-led.
OPPORTUNITIES

Build new science teams across traditional funding structures
OPPORTUNITIES

Build new science teams **across traditional funding structures**

NIH CLIMATE CHANGE AND HEALTH INITIATIVE

The NIH Climate Change and Health Initiative is an urgent, cross-cutting NIH effort to reduce health threats from climate change across the lifespan and build health resilience in individuals, communities, and nations around the world, especially among those at highest risk.
OPPORTUNITIES

Build new science teams **across traditional funding structures**

Figure from NSF’s 2021 report “Environmental and Human Health: Research Priorities,” adopted from Myers, S.S. (2017) The Lancet
THANK YOU

zaitchik@jhu.edu