

The East Palestine Train Derailment Health Study



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NAEHS Council, September 2024

Outline

- Background
- Exposures and Outcomes of Interest
- Timeline of Responsiveness
- Short and Long Term Research Strategies
- Coordination Efforts
- Proposed Concept and Discussion

East Palestine, Ohio Train Derailment – February 3, 2023

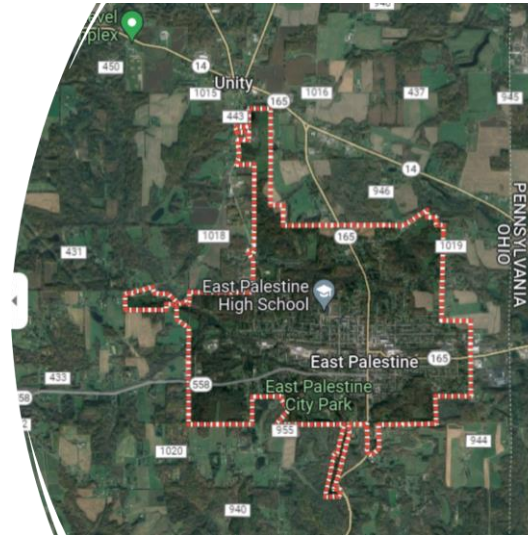


Image from The Washington Post.



Image from Dr. Erin Haynes.



Exposures and Outcomes of Interest

Exposures

- Vinyl chloride
- Ethylene glycol monobutyl ether
- Ethylhexyl acrylate
- Butyl acrylate
- Isobutylene
- Benzene residue

Health Outcomes

- Mental/behavioral health
- Stress
- Children's health
- Respiratory impacts
- Gastrointestinal issues
- Genetic concerns/changes

2023

FEBRUARY
3RD

A train carrying hazardous materials derailed in East Palestine, Ohio



FEBRUARY
16TH

NIEHS received the first time-sensitive proposals for the derailment



JUNE –
OCTOBER

The time-sensitive applications were reviewed and sent to Council for consideration



NOVEMBER
6TH – 7TH

A special NASEM Workshop was held to discuss research priorities and community concerns



