



Climate and health education for health professions schools and programs

CLEAN Network Teleconference
September 10, 2019 1-2pm ET

Brittany Shea, MA
GCCHE Project Director



GLOBAL CONSORTIUM ON
CLIMATE AND HEALTH EDUCATION

Rationale

Impacts of Climate Change



The Role of Health Professionals

Asthma and cardiovascular disease from air pollution

Natural emergencies: intense storms, flooding, fires, drought

Spread of viruses and infectious diseases

Vulnerable populations

Heat-related illness and death

Mental health impacts

Water quality impacts

Food insecurity

Allergies and asthma due to increasing allergens



Knowledge Gap



Four Levels of Interventions

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

Global Consortium on Climate and Health Education

gcche.mailman.columbia.edu

Vision and Aims

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



Origin



Structure

- **Global Advisory Council:** provides high-level, strategic guidance and direction; comprised of global leaders on health education, climate change, and community resilience.
- **Expert Coordinating Committee:** experts in building climate resilience and climate-health training, works closely with GCCHE leadership in advising on developing educational aims, crafting curricula, and carrying out other activities.
- **Climate and Health Program Science-to- Education Team**

Global Advisory Council

Linda Fried (chair), MPH, MD; Dean, Mailman School of Public Health, DeLamar Professor of Public Health Practice

Richard M Adanu, MPH, FWACS, MB ChB; Dean, School of Public Health, University of Ghana

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

Carlos Dora, MD, PhD; Visiting Professor, Columbia University, Mailman School of Public Health

Howard Frumkin, MD, DrPH; Head of Our Planet, Our Health, Wellcome Trust

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

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

Global Advisory Council (cont.)

Sir Andrew Paul Haines, MD; Professor Environmental Change and Public Health, London School of Hygiene & Tropical Medicine

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

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

Haidong Kan, MD, PhD; Professor Public Health and Environmental Sciences, Fudan University

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

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

Jonathan Patz, MD, MPH, Professor, Director, Global Health Institute, University of Wisconsin

Jean-Marc de Royere, MBA; Senior Vice President, Corporate Sustainability Program, Air Liquide

Coordinating Committee

John Balbus, MD, MPH, Senior Advisor for Public Health, Director, NIEHS-WHO Collaborating Centre for Environmental Health Sciences

Robyn Gilden, PhD, RN, Assistant Professor, FCH, University of Maryland, School of Nursing

Jay Lemery, MD, FACEP, FAWM, Associate Professor of Emergency Medicine, University of Colorado School of Medicine, Chief, Section of Wilderness & Environmental Medicine

Gilma Mantilla, MD, MSc, Adjunct Associate Research Scientist, The International Research Institute for Climate and Society (IRI), Professor, Social and Preventive Medicine at Pontificia Universidad Javeriana

Teddie M. Potter, PhD, RN, FAAN, Clinical Professor, University of Minnesota, School of Nursing

Caroline Wellbery, MD, PhD, Professor, Department of Family Medicine, Associate Deputy Editor, American Family Physician, Georgetown University Medical Center

Coordinating Committee (cont.)

Anneliese Depoux, PhD, Co-Director of the Centre Virchow-Villermé, Paris

Dana Haine, MS, Science Educator, Community Outreach and Engagement Core, University of North Carolina Center for Environmental Health and Susceptibility

George Luber, PhD, Associate Director for Climate Change, Division of Environmental Hazards and Health Effects, 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

Janet Richardson, PhD, PGCE, RN, DN, CPsychol, Consultant in research and education for sustainable healthcare and wellbeing

Mailman School Team

Jeffrey Shaman, PhD: GCCHE Faculty Lead

Professor of Environmental Health Sciences; Director, Climate and Health Program

Kim Knowlton, DrPH: GCCHE External Faculty Advisor

Assistant Professor, Climate and Health Program

Senior Scientist, Deputy Director NRDC Science Center, Natural Resources Defense Council

