



*Building, Supporting, &
Empowering the Environmental
Public Health Workforce*

Tom Butts, MSc, REHS

President



New Mission Anchored in Past & Future

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



New Vision Reflects New Era

*Healthy Environments.
Protected Communities.
Empowered Professionals.*



eh

We Support Emerging Professionals

- Leadership Program
- Internships
- Scholarships





Environmental Health Leadership Academy

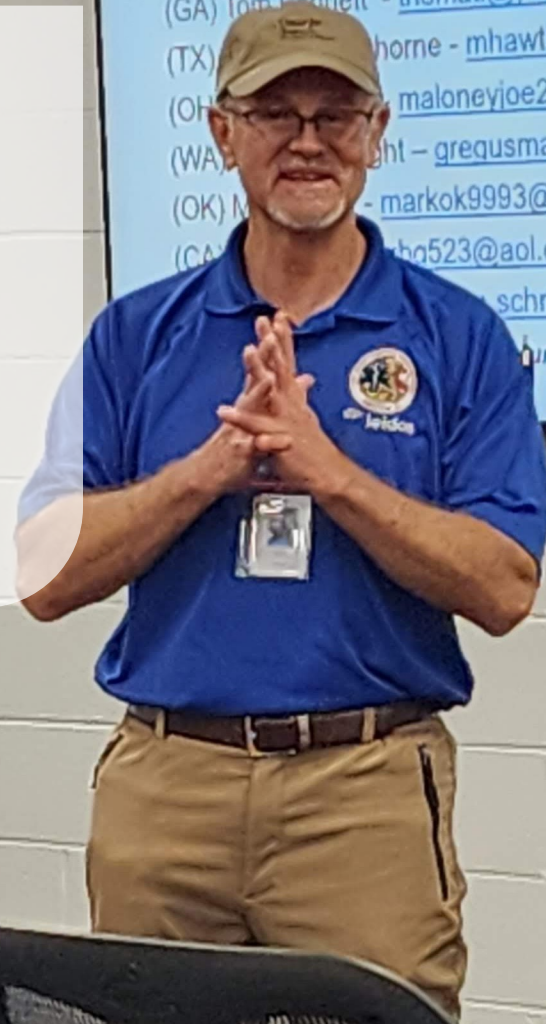


Training Modules

- Managing You
- Assessing Environmental Health Risks
- Communications Skills
- Strengthen, Support, and Mobilize Communities and Partnerships to Ensure Equity
- Environmental Health Interventions
- Emergency Management
- Build and Maintain a Strong Organizational Infrastructure
- Improve and Innovate through Evaluation, Research, and Quality Improvement
- Building a Diverse and Skilled Workforce
- Performance Management

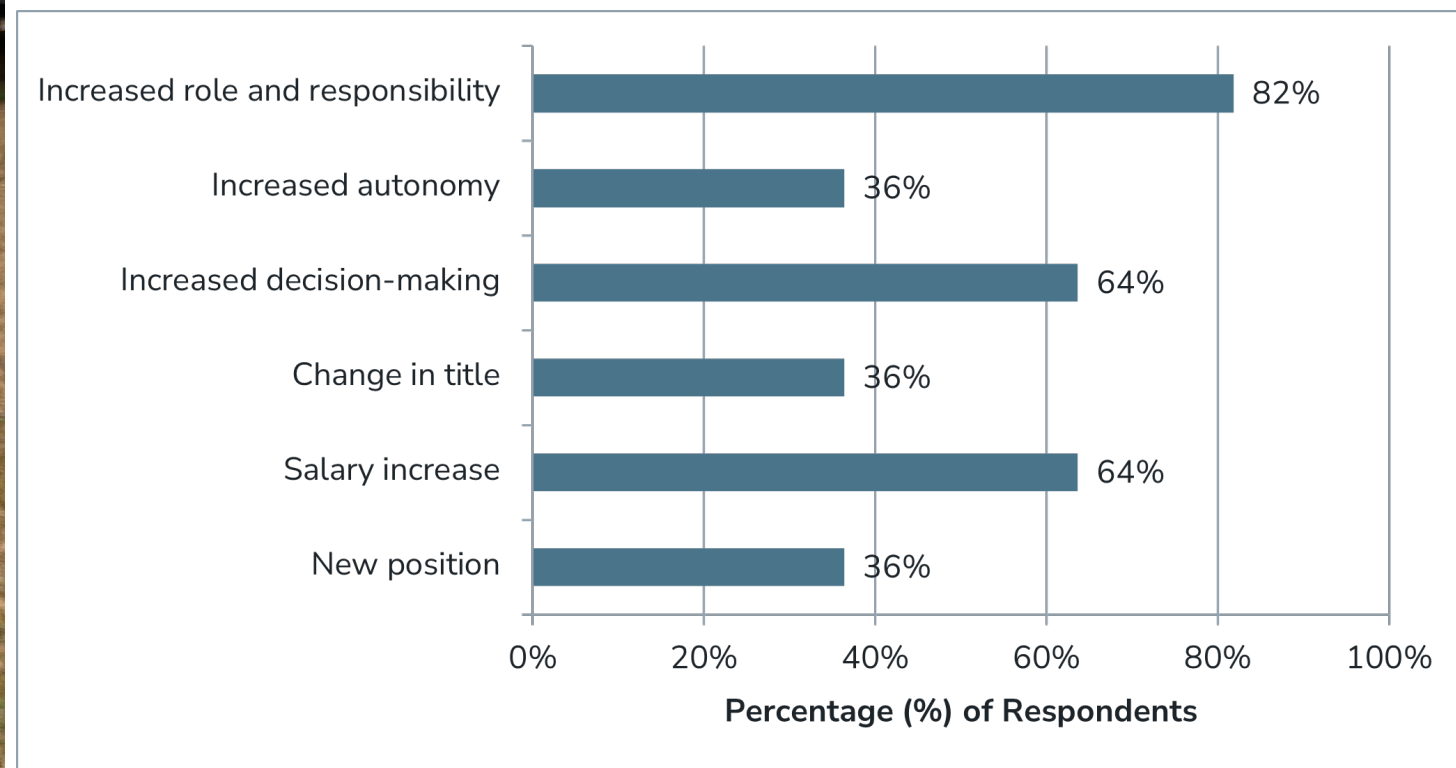
“I decided to enroll in grad school to get my MPH. My decision had a lot to do with the Leadership Academy and my cohort members.”

