

Cuomo and Corbett Ignore Health Concerns from Gas Fracking

By [Peter Mantius](#), on March 9th, 2012



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After natural gas drilling began near their rural homes about 30 miles southwest of Pittsburgh, Carol Moten and her neighbors noticed that their well water began to smell. Then came the headaches, skin lesions, and diarrhea, in household after household. A two-year-old dog fell over dead.

“We’re talking about little children that have nosebleeds, cats that fall off windowsills,” she said.

Three years ago, Moten and her neighbor, Donald Allison, visited Dr. Amelia Pare in nearby McMurray for their skin infections. Allison’s health continued to deteriorate and earlier this month he died from what the neighborhood understood to be bone cancer. He was 46.



Dr. Amelia Pare

Since there was no autopsy, Pare said, the exact cause of Allison's death is unclear. "Does anybody really know?" she said. "There's no funding for this."

Some experts are concerned that the chemical make-up of the witches brew used to force gas from rock is at the heart of these health problems. When a few members of Congress tried to amend the Safe Water Drinking Act to remove a special exemption for hydraulic fracturing and require that drillers disclose to state regulators the chemicals being used, the industry objected. The actual content of these chemical mixes is a closely guarded secret. Exxon's top official, Rex Tillerson, said that his company would not go through with its \$41 billion dollar purchase of gas giant XTO if Congress made hydraulic fracturing "commercially impracticable." DCBureau [reported](#) in 2010 that nanotechnology is being used in a new generation of drilling fluids.

Reports of drilling-related chemical spills that cover an acre or more fuel suspicion that drilling operations are triggering the outbreak of symptoms in heavily drilled Washington County, Pennsylvania. But as Pare acknowledged, there is no proof – no smoking gun –that a specific drilling practice or byproduct makes animals and people sick.

Industry vigorously challenges any assertion that a link exists – in Pennsylvania or anywhere else – and scientific study of the question is still in its infancy. Experts in government tread cautiously in describing the potential threat, and regulatory efforts lack focus.

In January, a senior official at the National Centers for Disease Control and Prevention in Atlanta declined to say for certain that gas drilling poses a threat to public health, but he added that “site-by-site work is turning up data of concern.”

Christopher Portier, head of CDC’s National Center for Environmental Health and Agency for Toxic Substances and Disease Registry, said in an email to The Associated Press that future studies should explore “all the ways people can be exposed, such as through air, water, soil, plants and animals.”

“In addition to groundwater,” Portier said, “exposure pathways could include the air at well sites, impoundment sites, and compressor stations... livestock ... and recreational fish.”

In the face of official calls for “future studies” of how high-volume hydrofracking might affect human health, states like Pennsylvania and New York have avoided these issues.

In Pennsylvania, Gov. Tom Corbett and the Republican political establishment have eagerly embraced fracking, touting its economic benefits and downplaying its possible health consequences. Corbett’s 52-member advisory panel on Marcellus Shale drilling has no members with health expertise, according to a recent analysis by professors at the University of Pittsburgh’s School of Public Health. (Neither do advisory panels on gas drilling for the state of Maryland and for the U.S. Secretary of Energy.)

New York State, which is poised to allow high-volume hydrofracking of shale formations as soon as it completes its final rules, has rejected repeated calls for a thorough study of the health implications of fracking.

In 2009, a regional official at the U.S. Environmental Protection Agency urged the New York Department of Health to take a major role with the Department of Environmental Conservation in preparing the fracking rules. That did not happen. In 2011, dozens of physicians and health care

professionals signed a letter to Gov. Andrew Cuomo, a Democrat, urging him to order a comprehensive health impact assessment of fracking. If the state DOH would not perform one, the health professionals said, the governor should assign the task to a graduate school of public health.

But Cuomo took no action. The draft drilling rules, which run more than 1,000 pages, still do not have a section devoted to drilling's potential effects on human health.

