



National Environmental
Health Association

Guardians of Public Health: Environmental Health's Strategic Role in Disaster Preparedness, Response, and Recovery

Gina Bare, MA, RN

Director of Programs/Partnerships, NEHA

October 2025



Learning Objectives

- Articulate the unique value of EH professionals during disaster response
- Describe the importance of partnerships
- Discuss burnout and recognize how it can affect us



A Little About Me

- RN before EH Professional
- Hospital- ICU, PACU
- Public Health- Epi/Infection Control
- Public Health- EH, Disaster Response
- NEHA since 2020



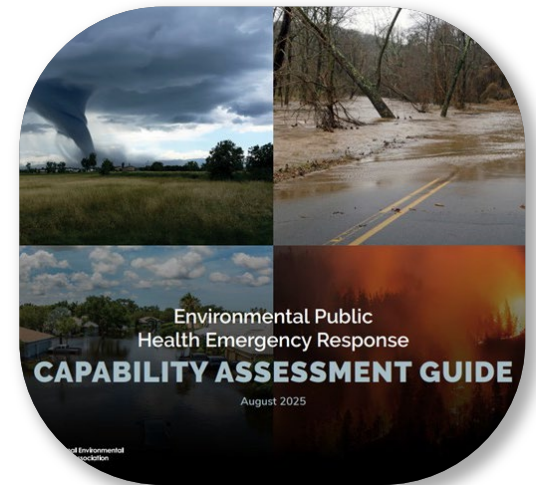
A Little about NEHA

*“To build, sustain,
and empower an
effective
environmental
health workforce”.*



NEHA's Role in Disaster Response

- Provide Trainings
- Hurricane Response Guide
- Wildfire Response Guide
- Strike Team Guidance Document
- EH Disaster Response Capability Tool
- EH Preparedness and Response Framework



My Journey to Finding Environmental Health

- Infection Control RN
- Epi RN
- Foodborne Outbreak Response
 - Raw Milk Outbreak
- Disaster Response



Prevention and Preparedness Start with EH

- Food Safety
- Water Safety
- Recreational Water Safety
- Vector Control and Prevention
- Emergency Preparedness
- Childcare and School Safety
- Body Art Safety
- Onsite Wastewater
- Health Homes
- Air Quality Protection
- Climate Health



Life Changing Training- EHTR

- Must Plan in the Daylight
- EH Touches Everyone
- EH Plays a role in nearly all major disasters



My First Test- Fourmile Canyon Fire

- **Where:** Occurred in mountain canyon
- **Why:** Improperly extinguished fire pit
- **Factors:** Strong Wind, Dry Conditions
- **Impact:**
 - Burned 10 square miles, 5700 acres
 - Evacuation 474 homes
 - Destroyed 162 structures (12 firefighter homes)
 - Insurance Claims \$217 million



Bigger Test- The 2013 Colorado Front Range Flood

- Stalled Cold Front
- Sept 11-15 **Received 18 inches of rain**
- At least 8 deaths
- 11,000+ evacuated



The Devastating Impact of the Flood

- **Isolated:** Town of Lyons isolated
- **Boulder Creek flow:** 5,000 cubic feet/second (normal: 150-200)
- **Homes:**
 - Nearly 19,000 homes damaged
1,500+ destroyed
- **Roads/Bridges:** 50 destroyed or damaged
- **Repair costs:** many millions of dollars



COVID 19- EH's Underestimated Role

“Our planning assumptions
for pandemics were **ALL
WRONG**”