- 2022 EHLA Graduate



“By encouraging me to explore my strengths, weaknesses, values, and personal leadership styles, I've learned to approach challenges with greater self-awareness and adaptability.”

- 2022 EHLA Graduate



“I shared the lakes dashboard with the state dept of health and a freshwater lakes database is currently under construction for the entire state.”

- 2023 EHLA Graduate

“Upon the completion of my project, I was asked to join multiple PFAS committees that are monitoring and reviewing PFAS in drinking water and ambient water sources.”

- 2023 EHLA Graduate





“We are there for each other when we need advice or when we have something good to share.”

- 2022 EHLA Graduate





a  program

nephip

NATIONAL ENVIRONMENTAL PUBLIC
HEALTH INTERNSHIP PROGRAM

National Environmental Public Health Internship Program

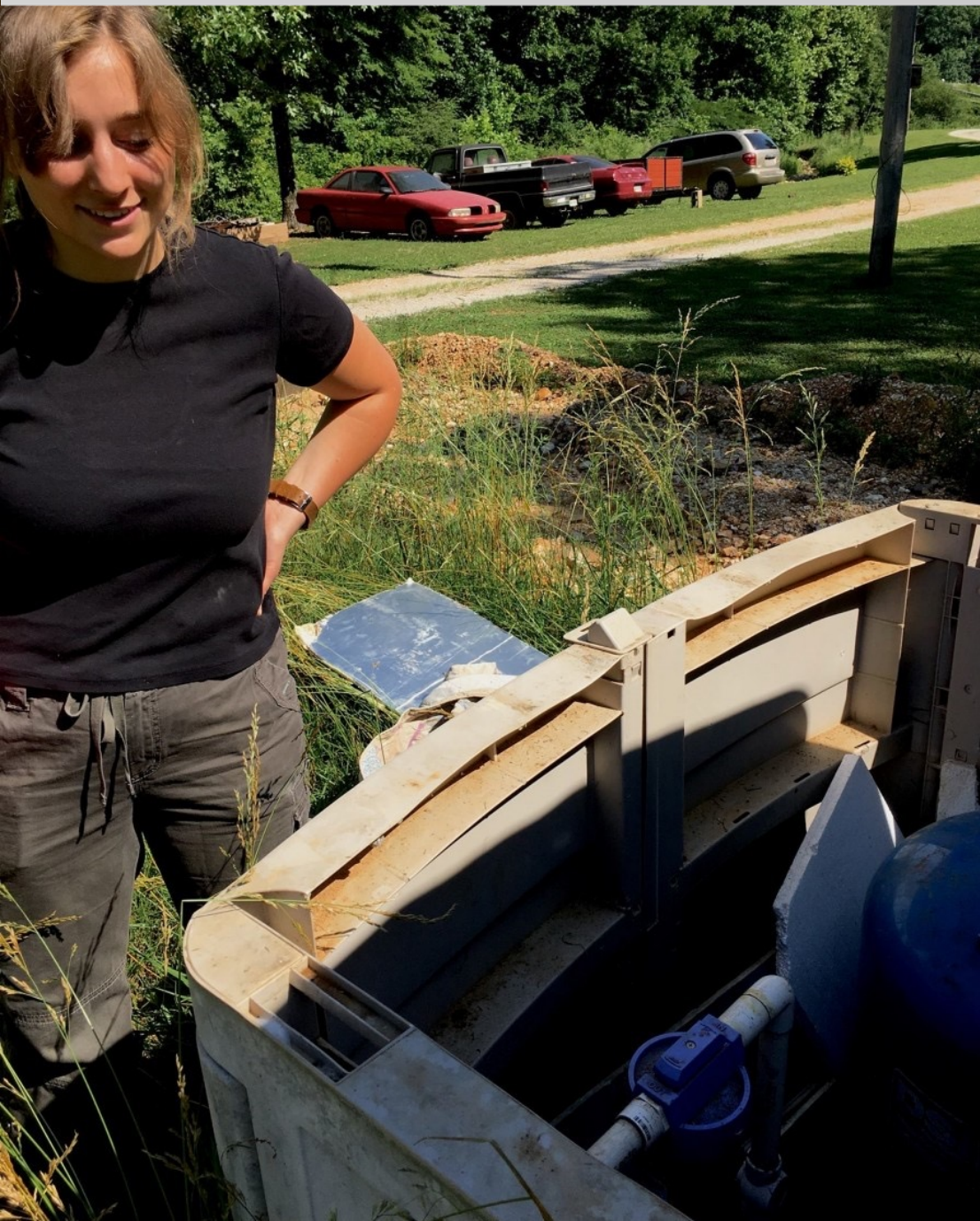
Intern U.S. Home Locations



400-hour Paid
Internship





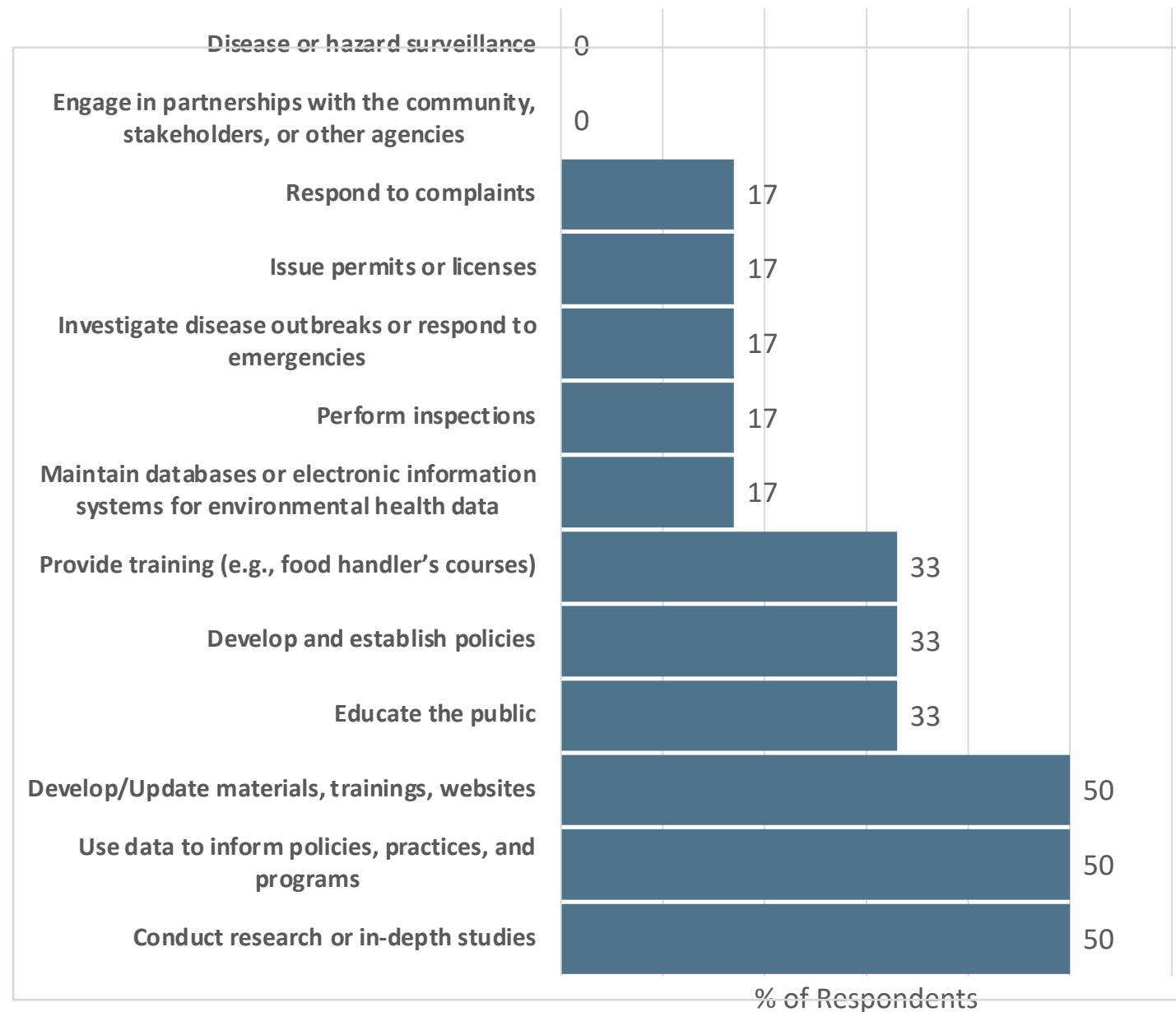


“This internship gave me some of the experience to work amongst other professionals in the field and be able to thrive.”

- NEPHIP participant

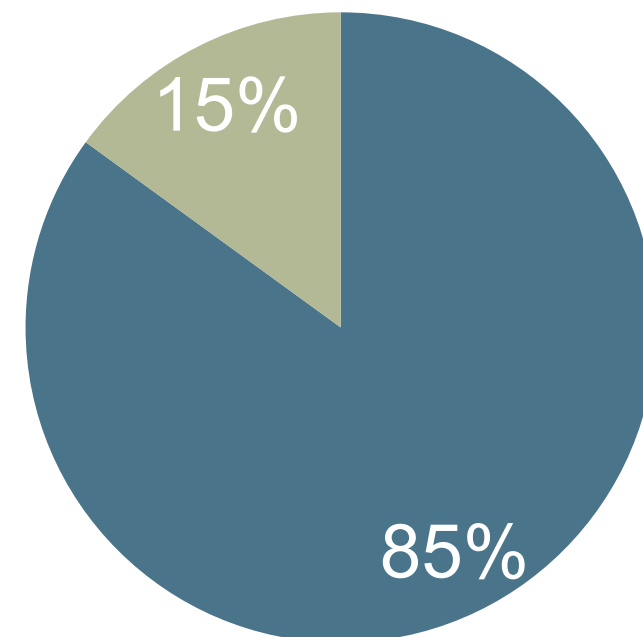
“I gained wonderful experience in a field of in environmental health that I wouldn’t have gotten anywhere else.”

- NEPHIP participant





**85% of host sites
consider participants
as viable employee
candidates**



Environmental Public Health is Profoundly Local

- In some cases “is” the LHD
- Vector Control
- Drinking Water
- Retail Food
- Housing
- Schools
- Spas/ Pools
- Onsite Wastewater
- Hazmat
- Body Art
- Cannabis
- Animal Control
- and many more...