2024

JANUARY
22ND

Six NIEHS time-sensitive projects were awarded



FEBRUARY
16TH

President Biden visits East Palestine and announces the six NIEHS awards

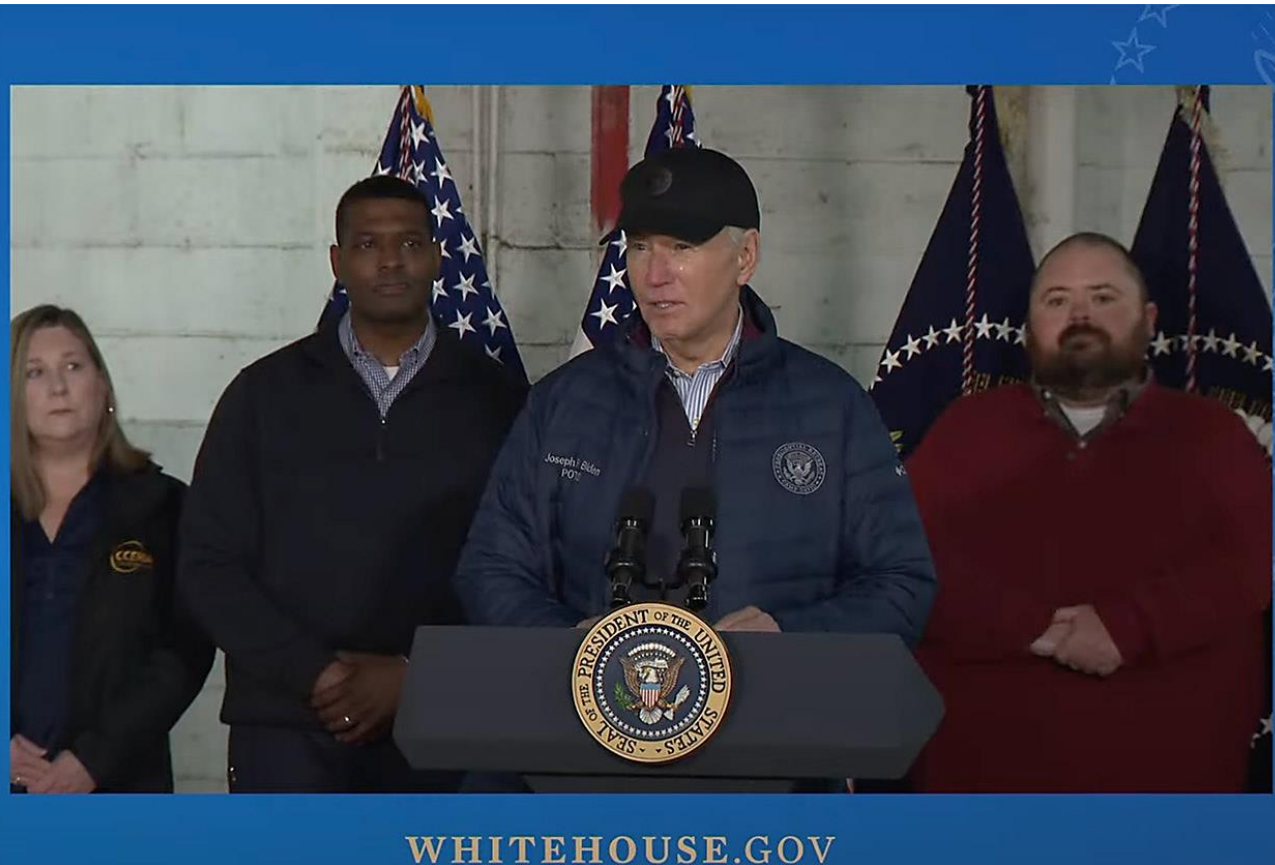


MARCH
15TH

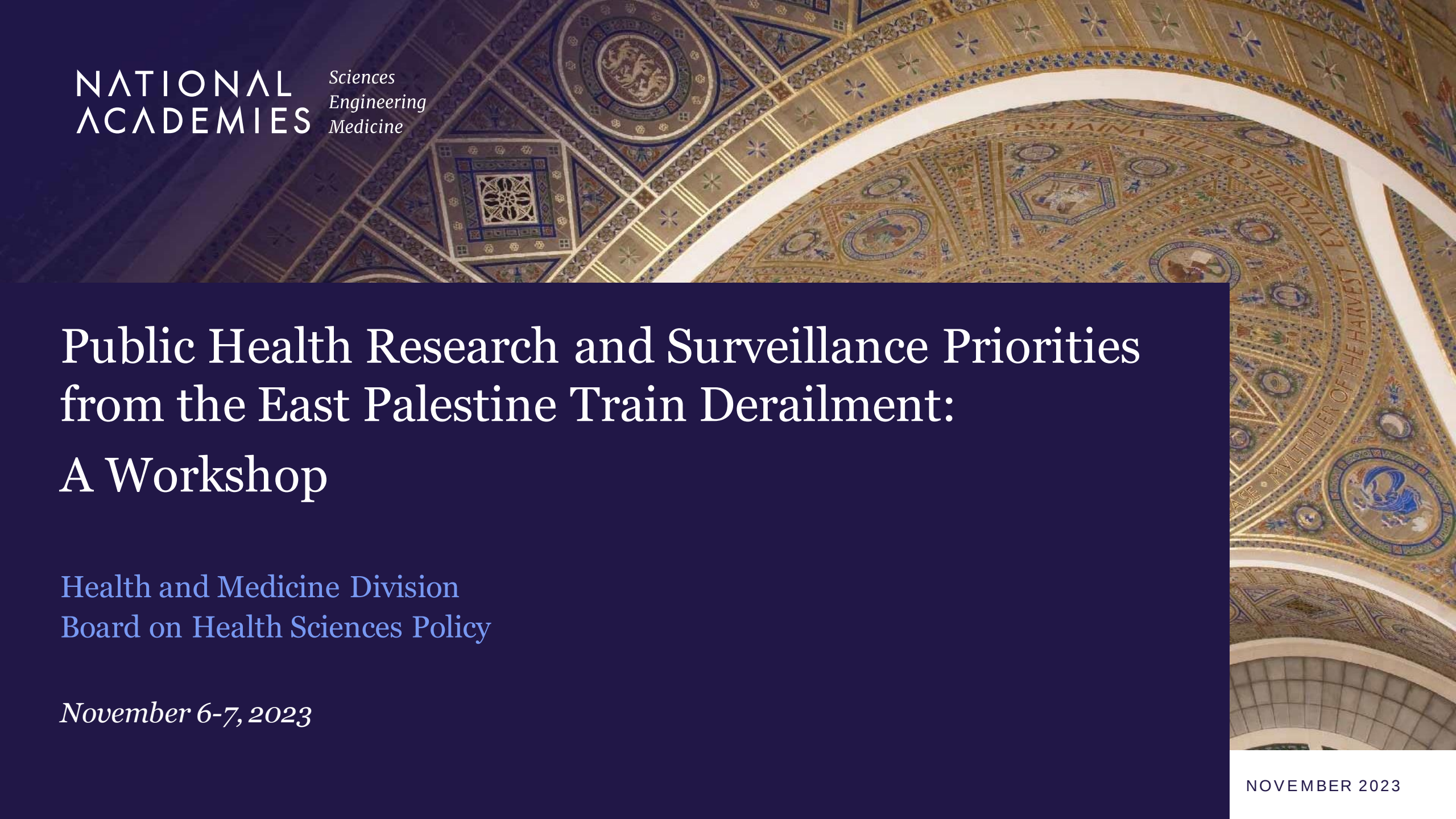
Coordination efforts begin across the projects and federal government



