

CDC/ATSDR Assessment of Chemical Exposures (ACE)/Epi Aid Investigation

East Palestine Train Derailment

National Academies Virtual Workshop: Public Health Research and Surveillance Priorities from the East Palestine, Ohio Train Derailment

November 6, 2023

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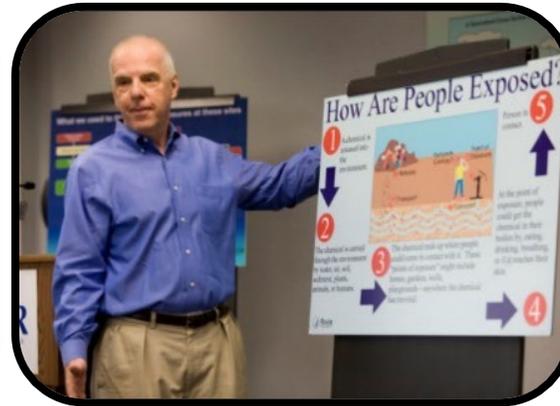
Office of Community Health Hazard Assessment

**National Center for Environmental Health
Agency for Toxic Substances and Disease Registry**



What is ATSDR?

- A federal non-regulatory public health agency within the U.S. Department of Health and Human Services
- Created by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, also known as the Superfund Law, as amended by Superfund Amendments and Reauthorization Act in 1986
- Works with communities; local, state, and tribal governments; and other federal agencies to protect people from environmental exposures



ATSDR's Role in the Derailment Response

ATSDR engaged with our partners during the derailment and fire to exchange information and promote health-protective decisions. As the response developed, we:

- Provided communication support to health care providers, residents, and key partners to help them understand health concerns and locate available resources
- Coordinated public health activities with state, local, and federal partners
- Provided health-based screening levels, when requested by partners, to support environmental data collection and review
- Conducted Assessment of Chemical Exposure surveys

ATSDR's Assessment of Chemical Exposures (ACE)

- When toxic substance spills or chemical emergencies happen, ATSDR helps state and local health departments by providing ACE resources to perform a rapid epidemiologic assessment
- State and local health departments use the generated information to
 - assess impact of the release on individuals as well as the community
 - direct the public health response
 - target outreach to prevent similar incidents
 - assess the need to modify emergency response procedures
 - identify a group of exposed people that may need to be followed for long-term effects

ACE in East Palestine

ATSDR was asked by Ohio Department of Health and Pennsylvania Department of Health to help with two investigations:

Community Health Assessment



East Palestine

February 25, 2023

Community Health Assessment

The Ohio Department of Health in partnership with the Columbiana County Health Department is offering a community health assessment to understand the health impacts of the February 3, 2023 train derailment.

Who can participate?
Anyone who may have been impacted by the February 3, 2023 East Palestine, Ohio Norfolk Southern train derailment.

The information will:

- Help Ohio Department of Health (ODH) **understand** possible health impacts of this event
- **Determine** what steps are needed to protect the health of people who may have been exposed
- Help ODH **prepare** for future incidents

Findings will be summarized in a publicly available report.

What type of questions will I be asked?
You will be asked about:

- Symptoms you may be experiencing
- Any chemical substances you may have come into contact with
- Your drinking water
- Any medical care you may have received
- Your pet

3 ways to take this survey:

- 1) Scan the QR code
- 2) Online: https://redcap.link/OH_Health_Assessment
- 3) By appointment:
Clinic: 234-564-7755 or 234-564-7888
Email: ATSDRACE@cdc.gov
Survey will be available until March 10, 2023



https://redcap.link/OH_Health_Assessment

First Responder Survey

Assessment of Chemical Exposures:

FIRST RESPONDER SURVEY

The Columbiana County General Health District, Ohio Department of Health, and Pennsylvania Department of Health are conducting this survey in partnership with CDC/ATSDR to learn more about the experiences of first responders related to the East Palestine, Ohio train derailment.

This survey is available to firefighters, EMS, police, HAZMAT team members, National Guard, NTSB, EPA and other first responders who have responded since February 3rd, 2023 to the train derailment incident.

USE THE LINK BELOW TO COMPLETE THE CORRECT FIRST RESPONDER SURVEY.