New Interest in Water, Wastewater, Biosolids

HEALTH

Wastewater surveillance could be a new way to track trends for illnesses like COVID

April 22, 2023 · 8:00 AM ET

Heard on *Weekend Edition Saturday*



Pien Huang

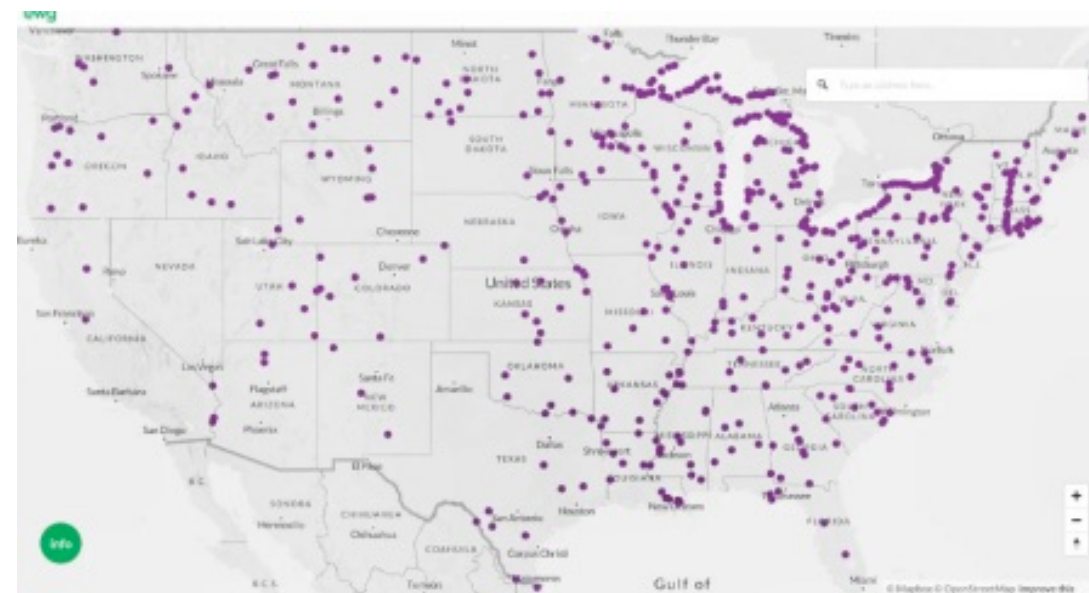
6-Minute Listen

+ PLAYLIST



Public health officials say wastewater surveillance could help them track trends for many kinds of diseases - from COVID to polio - but only if they can keep the testing system going.

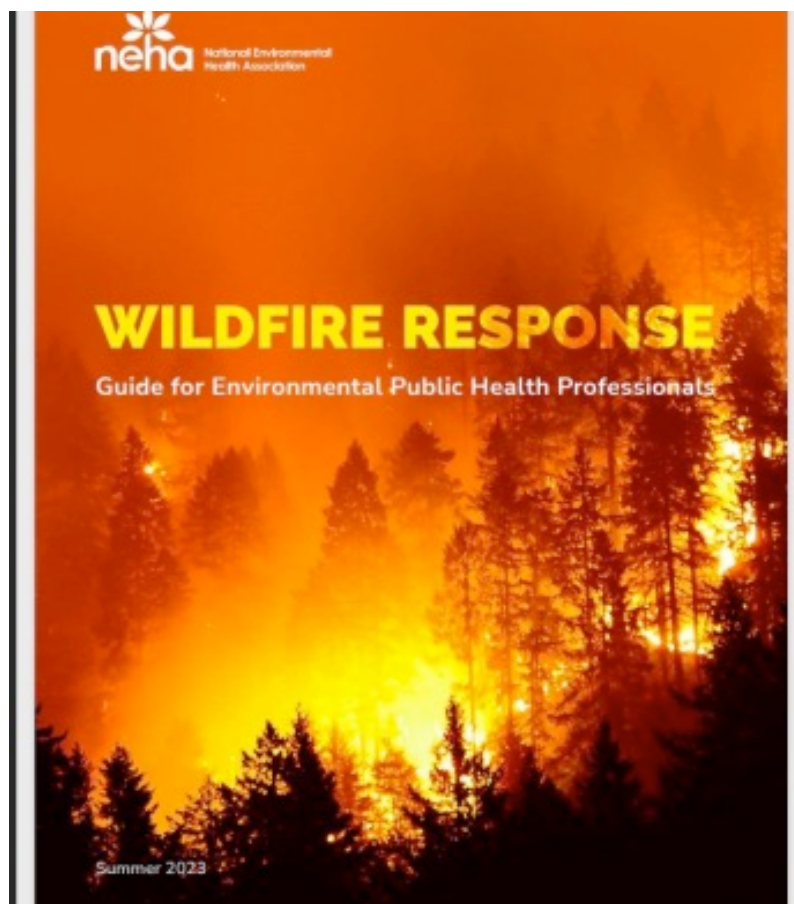
Sponsor Message



ch point on the map represents approximate locations where PFAS has been detected in fish, based on the Environmental Working Group's analysis of environmental Protection Agency data.

Locally caught fish are full of dangerous chemicals called PFAS, study finds

New Era for EH & EPR – Fire & Heat (and Air)




HEAT STRESS Work/Rest Schedules

Temperature Adjustments for this Work/Rest Schedule
Adjust the temperature in the table based on:

Environmental conditions	AND	Humidity
• Full sun (no clouds): Add 13 °F		• 40% humidity: Add 3 °F
• Partly cloudy/overcast: Add 7 °F		• 50% humidity: Add 6 °F
• No shadows visible, in the shade, or at night: No adjustment		• 60% humidity or more: Add 9 °F

Example Adjustment
Conditions at a mine are 90 °F, with partly cloudy skies and 50% humidity. Adjust the table as follows: Add 7 °F for partly cloudy skies and 6 °F for 50% humidity, to arrive at 103 °F.



Examples of Work at Different Intensity Levels


Light work	Moderate work	Heavy work
<ul style="list-style-type: none"> Operating equipment Inspection work Walking on flat, level ground Using light hand tools (wrench, pliers, etc.). However, this may be moderate work depending on the task Travel by conveyance 	<ul style="list-style-type: none"> Jack-leg drilling Installing ground support Loading explosives Carrying equipment/supplies weighing 20–40 pounds Using hand tools (shovel, fin-hoe, scaling bar) for short periods 	<ul style="list-style-type: none"> Climbing Carrying equipment/supplies weighing 40 pounds or more Installing utilities Using hand tools (shovel, fin-hoe, scaling bar) for extended periods

Case Study: Use of Work/Rest Schedule

A crew was shoveling ore out from under the primary conveyor at a surface mine in Arizona in August. The high temperature that day was 113 °F. The crew was rotating in 10-minute shifts and hydrating between shifts. Coworkers noticed signs of heat illness in two employees, and they were transferred to the medical station for evaluation. From there they were sent to the hospital, where they were given IV saline and released home. Both employees recovered after rehydration at the hospital.

