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A Town Divided: How a cancer threat is tearing a community apart

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[This article survived an effort by Gov. Bob Taft to suppress it. When writer Hal Karp was working on it, Taft's then-press secretary Scott Milburn repeatedly called "Family Circle" executives, including the editor-in-chief, demanding that it be dropped. According to Karp, Milburn told "Family Circle" there would be a price to pay if they printed it. Karp revealed the attempted intimidation on August 6 on "The Bob Connors Show," 610 WTVN-AM, Columbus. Later, he elaborated on the incident to Ohio Citizen Action. It is not known what price Taft's office was contemplating requiring "Family Circle" magazine to pay.]

Kim Krumanaker Tolnar, 36, sits on her parents' living room floor playing with her two-year-old niece, Sara. "You going to smile for me?" she asks the little girl. When Kim was younger, her biggest dream was to have children. But in 1993, when she was 28, she developed leukemia -- cancer of the white blood cells. The chemotherapy threw her body into menopause. "My ovaries were finished," she says.

Four years later Kim learned that parts of her high-school campus, River Valley High School in Marion County, Ohio sit atop a waste dump created by the United States Army. Tests now show that she and other former students may have been exposed to more than 75 hazardous contaminants, including 16 of the 20 substances that the U.S. Agency for Toxic Substances & Disease Registry rates as most toxic.

Did exposure to these contaminants cause Kim's illness? She and her parents believe it did. So do some other members of the community, including families of other graduates whose health may have been affected. Says Kim, "We were running around in a toxic soup and didn't even know it."

A study released last summer by the Ohio Department of Health (ODH) seems to support these suspicions. But although it suggests a relationship of these contaminants and certain illnesses, it does not prove a link. So what are people to believe? Should River Valley High be closed immediately or should it remain open? Are those who say, "Shut it down" ruining the reputation of the school and town? Or are those who say, "Keep it open" taking risks with children's health?

This is the battle that has been raging in Marion County for four years now, pitting neighbor against neighbor and citizen against government, and it isn't over yet.

In 1942 the U.S. Army chose Marion County, Ohio, as the home of two major military facilities: the Marion Engineer Depot, where heavy equipment and vehicles from bases worldwide were cleaned, repaired and stored, and the Scioto Ordnance Plant, a bomb and ammunition factory. The Depot and Plant were a source of pride for residents. They were Marion's contribution to the war effort. But they also created massive amounts of waste.

Bob Ferguson, 78, who worked in the Depot's fire department from 1948 to 1955 and as its safety director for four years after that, recalls an area at the east end of the Depot called "the dump" or "the pits." "There were trenches 100 feet long and 30 feet wide," he says.

"Automotive parts, spools of cable, paint strippers, solvents-they were all dumped in there. If the stuff wasn't burned, they'd take a bulldozer and cover it up. Back then, nobody knew any better."

When he was 16, Bill Livingston, 75, took a summer job at the Plant. He often hauled waste materials to a pit. The debris was frequently doused with fuels and then burned. "That place always seemed to be on fire," he says.

Ralph Hill, Jr., 63, whose father sometimes worked at the Depot, remembers a night during his boyhood when men in moon suits burst into the family's home carrying Geiger counters. "They removed any furniture my father had touched as well as his clothes," he says. Hill's father, now deceased, never really explained what had happened.

In 1961 the Depot was deactivated. Around that same time the River Valley Local School District was seeking land on which to build a high school. The Army sold the district 59 acres on the east end of the Depot for \$7,350 and River Valley High opened in 1962. Two years later the district bought an adjoining 18.6 acres and built the middle school. What was lying beneath the campus would not become an issue for almost three decades.

In early 1997, three years after Kim Tolnar had her second bone-marrow transplant, her mother, Roxanne Krumanaker, 56, heard that a young woman named Jami Cummings, who had graduated seven years after Kim, had also developed leukemia. Roxanne contacted Jami's parents, Linnea and William Cummings, to offer support. During their first phone conversation, Linnea, 56, mentioned another graduate who had leukemia. Roxanne's stomach buckled.

What were the odds? she thought. The two mothers began investigating. When they learned of 10 other graduates who had developed cancer, including one young man who had died of leukemia, they called a meeting. Five families gathered at the Cummings's home. Three had a family member with cancer. They named themselves the Concerned River Valley Families (CRVF). Says Linnea, "We wondered if it was more than coincidence."

