RE: Call to Action from Pennsylvania Health Care Providers to Better Protect Pennsylvanians from Health Effects of Shale Gas Development

Dear Governor Wolf and PA DOH Secretary Levine,

Please acknowledge the following letter from 55 Pennsylvania health care providers, as well as a number of other citizens, calling for immediate action to be taken, as outlined below, to better protect Pennsylvanians from the health effects of shale gas development.

BACKGROUND

- The Commonwealth of Pennsylvania has become the second largest producer of shale gas in the nation and is now home to more than 12,000 fracked shale gas wells,¹ hundreds of compressor stations, nearly 100,000 miles of natural gas pipelines, and many storage and waste facilities, as well as associated diesel truck traffic.
- Meanwhile, the proposed petrochemical build-out in Pennsylvania has begun, including the construction of an immense ethane cracker plant to produce plastics. At least three additional cracker plants have been proposed in the region. Cumulatively, these plants may require more than 1,000 new full-producing shale gas wells per year as feedstock.²
- Shale gas extraction utilizes at least 55 compounds that are known, probable, or possible carcinogens in the fracking process³ and also pulls to the surface heavy metals, like arsenic and lead, as well as radioactive elements like radium-226, which has a half-life of 1,600 years and accumulates on equipment and in the environment.⁴
- Unhealthy levels of toxics including hazardous air pollutants (HAPs), volatile organic compounds (VOCs), fine particulate matter (PM_{2.5}), and silica dust are released into the airshed at every stage of shale gas development. Each release adds to a cumulative health impact. Combined with sunlight, these releases also lead to elevated ground level ozone (smog). Associated methane leaks heat the planet, leading to climate disasters that affect the lives and livelihoods of millions.
- Waste disposal is an additional concern since oil and gas operations create vast quantities of highly toxic waste, much of it apparently radioactive. Yet because it is exempt from most federal environmental legislation, this waste can be used in products or disposed of in municipal landfills and injection wells, eventually making its way into waterways via leachate, leaks, and dumping.⁵
- More than two dozen studies⁶ have shown a correlation between shale gas development and a host of health issues, including respiratory problems, cardio-pulmonary issues, fatigue and nausea, poor birth outcomes, neurological issues, and depression.⁷ There may be a link between the shale gas industry and the higher than normal incidence of childhood cancers (primarily Ewing sarcoma) being reported across southwestern Pennsylvania.⁸

- Governor Wolf has committed more than \$3 million to studying both the high incidences of childhood cancer and the health effects of fracking generally in southwestern Pennsylvania. But it will take upwards of three years for these as-yet-undefined studies to be completed. Meanwhile, residents of the region continue to suffer the effects of an industry that has not yet proven it is safe for public health.
- Although the Pennsylvania Department of Environmental Protection (DEP) has cited shale gas companies for more than 16,000 violations of state laws and codes,¹⁰ some of which were for uncontained spills and explosions, it has so far failed to hold the industry fully accountable through sufficient monitoring and leak control, as well as meaningful regulations with fines for violations commensurate with actual damages.
- The Pennsylvania Department of Health (DOH) has so far failed in its duty to adequately study the public health effects of shale gas development and has underperformed in its duty to protect the public from such health effects through research, education, and information and through mobilizing the state's medical community.¹¹

LETTER TO GOVERNOR TOM WOLF AND DOH SECRETARY RACHEL LEVINE

We, the undersigned members of Pennsylvania's health care provider community, understanding that protecting public health is the sacrosanct duty of our profession, call on Governor Tom Wolf and the Pennsylvania Department of Health (DOH) to:

- 1. Take a precautionary approach to shale gas development (fracking).
- 2. Hold the shale gas industry fully accountable for emitting pollutants into the environment by introducing better regulations and enforcing commensurate penalties for violations.
- 3. Inform and educate the public about measures Pennsylvania residents can take to best protect themselves and their families from harm linked to shale gas emissions and waste streams while studies are undertaken that clarify the relationship between fracking and public health.

Respectfully,

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Judith Graham, RN	15108
Todd Green, MD	15238
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Marti Haykin, MD	15601
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SOURCES

¹ Pennsylvania Shale Gas Viewer, Fractracker Alliance, (updated 12/3/19), retrieved from

² Cunningham, N. A Fracking-Driven Industrial Boom Renews Pollution Concerns in Pittsburgh (March 21, 2019), Yale Environment 360, The Yale School of Forestry & Environmental Studies, retrieved from https://e360.yale.edu/features/a-fracking-driven-industrial-boom-renews-pollution-concerns-in-pittsburgh

³ Elliott, E.G, et al. Unconventional oil and gas development and risk of childhood leukemia: Assessing the evidence, *Science of The Total Environment*, Volume 576 (January 15, 2017), retrieved from https://www.sciencedirect.com/science/article/pii/S0048969716322392

⁴ Troutman, M. *Pennsylvania Oil and Gas Waste Report* (September 2019), Earthworks (p. 5), retrieved from https://earthworks.org/cms/assets/uploads/2019/09/PA-Waste-Report-2019-FINAL-sm.pdf

⁵ Pribanic, J. "'Government Failed You'" — Pittsburgh State Rep. Drafts Bill to Stop Radioactive Fracking Waste (TENORM) From Entering Public Waters" (December 10, 2019), *Public Herald*, retrieved from https://publicherald.org/government-failed-you-pittsburgh-state-rep-drafts-bill-to-stop-radioactive-fracking-waste-tenorm-from-entering-public-waters/

⁶ Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking (Unconventional Gas and Oil Extraction), Sixth Edition (June 19, 2019), retrieved from http://concernedhealthny.org/compendium/

⁷ "Compilation of UNGD Health Studies Using Pennsylvania Data" (December 17, 2018), Southwest Pennsylvania Environmental Health Project, retrieved from https://www.environmentalhealthproject.org/sites/default/files/assets/resources/pa-studies-12.17.18.pdf

⁸ Templeton, Hopey & Rush, "The Human Toll, Part 2," Pittsburgh Post-Gazette, July 18, 2019, retrieved from https://newsinteractive.post-gazette.com/fracking-and-health-2/

⁹ Frazier, R. State to fund studies on fracking and cancers, other health effects (November 22, 2019), State Impact Pennsylvania, retrieved from https://stateimpact.npr.org/pennsylvania/2019/11/22/state-to-fund-studies-on-fracking-and-cancers-other-health-effects/

¹⁰ Pennsylvania Shale Gas Viewer, Fractracker Alliance (updated 6/17/20), retrieved from https://www.fractracker.org/map/us/pennsylvania/pa-shale-viewer/

¹¹ "An open letter to Dr. Rachel Levine, Pennsylvania Secretary of Health" (August 1, 2019), Southwest Pennsylvania Environmental Health Project, retrieved from https://www.environmentalhealthproject.org/sites/default/files/assets/press/open-letter-to-dr.-rachel-levine.pdf