Lessons Learned
In extreme heat, even a work/rest schedule may not eliminate the risk of heat illness. In this case, use of work/rest schedules, frequent hydration, and team monitoring helped keep this situation from becoming even more serious. Without those safety precautions the workers could have potentially suffered more severe heat illness, possibly including heat stroke, which is life threatening.

DEPARTMENT OF
Centers for Disease
National Institute for



CDC sets first target for indoor air ventilation to prevent spread of Covid-19

by Brenda Goodman

Published 5:51 PM EDT, Fri May 12, 2023



Al Bello/Getty Images/FILE

The CDC recommends using MERV-13 air filters in HVAC systems, if possible.

(CNN) — The US Centers for Disease Control and Prevention has extensively updated its ventilation guidance on helping prevent indoor transmission of the virus that causes Covid-19.

Continued Focus on Being Data Driven



Data Modernization Initiative

Data saves lives. Better data saves more lives.

[Print](#)



"At CDC and throughout public health, we are in a pivotal moment for data and surveillance — one marked by opportunities, challenges, and the need for change."

Dr. Rochelle P. Walensky, CDC Director

The ultimate goal of CDC's Data Modernization Initiative (DMI) is to get better, faster, actionable insights for decision-making at all levels of public health.

Our vision is to create one public health community that can engage robustly with healthcare, communicate meaningfully with the public, improve health equity, and have the means to protect and promote health.

New Era for Artificial Intelligence



Genomics and Precision Health

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Precision Public Health

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Artificial Intelligence in Medicine and Public Health: Prospects and Challenges Beyond the Pandemic

March 1, 2022 by Danielle Rasooly, Muin J. Khoury, Office of Genomics and Precision Public Health, Centers for Disease Control and Prevention, Atlanta, Georgia

Though still in its infancy as a field, [artificial intelligence](#) (AI) is poised to transform the practice of medicine and the delivery of healthcare. Powered by breakthroughs in [machine learning](#) (ML) algorithms, enhanced computing power, and increasing data



► ENVIRONMENTAL HEALTH ACROSS THE GLOBE

Artificial Intelligence and Environmental Health Teaching: Impacts for the Wider Profession

Editor's Note: We are familiar with the phrase, "Environmental health is extremely local." While environmental health affects most of us on the local level, we also understand that environmental health is universal and does not know borders. The location, geography, people, and conditions can differ but the science and principles of environmental health do not. In this new column, the National Environmental Health Association (NEHA) will present environmental health issues and topics from a global perspective. Understanding environmental health on a global scale can help us recognize

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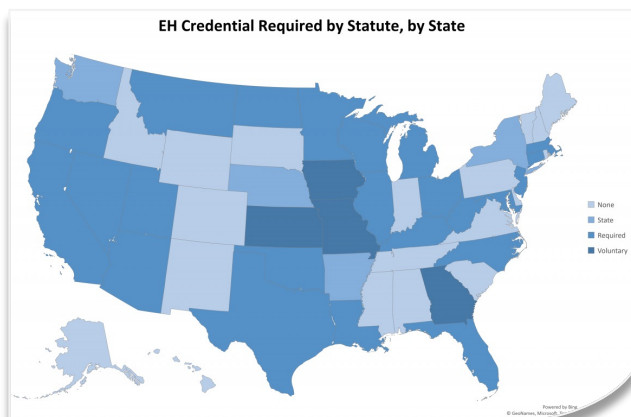
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We Elevate Best Practices

- Dr. Walker Diversity & Inclusion Award
- Policy Statements
- Credentialing Mapping

