

Environmental Health

Assignment Description

The Division of Environmental Health presents exciting and innovative opportunities within the Vermont Department of Health. The division includes the following programs: Environmental Public Health Tracking; Food and Lodging; Asbestos and Lead Regulatory; Healthy Housing and Lead Poisoning Prevention; Indoor Radon; Healthy School Environments; and Toxicological and Radiological Sciences. The CSTE/CDC Fellow will be supervised by the State Epidemiologist for Environmental Health and the Food and Lodging Program Chief. The Fellow will have the rare opportunity to develop comprehensive skills in environmental health in an environmentally-progressive state.

Vermont was recently awarded significant funding from the Centers for Disease Control and Prevention for climate change work. The purpose of the funding is to address the public health consequences of climate change and its implications on human health. The Climate Change program will work to forecast and define disease burdens, develop specific intervention methods, and evaluate impacts of change for at-risk populations.

Day-to-Day Activities

During the two years, the CSTE/CDC Fellow will be responsible for serving as the lead investigator on Environmental Public Health special projects. Additionally, the Fellow will take a lead role as current issues or initiatives arise. The fellow will attend weekly meetings with mentors, a weekly technical assistance meeting, and serve as the organizer of monthly journal club meetings.

Potential Projects

1. Environmental Public Health Tracking (EPHT) Program:

Build partnerships within and between the Vermont Health Department and federal and state agencies such as the Vermont Department of Environmental Conservation; evaluate surveillance and health data systems; conduct epidemiologic studies; analyze data and expand the analytical capacity of the program; interpret and translate study findings to guide public health policy; prepare and publish epidemiological reports, policy briefs, special studies, and annual reports; and participate on the Environmental Health Tracking advisory committee. Recent innovative VDH EPHT projects include a water quality portal that provides data for all public water systems serving more than 500 people, a blue-green algae tracker that maps bloom condition at more than 60 locations integrating data from state scientists and a volunteer corps of over 100 citizen scientists, and a crowd-sourced "Tick Tracker" that maps tick-human encounters and educates the public on how to protect themselves from Lyme disease. Make additional small-geography data sets (radon in indoor air, arsenic and nitrates in private well-water, both at the town level) available to the public as maps, tables and time series graphs using dynamic reporting software. Draft educational materials to accompany data reports. Conduct outreach efforts to promote their use by the public, industry, researchers, and policymakers.

2. Food and Lodging Program:

Investigate food-borne illness outbreaks; analyze inspection data for trends in food safety violations; assist in the development of regulations to define sanitary lodging conditions; develop educational fact sheets and communication materials; and perform site visits of restaurants and lodging establishments.

3. Policy and Program Support:

Participate in drafting of policy proposals, protocols and procedures, and legislative initiatives for the Division of Environmental Health. Assist the Lead Poisoning Prevention Program, the Asbestos and Lead Regulatory Program, and the Healthy Housing Initiative with proposed legislation, data analysis, and health education efforts.

4. Climate Change Program:

Participate in assessing the human health burden of extreme heat events, extreme weather events (such as in-land flooding), changes in vector-borne diseases and water quality (with a focus on blue-green algae), and food insecurity in Vermont. Using downscaled global climate model output for our region, estimate future health impacts of climate change based historic associations between climatic conditions and health outcomes. Lead the literature review and data analysis for one of the climate-health stressors listed above. Participate in stakeholder outreach, multi-agency discussions, projects and collaboration.

5. Toxicology Program Support:

Participate in review of proposed legislation of chemical regulation, labeling, and public messaging in collaboration with the State Toxicologist. Review literature studies in epidemiology and provide analysis.

6. Division Epidemiologic support: The fellow will also learn about a number of environmental health issues by participating in weekly technical assistance meetings where all current environmental and occupational health issues or investigations are discussed. The fellow will serve as the lead on some of these special projects as they develop.

Preparedness Role

The CSTE/CDC Fellow will participate in preparedness exercises and emergency response planning for environmental events. Should an environmental health event occur (e.g., 2011 Tropical Storm Irene), the Fellow will play a lead role in response activities.

Assignment Location: Vermont Department of Health
Burlington, VT

Primary Mentor: Lori Cragin, PhD
State Epidemiologist for Environmental Health

Secondary Mentor:

Elisabeth Wirsing, MPH
Food and Lodging Program Chief