President Joe Biden Visits E. Palestine – February 16, 2024



- This marked President Biden's first visit to the area following the train derailment
- The President announced six NIEHS Time-Sensitive Research Program awards in response to the disaster



NATIONAL
ACADEMIES

Sciences
Engineering
Medicine

Public Health Research and Surveillance Priorities from the East Palestine Train Derailment: A Workshop

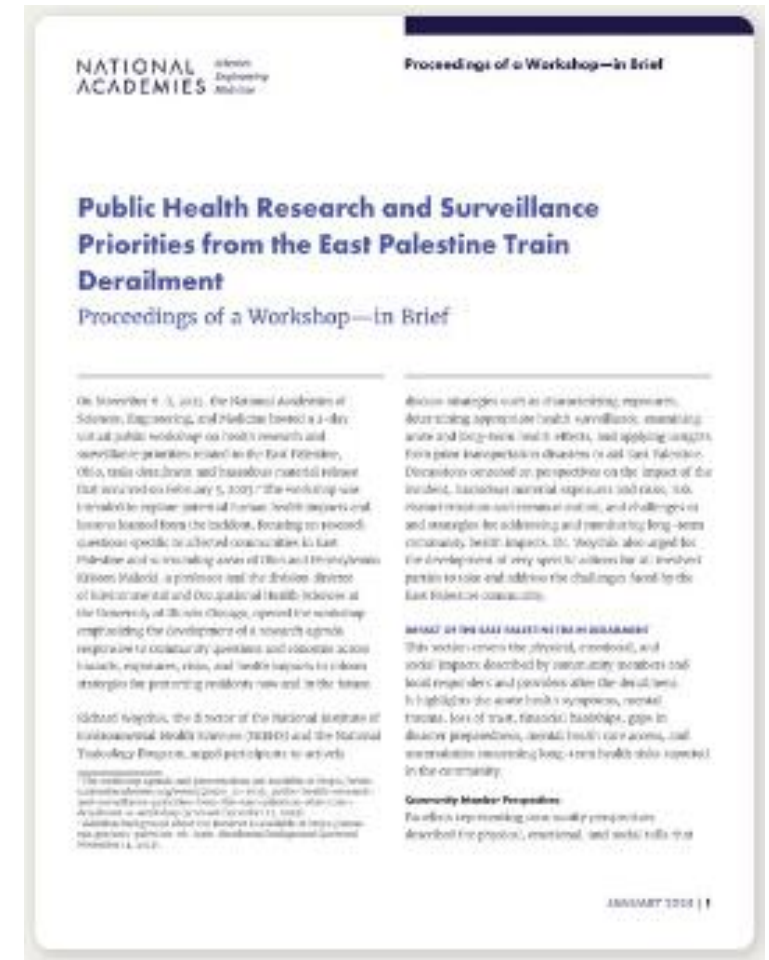
Health and Medicine Division
Board on Health Sciences Policy

