

Global Climate and Health Education

Global Network for Academic Public Health
November 19, 2020 call

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GLOBAL CONSORTIUM ON
CLIMATE AND HEALTH EDUCATION

Rationale

The health impacts of climate change:

- “the greatest global health challenge”
- “the greatest global health opportunity” (*Lancet*)

Health professionals need preparation for what they (will) need to handle.

Health Impacts of Climate Change *include*

Heat-related illness/death

Injury/death from severe weather

Asthma/cardiovascular disease from air pollution

Spread of viruses/infectious diseases

Malnutrition/disease from impacts to water/food supplies

Mental health impacts

Forced migration/civil conflict



Health Professionals' Role:

All health professionals have a role.

All need to be trained to prevent, mitigate, and respond to the health impacts of climate change.

Four levels of interventions on health impacts of climate change

1. Public health: Population-level interventions for prevention and mitigation
2. Health Systems: Preparation for climate-related health events and decreasing carbon footprint
3. Clinical care for climate-related health impacts
4. Science to advance knowledge

Knowledge Gap

- Modest number of experts
- Few developed educational programs or curricula in health professions schools
- Gaps in knowledge among health professionals



Background: Columbia University's Climate & Health Program

- Est. in 2009, offers doctoral and masters degrees in climate and health
- Solutions:
 - predicting infectious disease spread
 - heat action plans for cities
 - disaster preparation/response
 - prevention and protection
 - health systems
 - economics, policy and governance
- Research programs on climate effects on health, with over 25 faculty:
 - air pollution and health
 - infectious disease spread
 - nutritional content of foods
 - biological clock
 - population displacement; climate refugees

The Global Consortium on Climate and Health Education (GCCHE)

gcche.mailman.columbia.edu

Origin

- Columbia Climate and Health Program, Mailman School of Public Health
- United Nations' 21st Climate Change Conference of the Parties (COP-21)
- WHO/COP-21 actions on health



Aims of GCCHE

- Obtain commitments from health professions schools to educate their students on the health impacts of climate change
- Bring together member institutions to share best scientific and educational best practices
- Develop global standards and resources on climate and health for health professions institutions and health systems
- Build a pipeline of health professionals who focus their work on climate and health
- Support the development of global academic partnerships

Structure of GCCHE

- Global Advisory Council
- Expert Coordinating Committee
- Climate and Health Program Science-to-Education Team



- Global Student Advisory Committee
- **Institutional & Association Membership**

Global Advisory Council



Linda Fried (chair), MPH, MD; Dean, Mailman School of Public Health, DeLamar Professor of Public Health Practice, Professor Epidemiology and Medicine, Senior Vice President, Columbia University Medical Center



Richard M Adanu, MPH, FWACS, MB ChB; Dean, School of Public Health, University of Ghana, Professor of Women's Reproductive Health and Consultant obstetrician gynecologist with the School of Public Health, University of Ghana and the University Hospital



Laurent Chambaud, MD; Dean, Ecole des hautes études en santé publique



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Howard Frumkin, MD, DrPH; Professor Emeritus of Environmental & Occupational Health Sciences at University of Washington



Lynn R. Goldman, MD, MS, MPH, Dean, Milken Institute School of Public Health at George Washington University, Professor of Environmental and Occupational Health, George Washington University



Jean-Francois Guégan, PhD; Senior Research Professor, Institut de Recherche pour le Développement



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Keith Hansen, MPA, JD; Senior Adviser, The World Bank



Alice C. Hill, JD; Senior Fellow for Climate Change Policy, Council on Foreign Relations



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Linda A. McCauley, PhD, RN, FAAN, FAAOHN; Dean and Professor, Nell Hodgson Woodruff School of Nursing at Emory University



Michael Myers, MA; Former Managing Director, Policy, The Rockefeller Foundation



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Coordinating Committee



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George Luber, PhD, Epidemiologist and former Chief of the Climate and Health Program in the Division of Environmental Hazards and Health Effects at the National Center for Environmental Health, Centers for Disease Control and Prevention



