Training Opportunities for the Health Sector Workforce

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Mailman School of Public Health, Columbia University
Preparing Health Systems Can Protect Health from Climate Change

- The severity of climate-related health risks is highly dependent on how well health systems can protect people.

*With timely, proactive and effective adaptation many risks for human health and wellbeing could be reduced and some potentially avoided (very high confidence)*

Cissé, et al., 2022
According to data from the WHO Climate and Health Country Survey in 2021, 54% of countries flagged the insufficient human resources capacity as a main barrier to the implementation of national health and climate plans, followed by 46% of insufficient access to tools, methods, and technologies.
In the United States, NACCHO conducted a survey in 2022 among Local Health Departments (LHD). The top two areas in need of training were all-hazards planning (32%) and disaster mental health/resilience (28%), both of which are closely related to climate change.

Additionally, it was found that 65% of Local Health Departments (LHDs) reported no activities related to climate change adaptation, with only 8% investing in some form of training in this area.
What is known about existing climate and health education in U.S. public health schools?

- 2019 - Hendrix et al. - CEPH-accredited graduate programs for courses related to climate and health.
  - Of 90 schools, only **50% offered a course on climate change** – all were elective.
- 2019 – Becker et al - CEPH-accredited MPH schools and programs during 2018-19
  - **No school** was found to offer a climate change track for the MPH or **required a course** in climate change.
Envisioning planetary health in every medical curriculum: An international medical student organization’s perspective

Omnia El Omrani, Alaa Dafallah, Blanca Paniello Castillo, Bianca Quintella Ribeiro Corrêa Amaro, Sanjana Taneja, Marouane Amzil

Published online: 06 Aug 2020

- Worldwide (2817 medical schools in 112 countries)
- 15% of medical schools have incorporated climate change and health into the curriculum
- 12% reporting student-led climate-related programs.
- 40% of graduates believed their EH education was inadequate
• Lack of available staff time (41%)
• Funding/time to support its development (34%)
• Competing institutional priorities/politics (31%)
• No available space in the core curriculum (29%)
• Lack of teaching materials and staff expertise (24% )
Where is training and capacity building needed?

Strong Policy and Institutional Support
Primary Prevention:
- Build evidence-base to understand climate-health interactions (individual and population) and technical capacity for managing, analyzing and sharing climate and health data
- Perform vulnerability assessments of climate and health risks to population health and healthcare systems and establish community-based practices to prevent health harms
- Decarbonize the health sector and articulate need for society-wide rapid decarbonization to policy makers, stakeholders and the public, with emphasis on health co-benefits of action

Secondary Prevention
- Develop surveillance and early warning systems specific to climate-related health impacts educate at risk populations
- Improve interdisciplinary coordination and strengthen pathways to rapidly translate emerging scientific knowledge into meaningful policy action and clinical/public health practice
- Establish mechanisms to reduce health disparities and improve response to climate-related emergencies

Tertiary Prevention
- Respond to health problems and hazards during climate-related events and implement evidence-based health-protective guidance
- With multi-sectoral coordination, ensure continued healthcare system operation and care of vulnerable patients during climate-related events
- Ascertain climate attribution of emergent health events and mobilize community partnerships to identify and solve health problems
Training for Primary Prevention

Public Health Professionals
- Must build evidence-base to understand interactions between climate change and population health
- Requires: Technical capacity for analyzing managing and sharing climate and meteorological data

Clinical Health Professionals
- Must build evidence-base to understand interactions between climate change clinical practice
- Requires: Close coordination with public health and an understanding of the science
Training for Primary Prevention

**Entire Health Sector**

- Perform vulnerability assessments of climate and health risks to population health and healthcare systems and establish community-based practices of prevent health harms
- **Requires:** Technical capacity to perform V&A, community engagement and buy-in, excellent communication skills
Map of countries that have conducted a climate and health V&A assessment
Map of countries with a national health and climate change plan or strategy in place
Training for Secondary Prevention

Public Health Professionals
• Must build and test surveillance systems for climate sensitive diseases and exposures (e.g. Extreme heat, VBD)
• Requires: Technical capacity for collecting, analyzing, managing health data and integrating with climate models

