News
EarthBeat



This photo taken with a drone shows portions of a Norfolk Southern freight train that derailed Feb. 3, 2023, in East Palestine, Ohio, still on fire at midday the next day. (AP Photo/Gene J. Puskar)

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East Palestine, Ohio — July 27, 2023

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More than five months after a train carrying noxious chemicals derailed down the street from the hydraulic equipment supply store where he works, Tim Cumberlidge is still trying to find out exactly what he was exposed to.

"It's not been a good ordeal all around. You can't get a straight answer," said Cumberlidge, warehouse manager at Brushville Supply and Hardware. The cleanup workers in neon vests, visible from the store, are still blocking the street, a constant reminder of the accident and a significant hindrance, he said, for customers and business.

Cumberlidge's house was affected too, when authorities burned off the Norfolk Southern train's toxic cargo a week later. "Since they've done the controlled burn, and that smoke came right over where I live, I've had problems with my lungs. And my wife ended up in the hospital for two weeks because she's got COPD," said Cumberlidge, using the acronym for chronic obstructive pulmonary disease.

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It would be helpful, he said, to "get a straight answer about what's going on in your system."

A mile east, in downtown East Palestine, on the second floor of the town's First United Presbyterian Church, some answers may be coming. The church has offered its stained-glass and brick building as an on-site hub to a team of researchers from the University of Kentucky.

"The residents deserve to know what chemicals are in their bodies, especially from this derailment," said Erin Haynes, chair of the university's department of epidemiology and environmental health. "And then that information can also help inform medical attention that they would need, interventions or better medical care, and monitoring. There needs to be a health monitoring plan for this community."

On Monday (July 17), Haynes and her group met with study participants in a makeshift research center at the church to kick off the first organized collection of biological samples in the community since the Feb. 3 derailment, a reality Haynes called "sad."

"There should have been organized collection of samples of their urine and blood in February," she said.



The Rev. Fritz Nelson, left, and Erin Haynes at First United Presbyterian Church in East Palestine, Ohio, on July 17, 2023. (RNS photo/Kathryn Post)

Twenty East Palestine residents will participate in the collection study, with 75 taking part in a study that asks them to wear silicone wristbands that absorb the chemicals in water and air.

Having a dedicated place to work in East Palestine is crucial to these efforts. Like Centenary United Methodist Church, which is operating as the headquarters for the Environmental Protection Agency and Norfolk Southern, First United Presbyterian has made itself available since the first days of the disaster. The Way Station, a thrift store and community resource center in the church's basement, quickly became a crisis response center, distributing water and other resources.

According to the Rev. Fritz Nelson, First United Presbyterian's pastor, hosting the scientists from Kentucky is a way for the church to address both the community's physical and spiritual needs.

"To me, the big underlying community and spiritual issue is, at least in the short term, you have people who do not feel as though they were affected at all, and you have people who were physically very affected," he said. Hard data could help bridge what Nelson identified as an "empathy gap."

Other than these benefits, said Nelson, "there's no direct benefit in any way to our congregation. Dr. Haynes is not renting our facility. She's not paying us. This is what our community needs at this point, and it's a way of bringing healing to our community. This is what we're doing to do."



The Rev. Fritz Nelson removes a passive air sampling device, attached to hanger, from the basement of First United Presbyterian Church in East Palestine, Ohio, July 17, 2023. (RNS photo/Kathryn Post)

The UK team's first step, begun in April, was an online survey to help gauge the health symptoms of residents in and around East Palestine. Preliminary findings indicated that a week after derailment, leading symptoms included sore throat, coughing, headache, tiredness and nasal and eye irritation.

"Over 80% of respondents indicated that the symptoms were still present," Haynes told Religion News Service in an email. "Our team will be analyzing the data soon to be able to share more details. We will want to know if there are differences between males and females and by residential distance from the derailment."

Participants in the biological and wristband studies were selected from survey participants. Bill and Peggy Sutherin, members of Centenary United Methodist Church and longtime East Palestine residents, are participating in both the biological and wristband studies, respectively.

"We feel the findings from these studies will help not only the East Palestine residents but also others who may end up going through similar circumstances. What is learned from the studies could have a huge impact down the road for many, many people," Peggy Sutherin told RNS via email.

After residents wear the wristbands for a week, the silicone bands will be sent to Duke University to be analyzed for dioxins and other chemicals that result from burning. Blood and urine will be screened for exposure to chemicals present or suspected to be present at the derailment, including dioxins, vinyl chloride, acrolein and butyl acrylate. Haynes and her team also sampled their own urine before and after their three-day stay in East Palestine.



A passive air sampling device, blue near top, and other monitoring equipment on a utility pole in East Palestine, Ohio, July 17, 2023. (RNS photo/Kathryn Post)

Once Haynes' team receives the results from the wristbands and samples, it plans to write individual letters to each participant with clear explanations of what was found. An advisory committee of roughly 10 community members will also give input on the ongoing survey and the best way for the research team to deliver a summary of results to the community.

"Any environmental health research that's done needs to be done with the community, not never just on," said Haynes.

As Haynes' team members distributed consent forms and wristbands and collected samples at the church, they didn't go hungry. Church members showed up with pulled pork, pasta slaw, blue Jello cake and fried chicken, keeping the fridge fully stocked. On a recent afternoon, Nelson, the pastor, drove Haynes and a member of her team around town in his gray microvan to collect passive air sampling devices the team had placed around town.

Haynes has been building relationships with East Palestine residents since the derailment, but her connection to this research far predates the disaster. She grew up in a part of rural Ohio that could have easily been hit by a similar calamity.

"I didn't know it at the time, but we were in poverty," Haynes said of her childhood. "I'm from an Appalachian community in the Eastern Ohio area, and I love giving back to them everything I've been trained to do, which is looking at exposures and health effects."

Haynes said she's also driven by her Christian faith. "I know that God would want us to do it. In the Lord's prayer, we ask that his will be done on earth as in heaven. So how can we make the situation better? How can we bring heaven to anything we're doing, whether it be reaching out with love or empathy and sympathy?" asked Haynes. "I think in this case, they need scientific answers. So let's bring it."



First United Presbyterian Church in East Palestine, Ohio, on July 17, 2023. (RNS photo/Kathryn Post)