NEHA COVID 19- EH Assessments

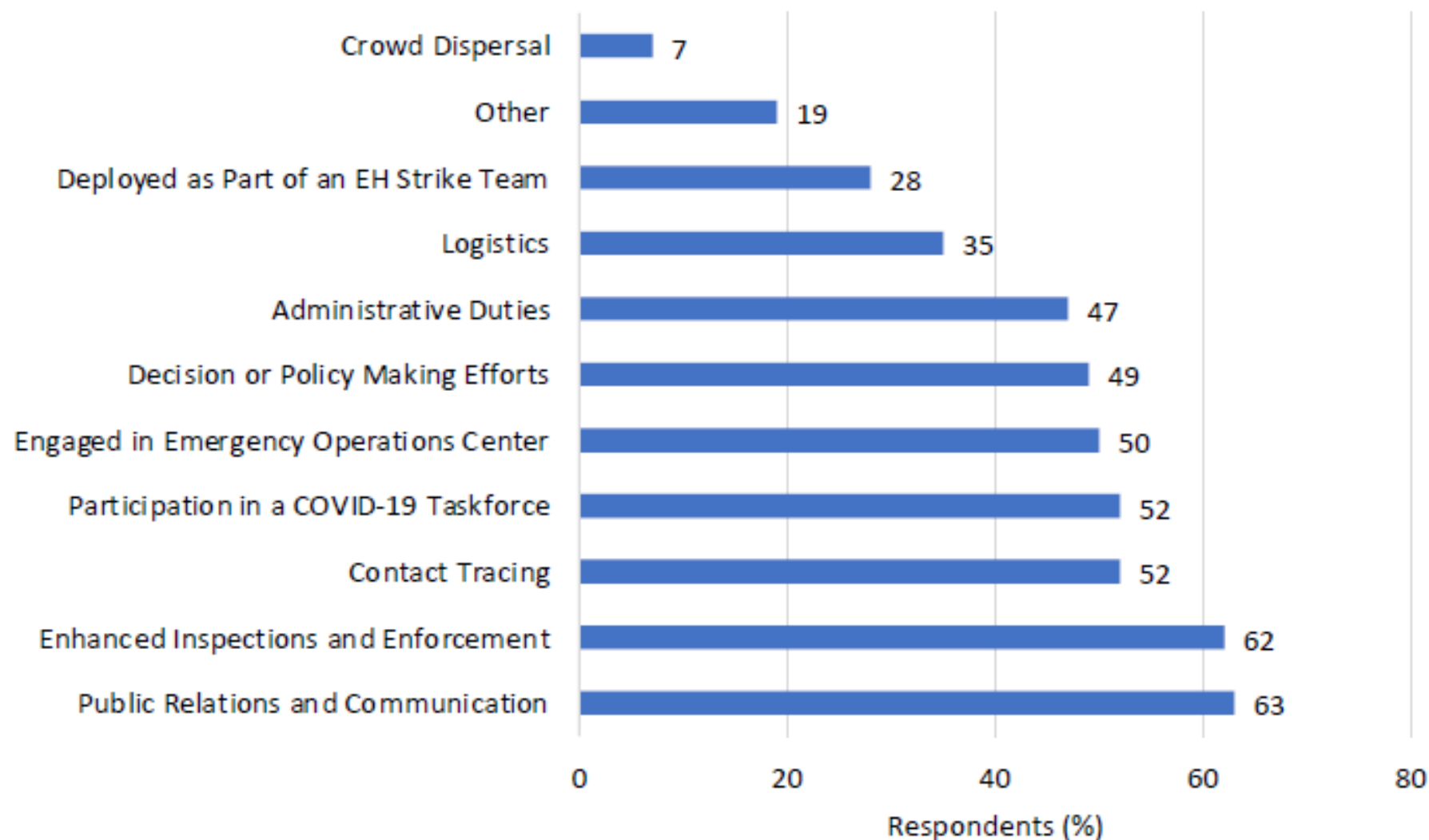
- 51% Staffing Shortages
- 46% Budget, Supply, Resource Shortages
- 48% Lack of Guidance
- 80% Tasked Outside of Normal Responsibilities
- 74% Emotionally Exhausted

“The entire staff is incredibly burned out and stressed”



**COVID-19 ENVIRONMENTAL
HEALTH WORKFORCE
NEEDS ASSESSMENT II
REPORT**

EH- The Swiss Army Knife of COVID-19



Marshall Fire



Colorado Wildfire History- Most Destructive

YEAR	ACRES	STRUCTURES	DEATHS	NAME
2021	6,026	1,091	2	MARSHALL
2002	138,114	600	6	HAYMAN
2020	193,812	555	2	EAST TROUBLESOME
2013	14,280	489	2	BLACK FOREST
2020	208,913	469	6	CAMERON PEAK
2012	18,247	346	2	WALDO CAN.
2012	84,415	259	1	HIGH PARK
2010	5,700	162	0	FOUR MILE