Ruth McDermott Levy, PhD, MPH, RN, Associate Professor & Director of the Center for Global & Public Health, Villanova University, M. Louise Fitzpatrick College of Nursing



Todd L. Sack, MD, FACP, Editor, MyGreenDoctor.org



MSPH Team

Jeffrey Shaman, PhD: GCCHE Faculty Lead

Professor of Environmental Health Sciences; Director, Climate and Health Program, Columbia University
Mailman School of Public Health

Brittany Shea, MA: GCCHE Project Director

Membership in GCCHE

Schools of Public Health, Medicine, Nursing committed to:

- Adding curriculum on health impacts of climate change into their health profession school
- Access to latest climate-health educational guidelines and curated curricular contents, created by expert Coordinating Committee
- Utilizing programmatic opportunities
- Joining a global network and conference

Global Student Advisory Committee

- Resource on climate-health education for the broader health professions student community
- Offer a student perspective on the development of climate-health educational activities and offerings
- Build on existing GCCHE projects.



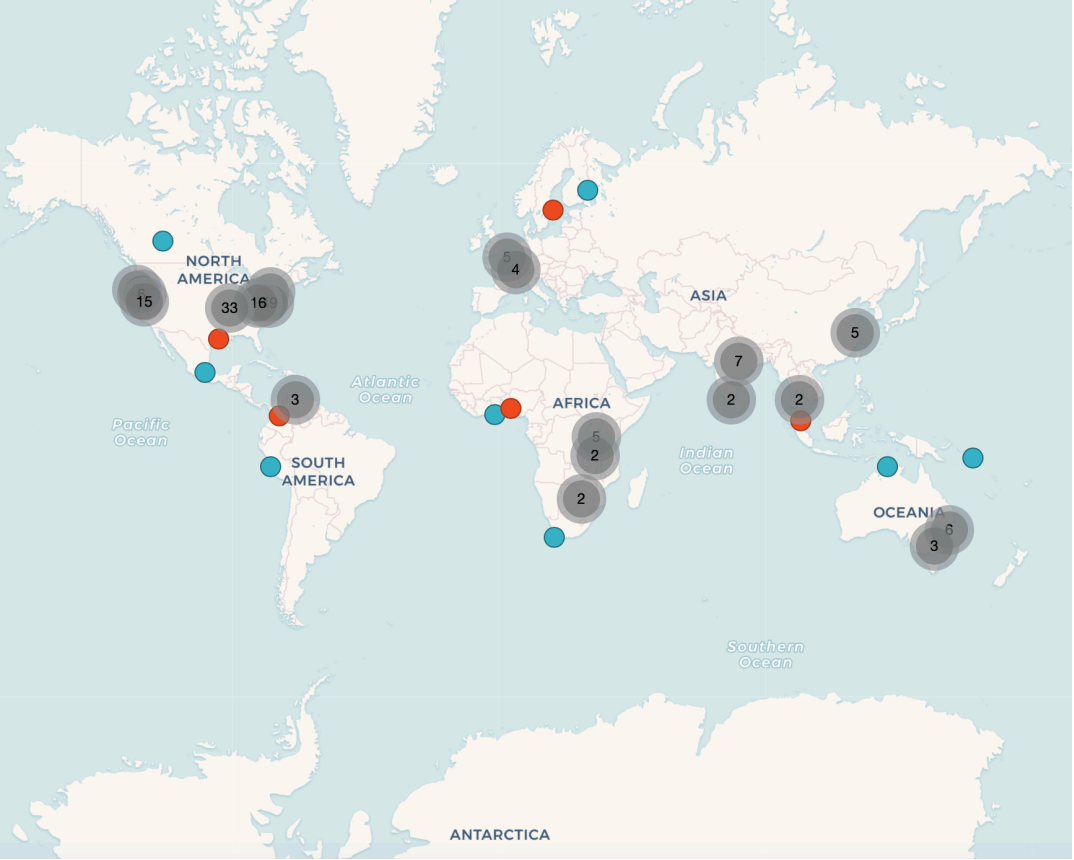
Building to scale for global action - science to impact-

