

July 25, 2022

Division of Environmental Health Sciences & Practice
National Center for Environmental Health
Centers for Disease Control and Prevention
Attn: Docket No. CDC-2019-0045
4770 Budford Highway NE
Mailstop F-60, Atlanta, Georgia 30341

Re: Updating Federal Guidelines Used by Public Health Agencies to Assess and Respond to Potential Cancer Clusters in Communities

The Environmental Health Project (EHP) is a data-driven public health organization headquartered in McMurray, Pennsylvania, just south of Pittsburgh. EHP provides wide-ranging support to communities impacted by shale gas development (SGD). This support includes health impact assessments, environmental and health monitoring, data and research interpretation, and public health guidance. We are a skilled group of health professionals, scientists, community educators, analysts, and communications experts.

EHP has a decade of community science experience, working directly with frontline residents concerned about how their health has been, or may be, impacted by SGD. We seek to support communities more broadly in understanding the exposures and risks generated by SGD and to engage in policy dialogues at the local, state, and federal levels regarding the public health implications of shale gas and oil activities. We have become national leaders in the comprehensive understanding of, and approach to, the public health consequences of SGD and, in the process, have gained a working knowledge of general environmental impacts from SGD.

During EHP's tenure, we have been active participants in several cancer initiatives including the PA Cancer Coalition, the Cancer Crisis Coalition, Cancer and Environment Network of Southwest PA (CENSWPA), and the Cancer Free Economy Network. Through the Cancer Crisis Coalition, EHP has worked alongside partners to advocate at the state level around concerns of the number of Ewing sarcoma cases in Southwestern Pennsylvania. Through these initiatives, EHP assisted in hosting several community meetings and communicating concerns with the Pennsylvania Department of Health, whose lack of engagement had angered residents. Impacted residents went to Harrisburg to confront the Governor Wolf, resulting in the governor awarding over \$2 million to the University of Pittsburgh to conduct a study on the cancer

concerns in the region.¹ This study is currently ongoing and has also led to quarterly meetings with the Pennsylvania Department of Health, at which EHP and partner organizations work to raise other environmental concerns coalition and community members have.

It is with all this experience that EHP writes to offer our knowledge and expertise around working with impacted communities, specifically those with concerns of cancer clusters, in order to assist the CDC in updating federal guidelines used by public health agencies to assess and respond to potential cancer clusters in communities.

Environmental Causes of Cancer

The last few decades have seen a large increase in the volume of research looking at how environmental factors impact human health and, even more specifically, the risk for cancer. As research has shown, cancer is caused by the environment, genetics, or some combination of these.² Cigarette smoking, for example, has been linked to a variety of malignancies, such as throat, lung, or mouth cancer. Aromatic amines, a group of chemical compounds often used in chemical or manufacturing plants, have been linked to bladder cancer in plant workers.³ These are just two of many examples of environmental factors that have been linked to cancer. Based on the foundation provided by this research, existing environmental factors, such as air and water pollution, should be key factors to consider when identifying and investigating areas with potential cancer clusters. Environmental factors can inform initiatives directed at decreasing pollution or preventing exposures to emissions as ways to reduce cancer risk.

Community Engagement

One of the areas in which EHP recommends the CDC consider making adjustments to the guidelines is in reducing the burden placed on residents to report concerns of cancer clusters. Currently the process relies on residents who live or work in the community to report concerns. While it is beneficial for community members to be able to make such a report, it is also important to recognize the undue burden this can place on communities, especially environmental justice (EJ) communities. EJ communities are impacted by racial or socio-economic burdens as well as existing health conditions and risks of future disease. In addition, poverty is known to increase the risk for mental illness, chronic diseases, increased mortality, and lower life expectancy. These factors may put individuals or an entire community at greater risk for environmental exposure to carcinogens.

It is unrealistic to expect community members to recognize a concern for a potential cancer cluster, be familiar with the CDC reporting guidelines, and then file a report on their own. EHP recommends that public health agencies take a more proactive approach in reviewing reports of cancer diagnoses to determine potential causes of concern for a cancer cluster and, if the evidence merits it, to launch an investigation.

Another way to shift the burden of reporting from communities would be to allow and encourage concerned health professionals, local community organizations, and local

governments or health departments to report concerns to public health agencies. EHP also recommends providing more education to health professionals, to local or state health departments, and to the public generally. Education would allow these entities to better understand the CDC process and facilitate more accurate reporting of cancer cluster concerns. Over its tenure, EHP has found that engaging a variety of partners at multiple levels can greatly help to provide accurate and timely information and, in turn, make an impact on community members' day-to-day lives.