Bailus Walker Jr.
Diversity and
Inclusion
Awareness Award

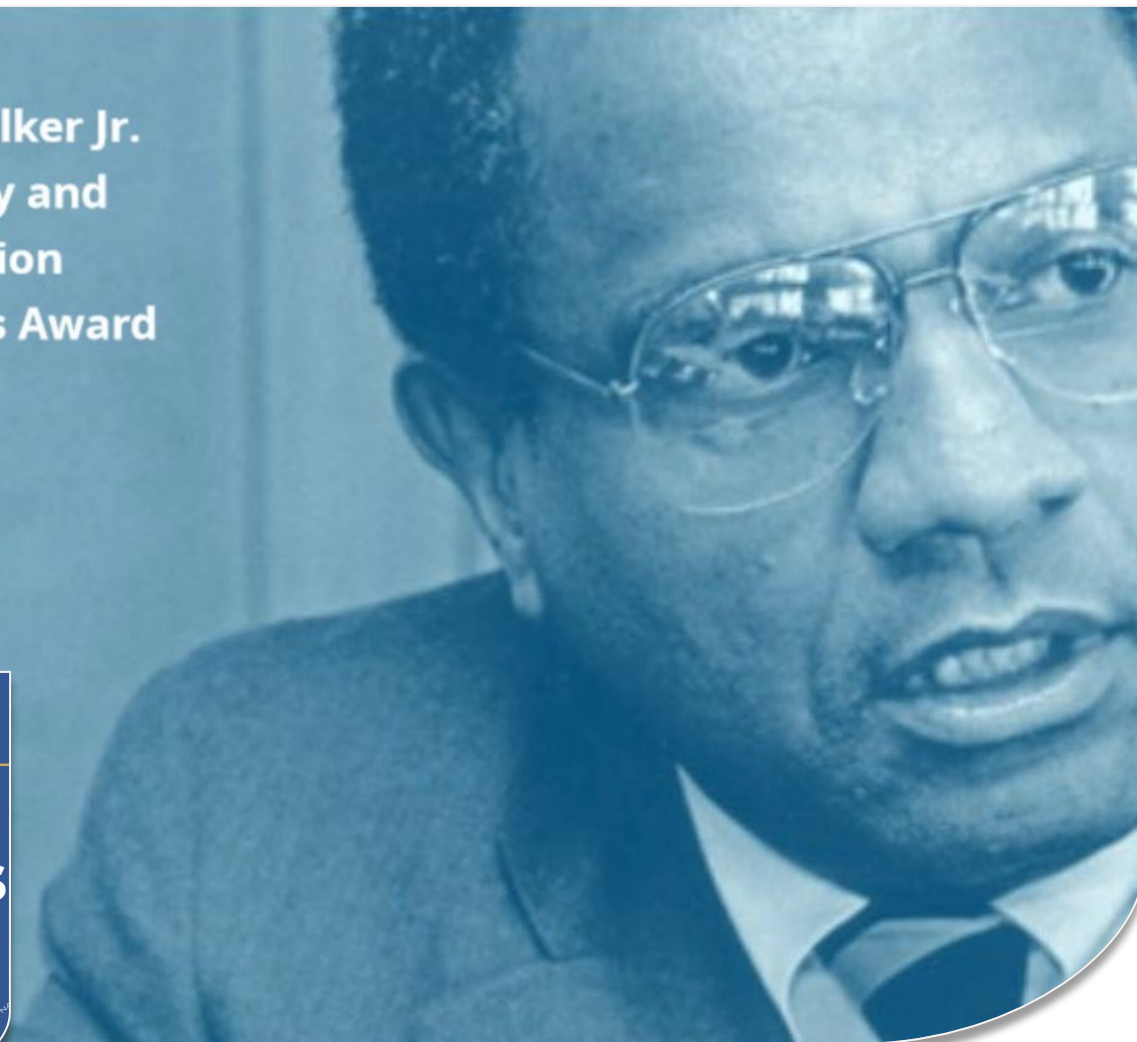


 **NEHA**
Policy Statement

Role of EH in Preparedness

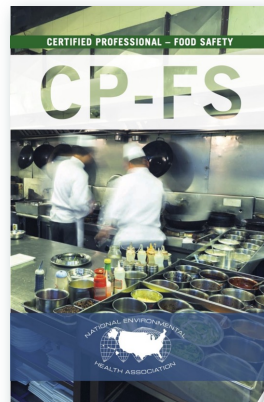
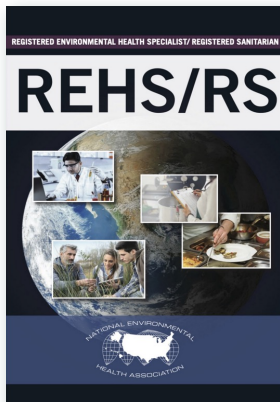
Adopted: November 2021
Policy Sunset: November 2024

Policy statements are shared with local, state, and federal policy makers, including both the executive and legislative branches and relevant environmental and public health boards.



We Support Professionals & Communities

- Credentialing
- Continuing Education
- State Exams
- Pass-through funding
- Advocacy
 - Hill Day
 - Policy Statements





The Cultural Climate Change Impact on Alaskan Native Communities

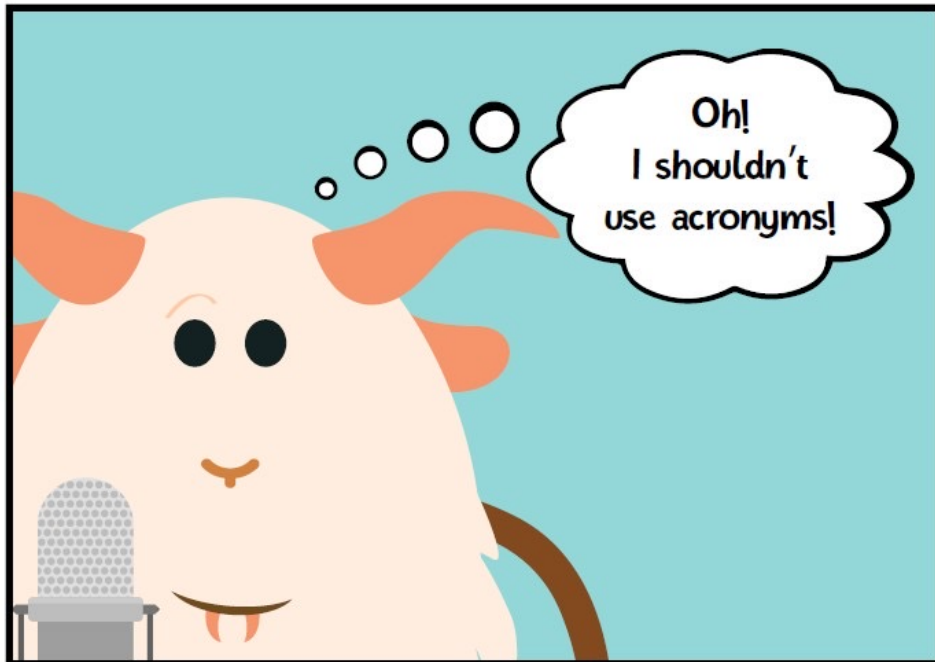
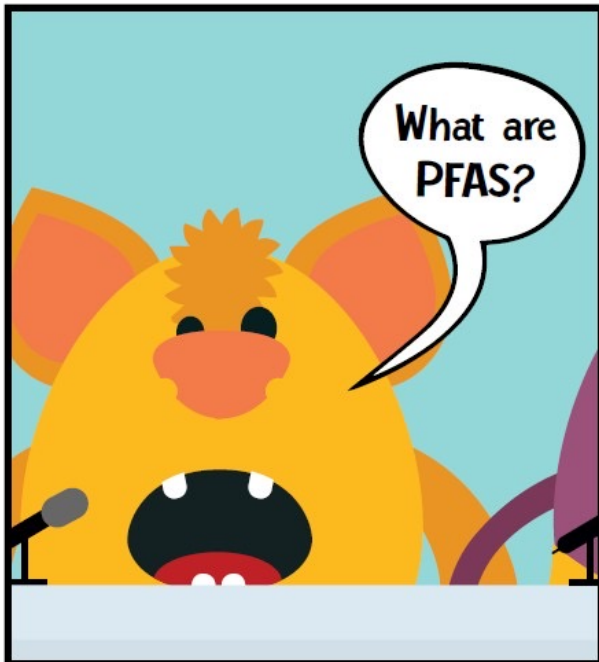
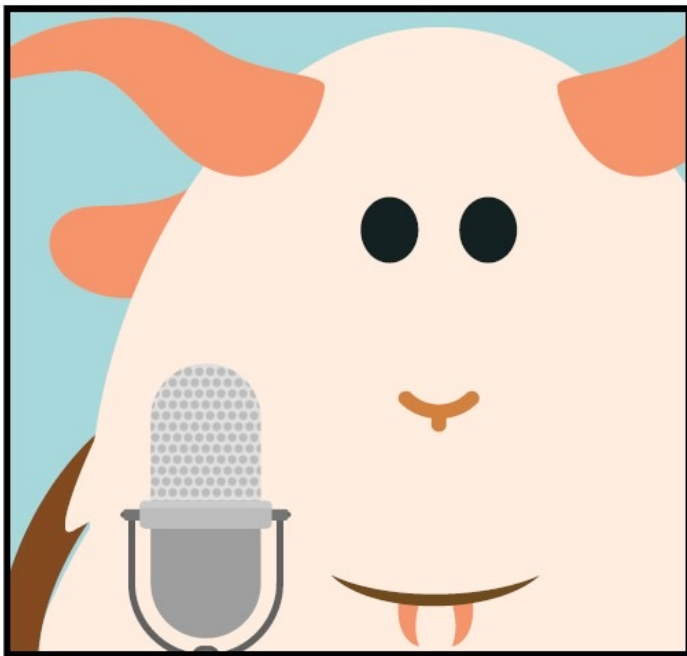