They weren't alone. River Valley's school nurse had also noticed a seemingly high leukemia rate among graduates. She relayed her concerns to Robert Indian, chief of community health assessment for the ODH. The result was a meeting between county health officials, the ODH and the Ohio Environmental Protection Agency (OEPA). The state agencies promised to investigate.

Meanwhile, CRVF organized a countywide meeting in the River Valley Middle School cafeteria. More than 100 people attended, and Roxanne Krumanaker recalls that a division appeared almost instantly. "There were those who wanted to know more and those who didn't," she says.

Bob Haas, 47, a River Valley grad and president of the school board, attended the meeting. "The Concerned Families had a lot of anecdotal cases of cancer," says Haas, whose daughter is also a grad and whose two sons attend River Valley, "and I believe that they were already misinterpreting the data to draw a line between chemicals and causation that still to this date nobody has drawn."

Dave Claborn, 49, executive director of *Marion Can Do!*, a community economic development corporation, was also present. Then a recent arrival in Marion, he cautioned against jumping to conclusions. "I saw potential damage for this community if we allowed this to create a hysteria that wasn't warranted," he says. "You have to consider the health of the economy in these matters."

A couple of weeks later, *Marion Can Do!* and the school board hired an environmental consulting firm to do tests of the campus before students returned from summer break. In a letter summarizing its preliminary findings, the firm concluded that there was "no evidence of contamination that would present an immediate or chronic health hazard to the students, teachers or staff...."

At the same time, however, the OEPA began its own investigation and found evidence of 11 polycyclic aromatic hydrocarbons, chemical compounds formed when gasoline, garbage or other organic matter is burned. Six of the 11 are believed to be carcinogens. Topping the list was benzo(a)pyrene, which is thought to cause cancer when high levels are inhaled, ingested or absorbed through the skin. The amount found was 40 times higher than the screening level, or level of concern, set by the federal Environmental Protection Agency.

Meanwhile, the kids returned to school with full use of the campus.

"Although we had further tests to conduct, based on what we knew at that time, the campus posed no risk," says Jeff Steers, assistant district chief of the OEPA's Northwest District Office in Bowling Green.

When additional tests found more contamination, the OEPA handed the investigation to the U.S. Army Corps of Engineers in accordance with federal law. "Normally the EPA has enforcement capabilities," says Steers. "But because this is a former defense site, there's a quirk in the system. The Army has the authority to clean up its own sites and to judge whether the cleanup is done correctly."

This changing of the guard made the Concerned Families nervous. "It's a classic case of the fox watching the henhouse," says Barry Serpa, 38, whose wife,

Melanie, 36, a River Valley grad, has survived two bouts with Hodgkin's disease, a cancer of the lymph nodes.

While this transition was taking place, the OEPA released its findings. The agency reported that contaminants had been detected from the surface to the groundwater. Predominant among them was vinyl chloride, a highly toxic chemical that rapidly evaporates into the air. It is believed to cause cancer of the liver, brain and central nervous system and is linked to lung cancer, leukemia and lymphoma. Tests had detected vinyl chloride at almost 25 times the level of concern and had found high levels of benzo(a)pyrene -- 2,300 times higher than the screening level in one place.

The OEPA advised the school to restrict access to five of its 11 athletic fields. School officials promptly cordoned them off with yellow tape. A letter to parents and guardians explained that "higher than expected levels of some organic chemicals were found in the area of the youth ball fields. . . .None of these chemicals identified so far are known to cause leukemia."

Don Millard, 52, a River Valley grad and member of CRVF, found this last sentence troubling. "What about other cancers?" he says. Don and his wife, Robin, 51, had reason to be upset. Their two daughters had attended River Valley. Both had played on the girls' softball team, often coming home covered in mud. "Those fields were always wet, and not just when it rained," says Don. In 1997 the Millards' older daughter, Stephanie Millard Partee, was diagnosed with breast cancer at the unusually young age of 24.

Not all graduates who have developed illnesses trace these problems to River Valley, however. Janis Parthemore, 47, was diagnosed with breast cancer at 33. "It never occurred to me to blame River Valley," she says. Like her and her siblings, Parthemore's three oldest children went to school there. Ryan, 18, just graduated. Her youngest, Jena, 16, is starting her Junior year. Three of her kids are athletes who used the taped-off field areas.

