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Utilizing Pennsylvania county-level hospitalization data and state unconventional natural gas well data, researchers from the University of Rochester found a positive association between the number of gas wells per square kilometer and hospitalizations within two health categories: genital and urinary issues, including kidney stones, urinary tract infections, and kidney infections, and also skin issues, such as cellulitis and abscesses. Over time, as the number of unconventional wells increased, so did hospitalization rates within these categories. Researchers looked at other broad categories of hospitalization reasons, such as cardiovascular issues and respiratory issues, but did not find other positive associations. The authors note that associations with hospitalizations for particular diseases within these categories may exist, however utilizing a categorical approach, as they did, would not have identified these relationships. Prior studies have found increases in asthma<sup>1,2</sup> and pneumonia<sup>3</sup> hospitalizations in areas of high unconventional natural gas development.

**<sup>1</sup> Rasmussen, S.G., Ogburn, E.L., McCormack, M., Casey, J., Bandeen-Roche, K., Mercer, D.G., and Shwartz, B.S. (2016). Association between unconventional natural gas development in the Marcellus Shale and asthma exacerbations. *The Journal of the American Medical Association*, 176(9), 1334-1343. <https://doi.org/10.1001/jamainternmed.2016.2436>**

**<sup>2</sup> Willis, M.D., Jusko, T.A., Halterman, J.S., and Hill, E.L. (2018). Unconventional natural gas development and pediatric asthma hospitalizations in Pennsylvania. *Environmental Research*, 166, 402-408. <https://doi.org/10.1016/j.envres.2018.06.022>**

**<sup>3</sup> Peng, L., Meyerhoefer, and C., Chou, S. (2018). The implications of unconventional natural gas development in Pennsylvania. *Health Economics*, 27(6). <https://doi.org/10.1002/hec.3649>**

**To learn more about this study, check out these links:**

[Abstract: Denham, A., Willis, M., Zaves, A., and Hill, E. \(2019\). Unconventional natural gas development and hospitalizations: evidence from Pennsylvania, United States, 2003-2014. \*Public Health\*, 168, 17-25. <https://doi.org/10.1016/j.puhe.2018.11.020>](#)

[Environmental Health News: Fracking linked to increased hospitalizations for skin, genital and urinary issues in Pennsylvania](#)