SOURCE: NATIONAL INTERAGENCY FIRE CENTER



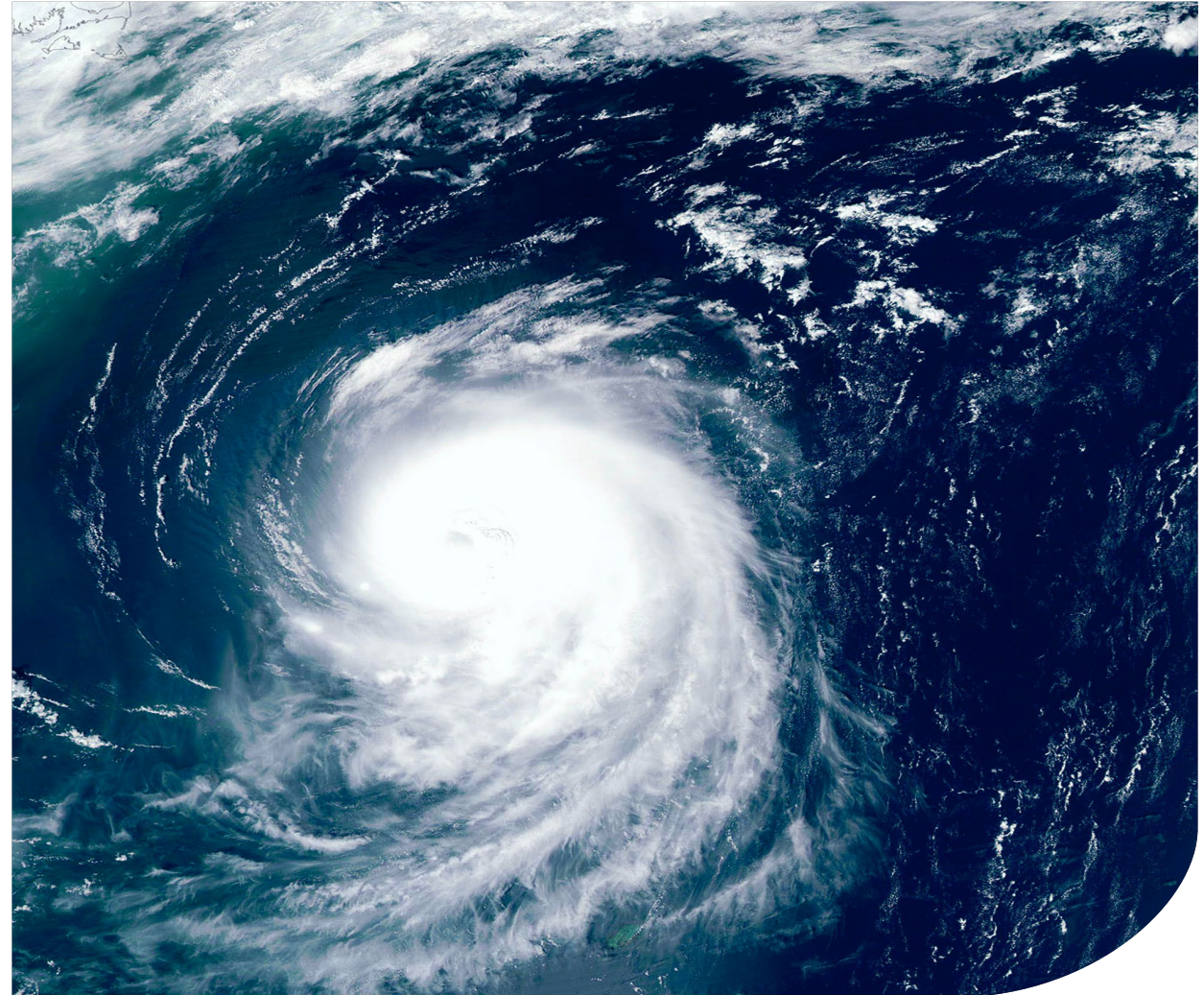
Successes & Challenges

- Pre Planning
 - Using GIS
 - Disaster Guides and Playbooks
 - Relationships
 - ICS Training
 - Pre-Developed Messaging
 - Checklists
- Challenges
 - Magnitude
 - Staff Impacted
 - Mental Health
 - Never enough staff



