

Yale Climate Change and Health Initiative Annual Report

August 1, 2018 to July 31, 2019

CCHI website version

Executive Summary

During Year 4 (August 1, 2018 – July 31, 2019) of the Overlook International Foundation grant to support the Climate Change and Health Initiative (CCHI) at Yale School of Public Health (YSPH), we have implemented all the activities described in the grant proposal; become known nationally as a locus for climate change and health at Yale; and planned a full set of activities for Year 5.

In summary, our Year 4 accomplishments include:

- recruitment of Dr. Kai Chen as a core faculty member of CCHI
- recruitment of Dr. Laura Bozzi as CCHI Director of Programs
- two offerings (September and February) of our 18-week online Climate Change and Health Certificate program for working professionals
- becoming a member of the [Lancet Countdown: Tracking Progress on Health and Climate Change](#)
- teaching a 7-session module on climate change and health in the new MPH required core course, “Social, Environmental, and Biological Determinants of Major Health Threats”
- hosting a visiting scientist from Griffith University in Australia for four months
- hosting a globally-recognized climate change leader in residence
- teaching “Practicum in Climate Change, Sustainability, and Public Health” for the third time, and adding a co-instructor
- matriculation of our third pre-doctoral fellow, funded by the China Scholarship Council
- two funded summer internships
- continuation of the CCHI Student Associates program that provides a venue for students across the university to learn from experts in the field and discuss ideas in an interdisciplinary environment
- for our speaker series: three prominent climate change and health researchers, as well as former Secretary of State John Kerry
- a \$55,000 donation to support CCHI research

Furthermore, CCHI continues to receive strong support from the administration as evidenced by:

- an ongoing financial commitment to our pre-doctoral fellowship program
- a commitment by the Dean that all revenue from the Climate Change and Health Certificate program will support CCHI activities
- funding by the Dean for Dr. Kai Chen as a core faculty member of CCHI
- a workshop for students on “Climate justice: greenhouse gas emissions reduction in developing countries” during MPH student orientation week that resulted in a YSPH contribution of \$16,500 to Cool Effect projects
- purchase of YSPH-branded re-usable ecoboxes, tumblers, and sporks for all students, faculty, and staff with the goal of waste reduction at catered events
- installation of six Living Walls in four classrooms

I. CCHI Structure and Administration

A. Executive Committee

The Executive Committee acts as CCHI's governing body. The Executive Committee meets quarterly and has interim communication via email as needed. The following was the Executive Committee's Year 4 membership:

- **Dr. Robert Dubrow**, Faculty Director of CCHI, Professor of Epidemiology (Environmental Health)
- **Dr. Martin Klein**, Executive Director of CCHI, Senior Advisor, YSPH Dean's Office, Lecturer (Health Policy and Management)
- **Dr. Albert Ko**, Chair of Department of Epidemiology of Microbial Diseases, Professor of Epidemiology (Microbial Diseases)
- **Dr. Vasilis Vasiliou**, Chair of Department of Environmental Health Sciences, Professor of Epidemiology (Environmental Health)
- **Dr. Yawei Zhang**, Associate Professor of Epidemiology (Environmental Health), Section Chief of Surgical Outcomes and Epidemiology, Department of Surgery, School of Medicine
- **Dr. Michelle Bell**, Mary E. Pinchot Professor of Environmental Health, School of Forestry & Environmental Studies
- **Dr. Paul Anastas**, Teresa and H. John Heinz III Professor in the Practice of Chemistry for the Environment, Yale School of Public Health (Department of Environmental Health Sciences), and School of Forestry & Environmental Studies

B. Affiliated Faculty

We have 29 [Affiliated Faculty](#), 21 with primary appointments at YSPH and 8 with primary appointments in other schools or departments.

C. CCHI Website

We continue to maintain a [CCHI website](#) within the YSPH website.

D. CCHI Director of Programs

Dr. Laura Bozzi, the new CCHI Director of Programs, joined CCHI on May 30, 2019. Dr. Bozzi will play a central role in development and ongoing implementation of all major CCHI initiatives.