Clinical Health Professionals
• Must create, update and adapt health guidance and treatment plans for patients
• Requires: Evidence-based research to understand viable clinical approaches to prevent and manage individual health concerns
Training for Secondary Prevention

Public Health Professionals
• Must build and test surveillance systems for climate sensitive diseases and exposures (e.g. Extreme heat, VBD)
• Requires: Technical capacity for collecting, analyzing, managing health data and integrating with climate models

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• Must create, update and adapt health guidance and treatment plans for patients
• Requires: Evidence-based research to understand viable clinical approaches to prevent and manage individual health concerns
Training for Secondary Prevention

- **Entire Health Sector**
  - Develop evidence-based strategies to reduce health inequities and disparities arising from climate-related exposures
Training for Tertiary Prevention

Public Health Professionals
- Must mobilize partnerships to identify and solve health problems
- Investigate health problems and hazards
- Requires: Robust technical capacity for collecting, analyzing, managing health data in real time

Clinical Health Professionals
- Must participate in disaster management
- Protect and care for vulnerable and affected individuals
- Requires: Training in disaster protocols, improving resilience of healthcare systems
Training for Tertiary Prevention

- Entire Health Sector:
  - **Establish and use best practices to coordinate interdisciplinary responses to compound disasters**
Our Mission:

• Ensure that 100% of health professionals globally have the knowledge and skills to recognize, respond to and prevent climate-related health impacts

• Organize, empower and amplify the voice of health professionals to convey how climate change is harming our health and how climate solutions will improve it.
GCCHE Member Institutions

Meet our

294

members!

Location type

- City
- Continent
- World

School type

- Host
- Public Health
- Medical
- Nursing
- Other

Map showing various locations across the world with different symbols indicating the type and number of institutions.
Governmental, Non-governmental and Intergovernmental agencies

National and Regional Health Associations and Societies

Health Professional Training Institutions

Students, Faculty, Practicing Professionals
Multi-Pronged Approach

- Support institutions and faculty who train students
- Support existing health professionals through continued education opportunities
- Provide technical support and partnership to health profession societies and associations
- Promote transdisciplinary CH research
- Partner with governmental and intergovernmental organizations to provide technical support and consultation
- Support Students and Student-lead initiatives
Climate and health competencies

(1) Climate and health knowledge and analytic skills
(2) Climate change and public health practice
(3) Climate change and clinical practice
(4) Policy aspects of climate change and health
(5) Climate and health communication

Global Consortium on Climate and Health Education:
Climate & Health Key Competencies for Health Professions Students
Climate and Health Responder Course for Health Professionals at Columbia University

Presented by the Global Consortium on Climate and Health Education, Health Canada and the National Oceanic and Atmospheric Association (NOAA)

February 8 – April 5, 2022
Tuesdays 10:00 - 11:00 AM MT
9:00am - 10:00am PT / 12:00 - 1:00pm ET / 4:00 - 5:00pm UTC

Session recordings will be available for asynchronous view after the live presentations for those unable to attend.

Register HERE

The Climate and Health Responder Course for Health Professionals is a free, virtual 8-week course giving health care professionals the tools to effectively respond to the climate and health crises in their communities and institutions.

This certificate-based online program is designed to equip health professionals with the knowledge needed for transformative action. Participants may receive up to 16 no-cost continuing education hours. To receive a certificate of participation, participants must attend 75% of the Tuesday didactic sessions and pass a short online quiz at the end of the course.

Additional sessions to learn climate communication skills and essential tools for practice will be held Wednesdays, February 16 through April 13, 2022, as part of our ongoing series

Target Audience:
- Health Professionals
- Health Professional Students
- Health Educators
- Climate Leaders

Course Objectives:
- Develop a solid foundation of the current evidence on climate and health across eight main impact areas
- Become equipped to lead climate and health education and programmatic development at your own institution or within your own community
- Improve communication and advocacy skills
- Gain a new professional network to help you lead the way in addressing the adverse impacts of climate change and health

Accreditation:
In support of improving patient care, Project ECHO® is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACP), the American Nurses Credentialing Center (ANCC), the Association of Social Work Boards (ASWB) Approved Continuing Education (ACE), and the American Psychological Association (APA) Office of Continuing Education in Psychology (OCEP) to provide continuing education for the healthcare team.

