

Public health disaster research training module: Development and evaluation

Module Lead Consultant: **Alexa Hansen, MPH**

Advisor: **Courtney Welton-Mitchell, PhD**

Abstract Title: **501667 Public health disaster research training module:
Development and evaluation**

Panel Session Title: - Disaster Response and Emergency Preparedness

Session Date/Time: Wednesday, October 27, 2021, 8:30 a.m.

NO RELATIONSHIPS TO DISCLOSE



APHA 2021

ANNUAL MEETING & EXPO
DENVER AND ONLINE | OCT. 24 – 27

CREATING THE HEALTHIEST NATION:
STRENGTHENING SOCIAL CONNECTEDNESS





Lori Peek

Principal Investigator, CONVERGE, Social Science Extreme Events Research (SSEER) Network, and Interdisciplinary Science and Engineering Extreme Events Research (ISEEER) Network

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Bio

View CV



Advancing the ethical conduct and scientific rigor of hazards and disaster research
and strengthening networks between disciplinary communities.



converge.colorado.edu/

CURRENT TRAINING MODULES

Broader Ethical Considerations for Hazards and Disaster Researchers

This Training Module focuses on the broader ethical considerations for conducting research in a disaster setting.

[Register](#)

Collecting and Sharing Perishable Data

This Training Module focuses on ways to collect and share perishable hazards and disaster data.

[Register](#)

Conducting Emotionally Challenging Research

This Training Module describes emotionally challenging research and highlights the ways that recognizing researchers' emotions can lead to more ethical and methodologically sound research practices in the context of extreme events.

[Register](#)

Social Vulnerability and Disasters

This Training Module focuses on social vulnerability to hazards and disasters, with an emphasis on population groups that have been identified in the literature as especially at risk to the adverse effects of extreme events.

[Register](#)

Understanding and Ending Gender-Based Violence in Fieldwork

This module describes gender-based violence in the context of field research and provides an in-depth exploration of misconceptions, real life scenarios, and strategies for safe fieldwork practices.

[Register](#)

Cultural Competence in Hazards and Disaster Research

This Training Module focuses on culturally competent research and offers guidance on how hazards and disaster researchers can build cultural competence.

[Register](#)

Disaster Mental Health

This Training Module focuses on mental health outcomes associated with disasters, with a particular emphasis on risk factors over time that make certain populations vulnerable to poor disaster mental health outcomes.

[Register](#)

Institutional Review Board (IRB) Procedures and Extreme Events Research

This Training Module introduces users to Institutional Review Board (IRB) procedures and offers guidance on how to work with the IRB to ensure ethical extreme events research.

[Register](#)

Module metrics: approximately **3,500 people** have registered to date for training modules



Public Health Disaster Research Award Program

The Natural Hazards Center—with support from the Centers for Disease Control and Prevention and the National Science Foundation—has created a Public Health Disaster Research Award Program. This program is designed to support public health, social science, and interdisciplinary research that can contribute actionable recommendations to improve public health interventions.

Special Call 1: Research in U.S. Territories: (Now Closed)

Special Call 2: Strengthening Community Resilience in U.S. Territories: (Now Closed)

hazards.colorado.edu/



To date two special calls: **Public Health Disaster Research**

Public Health Reports

PH14 | Co-Designing a Participatory Community Mapping Method for Informal Sheltering in Puerto Rico (2021)
Jonathan Sury, Yiyuan Jasmine Qin, Robert Soden, Gabriela Quijano, and Yesenia Delgado Castillo

PH13 | Cascading Disasters, Gender, and Vulnerability in Southwestern Puerto Rico (2021)
Waleska Sanabria León, Jane Henrici, M. Gabriela Torres, Alitza Cardona, Anna Fairbairn, and Elizabeth Eaton

PH12 | Calculating the Social Vulnerability Index for Guam (2021)
Yvette C. Paulino, Grazyna Badowski, Jade S. N. Chennaux, Monica Guerrero, Casierra Cruz, Romina King, and Sela Panapasa

PH11 | Sharing During Disasters (2021)
Karl Kim, Jiwon Ghimire, and Eric Yamashita

PH10 | Exploring the Long-Term Impact of Cascading Disasters in the U.S. Virgin Islands on High School Student and Teacher Mental Health and Resilience (2021)
Leonard Huggins and Ted Serrant

PH9 | Nonprofit Response to Concurrent and Consecutive Disaster Events in Puerto Rico (2021)
Ivis Garcia, Divya Chandrasekhar, N. Emel Ganapati, Kevin Fagundo Ojeda, Jose E Velazquez-Diaz, Kaila Witkowski, and Pablo Jose Rivera Miranda

