

Yale Climate Change and Health Initiative

Annual Report Summary

August 1, 2017 – July 31, 2018

The Yale Climate Change and Health Initiative (CCHI) is led by Robert Dubrow, Faculty Director, and Martin Klein, Executive Director, in collaboration with an executive committee, 27 affiliated faculty members from across the University, and with the support of Student Associates.

Program Accomplishments

Leadership

- **Climate Change Leader in Residence:** Our third annual Climate Change Leader in Residence was Dr. Anthony Costello, Professor of Global Health, University College London and co-chair of the Lancet Countdown on Climate Change and Health. Dr. Costello delivered a public lecture series at the Yale School of Public Health (YSPH) and met with students and faculty during his residence.

Research

- **Speaker Series:**
 - Dr. Sabrina McCormick (Associate Professor, Department of Environmental and Occupational Health, Milken Institute School of Public Health at George Washington University): “Taking climate change to court: the role of public health.”
 - Dr. Carina Gronlund (Environmental Epidemiologist, Center for Social Epidemiology and Population Health, University of Michigan School of Public Health): “Causal mechanisms of disparities in weather-associated health effects for sustainable adaptation to climate change.”
 - Dr. Joacim Rocklöv (Professor of Epidemiology and Public Health, Umeå University, Sweden): “How climate influences arboviral diseases & big data can enhance control.”
- **Pilot Research Grant:** The annual pilot grant program catalyzes climate change and health research among Yale faculty. The 2018 grant was awarded to Dr. Judith Lichtman, for the project “Ambient temperature and risk of ischemic stroke in the elderly.” The 2017 grant, awarded to Dr. Daniel Weinberger, resulted in a publication in the *Journal of Infectious Diseases*, entitled “Associations Between Sporadic Legionellosis and River Systems in Connecticut” (Cassell, et al., 2018).

Education

- **Pre-doctoral Fellows:** Sappho Gilbert, the second CCHI pre-doctoral fellow, completed her first year and is focusing her dissertation research on climate change impacts on indigenous Arctic communities. Alyssa Parpia, the first pre-doctoral fellow, successfully completed her second year in the doctoral program and passed her qualifying exam with distinction. She is using mathematical modeling of infectious disease risks to understand the relationship between meteorological variables and dengue incidence in Costa Rica.
- **Courses Offered:** Both climate courses taught by Dr. Dubrow in the 2016/17 academic year were taught for a second time in the 2017/18 academic year.

- **Climate Change and Public Health (CDE 547a)** examined heat waves, occupational heat stress, air pollution, wildfires, aeroallergens, disease patterns, water and food security, migration, violent conflict, natural disasters, and health benefits of climate change mitigation.
- **Practicum in Climate Change, Sustainability, and Public Health (EPH 555b)** formed interdisciplinary student teams to carry out practical projects in the area of climate change, sustainability, and public health. Four projects were conducted in collaboration with Yale Hospitality (one project), the East Shore District Health Department (one project), and the Environmental Justice Clinic at Yale Law School (two projects). Dr. Dubrow presented an overview of the course at the American Public Health Association Annual Meeting.
- **CCHI Student Associates Program:** The CCHI Student Associates program brings together students from across the University to learn from experts in the field of climate and health. Nineteen students were selected as CCHI Student Associates from the Schools of Public Health, Forestry and Environmental Studies (F&ES), and Medicine, and Yale College. The Associates organized seminars featuring [Dr. Daniel Costa](#), former National Director for the Air, Climate & Energy Research Program at U.S. EPA; [Dr. Michelle Bell](#), Professor of Environmental Health, Yale F&ES; [Peggy Shepard](#), Co-Founder of WE ACT for Environmental Justice; Dr. [Lenore Manderson](#), Visiting Professor of Anthropology, Brown University; and Dr. Anthony Costello..
- **Climate Change and Health Summer Internships:** Two YSPH students received CCHI funding:
 - **Saskia Comess:** Prenatal Environmental Exposures and Neonatal Health Outcomes in Oregon (Preceptor: Dr. Nicole Deziel, Assistant Professor of Epidemiology)
 - **Victoria Shirriff:** Pan American Health Organization- Health Emergencies & Information Management Unit (Preceptor: Dr. Robert Dubrow, Professor of Epidemiology)
- **New Online Certification Program in Climate Change and Health:** CCHI developed and launched an online certificate program in climate change and health for working professionals anywhere in the world. The three core courses in the program focus on fundamental climate and health knowledge (instructor: Dr. Robert Dubrow), adaptation (instructor: Dr. Kathryn Conlon, Epidemiologist, Climate and Health Program, CDC) and communication (instructor: Connie Roser-Renouf, Associate Research Professor, Center for Climate Change Communication, George Mason University), as well as addressing vulnerability, health equity, and co-benefits of mitigation and adaptation. The program is funded by a grant from the Yale Center for Teaching and Learning.

Events and Initiatives

- **[Workshop on Environmental Sustainability in Clinical Care:](#)** This international workshop, conducted at Yale, brought together 40 experts in engineering, sustainability science, clinical care and health systems management to address resource consumption and environmental emissions associated with medicine. Dr. Costello served as a keynote speaker and Dr. Dubrow served on the workshop Advisory Board.
- **[Yale Climate Day:](#)** Yale Climate Day featured six Yale faculty speakers, a working lunch with 40 Yale faculty, and a student poster session, including 11 posters from YSPH. Elsie Moore (MPH '18) received one of the three awards for most outstanding poster. Dr. Dubrow served on the event Steering Committee.
- **[Sustainable Waste Reduction at Yale \(SWAY\):](#)** A competitive grant from the Yale Office of Sustainability was granted to YSPH student Sheridan Finnie and faculty advisor Dr. Dubrow to reduce use of disposables at YSPH. Prior to launching SWAY, less than 3 percent of attendees at YSPH catered events brought a reusable container; after a SWAY organized campaign, 32 percent of attendees brought reusable items.

Major Plans for Year Four

- **Faculty Recruitment:** We aim to conclude the faculty search, which began in year three, with a successful recruitment of a candidate to serve as a core CCHI faculty member.
- **Connecticut Countdown on Health and Climate Change:** We plan to create a “countdown,” in the model of the [Lancet Countdown on Health and Climate Change](#), for the state of CT, in partnership with local government agencies, NGOs, and community organizations. We aim to create a set of annually reported CT specific indicators that helps policymakers and advocates track and respond to climate change and health issues in CT, all to protect and improve the health of CT residents.
- **SWAY:** SWAY is continuing during the 2018-19 academic year under new student leadership and we hope to further improve the proportion of catered event attendees who use reusable containers.
- **Online Certificate Program in Climate Change and Health:** We will offer the program twice during the 2018-19 academic year and perform a thorough evaluation.
- **Funding:** To achieve these goals, CCHI seeks to diversify and grow its funding streams, moving beyond a single grant to a model that includes individual gifts, government and foundation grants, and University support. Achievement of our goals, combined with success to date, will position YSPH to be a locus for research, education, and practice at Yale and beyond and to attract the best students and faculty.