E. Student Assistants

Saskia Comess, a second-year MPH student in the Department of Environmental Health Sciences, served as the CCHI Research Assistant. Her duties included managing the CCHI Student Associates program; maintaining and updating the CCHI website and calendar; helping to organize and publicize CCHI events; and supporting the work of the faculty director and executive director as needed.

Victoria Shirriff, a second-year MPH student in the Department of Environmental Health Sciences, helped support the work of the YSPH Sustainability Committee.

F. Affiliations

CCHI has affiliated with the following organizations:

- [Global Consortium on Climate and Health Education](#)
- [Planetary Health Alliance](#)
- [US Climate and Health Alliance](#)
- [Lancet Countdown: Tracking Progress on Health and Climate Change](#)

II. Program accomplishments

A. Leadership

1. Dean's Fund for Climate Change and Health

The Dean's Fund for Climate Change and Health supported the CCHI Student Associates program (see II.B.6) and other student activities.

2. Climate Change Leader in Residence

Our fourth "Climate Change Leader in Residence" was Dr. Jeffrey Shaman, who visited Yale January 14-15, 2019. Dr. Shaman is Professor of Environmental Health Sciences and Director of the Climate and Health Program at Columbia Mailman School of Public Health. Dr. Shaman studies the environmental determinants of infectious disease transmission and infectious disease forecast. For the former, Dr. Shaman investigates how hydrologic variability affects mosquito ecology and mosquito-borne disease transmission, how atmospheric conditions impact the survival, transmission and seasonality of pathogens, and, how meteorology affects human health, in general. For the latter, he is engaged in developing mathematical and statistical systems for generating forecasts of infectious disease outbreaks at a range of time scales. His activities as a Climate Change Leader in residence included:

- a public talk at YSPH (co-sponsored by CCHI and the YSPH Modeling Concentration): "Infectious Disease Forecast and the Incorporation of Climate Drivers"
- a public talk at YSPH (sponsored by CCHI): "Climate-Disease Connections: Associations and Processes Affecting Infectious Disease Dynamics"
- dinner with CCHI Student Associates
- dinner with faculty
- meeting with CCHI Executive Committee
- individual and group meetings with faculty and students

3. Climate Change and Health Leadership Development Workshop

In our grant proposal, we included a weekend workshop on leadership, strategy development, and policy implementation for a select group of Yale students from across the University. As described in the 2016-17 Annual Report, we linked the workshop to the new course, "EPH 555b, Practicum in Climate Change, Sustainability, and Public Health" that Dr. Dubrow taught for the first time in the Spring 2017 term. For the Spring 2018 term, and now the Spring 2019 term, we decided to apply the funds budgeted for the workshop toward funds needed to conduct two of the course projects that involved student travel and purchase of air monitoring equipment.

4. Faculty Recruitment

In the spring of 2017, Dean Sten Vermund allocated a faculty position in the field of climate change and health at the level of Assistant, Associate, or Full Professor; the successful candidate would serve as a core member of CCHI. After an international search, we selected Dr. Kai Chen as our top candidate. He accepted our offer and started his new Yale appointment on July 1, 2019. Dr. Chen's research focuses on the health effects of ambient temperature, air pollution, and their interactions.

5. Recruitment for Director of Programs

We received 21 applications and interviewed 6 candidates. We conducted second interviews of our top two candidates and then made an offer to Dr. Bozzi. She accepted our offer and started her position at Yale on May 30, 2019. Dr. Bozzi received her PhD from the Yale School of Forestry & Environmental Studies. Before coming to CCHI, she directed the climate change program at the Rhode Island Department of Health.

6. [Lancet Countdown: Tracking Progress on Health and Climate Change](#)

The Lancet Countdown is an international collaboration that produces an annual report, published in *The Lancet*, that tracks indicators of global progress (or lack of progress) on climate change and health. In August 2018, Yale, represented by CCHI, became the second U.S. institution to join this collaboration of more than 25 institutions. Dr. Dubrow served as a reviewer for the ancillary [2018 Lancet Countdown on Health and Climate Change Brief for the United States of America](#). Yale is contributing two indicators to the 2019 report – mitigation in the healthcare sector and air conditioning: benefits and harms. The 2019 report will be published in November 2019.