PH8 | Frontline Government Workers (2021)
Kula Francis, Nisha Clavier, and Kenny Hendrickson

PH7 | Excess Mortality and Associated Risk Factors Related to Hurricane Maria in Puerto Rico (2021)
Kristen Cowan and Diego Zavala

PH6 | Compound Hazards, Evacuations, and Shelter Choices (2021)
Jennifer Collins, Amy Polen, Elizabeth Dunn, Leslie Maas Cortes, Erik Ackerson, Janis Valmond, Ernesto Morales, and Delían Colón-Burgos

PH5 | Relationships Between Distribution of Disaster Aid, Poverty, and Health in Puerto Rico (2021)
Alison Chopel, Antonio Fernós Sagebien, and Laura Gorbea Díaz

PH4 | Real-Time Migration Tracking to Puerto Rico after Natural Hazard Events (2021)
Alejandro Arrieta, Shu-Ching Chen, Juan Pablo Sarmiento, and Richard Olson

Public Health Disaster Research: Training Module

Purpose

- Understand and consider public health implications of disaster research, especially in addressing health disparities and inequities

Audience

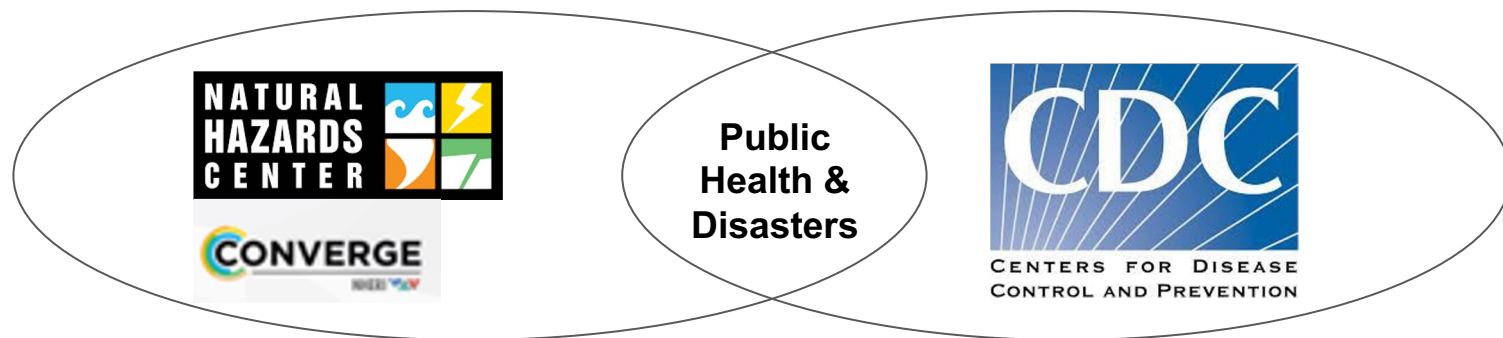
- Students
- Early career researchers
- Experienced scientists and researchers across disciplines
- Those who wish to enhance the public health implications and impacts of their work

1 Contact Hour of General Management Training



Those who receive a score of 80% or higher will receive a CONVERGE Training Module Certificate of Completion and one contact hour of general management training through the International Association of Emergency Managers (IAEM) certification program.

Collaborative Iterative Process to Build **Capacity and Interest** in Public Health and Disaster Research



Disaster Research-related:
Training, Funding and Dissemination

Emphasizing -

- Social Sciences
- Interdisciplinary Perspectives

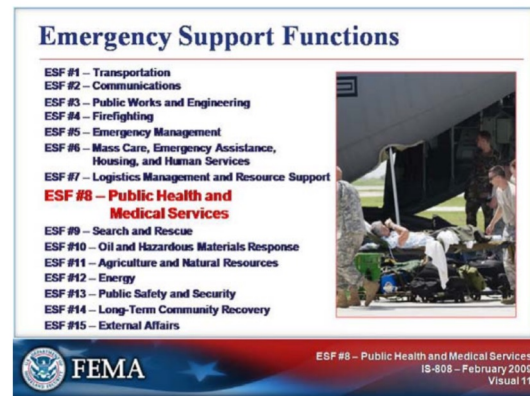
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Public Health
Public Health and Disasters: Practice & Research
Public Health Implications of Research
Public Health and Disaster Science