NY Disasters

- Hurricane Ida Remnants
 - Incident Period: Sept 1-3, 2021
- Tropical Storm Fred
 - Incident Period: Aug 18-19, 2021
- Hurricane Henri
 - Incident Period: Aug 21-14, 2021
- Winter Storm and Snowstorm 2022
 - Incident Period: Dec 23-28, 2022
- COVID-19 Response
 - Incident Period: Jan 2020-May 2023
- Tornadoes and Flooding July 2024
- Tropical Storm Debby, Flooding Aug 2024



Learning from Disasters

**“In times of a crisis
we rely on the
relationships we
have built. Build
those relationships
now.”**



The Missing Piece- Economic Impact

- What if EH wasn't there?
- Medical Expenses Saved
- Lives Saved
- Keeping First Responders Safe
- Reopening of Business
- Reopening of Schools



**Return on
Investment**

What We Don't Talk About: Burn Out

What Burnout IS:

- Occupational phenomenon- Chronic Workplace Stress
- Prolonged Response
- Emotional Exhaustion
- Resentful Attitude
- Reduced Personal Effectiveness

What Burnout IS NOT:

Weakness or Lack of Resilience

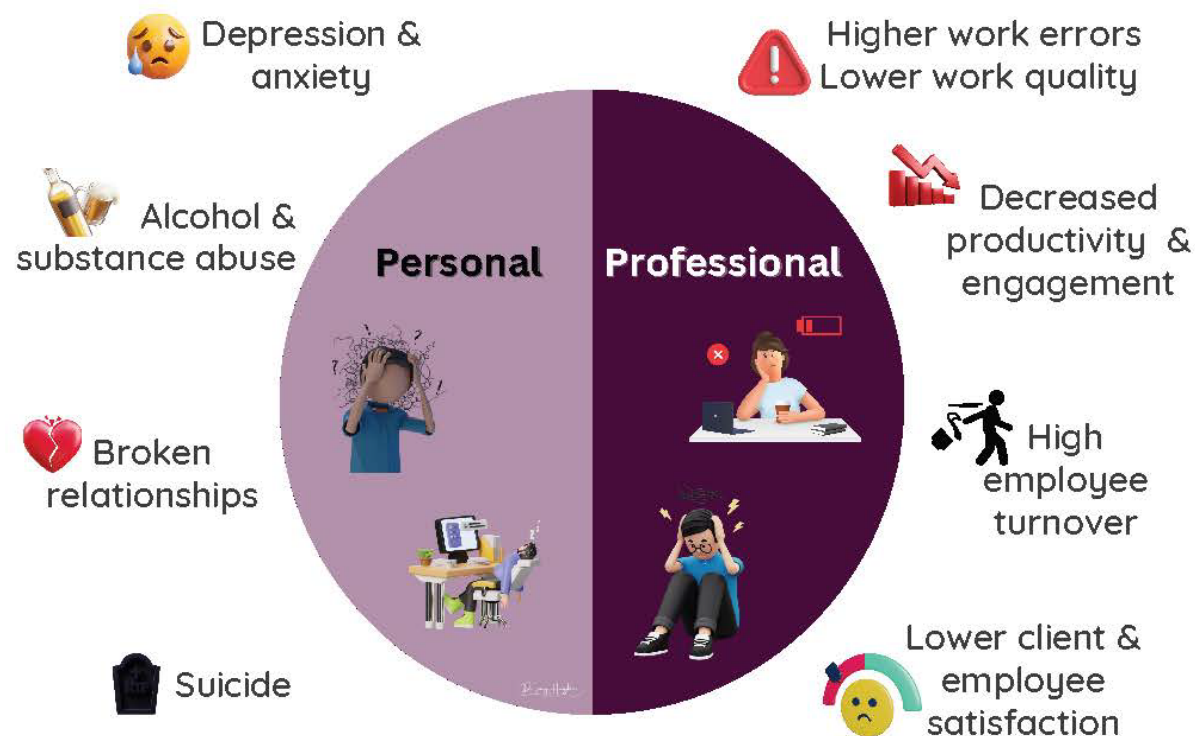


Why We Care About Burnout

- Burnout Harms Us
 - Depression/Anxiety
 - Work Errors
 - Decreased Productivity
 - Employee Turnover
 - Lower satisfaction
 - Alcohol/Substance Abuse
 - Relationship Issues
 - Suicide

Burnout is harmful to our health...

personally and professionally



Shanafelt, T., Noseworthy, J. (2017) Executive Leadership and Physician Well-being: Nine Organizational Strategies to Promote Engagement and Reduce Burnout

Six Drivers of Burnout

- Build Community
- Values Alignment
- Recognition
- Fairness
- Workload
- Job Control



Present starter tactics to your team by asking...

Are there any tactics on this list that would help?
Are there other ideas that you believe would help more?



**Build
Community**

The quality of relationships at work.



**Values
Alignment**

The alignment between our own values and those our agency promotes.



Recognition

The perception of getting noticed and/or rewarded by your boss or organization for doing good work.



Fairness

The perception of how we're treated compared to our colleagues.



Workload

The degree to which we feel able to manage resources, especially time, effectively.



**Job
Control**

The amount of autonomy we have to make decisions at work.

WHERE TO START