Brittany Shea, MA: GCCHE Project Director

Activities and Services

Virtual Town Square



Membership

~200
members

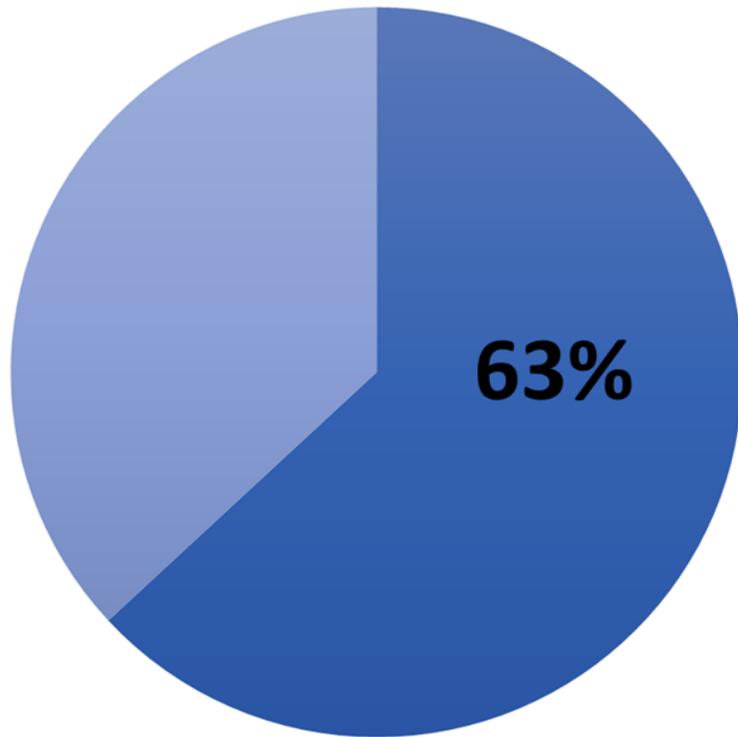
~30
countries



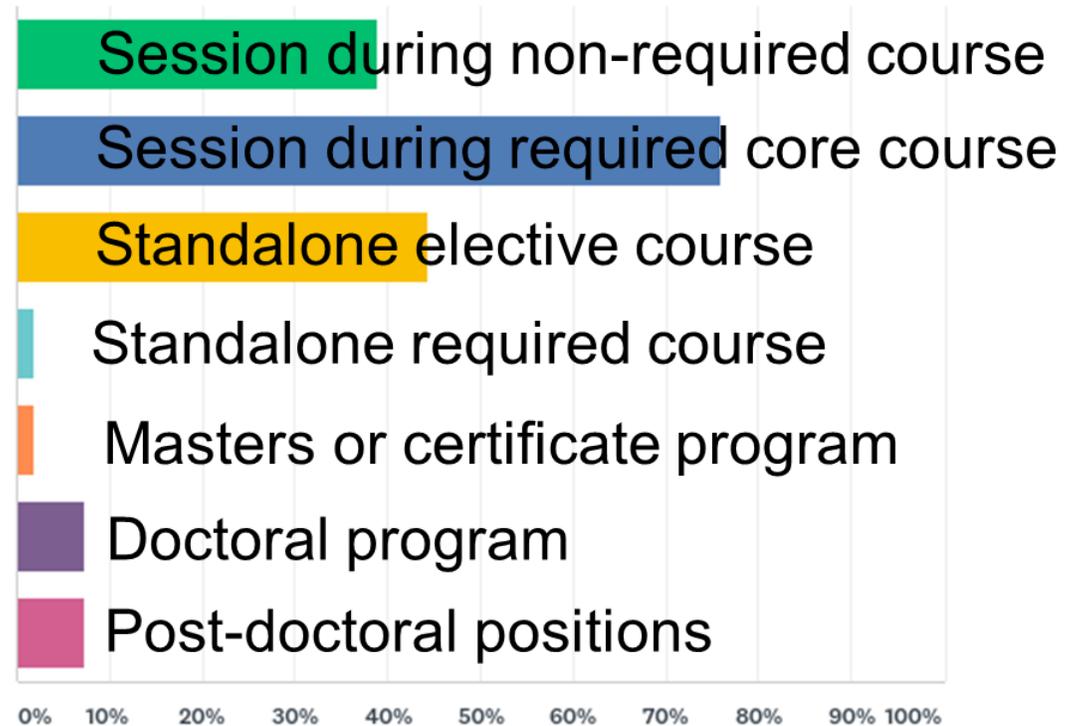
6
continents

150,000+
students

Baseline Survey



Offer Climate-Health Education



Type of Climate-Health Education Offered

Knowledge Bank

Global Consortium on Climate and Health Education | Developing climate and health education for the next generation of global health leaders.