B. Education

1. Climate Change and Health Pre-Doctoral Fellowships

Our first pre-doctoral fellow, Alyssa Parpia, completed her third year in the YSPH doctoral program in the Department of Epidemiology of Microbial Diseases. She is interested in the mathematical modeling of infectious disease risks in relation to climate change. In June 2018 she passed her qualifying exam with distinction. Her dissertation topic is focused on understanding the relationship between meteorological variables and dengue incidence in Costa Rica.

Sappho Gilbert, our second pre-doctoral fellow, completed her second year. She is interested in the effects of climate change on food security in indigenous Arctic communities. Her work focuses on Inuit communities in Nunavut, Canada.

Lingzhi Chu (funded by the China Scholarship Council) completed her first year. She is interested in the relationship between extreme heat and kidney disease.

Yiqun Ma (funded by the China Scholarship Council) was accepted for admission to the doctoral program. She will matriculate in August 2019, with Dr. Kai Chen as her advisor.

2. Graduate Course on Climate Change and Health

In place of teaching the course, "CDE 547a, Climate Change and Public Health," Dr. Dubrow taught a seven-session module on climate change and health in the new MPH core course, EPH 513b, Social, Environmental, and Biological Determinants of Major Health Threats. The following is the course description:

This course introduces students to three major health threats: global climate change, antibiotic resistance, and type 2 diabetes mellitus. The goal is to achieve foundational knowledge of environmental factors in population health; ecological perspectives in human, animal, and ecosystem health (one health); biological and genetic factors that affect population health; as well as the impact of globalization on global disease burden. The course's modular format includes mixed lecture, case study, and vignette approaches. Small, cross-disciplinary groups are used throughout the term to actively apply concepts, hone data interpretation skills, and frame research and health solution projects. Importantly, this group structure is used to implement an overarching leadership skills module to permit conversations, problem solving, and projects for each module. The course culminates in planning, designing, communicating, and pitching innovative major health threat solutions.

All MPH students are required to take this course and therefore get exposed to the topic of climate change and health.

3. Summer Internships on Climate Change and Health

All MPH students are required to complete a 10-12 week full-time summer internship. The internship enables students to participate in real world public health projects and research and provides an opportunity for students to clarify their professional goals and to evaluate their career options. We provided funding for two summer internships:

- **Ninging Wang:** Promoting Ecosystem and Human Health Under Climate Change – A Case Study of Sustainable Olive Farming Under Semiarid Conditions in Cyprus (Faculty Advisor: Dr. Vasilis Vasiliou, Professor of Epidemiology, Department of Environmental Health Sciences) (co-funded by the Stolkwijk Fellowship)
- **Saskia Comess:** Systematic Review and Meta-Analysis of the Effectiveness of Air Conditioning and Other Indoor Cooling Methods for Reducing Heat-related Morbidity and Mortality (Faculty advisor: Dr. Robert Dubrow, Professor of Epidemiology, Department of Environmental Health Sciences) (funded as an hourly employee)

4. Practicum in Climate Change, Sustainability, and Public Health

In the Spring 2019 term, Dr. Dubrow taught the course entitled “EPH 555b, Practicum in Climate Change, Sustainability, and Public Health” for the third time. For the first time, [Marianne Engelman-Lado](#), a lawyer with a long history working in the environmental justice movement, co-taught the course. The following is the course description:

In this course, interdisciplinary student teams carry out applied public health research or practice projects in the area of climate change, sustainability, and public health. Each team works with a sponsoring organization (e.g., unit within Yale, local health department, state agency, community organization, other non-governmental organization). During the Fall term, students apply for entry into the course. Admitted students join one of the student teams, which implement their projects during the Spring Term course. The course affords the opportunity to apply concepts and competencies learned in the classroom to this important area of climate change, sustainability, and public health, as well as environmental and climate justice. This course should be of interest to students across Yale School of Public Health and the University, including Yale College juniors and seniors. In addition, this course is one of the options available to students to fulfill the practice requirement for the MPH degree.