**“If you take care of nature,
nature will take care of you.”**
- Herman Ahsoak, Utqiagvik whale captain



Raising the Visibility of Environmental Public Health



Templates

- Editorial promoting EH
- Letter to the editor promoting EH
- Environmental Health fact sheet

How to:

- Select motivational EH images
- Simplify your EH message
- Talk to decision makers
- Talk to the media
- Write a policy brief
- Write a proclamation

Environmental Public Health

The career for our future.

Environmental Public Health is the science and practice of preventing human injury and illness and promoting well-being by identifying, evaluating, and limiting exposure to environmental health risks including physical, chemical, and biological agents in air, water, soil, food, and other settings that may harm human health.

Water Pumps to Bioterrorism

A very brief history of the environmental public health profession.

5th Century BC	The Hippocratic Corpus: Considering the possibility that disease was associated with environmental factors or imbalances in diet or personal behaviors.
1400s	Use of quarantine in response to Black Death in Europe.
1700s	"Plague doctors" use protective equipment (including hood and mask) to protect themselves from the spread of plague.
1800s	John Snow publishes "On the Mode of Communication of Cholera" and professionals begin to see link between disease and environment.
1900s	Legislation requiring coordination of state and national public health activities. US Public Health Service authorized to investigate human diseases, sanitation, water supplies, and sewage disposal.
2000s	Emergency response and recovery becomes key environmental health role, particularly impacts of climate change on health.

Growth & New Challenges

Growth in the workforce is required to meet current and future needs.



5% Projected Employment GROWTH



7,800 job openings projected ANNUALLY



Recognized for CLIMATE CHANGE disaster preparedness response & recovery

Broad Skillset

Roles take advantage of a broad skillset and knowledge.



Communication



Critical Thinking



Investigation



Decision-Making



Science

Variety

Work ranges from desk work to disasters.

- Work indoors or outdoors
- Stay local, or travel regionally, nationally, or even internationally
- Focus on the technical science or work in the community, or both
- Advance to leadership roles or to a specialty expertise
- Work for yourself, the government, or a private company
- Work in your community or across the world

Lifetime of Purpose

The career is a lifetime helping to assure a healthy life for all.

- Keep the most vulnerable safe from environmental risks
- Help communities prepare for the impacts of climate change
- Create equitable environments where all people can thrive

Templates

- Outreach email
- Environmental Public Health 101 PowerPoint
- Environmental Health fact sheet
- Sample organizations to contact (e.g. Girl Scouts, 4H, schools etc.)

How to:

- Identify organizations contact
- Add annual outreach to job roles



National Environmental
Health Association



JENNIFER



ENVIRONMENTAL HEALTH SPECIALIST



Richland Public Health - Ohio

- **Better known as “Tattoo Bodyguard”**
- **Making sure your tattoo is safe one ink bottle at a time**
- **I am environmental public health**



National Environmental
Health Association



National Environmental
Health Association



National Environmental
Health Association



JENNIFER



ENVIRONMENTAL HEALTH SPECIALIST



Richland Public Health - Ohio



MOLLY



ENVIRONMENTAL HEALTH SPECIALIST



Wyandot County Public Health - Ohio



SCOTT



ENVIRONMENTAL HEALTH DIRECTOR



Licking County Health Department - Ohio

- Better known as “Tattoo Bodyguard”
- Making sure your tattoo is safe one ink bottle at a time
- I am environmental public health

neha.org/swipe-right

- A self-proclaimed “Disease Detective”
- Prevents illnesses on the daily
- I am environmental public health

Nearly 3.5 million
impressions!

