

PA HEALTH AND ENVIRONMENT STUDY

PURPOSE

Explore the relationship between unconventional natural gas development activities and three health issues.



ASTHMA



CHILDHOOD CANCER



BIRTH OUTCOMES

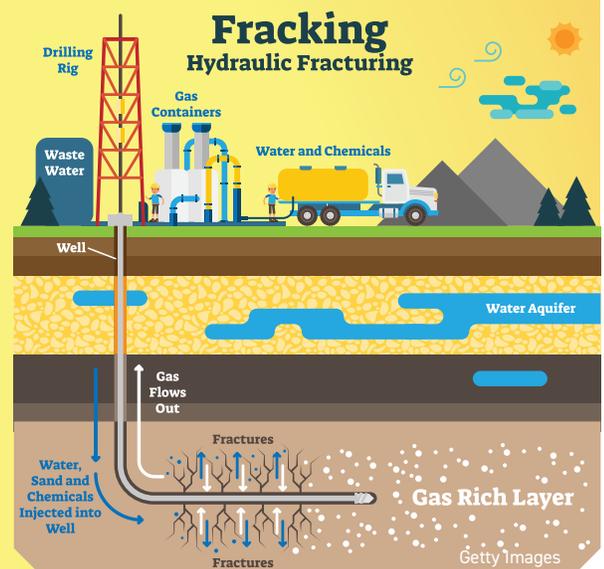
BACKGROUND

In 2020, the Pennsylvania Department of Health (PA DOH) contracted with researchers at the University of Pittsburgh School of Public Health to conduct three observational epidemiological studies focusing on asthma, childhood cancers and birth outcomes.

The studies were conducted to address community concerns in Southwestern Pennsylvania (Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Washington and Westmoreland counties) about unconventional natural gas development, also known as fracking, in the area.

The phases of unconventional natural gas development include preparation, drilling, hydraulic fracturing and production.

Study question: Does living near unconventional gas development activities or other environmental hazards in Southwestern Pennsylvania increase the risk for specific health issues?



METHODS

The studies were conducted from 2021-2023. Observational health records included data from 1990-2020, depending on the study.

UPMC MEDICAL RECORDS
46,676 ASTHMA
EXACERBATIONS

PA DOH CANCER REGISTRY
498 ALL CHILDHOOD
CANCERS

PA DOH BIRTH REGISTRY
185,849 BIRTHS

RESULTS

PEOPLE WITH ASTHMA living close to wells during the production phase had an increased chance of their asthma getting worse.

CHILDREN WHO LIVED WITHIN 1 MILE OF ONE OR MORE WELLS had 5 to 7 times the chance of developing lymphoma, a relatively rare type of cancer, compared to children who lived in an area without wells within 5 miles. There were no associations between unconventional natural gas development activities and childhood leukemia, brain and bone cancers, including Ewing's family of tumors.

INFANTS born to pregnant women who lived near wells during the production phase were 20-40 grams (about 1 ounce) smaller at birth.