We issued a request for applications to enroll in the course in November 2019. Each student who enrolled became a member of a student team working on one of the following five projects:

Project	Sponsoring organization
Purchasing Sustainable Furniture at Yale	Yale University Procurement Department
Pollution Impacts in Uniontown, Alabama, a Low-Income African American Community	Black Belt Citizens Fighting for Health and Justice
Health Impacts of the Stone's Throw Landfill in Tallassee, Alabama, a Low-Income African American Community	Ashurst Bar/Smith Community Organization
Connecticut Countdown on Climate Change and Health	Yale Climate Change and Health Initiative
Improving Water Quality in the Short Beach Neighborhood of Branford, CT	East Shore District Health Department

The two projects in Alabama employed community-based participatory research and environmental justice principles toward addressing the adverse impacts of air pollution in poor African-American communities. In both projects, before spring break students developed protocols for carrying out the necessary field work; during spring break students traveled to Tallassee and Uniontown, respectively, to perform the field work; and after spring break students analyzed data and wrote reports.

Nineteen students took the course.

5. CCHI Student Associates

The CCHI Student Associates program provides a venue for students across the university to discuss ideas in an interdisciplinary environment, learn from experts in the field, and grow together to ultimately perform research or implement interventions on pressing topics related to climate change and health. Saskia Comess, a second-year MPH student and the CCHI Research Assistant, served as the program coordinator. In September 2018, we issued a request for applications. We received 60 applications and admitted 20 students as CCHI Student Associates. These students were from the Schools of Public Health, Forestry and Environmental Studies, Management, Law, Engineering, Divinity, and Medicine; the Jackson Institute for Global Affairs; and Yale College.

The Students Associates organized seminars with [Dr. Rachel Morello Frosch](#), Professor, Department of Environmental Science, University of California at Berkeley School of Public Health; [Dr. Brooke Anderson](#), Assistant Professor of Epidemiology, College of Veterinary Medicine & Biomedical Sciences, Colorado State University; [Neela Banerjee](#), reporter for *Inside Climate News*; [Dr. Michael Mendez](#), Jane and Mary Pinchot Faculty Fellow, Yale School of Forestry & Environmental Studies (now Assistant Professor of Urban Planning and Public Policy, School of Social Ecology, University of California, Irvine); Mr. Bun Lai, nationally recognized sustainable sushi chef who owns the New Haven restaurant [Miya's Sushi](#); and [Dr. Christopher Golden](#), Assistant Professor of Nutrition and Planetary Health at the Harvard T.H. Chan School of Public Health. The students also attended special CCHI-Student-Associates-only discussion sessions with Dr. Jeffrey Shaman, the 2019 CCHI Climate Change Leader in Residence, and with former Secretary of State, John Kerry, following his event about climate change policy (see II.C.1.).

6. On-line Certificate Program in Climate Change and Health

The recognition of climate change as the leading public health challenge of this century has been relatively recent, such that most practicing public health professionals did not receive education about climate change and health during their training. We have therefore launched an

online certificate program in climate change and health for working professionals outside of Yale. The program prepares public health professionals and those in related fields to address the health impacts of climate change and is open to any qualified person in the world – it is completed exclusively online with no requirement to travel to New Haven. This 18-week program consists of three consecutive six-week courses: Introduction to Climate Change and Health (Instructor: Robert Dubrow), Climate Adaptation for Human Health (Instructor: Kathryn Conlon, Epidemiologist, Assistant Professor, Department of Public Health Sciences, School of Medicine, University of California, at Davis), and Communicating Climate Change and Health (Instructor: Connie Roser-Renouf, Associate Research Professor, Center for Climate Change Communication, George Mason University). While focusing on distinct topics, all three courses interweave common themes of climate change health impacts, vulnerability and health equity, and the co-benefits of mitigation and adaptation.