The Independent Oil and Gas Association of New York has repeatedly argued that the state has – if anything – erred on the side of too much study. The rule-making process is in its third year, and drillers have long criticized the DEC for delays in issuing permits to use high-volume fracking on horizontal wells.

That process involves drilling vertically down into a shale formation and then angling the drill horizontally along the shale stratum. Drillers then force roughly 5 million gallons of water, along with sand and proprietary chemicals, into each well to crack the shale and free gas. Much of the fracking fluid returns to the surface mixed with subsurface brine, which tends to be laced with heavy metals and radioactive materials. In Pennsylvania, this flowback mixture often sits in open pits, which are prone to leaking into fields and streams.

While the industry has used less invasive forms of fracking for decades, the efficiency of high-volume fracking has led to an explosion of gas drilling activity across the country.

That growth trend could be threatened by evidence that fracking endangers human health, and drillers have aggressively challenged hints of a link.



That is what happened after the [EPA issued a draft report on December 8, 2011, that concluded that groundwater in Pavillion, Wyoming, had been contaminated by chemicals associated with fracking.](#) In a press release, Encana, a driller in Pavillion, called the EPA's findings "irresponsible." The same day an official of Chesapeake Energy, another leading driller, sent an email to employees that accused the EPA of being "more interested in their PR strategy and in establishing a connection between hydraulic fracturing and water contamination than finding the truth."

On Dec. 18 – less than three months after Chesapeake Energy had contributed \$250,000 to a super PAC backing his then-active presidential bid – Texas Gov. Rick Perry declared that there had never been a proven case of fracking causing groundwater contamination.

In fact, even when circumstantial evidence is strong, it is extraordinarily difficult to prove beyond a shadow of a doubt that a gas drilling operation caused a contamination.

In April 2009, 17 cows foamed at the mouth and fell dead within an hour after they allegedly lapped up frackingflowback that had leaked into a Louisiana field from a nearby natural gas well that had recently been fracked.



(Photo supplied by Michelle Bamberger)

The companies that operated the well, Chesapeake and Schlumberger, entered agreements with Louisiana regulators under which they each reportedly paid a \$22,000 fine for failure to report the spill and other infractions. But in those agreements, the companies denied that material from their site killed the cows, and they did not admit liability for the cows' deaths.



Michelle Bamberger and Robert Oswald. (Photo by Peter Mantius).

The case drew the attention of Michelle Bamberger, a veterinarian in upstate New York who wondered what lethal toxins could kill thousand-pound animals so efficiently.

She also wondered whether livestock around the country were vulnerable, given the rapidly growing use of undisclosed chemicals in drilling for shale gas near beef and dairy farms. And what implications did the 17 dead cows have for humans and for the nation's food supply?

The incident in Louisiana led Bamberger to team with her husband, Robert Oswald, a professor of pharmacology in the College of Veterinary Science at Cornell University, to search the medical literature for studies on the effects of gas drilling on animal health. They found it barren, so they launched their own study.

In January, the husband-wife research team published a report in the peer-reviewed journal *New Solutions* analyzing 24 cases in six states involving animal and human health problems potentially associated with gas drilling.

Typically, the subject animals suffered death or reproductive problems after drinking water from contaminated wells, ponds or streams. Humans suffered from burning of the eyes, nose and throat, headaches and dizziness, rashes, vomiting and diarrhea. In one case, a boy missed a year in school due to an illness that was attributed to poisoning from arsenic, a common ingredient in fracking flowback.

The research duo examined several cases involving cows that were suspected of drinking spilled fracking fluids or flowback. Animals tend to be attracted to its salty taste. In one case, 28 animals were quarantined by the U.S. Department of Agriculture, while in several other cases many cows died. Bamberger and Oswald said they were concerned that gas drilling accidents might be degrading the nation's food supply.

“We documented cases where food-producing animals exposed to chemical contaminants have not been tested before slaughter and where farms in areas testing positive for air and/or water contamination are still producing dairy and meat products for human consumption without testing of the animals or the products,” the study said. “Some of these chemicals could appear in milk and meat products made from these animals.”

