

Fracking raises concerns among community leaders, study indicates

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(Phys.org) —Community leaders in areas that are considering hydraulic fracturing express a number of concerns about the practice's potential impact on public health, according to a new study co-authored by the University of Cincinnati (UC) College of Medicine researcher.

The study, funded by the National Institute of Environmental Health Services (NIEHS), is published online ahead of print in *Reviews on Environmental Health*, an international quarterly journal, under the title, "Unconventional [natural gas](#) development and public health: toward a community-informed research agenda."

The lead author is Katrina Korfmacher, PhD, of the University of Rochester School of Medicine and Dentistry. Erin Haynes, DrPH, an associate professor in the UC College of Medicine's Department of Environmental Health, is a co-author, along with Kathleen Gray of the University of North Carolina's UNC Center for Environmental Health and Susceptibility.

"We hope that these findings will help guide research questions in the near future," says Haynes, a member of the UC Center for Environmental Genetics, which is housed in the [environmental health](#) department.

Hydraulic fracturing, commonly known as fracking, is an unconventional [natural gas drilling](#) method which typically involves the injection of pressurized water mixed with sand and chemicals into drilled wells to

bring up natural gas from deep shale formations. The process has raised a number of environmental concerns, including air and water quality.

The authors—representing the Community Outreach and Engagement Cores from UC, the University of Rochester and the University of North Carolina—assessed concerns in three states: Ohio, New York and North Carolina. Each state is at a different stage of natural gas extraction development. (It is suspended in New York, under debate in North Carolina and expanding rapidly in eastern Ohio.)

The authors conducted in-depth interviews with 48 community leaders in the three states. The objective was to obtain a broad and diverse spectrum of perspectives on health issues related to natural [gas development](#). Interviewees included residents/homeowners, environmental advocates, members of local government, business leaders, educators, members of the media and public health professionals.

The authors found that the study participants raised similar sets of issues, regardless of their location. The five most common concerns were:

- Water quality and quantity. An additional concern was the lack of sufficient information on the specific chemicals used by drilling companies and whether local water supplies would be depleted because of the high volume required by the fracking process.
- Air emissions, including impact on air quality by the evaporation of chemicals from holding ponds, emissions brought to the surface from the wells themselves and emissions from the trucks and equipment that service the drilling sites.
- Quality of life and economic issues. While some interviewees emphasized the economic benefits expected to accrue from natural gas development, others raised concerns including the

potential impact of increased traffic, housing costs and crime rates.

- Public health and health care, including concerns about direct and indirect burdens on public health and health care systems. Conversely, some interviewees noted that economic development could lead to improved population health.
- Vulnerable populations. Concerns included the unequal health and economic impact on community residents depending on their socioeconomic status.

Participants also indicated that it was difficult to find unbiased sources of information on the potential [health](#) impact of natural gas development. The authors found that there was a clear demand for research that addressed those concerns and could help communities grapple with decisions over how to protect [public health](#) in the face of environmental, economic and social changes associated with [natural gas extraction](#).

More information: The complete paper is available online: [www.urmc.rochester.edu/MediaLi ... ct-report-091514.pdf](http://www.urmc.rochester.edu/MediaLi...ct-report-091514.pdf)

Provided by University of Cincinnati

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