Program Email: ClimateECHO@salud.unm.edu
Website: https://hc.columbia.edu/echo/partner-portal/program/climate-change/

CME/CPD credits requested

Please direct any questions to hec214@columbia.edu

www.publichealth.columbia.edu/GCCHC
5,000 Health Professionals
Course Objectives: Depend on Audience
Climate and health capacity building for health professionals in the Caribbean: A pilot course

Cecilia Sorensen¹,²,³*, Nicola Hamacher⁴, Haley Campbell¹, Paula Henry⁵, Keriann Peart⁶, Loren De Freitas⁵ and James Hospedales⁵
Q1: How often do you talk to your patients/community members/colleagues about climate change and health?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>(n)</th>
<th>%</th>
<th>(n)</th>
<th>%</th>
<th>(n)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequently</td>
<td>31</td>
<td>23.5%</td>
<td>4</td>
<td>12.5%</td>
<td>(+12)</td>
<td>+9.1%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>68</td>
<td>51.5%</td>
<td>65</td>
<td>49.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rarely</td>
<td>23</td>
<td>17.4%</td>
<td>22</td>
<td>16.7%</td>
<td>(-1)</td>
<td>-0.8%</td>
</tr>
</tbody>
</table>

Q2: Do you participate in any education and health knowledge and skills in your work?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>(n)</th>
<th>%</th>
<th>(n)</th>
<th>%</th>
<th>(n)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequently</td>
<td>26</td>
<td>19.7%</td>
<td></td>
<td></td>
<td>(+8)</td>
<td>+6.1%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>52</td>
<td>39.4%</td>
<td></td>
<td></td>
<td>(+19)</td>
<td>+14.4%</td>
</tr>
<tr>
<td>Rarely</td>
<td>40</td>
<td>30.0%</td>
<td>23</td>
<td>17.4%</td>
<td>(-17)</td>
<td>-12.9%</td>
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<tr>
<td>Never</td>
<td>14</td>
<td>10.6%</td>
<td>3</td>
<td>2.3%</td>
<td>(-11)</td>
<td>-8.3%</td>
</tr>
<tr>
<td>No response</td>
<td>14</td>
<td>6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Q3: Would you support a climate and health initiative (e.g. hospital green team, adaptation project, education) in your community/institution/practice?

<table>
<thead>
<tr>
<th>Confidence</th>
<th>(n)</th>
<th>%</th>
<th>(n)</th>
<th>%</th>
<th>(n)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very confident</td>
<td>31</td>
<td>23.5%</td>
<td>4</td>
<td>12.5%</td>
<td>(+17)</td>
<td>+12.9%</td>
</tr>
<tr>
<td>Somewhat confident</td>
<td>60</td>
<td>45.5%</td>
<td>6</td>
<td>15.6%</td>
<td>(+8)</td>
<td>+6.1%</td>
</tr>
<tr>
<td>Not very confident</td>
<td>31</td>
<td>23.5%</td>
<td>12</td>
<td>9.1%</td>
<td>(-19)</td>
<td>-14.4%</td>
</tr>
<tr>
<td>Definitely not confident</td>
<td>10</td>
<td>7.6%</td>
<td>3</td>
<td>2.3%</td>
<td>(-7)</td>
<td>-5.3%</td>
</tr>
<tr>
<td>No response</td>
<td>N/A</td>
<td>N/A</td>
<td>(1)</td>
<td>0.8%</td>
<td></td>
<td></td>
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</table>
Level 2 Course
Life Cycle Assessment Boot Camp: LCA for the Health Sector

The February/March virtual LCA Boot Camp is at capacity, but the next virtual LCA Boot Camp will be held on August 24-25 & October 5-6, 2023. Sign up below to hear about registration opening.

