

Environmental Health

Assignment Description

The assignment will involve core activities for environmental health epidemiology including conducting surveillance, evaluation of surveillance systems, data collection, analysis, presentation of results to a variety of audiences, and assistance in developing interventions when applicable. Other activities will include participation in epidemiologic investigations. For specific details, please see sections on Day-to-Day Activities and Potential Projects.

Day-to- Day Activities

The Environmental Health Epidemiology Bureau (EHEB) is intensively engaged in several projects that interface and overlap. A brief listing of these will help reveal the wide range of activities the Fellow will be engaged in during the day. EHEB is the recipient of a 5-year Cooperative Agreement from CDC to implement an Environmental Public Health Tracking Network (Tracking) linked to a national network. The Fellow will be heavily involved in environmental public health surveillance or tracking, including developing health and environmental data sets for tracking, integrating, and analyzing these data, as well as planning activities for the Network development and implementation. Involvement in Tracking could also include assistance with assessing data requirements for the Network and implementing data sharing agreements, or risk communication planning.

EHEB is in its 10th yr of asthma surveillance and public health planning for asthma prevention. The Fellow may be involved in assisting with analysis of asthma emergency department data in conjunction with pollen data and/or ozone data.

The EHEB also has an Occupational Health Surveillance Program. At the core of this project is the New Mexico Occupational Health Registry (NMOHR) which is a repository for occupational health data and physician reports. These data are used to target high-risk work places for prevention by education of workers, employers, and health-care providers. Our previous fellow worked with the Occupational Health Surveillance Program on a project about migrant farmworker pesticide exposure.

There is also an active Lead Poisoning Program which involves prevention of exposure and surveillance of elevated blood lead levels. In addition, staff responds to public inquiries regarding environmental health (EH) issues statewide and on a daily basis; given staff resource limits, we assist communities with environmental health investigations.

Collaboration with the New Mexico Environment Department is essential. Main areas of collaboration include water quality and air quality. Water quality includes several areas such as drinking water and community water systems and private wells. Air quality includes exposure to particulate matter and ozone. The Fellow's daily activities will principally be focused on the Tracking project but since this Project connects with all of the other efforts mentioned here, the range of activities will be broad. The excitement here is fueled by pressures to provide accurate and timely evaluation reports on our activities, respond to EH concerns like floods, mold, mercury exposure, advocacy concerns, and get the outlined above work done. Teamwork is the hallmark. A Fellow will never hear: "that's not my job." In

addition to the teamwork, all of the efforts require a high degree of comfort with collaboration and coordination across many agencies, organizational and community lines.

Potential Projects

Within EHEB, we have identified climate change as an area in which we would like to expand. The Environmental Public Health Tracking Program currently provides us with some capacity around this. For example, a climate change indicator workgroup has been developed. Initial investigation into heat-related morbidity and mortality is being conducted. More work is needed to identify additional climate change indicators in collaboration with EPHT workgroup members, which will require data analysis. In addition, there is a need to identify adaptation strategies that could be implemented in New Mexico and how this would relate to current emergency preparedness plans. In addition, there will need to be a focus on water quality and quantity. The essential questions are as follows: as water becomes more scarce due to forecasted droughts, how will this impact the quality of surface and ground water? What will the strategies be to ensure that New Mexicans will continue to have safe drinkable water? This will require assisting in the inventory of private wells, working in conjunction with the New Mexico Environment Department's Groundwater Bureau, the Bernalillo County, and the State Engineer. Current Cooperative Agreements (CA) with CDC include the Tracking Program, the Addressing Asthma from a Public Health Perspective, and the Occupational Health Surveillance Program. Another program, the Lead Poisoning Prevention Program, is funded through alternate sources (not a CDC CA). All of these Agreements or programs require careful, detailed and sophisticated evaluation protocols (including those CDC-recommended) for all levels of the project planning and implementation. There will, therefore, be ample opportunity and need to assist with these planning/evaluation efforts.

Preparedness Role

The Epidemiologic Response Division (ERD) is responsible for developing and maintaining the Chemical Terrorism and Emergencies (CTE) Appendix of the New Mexico Department of Health Emergency Operations Plan (NMDOH EOP). The EHEB developed this Appendix, whose purpose is to delineate the specific responsibilities, actions, and procedures of NMDOH staff that relate to prevention, preparedness, response, and recovery for chemical terrorism and emergencies in New Mexico, as well as to ensure the immediate availability of essential documents and scientific resources during a Chemical Terrorism and Emergencies event. This Appendix is now several years old. Therefore, the Fellow's responsibility, in collaboration with the Bureau of Health and Emergency Management, would be to update the Appendix.

Assignment Location: Santa Fe, New Mexico

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