Public Health Disaster Research Training Module: Key Content

Public Health and Disaster Overview

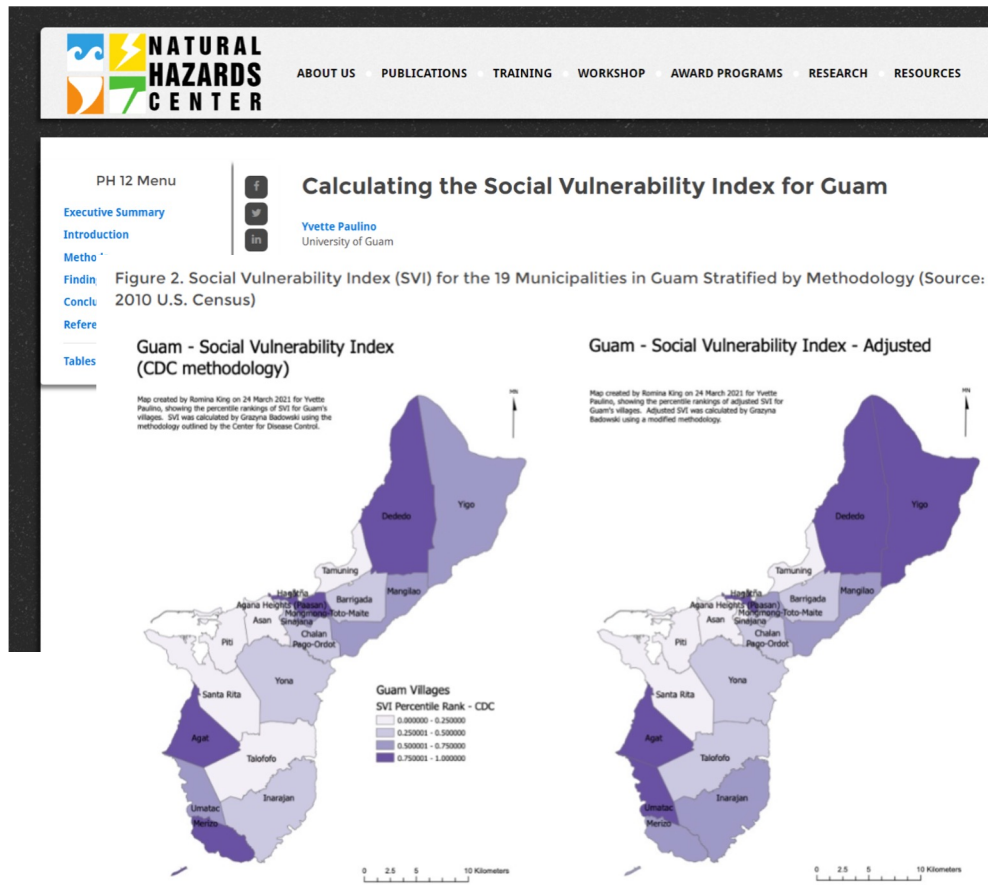
- Purpose and Goals of Public Health
- Social Determinants of Health and Disaster Vulnerabilities
- Public Health Impacts of Disasters
- Public Health Role in Disasters



Public Health Disaster Research Training Module: Key Content

Public Health Disaster *Research*

- Conceptualizing public health impacts of disaster research
- Research activities with public health implications throughout the disaster cycle
- Research questions public health can attempt to answer with disaster research



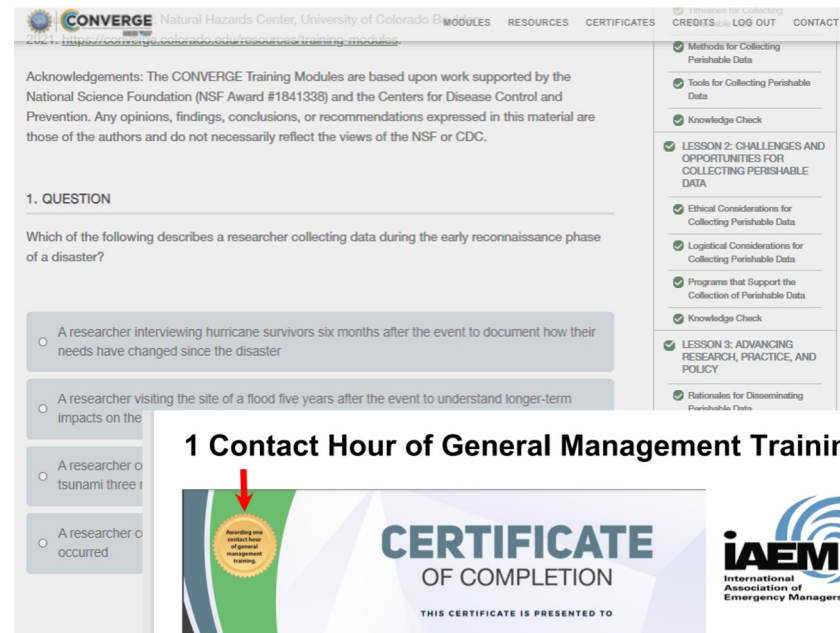
Public Health Disaster Research Training Module: Plans for Evaluation