About Members Structure Resources Join

Global Consortium on Climate and Health Education Resources

COURSES & RESOURCES

DATA & INFORMATION

REPORTS & ARTICLES

TEXTBOOKS

UPCOMING EVENTS

OPPORTUNITIES



Welcome to the GCHE knowledge bank.

You will find links to educational content, resources, and information on a wide variety of and health topics for members and health professions schools/programs to enhance development of locally tailored climate-health educational opportunities.

ourses and Resources page includes a set of climate and health core competencies for professional students, links to syllabi and program plans, as well as slides, online courses sive Open Online Courses (MOOCs), and videos indexed by climate change impact thin the larger climate-health teaching framework of core competencies.

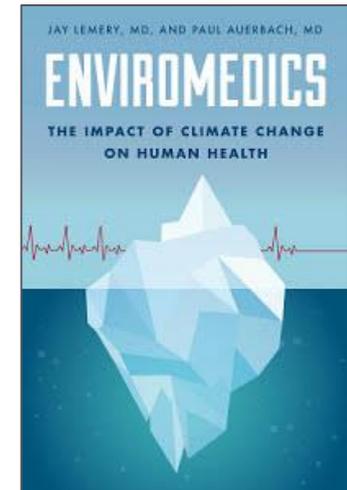
and health information can also be found here, including useful data and information, important reports and articles, textbooks, upcoming events including webinars and conferences, and opportunities such as internships and jobs, funding and award opportunities, and calls for papers.

If you would like to share links to your school/program's climate and health curricular resources and information with the community, please email: mshp_gcche@cumc.columbia.edu.



A Public Health Student Exploration of the Impacts of Climate Change on Human Health in the United States

Climate Change | A Human Health Perspective



Slides

Multiple Areas of Practice

- Slides available on various climate and health topics from [The Medical Society Consortium on Climate & Health, Climate & Health Solutions Conference, Apr 9-10, 2018](#)
- Slides available on various climate and health topics from the [98th American Meteorological Society Annual Meeting, Jan 7-11, 2018](#)
- Slides available on various climate and health topics from the [Physicians for Social Responsibility's \(PSR\) Climate Health Summit, Sept 20-21, 2015](#)
- Slides available on various climate and health topics from the [Third National Climate Assessment](#), prepared by the U.S. Global Change Research Program staff

Area of Practice 1 (impacts, adaptation and mitigation)

- Ecology, biology, and complex systems
 - George N. Kiladis, "[Some Observations of Normal Modes in the Atmosphere](#)", American Meteorological Society Annual Meeting, Jan 8, 2018

Academic Medicine. 93(12):1774-1777, DEC 2018
 DOI: 10.1097/ACM.00000000000002368, PMID: 30024475
 ISSN Print: 1040-2446
 Publication Date: 2018/12/01

It's Time for Medical Schools to Introduce Climate Change Into Their Curricula

Caroline Wellbery;Perry Sheffield;Kavya Timmireddy;Mona Sarfaty;Arianne Teherani;Robert Fallar;

Developing Global Standards for Knowledge & Practice

- Core Competencies
- Licensure exam questions & credentialing criteria


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 the delivery of health care; consequences for mental health); impacts of extreme heat including heat-related illness and death, and cardiovascular failure; and injuries, death, and mental health impacts from severe weather. Explain how the human health impacts of climate variability/change will vary within and among

Sharing Strategies & Best Practices

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



Broadening Reach



Home Article

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

The Need for Climate and Health Education

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IJHG
23,3

The need for informed climate-health governance

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196

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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



HEALTH & CLIMATE RESOURCE GUIDE



Step Up for Health at the Global Climate Action Summit

THE WALL STREET JOURNAL.

U.S. Edition | September 9, 2019 | Print Edition | Video

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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

Where We Are Going



Thank you!

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 **COLUMBIA** | MAILMAN SCHOOL
OF PUBLIC HEALTH

GLOBAL CONSORTIUM ON
CLIMATE AND HEALTH EDUCATION

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