November 6-7, 2023

NOVEMBER 2023

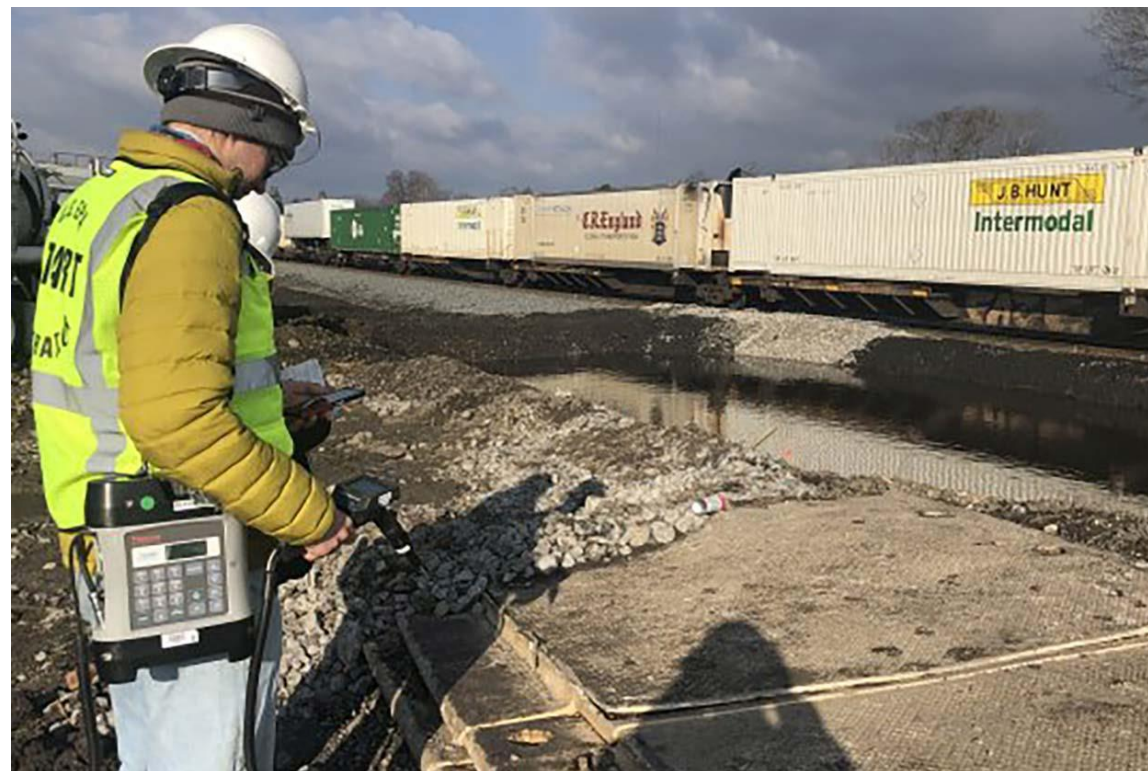
Takeaways from the NASEM Workshop

- The discussion focused on the short- and long-term needs and potential health impacts to the East Palestine community
- There is a need for a clear source of communication and information about the federal efforts in response to community concerns
- Gaps and areas for potential improvement were also discussed
- Responders and public health officials/clinicians face a unique set of challenges in caring for the community while addressing a lot of uncertainty



Potential Short-Term Strategies

- Community Partnerships
- Registries
- Education and training
- Mental and behavioral health foci
- Exposures across the lifespan
- Environmental monitoring
- Report-back of research findings



Potential Longer-Term Strategies

- Addressing uncertainties around health impacts
- Mitigating potential damage due to exposures
- Applying advanced techniques to identify molecular signals
- Evaluating interactions between chemical exposures and other stressors
- Bridging disconnects impeding public health, academic studies, and community priorities around disasters



Responding to Air Pollution in Disasters (RAPID) Air Sampling and Symptom Monitoring in East Palestine, OH

- Natalie Johnson, PhD
Texas A&M



TEXAS A&M UNIVERSITY

School of Public Health

Healthy Futures Research Study: Linking Somatic Mutation Rate With Baseline Exposure in East Palestine

