

In collaboration with the Pennsylvania Department of Health (PA DOH), the Agency for Toxic Substances and Disease Registry (ATSDR) – a federal public health agency – worked to evaluate the East Palestine, Ohio train derailment’s impact on the health of Pennsylvanians using its [Assessment of Chemical Exposures \(ACE\)](#) investigation tool. Chemicals released in the train derailment included smoke and particulate matter, vinyl chloride, phosgene, hydrogen chloride, 2-butoxyethyl acetate, 2-ethylhexyl acrylate, butyl acrylate, methyl acrylate, polyaromatic hydrocarbons, and benzene. Community members shared information about their health and ongoing needs after the incident by completing an ACE survey in-person at the health resource center, online via a weblink, or by responding to door-to-door canvassing efforts.



Mobile units outside Pennsylvania’s Health Resource Center, where residents could complete the ACE survey in-person.

WHO PARTICIPATED IN PENNSYLVANIA’S ACE SURVEY?

174 Pennsylvania residents completed the ACE survey from late February through March 31, 2023, which included about 38% of people who live within the 2-mile radius of the derailment site. People concerned about health effects may have been more likely to have taken the survey to share their experiences, so the survey results may not represent the whole community’s experiences.

WHAT WERE THE MAIN FINDINGS?

Chemical Exposure:

- 59% reported coming into contact with a substance following the derailment.
 - Of those who reported contact with a substance, 87% had contact with smoke, 49% had contact with dust, 15% had contact with debris, and 8% had contact with other substances.
- 70% reported smelling an odor following the incident.
 - Of those who reported smelling an odor, 69% described the odor as a chemical smell (25% described it as sweet; 18% described it as smoky).

Health Effects:

- 86% reported at least one new or worsening physical or mental health symptom after the derailment.
- The most commonly reported symptoms included headache (66%), anxiety (47%), and increased pain, burning, or irritation of the eyes (40%).
- 47% of those reporting symptoms did not seek medical care, with an additional 21% self-treating at home.

Unmet Needs & Concerns:

- 41% reported having unmet needs at the time of the survey — respondents most often reported needing water, medical care, supplies, or medicine.
 - PA DOH worked with local, state, and federal partners to provide resources to assist in meeting these unmet needs identified through the ACE survey.
- The ACE survey also asked community members to provide information on their specific concerns. The most commonly reported concerns included:
 - the quality and safety of the air, water, and soil and long-term impacts on their community

- the long-term health effects for themselves and their children
- their home values depreciating, and the cost of relocating
- soil contamination and safety for gardens and crops

Pets, Livestock & Agriculture:

Although the ACE survey for community members was administered to individuals, questions pertaining to livestock, pets, and agriculture are reported by household. Based on the addresses of respondents, 135 unique households were represented in the survey results. Preliminary analyses indicate:

- 29% of households reported a pet within the 2-mile radius of the derailment site, with 31% of those households reporting a new or worsening symptom in a pet.
- No new or worsening symptoms were reported in livestock.
- 60% of households that typically plant a vegetable or herb garden were not or were unsure of planting this year.
- 91% of households that raise crops reported having concerns about their crops.

WHAT SHOULD I DO IF I STILL HAVE SYMPTOMS?

- If you feel that you are experiencing ongoing symptoms related to the incident, call the Pennsylvania Department of Health Hotline at 1-877-PA-HEALTH (**1-877-724-3258**) to connect with a nurse and find appropriate local healthcare services.
- For urgent questions, call the Poison Control Incident Hotline at 1-877-603-0170 (Press #2 for PA residents).

More information on vinyl chloride and health is [available within a document](#) from the agencies responding to this incident. Additional information on these chemicals and the PA agencies' response to this incident is available within the [PA DOH/PA DEP Frequently Asked Questions document](#).

ADDITIONAL RESOURCES

- Call the Family Assistance Center at 1-800-230-7049 for assistance with lodging, food, clothing, gas, childcare, laundry, and pet care.
- Call the Pennsylvania Department of Agriculture at 855-777-6735 for questions regarding farming and food production.
- For mental health resources, call the Pennsylvania Support & Referral Helpline at 1-855-284-2494 (TTY: 724-631-5600) or call the national suicide prevention and crisis support line at 988 or connect to a counselor via [chat](#).
- [ATSDR 'Are Environmental Odors Toxic' Factsheet](#)
- [ATSDR Vinyl Chloride ToxFAQ](#)
- [ATSDR/CDC's Train Derailment website](#)
- [Environmental Protection Agency's Train Derailment website](#)
- [Pennsylvania Emergency Management Agency Train Derailment Dashboard](#)
- [PA's FAQ document](#)
- [PA Department of Environmental Protection Dashboard](#)
- [PA Resource List](#)

If you have any questions, contact the Division of Environmental Health Epidemiology at env.health.concern@pa.gov or by calling 1-877-PA-HEALTH (1-877-724-3258)