Start with **solving agency systems issues** while **offering** individual **wellbeing support & coaching**.



When agencies take time to **address culture and systems inefficiencies**, teams thrive.



Focusing on **solutions to the drivers of burnout** gets to the **root cause** of systems issues.



Intentionally create a healthy culture. Toxic behaviors are detrimental to wellbeing and safety.

Your Resiliency Matters



Without EH Communities Would Suffer

- ⚠ Communities would struggle
- ⚠ Economic recovery delayed
- ⚠ Public health crises would multiply
- ⚠ First responders compromised
- ⚠ Recovery prolonged



The Heros Behind The Heros

- Because You Provide Safe Water, Food, Air:
 - Fire Departments can Keep Their Staff Safe
 - Law Enforcement has Healthy Officers
 - First Responders can Respond
 - Hospitals Remain Open
 - Parents Go Back to Work
 - Children Go Back to School
 - Restaurants and Businesses Reopen



Disaster Resources for EH Professionals

- <https://www.neha.org/readiness>



Disaster Preparedness, Response, and Recovery Resources

This is a collection of resources for environmental health professionals to use to prepare, mitigate, respond, and recover from natural and human-made emergencies and disasters. The repository includes resources developed by state, local, tribal, and territorial health departments, academic institutions, non-governmental organizations, and governmental agencies to facilitate knowledge sharing across jurisdictions.

Must Reads



Hurricane Response Guide

This guide provides environmental public health professionals with



Disaster Guide Retail Food Facilities

This document provides guidance for retail food service



Wildfire Response Guide

Use this guide to find template wildfire messages, forms, and guidance



Strike Team Guidance

Use this guide as a guidance document for creating, maintaining, and deploying effective EPH



Capability Assessment Guide

Use this guide for a comprehensive workforce assessment tool that helps define

Burnout Resources for EH Professionals

The Courage Cartographer's

OVERCOMING BURNOUT GUIDE

Environmental Public Health Professionals

Special Edition

Dr. Lucy Houghton
THE COURAGE CARTOGRAPHER™



Calling All Heros

FOR BEING A LIFE SAVER
Thank You

Thank You For Protecting Our Communities!

- Gina Bare, MA, RN
- gbare@neha.org
- <https://www.neha.org>