The curriculum includes video-recorded lectures that students can view at their convenience, readings, quizzes and short assignments, weekly live discussion sessions conducted via Zoom, each with 15 or fewer students, led by a discussion leader (typically a doctoral student), and a concluding assignment. We offered the program in September 2018 (Cohort 1) and again in February 2019 (Cohort 2). Cohort 1 included 63 students representing 13 countries; Cohort 2 included 84 students representing 14 countries. In student evaluations, 100% would recommend the certificate program to others and 97% rated the program as excellent or very good. We have established an alumni network, including regular meetings via Zoom and a website where alumni can share resources.

We charged \$1,500 for matriculation into the certificate program. Full scholarships, discounts for members of professional organizations, and financial aid were offered. CCHI received \$158,000 from the certificate program to support CCHI activities.

C. Research

1. *Speaker Series on Climate Change and Health*

We sponsored four events:

- **Kai Chen, PhD**: Alexander von Humboldt Postdoctoral Fellow, Institute of Epidemiology, Helmholtz Zentrum München, German Research Center for Environmental Health: *Health Impacts of Heat and Ozone Pollution under a Changing Climate*
- **Elisaveta Petkova, DrPH**; Frontiers of Science Fellow & Lecturer in Earth and Environmental Sciences, Columbia University: *Climate Change, Health and Disaster Preparedness*
- **Dung Phung, MD, PhD**; Visiting Scientist, Yale School of Public Health and Lecturer, School of Medicine, Griffith University, Australia: *Climate Change and Health Impacts in the Mekong Delta Region*
- **John Kerry, JD**; former U.S. Secretary of State and Senator from Massachusetts: [A Conversation about Climate Change Policy](#)

2. Climate Change and Health Pilot Research Grant

The purpose of this annual \$25,000 award is to catalyze climate change and health research among our faculty. The expectation is that the pilot project will allow faculty to gather preliminary data necessary to apply for federal or foundation grants. The 2018 award went to Principal Investigator Dr. Judith Lichtman, Associate Professor and Chair, Department of Chronic Disease Epidemiology for a project entitled “Ambient temperature and risk of ischemic stroke in the elderly.” Dr. Lichtman and the doctoral student with whom she is working are currently completing the data analysis.

We are in the process of making a 2019 award. As usual, we initiated a two-stage application process. First, we received seven letters of intent. These letters were reviewed by a faculty committee with no conflicts of interest, which chose three for submission of full applications. The due date was September 23. A review committee composed of faculty with no conflicts of interest will review the full applications and select the awardee.

3. Visiting Scientist

Dr. Dung Phung, Lecturer in the Centre for Environment and Population Health at Griffith University in Brisbane, Australia received an Australian Endeavour Research Fellowship from the Australian Government Department of Education and Training to spend four months (September 2018 to December 2018) working with CCHI as a Visiting Scientist. He worked with Dr. Dubrow on several projects, including development of the “air conditioning: benefits and harms” indicator for the 2019 Lancet Countdown report; an analysis of the relationship between flood level and risk of hospitalization in the Mekong Delta region of Vietnam; an analysis of the relationship between ambient temperature and humidity and hospitalization for kidney disease in Vietnam; a systematic review and meta-analysis of the effectiveness of air conditioning and other indoor cooling methods for reducing heat-related morbidity and mortality; and a systematic review and meta-analysis of the relationship between ambient temperature and humidity and risk of kidney disease. We have continued this collaboration after Dr. Phung’s return to Griffith University.

4. Yale Climate Day

The second Yale Climate Day was held on May 1, 2019 at Yale Peabody Museum. The plenary session featured six Yale faculty speakers working on climate change, followed by a student poster session and photo contest. Dr. Klein served on the Organizing Committee for this event.

5. Donation to support research

We received a \$55,000 donation to support CCHI climate change and health research. We are applying these funds toward a postdoctoral associate for Dr. Chen.

III. YSPH Commitment

A. Pre-Doctoral Fellowships

As committed, YSPH paid half the tuition and the full health insurance for our Climate Change and Health Pre-Doctoral Fellows, Alyssa Parpia and Sappho Gilbert.

