

Enhancing Community Health Through Air Quality Initiatives

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Air pollution poses a significant threat to public health. With increasing concerns about respiratory illnesses such as COVID-19 and asthma, there is a need to understand the impact of air pollution on environmental health and identify strategies for mitigation. Investigating this relationship is what I focused on during my fellowship with the Naugatuck Valley Health District (NVHD), a public health agency for the towns of Ansonia, Beacon Falls, Derby, Naugatuck, Seymour, and Shelton, Connecticut, committed to protecting the environmental and physical health of its communities through the promotion of health access, health education, and community engagement. My goals for the summer were to learn more about the fields of public and environmental health, engage with the local community, and consider whether air quality relates to ideas of environmental justice.

During my time with NVHD, I worked alongside the district's Public Health Emergency Preparedness Coordinator to begin developing an Air Quality Emergency Annex. The district's current plan does not detail any protocol for air quality-related incidents, which proved to be a shortcoming following the Canadian wildfires in 2023. Thus, moving forward, this will be a useful resource for the district to have. I learned a great amount about what it takes to develop a Public Health Emergency Response Plan. When drafting this annex, I had to keep in mind that air quality does not affect everyone equally; people with heart or lung diseases, older adults and children, and people who spend extended periods outdoors are just a few of the sensitive groups that exist. Thus, it was important to consider the demographic makeup of the Naugatuck Valley population, and I used data from the U.S. Census to determine the social vulnerability of each of the six towns. I enjoyed conducting this background research as a way to tailor the annex to the specific needs of the Naugatuck Valley.

Community education was an important element of my fellowship. I attended several events where we distributed free items such as COVID-19 test kits, sunscreen, and vaccine information to interested community members. I also tabled at several children's libraries and worked with the librarians to create book displays regarding the environment, air quality, and climate change. Additionally, I developed an Air Quality page on the NVHD website. Intending to educate Naugatuck Valley residents, it explains what air quality is, its impact on human health, and how individuals can take action to monitor local air quality and keep themselves safe. Knowing how to communicate information concisely while also providing sufficient context for a general audience to understand was an important skill I learned to balance.

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