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CDC DATA INDICATE STEEP RISES IN INFANT DEATHS IN PENN. COUNTIES AFTER LARGE-SCALE FRACKING BEGAN

New York, April 26, 2017 – The number of infant deaths in the first 28 days of life rose 29 percent in 10 heavily-fracked Pennsylvania in the first years after the practice began, while the overall state rate declined 2 percent, according to a study published today in the *Journal of Environmental Protection*.

These rates varied widely based on the region of the state investigated by researchers. In the five heavily-fracked counties in the northeast part of the state, the number of deaths from 2003-2006 vs. 2007-2010 climbed from 36 to 60, a statistically significant rate increase of 66%. The rate in the five counties in southwest Pennsylvania with active drilling rose 18%, from 157 to 178 deaths, but that rise was not statistically significant.

"These results raise serious questions about potential health hazards of fracking, especially since fetuses and infants are most susceptible to the effects of environmental pollutants," states Joseph Mangano MPH MBA, a co-author of the study. "Health officials should conduct short- and long-term and epidemiology studies to better understand the extent to which local residents are affected."

The study used data from the U.S. Centers for Disease Control and Prevention to calculate neonatal death rates (infants under 28 days old); the Pennsylvania Department of Environmental Protection was the source of the number of gas wells by county.

Only 44 unconventional wells were drilled in Pennsylvania before 2007, while 2864 were drilled in the years 2007-2010, the basis for comparing the periods 2003-2006 and 2007-2010. About 90% of all Pennsylvania wells are located in the 10 counties in this study.

Fracking, a term used colloquially to refer to the entire unconventional drilling process, which allows operators to extract oil and natural gas from deep geologic layers using horizontal drilling and high-volume hydraulic fracturing. This extraction process allows several categories of pollutants to escape into the environment, such as hundreds of toxic chemicals used during well stimulation, heat-trapping gases like carbon dioxide and methane, and naturally occurring radioactive chemicals such as uranium, thorium, and radium (plus their radioactive decay products).

"A major component of early infant mortality is congenital malformation, e.g., heart, neurological, and kidney defects. These effects are known to be caused by exposures to radium and uranium in drinking water," says Dr. Chris Busby, also a co-author of the

study. "We found that infant death rates were significantly high in highly-fracked counties in northeast Pennsylvania with the highest number of private water wells, suggesting it is drinking water contamination driving the effect."

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Mangano is Executive Director of the Radiation and Public Health Project (RPHP) research and education group based in New York. He is author or co-author of 35 medical journal articles and 3 books on health hazards of exposure to radioactivity.

Busby, an international authority on health effects of exposures to radioactivity, was Scientific Secretary of the European Committee on Radiation Risk, based in Brussels, and currently with Environmental Research SIA at the Latvian Academy of Sciences in Riga.

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