B. Sustainability Committee

In 2015, YSPH established a Sustainability Committee, co-chaired by Dr. Dubrow and Heidi Richard (Chief of Staff, Office of the Dean). This is the Committee's vision: "We envision a YSPH in which the integral relationship between sustainability and health is seamlessly incorporated into our teaching, research, practice, operations, and culture." This is the Committee's mission: "the YSPH Sustainability Committee guides the School's efforts to implement its ongoing Sustainability Action Plan, which includes the areas of energy and greenhouse gas emissions; natural and built environment; materials management; food and well-being; and sustainability leadership and capacity building; the Committee's efforts at greenhouse gas reduction will be guided by both the Sustainability Action Plan and the school-wide Climate Change and Health Initiative. The Committee collaborates with YSPH faculty, students and staff and the Yale Office of Sustainability to achieve its goals."

The membership of the Committee for the 2018-19 academic year was:

- Dr. Robert Dubrow, Professor of Epidemiology (co-chair)
- Heidi Richard (Administrative Director, Office of the Dean) (co-chair)
- Dr. Paul Cleary, Professor of Public Health Policy
- Dr. Brian Weiss, Research Scientist in Epidemiology
- Dr. Debbie Humphries, Clinical Instructor in Epidemiology
- Elizabeth Eocaci-Tucker, Senior Administrative Assistant
- Jennifer Farkas, Director of Financial Aid
- Elizabeth White, PhD student
- Cassie Clark, PhD student
- Victoria Shirriff, second-year MPH student
- Tiffany Hu, first-year MPH student

The committee is guided by a YSPH Sustainability Action Plan, developed in 2018 in coordination with the [Yale Sustainability Plan 2025](#). The committee's updated [webpage](#) provides an overview of its work. We had two major accomplishments during the 2018-19 academic year. First, we continued the work initiated in 2017-18 to orchestrate a shift from using disposable dishware, silverware, and cups at YSPH catered events to using non-disposable food and beverage containers and utensils. This work was spearheaded in 2017-18 by the new student group Sustainable Waste Reduction at YSPH (SWAY), which continued as a group in 2018-19 under a new student leader, Victoria Shirriff. In 2017-18, we provided YSPH-branded reusable food and beverage containers (eco-boxes, tumblers, and sporks) to the entire YSPH community and then initiated a school-wide Bring Your Own (BYO) campaign. In 2018-19, we provided these items to all incoming students and to new faculty and staff. We then worked in cooperation with SWAY to continue to promote the use of non-disposable items at catered departmental events. We have found accomplishing such a cultural/behavioral shift to be difficult and to require constant reinforcement. In April 2019, Victoria Shirriff accepted an award

for SWAY's work at the Yale Office of Sustainability's annual State of Sustainability Awards Luncheon.

The committee's other major accomplishment was installation of six living walls in four classrooms located in the basement of the main YSPH building. Living walls provide both mental and physical health benefits, especially in the context of basement classrooms with no windows. Other 2018-19 accomplishments included 1) distributing a [Guide to Living Sustainably in New Haven](#) and a list of healthy restaurants and cafes to matriculating students; 2) sponsoring 3 events in cooperation with SWAY during Yale Celebrate Sustainability Week (October 8-12, 2018): a waste audit, clothing swap, and carpool match; 3) a signage campaign in cooperation with SWAY to improve waste sorting practices; 4) monthly "Commuter Spotlights" that highlight sustainable commuting in the *YSPH Insider*; and 5) certification of three YSPH laboratories as "Green Labs."

C. Greenhouse Gas Reduction Program for Students and Partnership with Cool Effect

On Wednesday, August 22, 2018, Dr. Dubrow conducted a workshop for YSPH first-year MPH students during orientation week on "Climate justice: greenhouse gas emissions reduction in developing countries." The following was the workshop learning objective: Completion of this one-hour workshop will enable students to evaluate strengths and weaknesses of greenhouse gas emissions reduction projects in developing countries from a climate justice perspective at an introductory level. After giving a general introduction to climate change, Dr. Dubrow put greenhouse gas emissions reduction projects in the developing world into a climate justice framework, with a discussion of co-benefits. He then spoke about public and private climate financing for developing countries and described Cool Effect. He emphasized how private donations to greenhouse gas emissions reduction projects could help take up some of the slack due to the lack of US government donations to the Green Climate Fund. He then presented two projects: Uganda cookstoves and Costa Rica wind farm. Students then voted on which project they considered to be more meritorious. The vote was 66 for the Uganda cook stove project and 26 for the Costa Rica Wind Farm Project. YSPH donated a total of \$16,500: \$11,837 to the Uganda project and \$4,663 to the Costa Rica project.

