

BOULDER MAY 9, 2017

Educational Opportunities & the Emergence of *Climatology Medicine*



Jay Lemery MD FACEP FAWM

Associate Professor of Emergency Medicine, CU School of Medicine

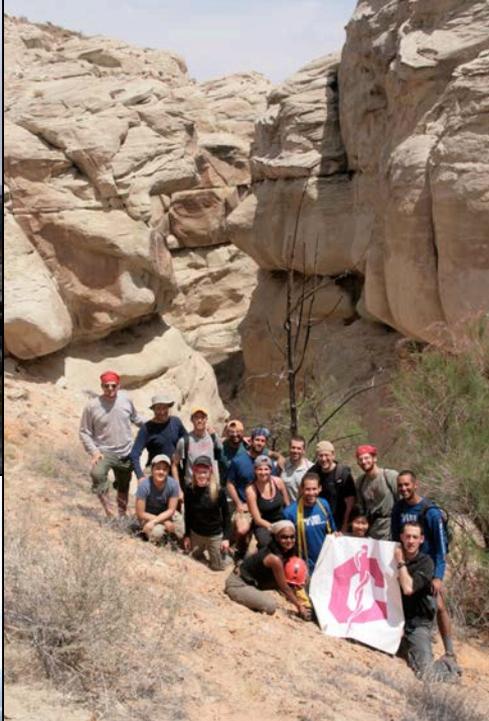
Fellow, FXB Center for Health and Human Rights
Harvard T.H. Chan School of Public Health

Consultant, Climate & Health Program
Centers for Disease Control and Prevention

1. Educational activities
2. GME Fellowship
3. the potential of *Climatology Medicine*



*Consortium on
Climate Change & Health*





coloradoWM.org







UA Arctic



coloradoWM.org

wilderness medicine + emergency medicine











Re-Framing the Climate Change Dialogue



*The power of the white coat
to be science communicators*



GEORGE LUBER · JAY LEMERY

EDITORS

GLOBAL CLIMATE CHANGE AND HUMAN HEALTH



FROM SCIENCE TO PRACTICE



JOSSEY-BASS
A Wiley Brand

Climate Change & Human Health: Colorado School of Public Health (EHOH 6635)

Beth Carlton, Rosemary Rochford, Jay Lemery
*Responding to Obama White House Conference with
healthcare educators*



SOM + CU Boulder Course

- *ATOC 4500 (final approval pending)*
 - *Kris Karnauskas PhD, Department of Atmospheric and Oceanic Sciences*
- *Undergraduate Pre-Med course in Wilderness & Climate Medicine*
- *12 days*
 - *January*
 - *May/June*
 - *August*



GME Fellowship

The Living Closer Foundation Fellowship in Climate & Health Science Policy

- 12 months
- Based in Emergency Medicine
- MOU's with
 - CDC
 - NIH/NIEHS
 - AMS

GlobalChange.gov is made possible by our participating agencies
Thirteen Agencies, One Vision: Empower the Nation with Global Change Science



- **Knowledge of Scientific Foundations**

- Basic science of climate change and sources of greenhouse gases
- Familiarity with current climate change projections, US and global
- Knowledge of systems (physiological, ecological, social, etc.) interactions and exposure pathways resulting in health impacts of climate change
- Basic understanding of epidemiologic research methods
- Basic understanding of policy analysis methods and principles
- Familiarity with policies outside of health (urban planning, education, etc.) that could be health-relevant

- **Knowledge of US government and relevant state policies and institutions**
 - Federal agencies, including emphasis on CDC and NIH
 - Clean Power Plant Rule and other executive and legislative measures
 - US GCRP and other federal interagency activities
 - White House institutions (OSTP, CEQ, NSC, etc.)
 - Basic understanding of congressional structures and processes
 - Basic understanding of US medical societies' positions on CC & health

- **Knowledge of international institutions relevant to climate change and health**
 - IPCC
 - UNFCCC
 - WHO
 - UNEP
 - World Bank

- **Knowledge of health implications of climate change**
 - Health impacts in the United States
 - Health impacts in other parts of the world
 - Potential health benefits from climate mitigation and adaptation measures
 - Sustainable and Climate Resilient Health Care Facilities

- **Climate Change and health impact and vulnerability assessment skills**
 - Familiarity with CDC BRACE framework and other impact and vulnerability assessment protocols
 - Ability to conduct literature review on specific topic in climate change and health

- **Public/Stakeholder Engagement Skills**
 - Public speaking
 - Formal testimony
 - TV/radio/print media interviews
 - Opinion-Editorial & Narratives
 - Social Media
 - Education
 - engaging with policy makers



The Medical Society Consortium

ON CLIMATE & HEALTH

LET'S TALK HEALTH & CLIMATE

COMMUNICATION GUIDANCE FOR HEALTH PROFESSIONALS



ecoAmerica
building climate leadership



 The Climate Reality Project

I AM PRO SNOW



CLIMATE
for HEALTH™



GME Fellowship

The Living Closer Foundation Fellowship in Climate & Health Science Policy

- *A force multiplier for Consortium activities...*



Climatology Medicine

- Why hasn't the healthcare community been more engaged in explaining these risks to the American public?

[Johnson, Lemery, Rochford, Sorenson]

Climatology Medicine

- A simple explanation is because there is not one clinical specialty that owns the topic.
 - nephrologist understands kidney failure from an extreme heat event;
 - infectious disease doctor can articulate the threats from advancing mosquito habitats
 - emergency physician appreciates the hazards of intense precipitation disasters
 - ***But few clinicians have been educated and even less are prepared or equipped for handling climate health threats.***

Climatology Medicine

- Healthcare providers are natural educators, caregivers and respected science communicators.
- We come from a diverse background of the arts and sciences and are an international and multilingual cohort.
- We are innately society's go-betweens, routinely translating abstract concepts into digestible treatment plans.

Climatology Medicine

Here's how we mobilize our incredibly rich and diverse bank of knowledge.

1. Dedicate space within our specialties to bring forth the best research on the clinical impacts of climate change
2. Task our media engagement to feature healthcare providers as the 'go-to' authority on coverage of climate change and its impacts.
3. Work with policy makers, non-profits and funders at local, state and federal levels and offer our expert opinions in resilience and mitigation planning.

Climatology Medicine

4. Train ourselves (medical school→CME's) to become facile in understanding climate medicine; and institute cross-discipline (**medicine, environmental science, public health**) knowledge pollination through formalization of joint curricula, grand rounds conferences, and inter-department funding opportunities
5. We communicate our knowledge to our patients and transform our work in this field to the betterment of their health.

- A more strategic paradigm is now in order, and one that encompasses a multipronged approach of medical intervention, education, and basic and clinical research.
- *Climatology medicine* is a concept that has now become a necessity.
- A new, multidisciplinary field with a unique perspective, and will empower scientists with novel skillsets and a compelling narrative on impending health crisis.

- ***“Adapt or perish, now as ever, is nature's inexorable imperative...”***
- *Let us adapt in a deliberate manner by educating a new generation of physicians, biomedical researchers, environmental scientists and public health practitioners to track, explain and understand changes in climate sensitive diseases, and to develop clinical interventions that make a difference.*



*Consortium on
Climate Change & Health*

- amanda.bond@ucdenver.edu
– (until 6/30!)



*Consortium on
Climate Change & Health*

