
Phase 1

Class of 2021

12-2018

Mining for Voices: Reframing Hydraulic Fracturing as a Public Health Issue

Benjamin Chipkin, MS
Thomas Jefferson University

Pouné Saberi, MD, MPH
Physicians for Social Responsibility

Follow this and additional works at: https://jdc.jefferson.edu/si_phr_2021_phase1



Part of the [Medical Education Commons](#), and the [Public Health Commons](#)

[Let us know how access to this document benefits you](#)

Recommended Citation

Chipkin, Benjamin and Saberie, Pouné, "Mining for Voices: Reframing Hydraulic Fracturing as a Public Health Issue" (2018). SKMC JeffMD Scholarly Inquiry, Phase 1, Project 1.

This Article is brought to you for free and open access by the Jefferson Digital Commons. The Jefferson Digital Commons is a service of Thomas Jefferson University's [Center for Teaching and Learning \(CTL\)](#). The Commons is a showcase for Jefferson books and journals, peer-reviewed scholarly publications, unique historical collections from the University archives, and teaching tools. The Jefferson Digital Commons allows researchers and interested readers anywhere in the world to learn about and keep up to date with Jefferson scholarship. This article has been accepted for inclusion in Phase 1 by an authorized administrator of the Jefferson Digital Commons. For more information, please contact: JeffersonDigitalCommons@jefferson.edu.

Benjamin Chipkin
SKMC Class of 2021
SI PHR Abstract
December 10, 2018

Mining for Voices: Reframing Hydraulic Fracturing as a Public Health Issue

Introduction: Hydraulic fracturing extracts fossil fuels from rock formations by injecting chemicals underground.¹ While 80% of studies demonstrate risks or actual harms to health from fracking, Pennsylvania does not require chemical disclosures.^{1,2} Fracking accelerates climate change, a phenomenon linked to increases in health emergencies.³ With 1.6 million Pennsylvanians living within 1 mile of active oil or gas development sites, there is considerable risk.⁴ In 2012, Pennsylvania banned physicians from discussing health impacts of fracking, an order struck down in 2016.⁵ Following the gag order, deficits in physician knowledge and urgency may remain around fracking. Outlining a precautionary approach to fracking policy might alleviate these gaps.

Objective: We aim to develop new approaches to fracking as a public health issue, to increase understanding and engagement and drive policy changes.

Methods: Through a policy paper, a precautionary approach to fracking will be contextualized with another public health issue, marijuana-intoxicated driving. A qualitative review of 12 studies on marijuana and driving was conducted to provide a framework for precautionary fracking policies. This work is a partnership with Physicians for Social Responsibility.

Results: Examination of literature revealed inconclusive evidence for links between marijuana intoxication and impairment of driving-related function and for links between marijuana intoxication and motor vehicle crashes.^{6,7} Despite that, national policy cautions against marijuana-intoxicated driving. This will be applied to a policy paper outlining a precautionary approach to fracking.

Discussion: Our future paper will educate and engage physicians in public health concerns around fracking and drive the implementation of precautionary policy measures.

References:

1. Physicians for Social Responsibility. Compendium of scientific, medical, and media findings demonstrating risks and harms of fracking (unconventional gas and oil extraction), 4th Ed. 2016.
2. Pennsylvania Department of Environmental Protection. Hydraulic fracturing chemical disclosure registry & completion report. 2015.
3. Jameton, A. Medicine's role in mitigating the effects of climate change. *American Medical Association Journal of Ethics*. 2009; 11(6): 465-469.
4. Physicians, Scientists, and Engineers for Healthy Energy. Infographic: Oil and gas development proximity to U.S. residents.
5. Frankel, DB. Frankel hails Pa. Supreme Court ruling against gag rule on fracking chemicals. PA House. 2016.
6. Neavyn, MJ, Blohm, E, Babu, KM, Bird, SB. Medical marijuana and driving: a review. *Journal of Medical Toxicology*. 2014; 10(3): 269-279.
7. Li, MC, Brady, JE, DiMaggio, CJ, Lusardi, AR, Tzong, KY, Li, G. Marijuana use and motor vehicle crashes. *Epidemiologic Reviews*. 2012; 34(1): 65-72.