First Responders living in Pennsylvania and West Virginia

<https://bit.ly/respondersurvey>



First Responders living in Ohio and Federal First Responders

<https://redcap.link/u53witdv>



Respondents to ACE surveys



702 community surveys



339 responder surveys



528 from OH



174 from PA



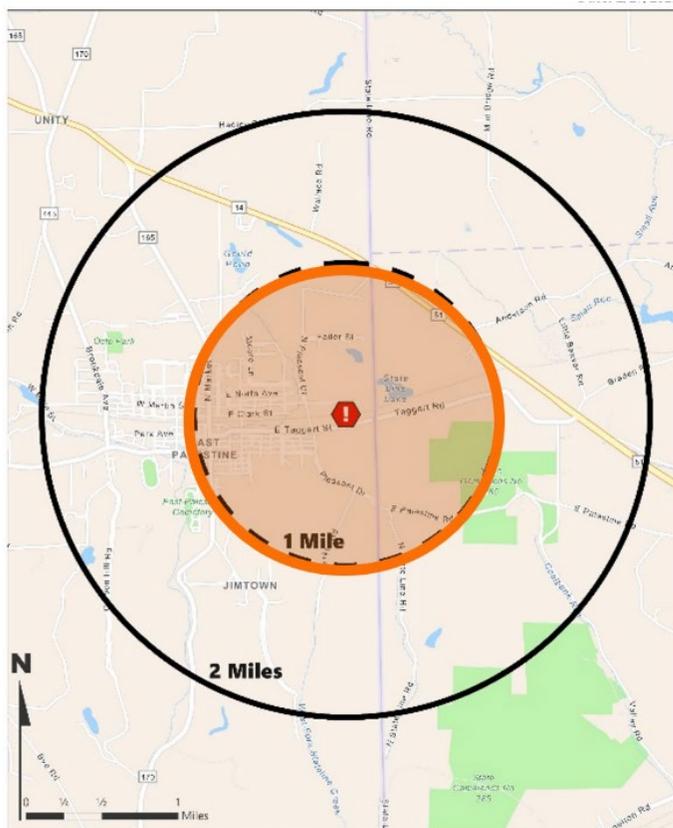
198 from OH



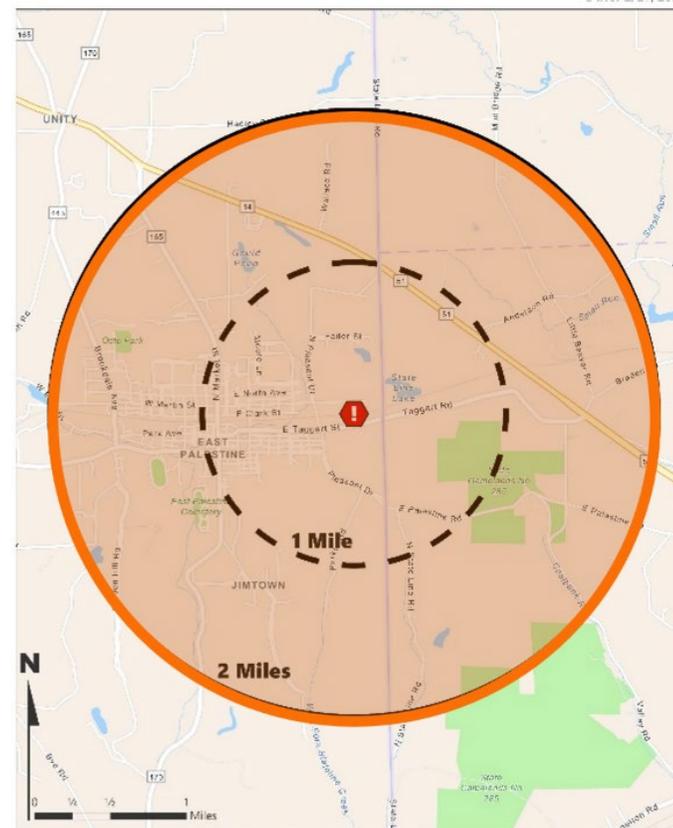
111 from PA

Community Survey: Respondents' Location - February 3 – 8, 2023

**52% within 1-mile
radius of derailment**



**69% within 2-mile
radius of derailment**



54% of all respondents evacuated, although only 36% reported being asked to evacuate

Community Survey

86% of respondents believed they were exposed to hazardous substances



*Of those who believed they were exposed; not mutually exclusive

Community Survey: Most Reported Symptoms (OH, PA)

Ears, nose & throat (89%, 76%)

Runny nose (53%, 48%)*

Stuffy nose or sinus
congestion (57%, 46%)

Burning nose or throat
(56%, 46%)

Nervous system (84%, 70%)

Headache (92%,
94%)*

Dizziness or
lightheadedness
(54%, 34%)

Lungs (69%, 45%)

Coughing (81%, 71%)*

Difficulty breathing/feeling
out of breath (65%, 57%)

Eyes (67%, 56%)

Irritation/pain/
burning (78%, 71%)*

Watering/tearing (57%, 49%)

*Percent of those respondents reporting symptoms in this category for the given state

Community Survey: Mental Health

70% of respondents (77% for OH and 49% for PA) reported **at least one new or worsening** mental health symptom since the incident

Community Survey: Conclusions and Health Recommendations

- The distribution, types, and severity of health symptoms captured in the ACE survey and other sources were consistent with each other
- Reported symptoms appear to be mild to moderate and are consistent with irritant exposures
- Symptoms are also consistent with what is currently known about the health effects of the substances released and their distribution
- Improvement and resolution of these symptoms would be generally expected after exposure ceases and time elapses
 - We encouraged residents to see their health provider if symptoms persisted
 - ATSDR developed clinician guidance for concerns related to the derailment
- The mental health effects seen are consistent with other environmental disasters

