

THE PUBLIC'S HEALTH AND SHALE GAS DEVELOPMENT

A NEWSLETTER FOR HEALTH CARE PROVIDERS AND PUBLIC HEALTH WORKERS

Issue 7: Health Risks from Fracking and the Lack of a State Public Health Response 3rd Quarter | August 2019

EHP Questions Comments Made by PA Secretary of Health Dr. Rachel Levine Regarding Whether PA Is Protecting the Public's Health in High-Fracking Areas

Read EHP's [Open Letter](#) to Dr. Rachel Levine, Pennsylvania Secretary of Health.

On June 19, 2019, Dr. Levine made the following statement to the Pittsburgh Post-Gazette:

"As a pediatrician and a public health advocate, the public can rest assured that if I knew that we were inadequately protecting public health, I would make that case clear to Governor Wolf. But I believe that we do not have enough information to make such a determination in this case." (Hohey and Templeton, 2019)

Sec. Levine based her statement on a single literature review of 20 epidemiologic studies conducted jointly by the Pennsylvania and Colorado Departments of Health, authored by Bamber et al. (2019). This review arrived at the conclusion that there is insufficient weight of evidence for most health outcomes based on the inappropriate application of a systematic review framework tailored to healthcare decision-making, not environmental health. The review gives inadequate weight to observational studies and lacks recognition of non-human evidence streams in assessing the potential for harm.

EHP believes Dr. Levine and her Department of Health is understating the risk to public health and has relied on a flawed review to make its case. ([Full press release](#))

"There are high numbers of childhood cancers — some of them rare — in mostly rural areas of southwestern Pennsylvania, and no one knows why."

[The Human Toll](#), Pittsburgh Post-Gazette, David Templeton, Don Hohey, May 2019

THE HUMAN TOLL

Pittsburgh Post-Gazette reporters David Templeton and Don Hohey are researching and documenting health "risk and exposure in the gas lands," updating the Mapping Mortality project that the Post-Gazette published in 2010. This research provides a window into the lives and health challenges of community members living in close proximity to shale gas development.

[The Human Toll](#), Pittsburgh Post-Gazette, David Templeton, Don Hohey, May 2019

[The Human Toll Part II](#), Pittsburgh Post-Gazette, David Templeton, Don Hohey, Andrew Rush, July 2019



There has been an increase in pediatric cancers in SWPA as outlined in [The Human Toll](#) above. Of note are six cases of Ewing sarcoma in the Canon-McMillan School District, two of which were diagnosed in 2018. The PA Department of Health (DOH) investigated to determine if the cases in the school district constituted a cancer cluster and determined that they did not.

EHP responded to the PA DOH Bureau of Epidemiology's determination with an open letter regarding several key details of the report. The ensuing correspondence follows:

[EHP's Open Letter to the Pennsylvania Department of Health](#) Bureau of Epidemiology, Division of Community Epidemiology, about Ewing sarcoma in the area on May 1, 2019.

- [DOH's response to EHP's open letter](#) received on May 1, 2019.
- [EHP's response to DOH's letter](#) received on May 1, 2019.

EHP held a community meeting in Canonsburg, PA, on June 18, which brought together residents and experts to talk about the troubling rise of childhood cancer in the region. The discussion focused on how environmental pollution may play a part in the increasing number of cancer cases and where we might go from here.

Speaking at the meeting were Janice Blanock, whose son Luke Blanock died in 2016 of Ewing sarcoma; Bernie Goldstein, MD; Ned Ketyer, MD; Shaina Stacy, PhD, MPH; and Sarah Rankin, MPH, BSN, OCN. Over 200 community members attended. Concern within the community was palpable.

You can view a [summary of the meeting here](#).

For additional information on Ewing sarcoma read:

[Epidemiology of Bone Tumors in Children and Young Adults](#). Pediatric Blood and Cancer. 53, 941-952. Eyre, R., Feltbower, R., Mubwandarikwa, E., Eden, T., McNally, R., 2009.

From Wellhead to Ethane Cracker: Shale Gas, Petrochemicals, and Health

EHP held a forum at Beaver County Community College to discuss the potential health risks of emissions from the Shell petrochemical plant being built along the Ohio River in Beaver County and from related shale gas development pollution. A [graphic](#) of ambient air emission exposure from the cracker plant is described below. Speakers included:

Anne C. Epstein, MD, FACP

Clinical Associate Professor, Texas Tech University Health Sciences Center

[**Health Risks of Living in Close Proximity to Oil and Gas Development**](#)

Michael Abesamis, MD

Assistant Professor of Emergency Medicine
Director of Medical Toxicology Outpatient Clinic at UPMC

[**Hydraulic Fracturing: Experiences with Clinical Evaluation**](#)

Ned Ketyer, MD, FAAP

AAP Council on Environmental Health
SWPA Environmental Health Project
Physicians for Social Responsibility PA

[**Shale Gas, Petrochemicals, and Health**](#)

Compendium of Scientific, Medical, & Media Findings Demonstrating Risks & Harms of Fracking, Sixth Edition

Physicians for Social Responsibility (PSR) and the Concerned Health Professionals of NY have released the 6th edition of the [**Compendium**](#).

"The studies and investigations referenced in the dated entries catalogued in Compilation of Studies & Findings are current through April 1, 2019."

"The Compendium is complemented by a fully searchable, near-exhaustive citation database of peer-reviewed journal articles pertaining to shale gas and oil extraction, the [**Repository for Oil and Gas Energy Research**](#), that was developed by PSE Healthy Energy and which is housed on its website."

"PSE's statistical analysis of the scientific literature available from 2009 to 2015 demonstrates that ... 84% of original research studies on human health risks found signs of harm or indication of potential harm."

"A follow-up analysis using the same criteria for inclusion found that 90.3 percent of all original research studies published from 2016-2018 on the health impacts of fracking found a positive association with harm or potential harm."

EHP GRAPHIC - Exposure Modeling Shell Cracker Plant Emissions

EHP has developed Air and Exposure models for air emissions from shale gas development which uses PA Marcellus Inventory data and NOAA weather data based on readings at Pittsburgh International Airport. EHP developed a [graphic](#) showing the ambient air levels of emissions and possible symptoms due to exposure based on one half of the emissions permitted for the Shell petrochemical plant being built in Beaver County.

Please note that EHP's model does not take into account topography, which can significantly increase exposures, especially in low lying areas and river valleys where emissions may settle depending on weather systems.

Health Implications of Shale Gas Waste

EHP has developed factsheets on the public health concerns related to shale gas development risks to water and risks from waste. See:

[Risks to Water from Shale Gas Development](#)

[Risks from Liquid, Sludge and Solid Waste from Shale Gas Development](#)

The **Southwest Pennsylvania Environmental Health Project (EHP)** is a nonprofit public health organization that assists and supports residents of Southwestern Pennsylvania and beyond who believe their health has been, or could be, impacted by shale gas development (fracking).

Services offered by EHP

- [Medical ToolKit – Screening & Assessment Tools – Reference Materials](#)
- [CME/CEU Credits](#)
- On-site presentations regarding health and shale gas development
- [Shale Gas & Oil Health Registry & Resource Network](#)
- [Handouts](#), including: VOCs and Biomonitoring, Mental Health Impacts, Episodic Exposures, Exposure to PM, Protecting Your Health, and Tips for Talking to Your Doctor
- [Latest health studies related to shale gas development](#)
- Free health assessments and air monitoring to clients in SWPA