Activities & Services

Global Network

200+ members

30+ countries



6 continents

150,000+ students

Knowledge Bank


- Courses & Resources
- Data & Information
- Reports & Articles



- Textbooks
- Opportunities
- Upcoming Events

Developing Global Standards for Knowledge & Practice

- Climate-health competencies
- Licensure exam questions
- Credentialing criteria


GLOBAL CONSORTIUM ON CLIMATE AND HEALTH EDUCATION

Global Consortium on Climate and Health Education (GCCHE)
Core Climate & Health Competencies for Health Professionals

This set of core competencies was developed by the GCCHE Advisory Council and Coordinating Committee.

Overarching Goals: This list identifies climate and health core competencies for health professional students. These core competencies reflect foundational climate and health understanding and skills across five areas of practice, which are recommended for all health professionals (see **Appendix** below for an outline).

Area of Practice #1: Climate and health knowledge and analytical skills; **Goal:** Demonstrate an understanding of the complex relationships between climate change and health.

Unit of Competency	Elements of Competence
Applies fundamental knowledge of ecology, biology, and complex systems in environmental science.	<ul style="list-style-type: none"> • Understands feedbacks, loopings, and cascades of effects phenomena.
Applies knowledge of climate drivers, weather, climate change, and climate variability.	<ul style="list-style-type: none"> • Describe the measurement and evidence base of climate drivers. • Describe the difference between "climate" and "weather," and between climate change and climate variability. • Explain the general mechanism of the greenhouse effect. • Explain the social dimensions of climate drivers, including population growth and economic growth.
Applies knowledge of the health impacts of climate change relevant to adapting health services.	<ul style="list-style-type: none"> • Describe all of the major health effects of climate change, including both direct and indirect impacts, and their mechanisms. Impacts include: asthma and cardiovascular disease from air pollution from increasing levels of CO₂; spread of viruses and infectious diseases; increases in respiratory allergies and asthma due to increasing allergens; water quality impacts; impacts to water and food supplies; environmental degradation (forced migration; exacerbation of socioeconomic, demographic, political, cultural or conflict-related threats to health security; heightening of existing health and economic inequities and their effects on

Sharing Strategies & Best Practices

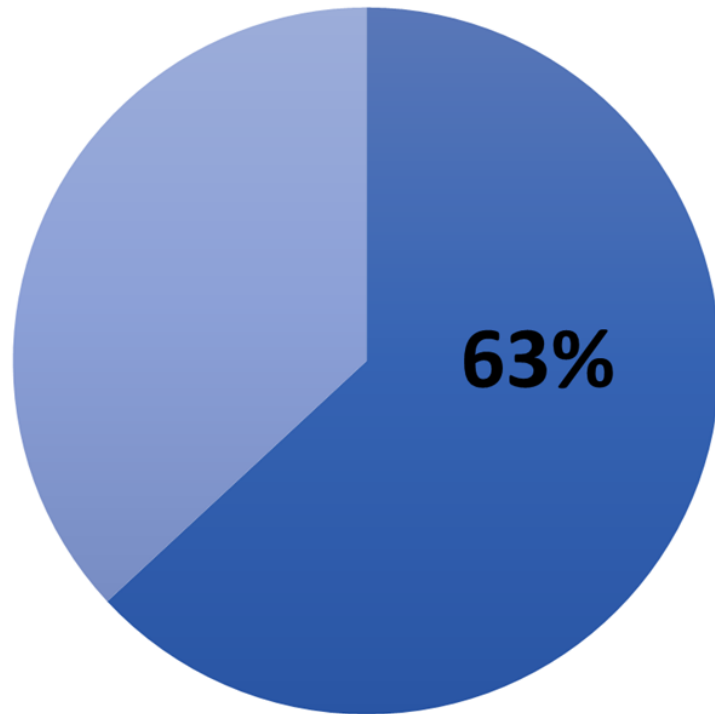
- Infusion into existing courses
- Electives
- Fellowships
- Projects for students