The Life Cycle Assessment Boot Camp is a four-day intensive, hands-on course where an individual and/or team will learn the concepts of life cycle assessment (LCA) and analytic methods required to complete their own LCA with their team.
Leadership for Cost-Saving, Climate-Smart and Quality Healthcare

August 7-8, 2023
8 a.m.–3 p.m. | 12 ACHE Face-to-Face Education credits

Climate change is among the most urgent health threats of the 21st century. It is already driving health harms in the U.S. by exacerbating communicable and noncommunicable diseases and affecting healthcare operations. Healthcare in the U.S. is a significant contributor to greenhouse gas emissions. At the same time, decarbonization strategies can reduce and stabilize healthcare costs as well as improve resilience to extreme weather and power outages that have grown more common. Transformative solutions to deliver high-quality care without damaging the environment or the health of communities are under rapid development and result in significant economic and social impact.
LET'S DO IT Together

Climate and Health Ambassadors in the Bahamas
DEVELOPING A CLIMATE RESILIENT HEALTH SYSTEM

Community stakeholders and healthcare professionals can do something together about the climate and health crisis!

Training Days: December 13 & 14, 2022
Locations: New Providence | Grand Bahama | Abaco - Marsh Harbour
What impacts of climate change are relevant to the Bahamas?

<table>
<thead>
<tr>
<th>Pre-Course Survey (% Selected)</th>
<th>What impacts of climate change are relevant to the Bahamas?</th>
<th>Post-Course Survey (% Selected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>Stronger hurricanes</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Rising sea levels</td>
<td></td>
</tr>
<tr>
<td>90%</td>
<td>Hotter temperatures</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td>More floods</td>
<td></td>
</tr>
<tr>
<td>80%</td>
<td>Worse air quality</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td>Animal/plant species dying out/loss of biodiversity</td>
<td></td>
</tr>
<tr>
<td>70%</td>
<td>More forest fires</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td>More droughts</td>
<td></td>
</tr>
<tr>
<td>60%</td>
<td>Worse air quality</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Colder winters</td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td>Animal/plant species dying out/loss of biodiversity</td>
<td>50%</td>
</tr>
<tr>
<td>40%</td>
<td>More forest fires</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>Colder winters</td>
<td></td>
</tr>
<tr>
<td>30%</td>
<td>More droughts</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>Melting glaciers</td>
<td></td>
</tr>
<tr>
<td>20%</td>
<td>Colders winters</td>
<td>20%</td>
</tr>
<tr>
<td>10%</td>
<td>Melting glaciers</td>
<td>10%</td>
</tr>
<tr>
<td>0%</td>
<td>Melting glaciers</td>
<td>0%</td>
</tr>
</tbody>
</table>

* represents P<0.05
Which of these conditions can affect people because of climate change?

- Anxiety, depression and other mental health conditions
- Diseases like asthma and flu
- Diseases like diarrhea and cholera
- Diseases like dengue, malaria and Zika
- Poor pregnancy outcomes
  - Malnutrition
  - Heart disease
  - Diabetes
  - Skin cancer
  - Injuries and violence

Pre-Course Survey (% Selected)
- 100%
- 90%
- 80%
- 70%
- 60%
- 50%
- 40%
- 30%
- 20%
- 10%
- 0%

Post-Course Survey (% Selected)
- 100%
- 90%
- 80%
- 70%
- 60%
- 50%
- 40%
- 30%
- 20%
- 10%
- 0%

* represents p>0.05
On a scale of 1-10, how ready do you feel to work on addressing the health impacts of climate change? (N=32) (p<0.001).
CURSO ANDINO DE CLIMA Y SALUD

FECHAS DEL CURSO:
AGOSTO 30 – SEPTIEMBRE 29, 2023
MIÉRCOLES: 9:00-10:30 COLOMBIA
VIERNES: 15:00-16:30 COLOMBIA
El Niño in the Americas: Protecting Health and Promoting Resilience

El Niño en las Américas: Proteger la salud y promover la resiliencia

6-session course with certificate
curso de 6 sesiones con certificado

10-26 Oct. 2023

Register for free | Inscribese sin costo
Learning Collaborative

- Networking
- Collaboration
- Sharing
Protecting Children from Heat Stress
A technical note
Under Development:

• Climate and Health Vulnerability and Adaptation Workshop (Coming Soon!)
• “Promoting health and health system resilience in a changing climate” – Interamerican Development Bank
• “Climate and Health Responder Course” – European Region, ASPHER
• Development of Indicators – Lancet Countdown on Climate and Health
• And more!
Resources available: Publichealth.Columbia.edu/GCCHE