Another avenue of community engagement EHP recommends is specific to interactions the CDC has with communities once an investigation has been requested or is being conducted. It would be helpful to communities if tangible recommendations and resources could be provided, even if just in the initial reporting phase. If a resident or community group reaches out to report a concern, they most likely have serious needs or concerns that should be dealt with immediately. The longer-term investigation and report don't solve current health problems that may exist in the community. Providing concrete resources or general recommendations up front also increases the likelihood that community members will report concerns in a timely manner. This would also help residents feel like the process was a more responsive and helpful one, therefore increasing their trust in health agencies whose mission is to protect them.

With the same purpose of building trust with communities and increasing community engagement, EHP recommends that health agencies make available reports of any investigations promptly to community members, healthcare providers, and various organizations operating within the community. Even more specifically, however, the reports need to be presented in a form that can be easily read and understood by a lay person.

Reporting and Data Monitoring

The CDC has proposed several updates in the 2022 draft guidelines, including the need for a more proactive evaluation of the cancer data and registries, although the way this will be implemented has not been described. EHP recommends that susceptible areas with increased pollution, such as communities located near national emission inventory (NEI) emitters, be monitored more closely because, as previously mentioned, research has shown that environmental factors can play a large role in the development of cancer. Increased monitoring would allow health agencies to better respond to cancer issues, thereby providing residents living in these locations with the benefit of having health professionals involved earlier in the process. Closer monitoring would also take some of the burden off residents to initiate an investigation.

Additionally, the new proposed guidelines suggest that state health officials conduct routine surveillance of the cancer registry data in areas of concern. For this system to be effective, EHP strongly recommends that national health databases—such as the Surveillance, Epidemiology and End Results (SEER) cancer registry—and population datasets be as up-to-date as possible. At present, there is a two-year lag in updating the SEER database and others like it. Any

surveillance findings generated from this dataset would be an inaccurate representation of what is currently occurring in the community because newly diagnosed cases that have not yet been entered into the registry would be omitted from an investigation. In the medical fields, time is of the essence, and being current is the only way these datasets can be effectively used as an early assessment tool in identifying and investigating cancer clusters. Also, it is important to note that, in smaller areas, census tracts may provide a better representation of how the population is being affected.

Lastly, the current CDC cancer cluster guidelines have extremely conservative inclusion protocols. Individuals who recently moved (after having lived in a community and been exposed to environmental carcinogens in that community for years prior) are not counted in the number of cases in that area. Since cancers generally have a long latency period, it is important to include the previous housing locations of residents when looking at potential environmental factors that impact a cancer diagnosis.

In addition to including all residents with environmental exposure in a cancer cluster determination, it is necessary to look at multiple types of cancer and not just one type. Exposure to various risk factors can affect people differently. For example, people who consume radium in drinking water are at higher risk of lymphoma, bone cancer, and leukemias.⁴ The new guidelines should consider that a single exposure can result in increased risk in the development of multiple types of cancer, depending on the pathophysiology and nature of environmental exposures in that region. So, to better understand the true burden of these exposures on the community, it would be worthwhile to have individual investigations include multiple types of cancer known to be associated with environmental risk factors within the community being investigated.

Thank you for the opportunity to provide comments to assist the CDC in updating federal guidelines used by public health agencies to assess and respond to potential cancer clusters in communities. Feel free to reach out to me or EHP generally for more information or clarification.

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Environmental Health Project

The following organizations have signed on in support of the Environmental Health Project's comments:

Beaver County Marcellus Awareness Community (BCMAC)
Berks Gas Truth
Breathe Project
Center for Coalfield Justice

Citizens to Preserve Ligonier Valley
Clean Air Council
Concerned Health Professionals of New York
Eco Justice Collaborative of Philadelphia
Evangelical Environmental Network
FracTracker Alliance
FreshWater Accountability Project
Hesperian Health Guides
Mountain Watershed Association
Pennsylvania Alliance for Clean Water and Air
Philadelphia Solar Energy Alliance
Physicians for Social Responsibility—Colorado
Physicians for Social Responsibility—New York
Physicians for Social Responsibility—Pennsylvania
Project CoffeeHouse
ProtectPT
Responsible Decarbonization Alliance
Sustainable Medina County
UrbanKind Institute

¹ PA Governors Office. (2020, December 22). Wolf Administration Awards \$2.5 Million Contract To University Of Pittsburgh To Research Health Effects Of Hydraulic Fracturing In Pennsylvania [Press release]. <https://www.media.pa.gov/pages/health-details.aspx?newsid=1215>

² Parsa N. Environmental factors inducing human cancers. *Iran J Public Health*. 2012;41(11):1-9. Epub 2012 Nov 1. PMID: 23304670; PMCID: PMC3521879.

³ Parsa N. Environmental factors inducing human cancers. *Iran J Public Health*. 2012;41(11):1-9. Epub 2012 Nov 1. PMID: 23304670; PMCID: PMC3521879.

⁴ Brown, V. (2014, February 1). Radionuclides in Fracking Wastewater: Managing a Toxic Blend. *Environmental Health Perspectives*, 122(2). <https://doi.org/10.1289/ehp.122-A50>