Parthemore refuses to see this as a cause for concern, however, and resents being told she should -- especially by outsiders such as the mother she met at a track meet who accused her of being a bad parent for keeping her kids in River Valley. "Who are these people to judge us?" she asks. "Do they really think we'd let our kids go there if there were any danger? They've done all kinds of testing that has shown things are O.K. I put my faith in the school board. They have their own kids in there with ours."

True. Every school-board member except one has children or grand children attending River Valley, and no one is suggesting that any adults with kids in the schools would willingly put their children's health at risk. The question is whether they may be doing so unknowingly by trusting flawed test findings or faulty interpretations of what they mean.

In late March 1998, with OEPA officials on hand to advise, the Corps began trenching behind the school. A few feet below the surface, an oily sheen spread across the dirt and a heavy gasoline smell filled the air.

"Whatever was down there registered extremely high on our field instruments," says Jeff Steers of the OEPA.

Investigators identified raised levels of petroleum products and industrial trial solvents. Testing revealed high levels of trichloroethylene (TCE) and its byproduct, vinyl chloride. TCE also rapidly evaporates into the air. It is the contaminant believed to have caused the cluster of childhood leukemias in Woburn, Massachusetts, a story dramatically retold in the book and film *A Civil Action*. The River Valley soil sample contained TCE at seven times the level of concern.

It was later discovered that a radiation badge worn by one investigator at the trenching had registered exposure to a significant amount of radiation, but it was unclear how it had been exposed. To quell fears, the Corps hired a team of technicians to survey the campus. The Corps reported that the team found nothing of concern.

Meanwhile, the ODH had yet to mount a study of cancer rates among graduates, so in late 1998, CRVF initiated its own. "We had to know how many cancers were out there," says Don Millard. The group ran ads in the *Marion Star* and posted notices on the Internet. Calls began coming in.

In spring 1999 further testing of the taped-off field areas found more evidence of carcinogenic contaminants, some at concentrations thousands of times higher than levels of concern. The plastic tape barriers were replaced with metal fencing. Soon after, other tests found high concentrations of TCE near the girls' softball field levels later confirmed to be almost 4,000 times higher than the screening level. The field was cordoned off just two weeks after *The Marion Star* ran a picture of a member of the high school girls' softball team sliding into home base amid a cloud of dust. The caption read, "Safe at the plate!"

On April 5, 1999, Kim Tolnar's father, Kent Krumanaker, was treating his two-year-old grandson, Christopher, to a ride on his riding mower when three gunshots cracked out right in front of the house. "One bullet whizzed by my face," says Kent. He threw his arms around the toddler and ran inside. No one was hurt. The Sheriff's Department couldn't determine who fired the shots.

Four days later Kent received an unsigned letter from someone claiming responsibility. "Cry babies like you are ruining the price of my house," it read in part. "I'm going to get you and all your troublemaking friends." Don Millard and Barry Serpa also received threatening letters. If the intent was to silence the men, the attempt failed. "It confirmed we were doing the right thing in speaking out," says Serpa.

By summer, CRVF has learned of more than 100 cases of cancer among grads. Using established methods, Millard calculated that the incidence of breast cancer was 30 per cent higher than expected; ovarian cancer and melanoma, two times higher; cervical cancer, four times higher; and leukemia, six times higher. He sent his findings to the ODH. When they found their way to Nick Baird, M.D., the agency's new director, Dr. Baird authorized an official study of cancer rates among grads. Says Roxanne Krumanaker, "It was what we'd wanted all along."

Meanwhile, worries about radiation sparked a year earlier by the badge with the high exposure reading surfaced again. Jed Ball, 40, a nuclear health physics technician from Troutman, North Carolina, had been a member of the survey team that had reported no cause for concern. In August 1999 he sent an e-mail to the OEPA alleging a cover-up. "We were told by the Army Corps. . .that, `You will not find anything,'" Ball wrote.

According to Ball, the rules of the survey changed sometimes daily to ensure that no abnormal radiation was detected. Ball says he personally saw readings 10 times higher than expected and also saw investigators change readings. "They'd just make them up if they didn't like what we got," he says. The Corps investigated and determined that Ball's allegations were without merit. "We're O.K. with the way the survey was conducted," says Kevin Jasper, project manager of the Corps' investigation. The high badge-reading has never been fully explained.