Immediate impacts will be measured:

Web traffic/engagement metrics

Pre-post Assessment

- Self Reflection (Self Efficacy)
 - Example: ...please rate your **confidence in your knowledge** about public health disaster research
- Objective Knowledge
 - Multiple choice items testing understanding of specific module content (80%+ = completion certificate)



The screenshot shows the CONVERGE Training Module interface. At the top, there is a navigation bar with links for MODULES, RESOURCES, CERTIFICATES, CREDITS, LOG OUT, and CONTACT. Below the navigation bar, there is a section for Acknowledgements, followed by a question titled "1. QUESTION". The question asks: "Which of the following describes a researcher collecting data during the early reconnaissance phase of a disaster?". There are four multiple-choice options: "A researcher interviewing hurricane survivors six months after the event to document how their needs have changed since the disaster", "A researcher visiting the site of a flood five years after the event to understand longer-term impacts on the", "A researcher of tsunami three", and "A researcher of occurred". On the right side of the interface, there is a list of topics with checkboxes, including "Methods for Collecting Perishable Data", "Tools for Collecting Perishable Data", "Knowledge Check", "LESSON 2: CHALLENGES AND OPPORTUNITIES FOR COLLECTING PERISHABLE DATA", "Ethical Considerations for Collecting Perishable Data", "Logistical Considerations for Collecting Perishable Data", "Programs that Support the Collection of Perishable Data", "Knowledge Check", "LESSON 3: ADVANCING RESEARCH, PRACTICE, AND POLICY", and "Rationales for Disseminating Perishable Data".

1 Contact Hour of General Management Training



The certificate is titled "CERTIFICATE OF COMPLETION" and is presented to "Candace Evans". It is for the completion of "Collecting and Sharing Perishable Data" and "CONVERGE Training Module". The certificate is dated "MAY 18, 2021" and is signed by "Lori Peak, Ph.D., Principal Investigator, NSF-NHERI CONVERGE". The certificate also features the logos of the NSF, CONVERGE, and IAEM (International Association of Emergency Managers).






Public Health Disaster Research Training Module: Plans for Evaluation

Longer-term impacts will be measured:


- Use in classrooms by instructors
[Module+Assignment Bank+Bibliographies]
- Comparing public health-related characteristics of proposals received by the Natural Hazards Center before and after module launch

Anticipated module launch early 2022





CONVERGE TRAINING MODULES
SAMPLE ASSIGNMENT

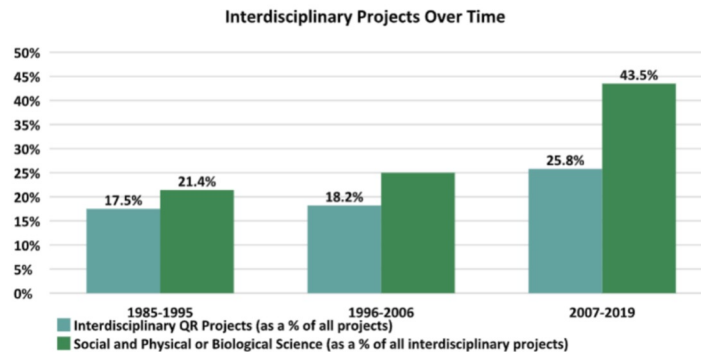


Course: EMHS 6103: Research Design and Methods
Description: 3 credits, graduate level course for Emergency Management and Homeland Security majors at Arkansas Tech University
Instructor: Rejina Manandhar, PhD, Assistant Professor, Department of Emergency Management at Arkansas Tech University
Email: manandhar@atu.edu
Session: Spring 2020
Due: April 30, 2020
Points Possible: 20

CULTURAL COMPETENCE IN HAZARDS AND DISASTER RESEARCH
TRAINING MODULE ASSIGNMENT

Assignment Overview:

Selected Trends in the Natural Hazards Center's Quick Response Research Award Program



Acknowledgements

This CONVERGE Training Module was made possible with the support of the **National Science Foundation** (NSF Award #1841338) and the **Centers for Disease Control and Prevention**.



Access the current CONVERGE Training Modules at: converge.colorado.edu/training-modules

Visit the CONVERGE and Natural Hazards Center websites to learn more
<https://converge.colorado.edu/>
<https://hazards.colorado.edu/>

Contact us:
converge@colorado.edu