D. YSPH Departmental Competition

We decided that instead of spending \$5,000 for a competition among YSPH departments, these funds could be more productively used to purchase YSPH-branded collapsible silicon ecoboxes, tumblers, and canvas bags for all incoming students, new faculty, and new staff for the 2019-20 academic year. We purchased these items in July 2019 for distribution in August.

IV. Major Year 5 Goals

A. Transition to a Designated Yale University Center

We believe that our work over the past four years has laid the groundwork for CCHI to move from an initiative to a center. With success comes increasing demand for research on climate change and health, growing interest in educational opportunities, and deeper engagement with civil society and government. To respond to these opportunities, and to continue to be seen nationally and internationally as a leader in the field of climate change and health, we have initiated the process of applying for designation by the Yale Provost as the Yale Center on Climate Change and Health.

B. Climate Change and Health Concentration for MPH Students

We will work with the YSPH Senior Associate Dean for Academic Affairs and the YSPH Education Committee to create a Climate Change and Health concentration. Concentrations are cross-departmental programs, with specific requirements, that are open to all MPH students, regardless of department. Currently there are only two concentrations at YSPH – Global Health and Public Health Modeling.

C. Report on Climate Change and Health in Connecticut

Inspired by the Lancet Countdown, we aim to create a similar report for the state of Connecticut, in partnership with local and state government agencies, NGOs, and community organizations. The goal will be to create Connecticut-specific indicators on which we would periodically report, with the hope that it can serve as a model for other states. This would be more than an academic exercise – we aim to create a report that will help policymakers and advocates track progress on addressing key climate change and health issues in Connecticut and to make appropriate adjustments based on the data, all to protect and improve the health of Connecticut residents. We had set this project as a Year 4 goal, but were unable to achieve it due to lack of resources – we had aimed to have our new Director of Programs, who will devote substantial time to this project, in place by January 1, but various delays in the search and hiring process resulted in a start date of May 30.

D. Clinic in Environmental/Climate Justice, Sustainability, and Public Health

We will offer a “Clinic in Environmental/Climate Justice, Sustainability, and Public Health” that will build upon the course “Practicum in Climate Change, Sustainability, and Public Health” that Dr. Dubrow has taught for the past 3 years. In this course, interdisciplinary student teams (e.g., public health, law, forestry and environmental studies) carried out applied public health research or practice projects that are sponsored by a client—for example, a city or state agency, or an advocacy group. Although this course, which was offered in the spring semester, was very successful, we found that a semester is too short for many of the projects, which require ongoing work. To solve this problem, we are creating a clinic that will operate on a continuous basis – fall semester, spring semester, and summer (through internships), thereby avoiding long hiatuses in the work and allowing more complex projects to be undertaken. Students can register for the clinic for more than one semester. The clinic will be launched using the \$100,000 budgeted for the clinic in Year 5. To continue the clinic in subsequent years, we plan to apply for funding from other sources.

E. Project Administrator

Using carry-over funds from this grant, as well as revenue from the certificate program, we plan to hire a special project administrator who will manage the Climate Change and Health Concentration, develop and implement a communication strategy, play a management role in the Connecticut Countdown and the clinic, conduct community outreach, and author or co-author internal and external reports, among other duties.

F. Coursera Specialization

Coursera is an online course platform with a broad reach. To reach a broad audience, we will offer a three-course Coursera Specialization: Climate Change and Health: From Science to Action.

To achieve these goals, CCHI seeks to diversify and grow its funding streams, consolidating a model that includes foundation and government grants, individual gifts, income from educational activities like the certificate program, 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.