In February 2000 the Corps released a draft of the results of its investigation. In summary, it stated that "under current land use condition . . . potential health effects were estimated to be within acceptable limits and not expected to cause human health concerns." It also stated, however, that "there are surface and subsurface areas of elevated concentrations" of contaminants on parts of the campus that could increase the potential for health risk in the "unlikely event" of prolonged exposure.

Three months later Christopher Jones, director of the OEPA, and officials from the school district and the Corps announced that the U.S. Army had agreed to put up \$15 million of the approximate \$25 million needed to build new schools. "We want to stress that the schools remain safe," said Tom Shade, current school superintendent. "But because it would cost more to clean up the known contamination than to rebuild, the Army has agreed to help out."

A month later Robert Indian of the ODH presented the results of his agency's health study of graduates at the July meeting of the Restoration Advisory Board, a panel of citizens the Corps was legally required to assemble and meet with monthly during the investigation. According to the study, an expected cancer rate would be about 96 cases among the 5,345 graduates. The study documented 97 among the 32 percent of graduates who responded. It concluded that the overall cancer rate was not significantly elevated. It also concluded, however, that the leukemia rate was at least three times higher than expected and the incidence of esophageal cancers was 10 times higher.

These findings might seem to suggest that the cancer rate among the entire graduate population would be higher, but that's not necessarily true, says Indian. It's likely that a high number of grads who have developed cancer responded to the survey while a high number of grads who are cancer-free did not. "That inflicts bias into the study," he says.

At that same meeting Bruce Molholt, Ph.D., a former EPA Superfund toxicologist, also gave a presentation. Dr. Molholt had been asked to review the Corp's draft report. His finding: The investigation was fraught with holes. Most important, he says, he saw evidence that high levels of vinyl chloride vapors were going

undetected. "This is the smoking gun nobody wants to find," he says. In the middle of Dr. Molholt's report, Roxanne Krumanaker asked him if the kids should still be in the school. "No," he replied. "There is a potential health risk. They should be moved immediately."

The OEPA and the Corps maintain that Dr. Molholt's analysis contains flaws that make his conclusions invalid.

Dr. Molholt stands by his assessment. The school district's environmental-consulting firm has also criticized the Corps' work. In a letter to Kevin Jasper dated December 6, 1999, the firm's vice president wrote that the Corps' reports "misrepresent the actual test results, and in virtually every case, underreport the true extent of contamination. . ."

Tom Shade maintains that these concerns have been addressed. "We do not believe the school is unsafe," he says. "We have made good decisions based on sound science. Is it infallible? Can you ever say anything with 100 percent certainty? I'm not sure. But with everything we can know, we're saying the River Valley schools are safe and we're going to continue to operate them until we learn something contrary. If anyone has any credible evidence that these children are not safe, let them come forward. We're more than willing to consider new information."

Open-mindedness, however, can also have its downside. "It is very likely that there may never be a consensus on what the true risks are," says Stephen Lester, M.S., a toxicologist and science director of the Center for Health, Environment and Justice in Falls Church, Virginia, who has also found flaws in the Corps' report. "Science cannot give precise answers about risk and assurances of safety," he says. "These kids are staying in a school that is knowingly contaminated while everyone waits for science to give an answer it cannot give."

Not everyone is waiting. The parents and guardians of some 100 students have pulled their children out of the schools since the investigation began. But another almost 900 youngsters are still enrolled.

On Election Day 2000, Marion County voters passed a bond issue to raise the local money needed to build new schools. The Board of Education has approved the purchase chase of 80 acres of farmland as the building site. If all goes according to plan, the new schools will open in August 2003. Until then, students will remain at River Valley.

"There are those who feel we have not put the kids' safety first and that we should relocate now," says Tom Shade. "Nothing could be further from the truth. Overwhelming scientific evidence indicates that this campus is safe."

Not everyone agrees.

Linnea and William Cummings's daughter Jami was married in March. A month before the wedding, her leukemia recurred. Don and Robin Millard's daughter Stephanie Partee had a recurrence of breast cancer in May, two months after giving birth to her second child. Kim Tolnar has not had a relapse. She believes

she has survived her illness for a reason: to make sure the River Valley campus is closed. "Why are kids still going to school there?" she asks. "What will it take to get those kids out of that school?"

Fall classes begin at River Valley on August 21.

If you are a River Valley graduate who has had health problems or know someone who is, the Concerned Families would like to hear from you. Write CRVF, P.O. Box 151, Waldo, Ohio 43356.

Hal Karp is a freelance writer who lives with his wife and son in Wyoming.