- Frederick Schumacher, PhD
Case Western Reserve University



CASE WESTERN RESERVE
UNIVERSITY
School of Medicine

East Palestine Train Derailment Health Tracking Study

- Misti Allison, MPH
University of Kentucky and Columbiana County
Health District Board



University of
Kentucky
College of Public Health

Profiling the Post-Accident Exposome in East Palestine

- Peng Gao, PhD
University of Pittsburgh



East Palestine Community-Engaged Environmental Exposure, Health Data, and Biospecimen Bank

- Maureen Lichtveld, MD, MPH
University of Pittsburgh



Uncovering the Short-Term Public Health Impact of Toxin Release in East Palestine, Ohio: Outcomes and Effect Modifiers

- Jami Wallace, JD, MPA
University of California at San Diego

UC San Diego
SCHOOL OF MEDICINE

Coordination Efforts

- Providing support for biweekly calls among the project teams
- Working collaboratively with DR2 on federal coordination efforts
- Working on communication strategies across the impacted community and the federal government
 - East Palestine webpage
 - Grantee subpage on the time-sensitive webpage

The screenshot displays the NIH website's 'East Palestine (Ohio) Train Derailment Research Response' page. The top navigation bar includes links for Health & Education, Research, Funding Opportunities, Careers & Training, News & Events, and About NIEHS. A search bar is located in the top right corner.

The main content area is titled 'East Palestine (Ohio) Train Derailment Research Response' and features a 'Table of Contents' link. The 'Background' section describes the incident on February 3, 2023, where a Norfolk Southern train carrying hazardous materials derailed in East Palestine, Ohio, leading to fires and spills. The 'What Is NIEHS Doing' section outlines the coordinated response to support the affected communities. A map shows the location of East Palestine, Ohio, relative to Cleveland, OH, and Pittsburgh, PA.

The 'Determining Research Priorities - Virtual Workshop' section details a workshop held in November 2023, involving NIH institutes and local stakeholders to identify research priorities. It mentions the release of the 'Public Health Research and Surveillance Priorities from the East Palestine Train Derailment' report in early January 2024.

A sidebar on the left lists various research initiatives, with 'East Palestine (Ohio) Train Derailment Research Response' highlighted. Other initiatives include Climate Change and Human Health, Climate and Health Outcomes Research Data Systems (CHORDS), Disaster Research Response (DR2) Program, Environmental Health Language Collaborative, Global Environmental Health, NIH RADx Efforts at NIEHS, PFAS Research, Translational Research at NIEHS, and Women's Health Awareness.

Federal Coordination Efforts

- Village of East Palestine Healthcare Taskforce
 - Participants: NIEHS, ASPR, FEMA, ATSDR, EPA, State and Local Officials in Columbiana County (OH), State Officials in Pennsylvania
- White Office of Engagement East Palestine Train Derailment Convening (webinar)
 - Participants: NIEHS, FEMA, ATSDR, EPA, State and Local Officials in Columbiana County (OH), State Officials in Pennsylvania, research and community partners



Continued Community Concerns



- Children's health concerns
- Long-term follow-up
- Registries (surveillance, health effects)
- Contamination of food sources
- Impacts of relocation
- Specialized testing access
- Mental/Behavioral health



Proposed Concept Structure – A Community-Academic Partnership

- Guiding Principles
 - Strong community involvement
 - Multi-directional communication strategies
 - Timely report-back of research results
- Benefits
 - Multiple projects to address community concerns
 - Minimizes burden on study participants
 - Encourages coordination and collaboration with multidisciplinary teams
 - Long-term approach to concerns
- Potential Mechanism
 - Cooperative Agreement (U mechanism)

NIEHS Program Contacts

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- Toccara Chamberlain (Program Manager)
toccara.chamberlain@nih.gov
- Dr. Alfonso Latoni (retired)



Additional Resources

- East Palestine (Ohio) Train Derailment Research Response
https://www.niehs.nih.gov/research/programs/east_palestine
- NIH Disaster Research Response (DR2) Program
<https://www.niehs.nih.gov/research/programs/disaster>
- Time-Sensitive Research Opportunities in Environmental Health
<https://www.niehs.nih.gov/research/supported/timesensitive>



Questions and Discussion

Council Discussants:

Dr. Stephania Cormier

Dr. Jani Ingram



National Institute of Environmental Health Sciences
Your Environment. Your Health.



**Thank You for
Your Time**