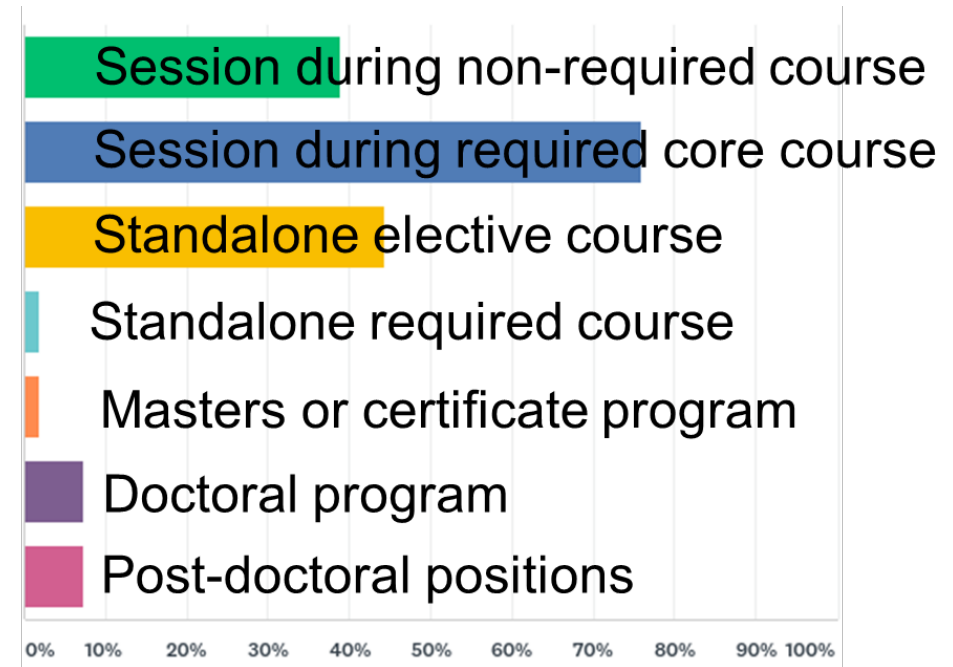
Member Surveys



Baseline Survey

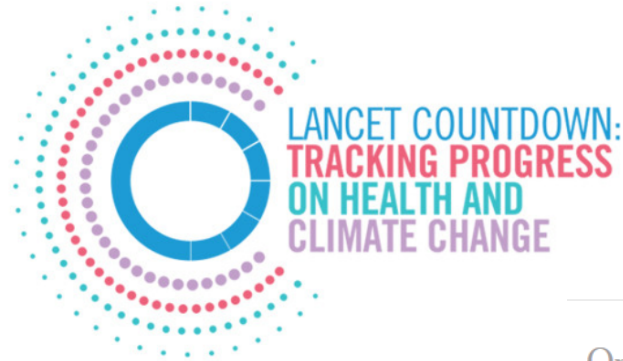


Offer Climate-Health Education



Type of Climate-Health Education Offered

Broadening Reach



The New York Times

Opinion

LETTERS

Science, Health and Climate Change

Readers discuss a new regime at the E.P.A. and the effects of climate change on our health and our children's.

Oct. 8, 2018



Home » American Journal of Public Health (AJPH) » April 2018

The Need for Climate and Health Education

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HEALTH & CLIMATE RESOURCE GUIDE

Step Up for Health at the Global Climate Action Summit

IJHG
23,3

The need for informed climate-health governance

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U.S.

Medical Schools Are Pushed to Train Doctors for Climate Change

Movement backed by American Medical Association starts to grow, though content can be hard to fit into an already-packed curriculum

By *Brianna Abbott*

Aug. 7, 2019 5:30 am ET

Public health preparation for local action and global partnership on the health impacts of climate change

Opportunities for Global Collaboration

- Expand membership among health professions schools globally
- Collaborate with global health professions associations
- Take an active role to promote GCCHE curricula and resources

*To join and for more information visit:
gcche.mailman.columbia.edu



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