In the Louisiana case, the researchers found that the 17 animals were buried within 24 hours of their deaths. A necropsy report from one of the animals that died on route to the laboratory concluded that death was due to respiratory failure and circulatory collapse. The fracking fluid was found to contain ammonium compounds associated with lesions, which were found on the cow's lung, trachea, liver and kidneys.

For Bamberger, the evidence did not provide absolute proof of a link between the spill and the deaths. Asked if she had concluded that the cows died "from exposure" to the fracking fluids, she said in an email: "I said AFTER exposure to frack fluid."

In their report, Bamberger and Oswald wrote about several obstacles they met in trying to establish links between fracking and health problems. They cited the lack of pre-testing of well water and air before drilling. They noted that they were prevented from identifying many of the chemicals used in fracking because of confidentiality rules drillers obtained under a 2005 federal law nicknamed the "Halliburton loophole."

The researchers also wrote that confidentiality agreements often hid evidence that might shed light on a contamination. They said drillers have been known to compensate owners for animal deaths or illnesses in exchange for their legally binding silence. But their report did not cite specific gag order cases or even provide rough estimates of how often they are used.

The Bamberger/Oswald report has drawn criticism from certain scientists, including Professor Ian Rae of the University of Melbourne in Australia. Rae noted that the study omits names, dates and places of events and "certainly does not qualify as a scientific paper but is rather, an advocacy piece..."

Bamberger said confidentiality promises were key to obtaining information, including vet records and toxicology reports, from those sources who often feared retaliation.

Others agree that winning the trust of people who feel overwhelmed by their illnesses and their relative powerlessness is the key to serving them.

In February, a non-profit group called the Southwest Pennsylvania Environmental Health Project opened a clinic in McMurray, Penn., to treat

residents of Washington, Green and Fayette counties who believe their health has been, or could be, compromised by natural gas drilling activities.



David Brown, SWPA-EHP

“We’re taking a public health approach to gas drilling,” said David R. Brown, an SWPA-EHP organizer and former supervisor of superfund sites for the CDC. Brown has also served as chief of epidemiology for the Connecticut Department of Health. “We want to treat the people, not track the cause ... to break the train of transmission. That’s what you do in any outbreak.”

The clinic is staffed by a nurse practitioner who, during the intake procedure, asks patients about their symptoms and about their proximity to gas drilling operations. Organizers insisted their focus is treating (or referring) patients to heal them, not compiling data for research purposes or crossing the line into anti-drilling advocacy.

“The phone’s been ringing off the hook. It’s clearly tapped an unmet need,” said John Suggs, another of the group’s organizers who once served as director of public policy and government affairs for the United Way of Los Angeles.

Suggs said the clinic, the first of its kind in the nation when it opened in mid-February, has seen patients complaining of nosebleeds, rashes, headaches and fatigue, among other symptoms.

The project lists funding from the Heinz Endowments, the Pittsburgh Foundation and the Claneil Foundation. Though its leaders are based all over the country, its director, Raina Rippel, is a well-known local resident, Brown and Suggs noted. Local ties matter when many patients –

particularly the poor – feel frustrated that public officials are not representing their interests, they said.

Pare, the McMurray physician, said many of the wealthier, more educated local residents who have health problems are suing gas companies. Generally, the poor who are sick – many of whom live within 1,000 feet of a compressor station or an open frack pond – are fending for themselves because state and local health officials seem overwhelmed, she said.

Christine Cronkright, director of communications for the Pennsylvania Department of Health, said her agency responds to all environmental health complaints, including “those believed to be in relation to gas drilling.”

Cronkright said officials from her agency had met with SWPA-EHP representatives but “have not yet coordinated any efforts.”

Pare said she considered a government solution unlikely. “The government is never going to pay for this,” she said. “They’re never going to tax the industry so they can pay.

“People of Pennsylvania have seen this before from coal, from steel. This state is used to getting hosed. The people have to say, ‘We’re not going to be your playground.’”



Peter Mantius

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