Responders:

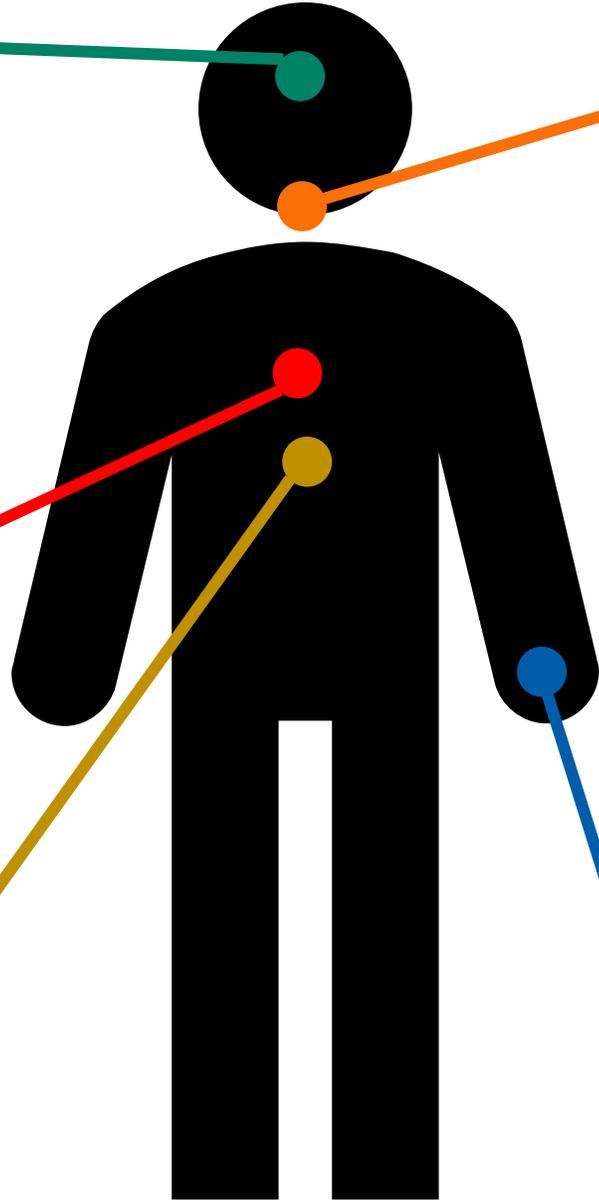
- Firefighters
- Hazmat Professionals
- Police Officers
- Emergency Medical Services (EMS)
- Ohio National Guard
- Government Workers
- Contractors
- Others



Responder Survey: Exposure Findings

- Total hours worked
 - Median of 6 hours worked within the 1-mile radius
 - Median of 10 hours worked outside the 1-mile radius
- Majority of responders reported not wearing a mask or respirator during the incident (70-90% for the most common job categories)
- Of those who have ever taken a chemical safety training, nearly 38% have not taken any in the past year

Responder survey: most reported symptoms



Eyes: 37 (23%)

- Increased watering/tearing: 16 (43%)
- Irritation/pain/burning in the eye(s): 32 (87%)
- Blurred or double vision: 3 (8%)

Ear, nose, & throat: 132 (82%)

- Stuffy nose/sinus congestion: 86 (65%)
- Runny nose: 76 (58%)
- Burning nose or throat: 64 (49%)

Heart: 15 (9%)

- Chest tightness or pain/angina: 14 (93%)
- Fast heart rate/pulse: 5 (33%)

Lungs: 45 (28%)

- Coughing: 37 (82%)
- Difficulty breathing/feeling out-of-breath: 22 (49%)
- Wheezing: 16 (36%)

Skin: 19 (12%)

- Dry or itchy skin: 9 (47%)
- Skin rash: 9 (47%)
- Irritation, pain, or burning of skin: 7 (37%)

Responder Survey: Health Recommendations

- We encouraged first responders to see their health provider if symptoms persisted
- ATSDR recommended annual preventative care visits and enrolling in firefighter health registries
- We made specific recommendations to protect the health and safety of responders in future incidents

Thank you!

- Columbiana District Health Department (OH)
- Ohio Department of Health
- Pennsylvania Department of Health
- East Palestine Fire Department (OH)
- Negley Fire Department (OH)
- Darlington Fire Department (PA)

Questions?

Contact Dr. Motria Caudill at 312-886-0267 or mcaudill@cdc.gov.

For more information: <https://www.atsdr.cdc.gov/sites/east-palestine-train-derailment/index.html>

For more information, contact NCEH/ATSDR
1-800-CDC-INFO (232-4636)

TTY: 1-888-232-6348 www.atsdr.cdc.gov www.cdc.gov

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