Environmental Health/Occupational Health

Assignment Description

The Wisconsin Bureau of Environmental and Occupational Health offers a broad range of opportunities for applied epidemiology projects, including opportunities in the areas of public health surveillance, research, health informatics and case investigations of exposure-disease relationships. It is hoped and expected that an incoming fellow will gain experience and develop expertise in a broad range of programs, activities and responsibilities during the two-year fellowship period.

Based on the interests of the fellow and guidance from the primary and secondary mentors, a workplan will be developed to allow the fellow to choose from a wide variety of activities that address the fellowship's core competency requirements and broaden his or her perspective and understanding of environmental and occupational health. BEOH maintains expertise in environmental health surveillance, lead poisoning and hazard abatement, asthma, healthy homes, occupational health, Superfund site characterization and revitalization, indoor air quality, food safety and inspections, radiation safety and inspections and groundwater quality. This expertise includes extensive experience in public health education, stakeholder outreach, public health policy development and regulatory program administration. BEOH maintains a strong collaboration with faculty and academic staff at the UW-Madison; both mentors hold adjunct faculty appointments at UW-Madison and help facilitate linkages with University staff, programs and resources as needed for various projects.

Additionally, as the opportunities arise, the fellow will be invited to participate in field experiences such as environmental inspections, preparedness exercises, other emergency situation simulations and outbreak investigations. The fellow is strongly encouraged to present and publish results from surveillance or research activities. The mentors work with the fellow to identify such opportunities, and support, such as funds for travel to local conferences and workshop, is provided as needed.

Day-to-Day Activities

While there will be instances where the fellow will need to work out in the field as part of an investigation or exercise, a large majority of the time is spent in the home office. From here the fellow will work with data to develop analytic skills, create oral and written presentations to summarize work and disseminate findings, and correspond with partners to develop and implement project ideas. As partnerships are key to effective environmental health work, the fellow will also attend a variety of meetings with partners. While there are a number of resources and experts readily available to guide the fellow's activities, it is also expected the fellow demonstrate a reasonable amount of independence and initiative to identify areas of interest, seek out additional resources as necessary and complete tasks.

Potential Projects

The Wisconsin Environmental Public Health Tracking (EPHT) program works with a broad range of partners to bring together data and expertise for ongoing surveillance and linking of environmental and

health data. An incoming fellow will have the opportunity to with work closely with partners from the Wisconsin Department of Natural Resources and other agencies and offices that provide source data for Wisconsin's EPHT data portals in order to identify data and information sources for EPHT networks and develop new portal content. The fellow will have the opportunity to work with large datasets (such as air quality, drinking water quality, childhood lead poisoning and inpatient hospitalizations) and develop statistical and geospatial analytical skills. One potential project in this area would be to develop and implement a strategy for integrating EPHT data with other data sources from DHS' Office of Health Informatics to optimize the utility of these data for local public health agencies' work in revising community health assessments and health improvement plans.

Within the Occupational Health Surveillance Program, there may be projects associated with expanding occupational health surveillance in Wisconsin. One area of interest is exploring the feasibility of using workers' compensation claims data for occupational safety and health surveillance (e.g., identifying hazardous industries/occupations and leading events for claims across all industries; examining trends over time). Additionally, there may be other data analysis projects related to specific occupational health indicators such as elevated blood lead levels, work-related hospitalizations and work-related illness and injury reported to poison control centers.

BEOH maintains an ongoing partnership with the Great Lakes Tribal Epidemiology Center. The Center provides epidemiological support and expertise to tribal communities in Minnesota, Wisconsin and Michigan, and BEOH maintains representation on the Center's Environmental Public Health Advisory Committee. Through this partnership, there are opportunities to develop specific projects to increase the quality and quantity of data shared between the Wisconsin Department of Health Services and tribal health offices on a range of topics, including environmental health measures (such as carbon monoxide poisonings and climate-related health outcomes), birth data and other endpoints. This partnership may provide an excellent opportunity to gain experience in identifying, evaluating and addressing health disparities among Wisconsin's tribal communities.

Preparedness Role

The state's emergency preparedness program funds staff in many different areas of public health, including the Bureau of Environmental and Occupational Health. The fellow will have the opportunity to meet with these staff to learn more about the program, and will be invited to participate in simulations and table-top exercises. If actual events occur, the fellow will be invited to be an active participant in the response.

Assignment Location:	Wisconsin Division of Public Health Madison, WI
Primary Mentor:	Henry Anderson, MD State Health Officer
Secondary Mentor:	Carrie Tomasallo, PhD, MPH Senior Epidemiologist