- They call me the “H2O Hero”
- You can find me identifying hazards in our local water systems
- I am environmental public health

NOW Open Source

JOURNAL OF
Environmental Health
Dedicated to the advancement of the environmental health professional
Volume 85, No. 8 April 2023

**Communicating Results
of Drinking Water Tests
From Private Wells**

**DESIGNING REPORT-BACK MATERIALS
TO FACILITATE UNDERSTANDING**



Published by the National Environmental Health Association

www.neha.org

JOURNAL OF
Environmental Health
Dedicated to the advancement of the environmental health professional
Volume 85, No. 9 May 2023

**Increasing Diversity in
Environmental Health
Graduate Programs**



Published by the National Environmental Health Association

www.neha.org

JOURNAL OF
Environmental Health
Dedicated to the advancement of the environmental health professional
Volume 86, No. 1 July/August 2023



**Applying the
Model Aquatic
Health Code to
Grade Swimming
Pool Safety**

Published by the National Environmental Health Association

www.neha.org



Retail Flexible Funding Model Cooperative Agreement

- Year 2 Grants ran from Jan 1-Dec 31, 2023
- 477 total grants were awarded across all grant categories worth approximately \$7.5M
- SLTT Unique Jurisdictions Receiving Funding:
 - 31 State
 - 193 Local
 - 3 Tribal
 - 3 Territorial



We Strengthen Retail Food Safety

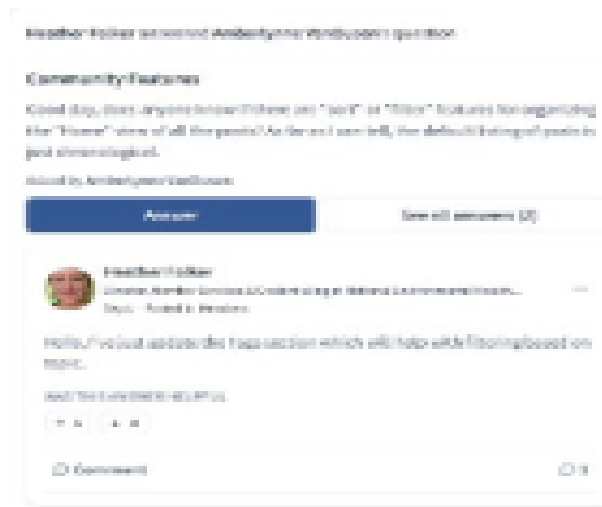
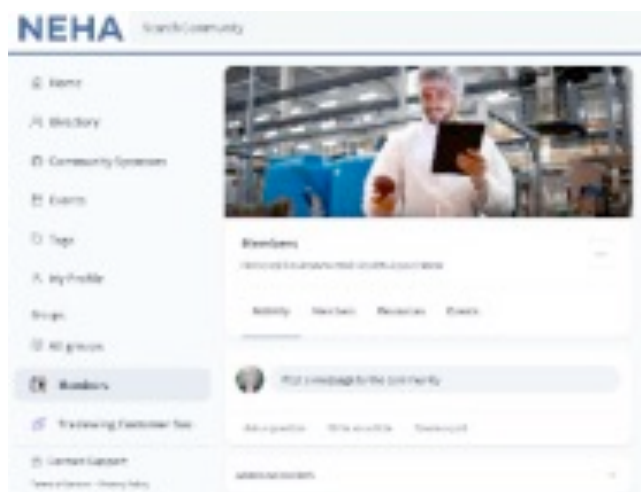
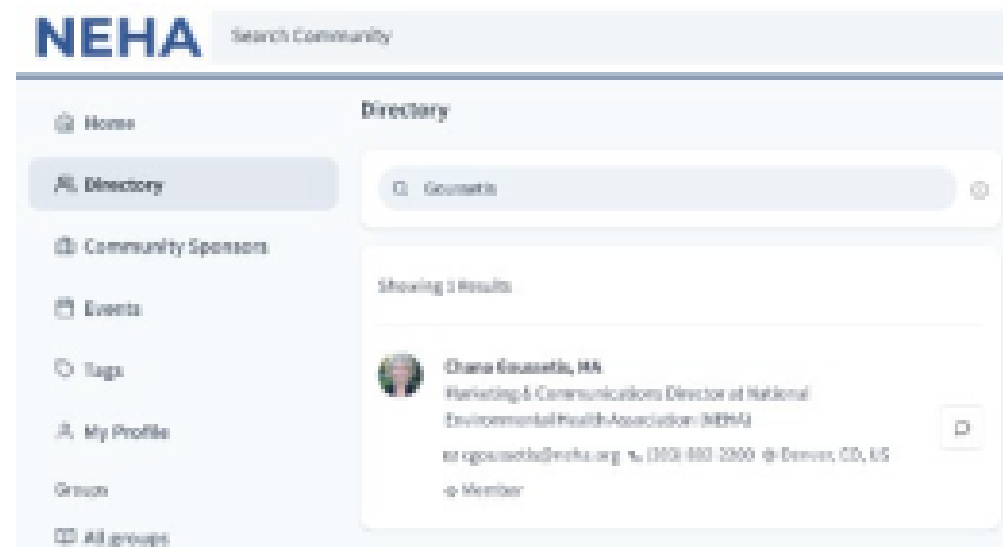
Keys to Optimal Retail Food Safety



We Create Space for Community

- **NEHA Community**

- Online platform
- **Members only**
- Directory, events, workgroups
- Exchange ideas & advice
- Build collaboration & camaraderie



We are stronger
together! Join us
as a **national
member.**

Join today!

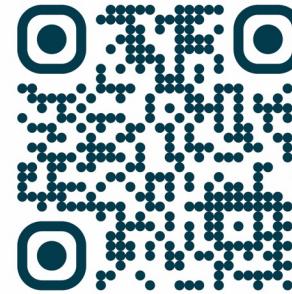


Register today

for the NEHA 2024 Annual Educational Conference and Exhibition!

- More than 250 Sessions
- Topics from air quality to vector, and everything in between
- Fulfill your annual continuing education credits in three days
- Network with professionals in your field
- Explore the vibrant city of Pittsburgh or learn virtually at home

neha.org/aec



Pittsburgh, PA
July 15–18, 2024



Presents

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AEC 24

