

Occupational Health

Description:

The Fellow will be assigned to the Occupational Health Surveillance Program (OHSP) within the Bureau of Health Information, Statistics, Research and Evaluation (BHISRE) in Massachusetts Department of Public Health (MDPH). OHSP is responsible for monitoring the impact of the work environment on the health of Massachusetts residents and conducts both case and population-based surveillance of select work-related injuries and illnesses including work-related asthma, work-related injuries to teens, acute chemical poisonings, serious burns, fatal occupational injuries and sharps injuries to healthcare workers. OHSP also uses large population-based data sets to generate occupational health indicators and to monitor the occupational health status of the population. These include, among others, statewide hospital and emergency department data, the MA Cancer Registry, the Behavioral Risk Factor Surveillance System, the new statewide trauma registry, and workers' compensation claim data. Surveillance findings are used to target prevention efforts, and OHSP works with a wide range of agency and community partners on educational and policy initiatives to address identified hazards.

Special emphasis is placed on addressing needs of the most vulnerable workers and on integrating occupational health into ongoing public health activities within MDPH. More information about OHSP can be found at www.mass.gov/dph/ohsp. The Fellow will have the opportunity to work with interdisciplinary teams on a range of projects (see list below) that involve data collection, management, analysis and interpretation, field investigations of outbreaks/incidents, and presentation of findings in local, state and national forums. He/she will also have the opportunity to "translate data to action" by interfacing with partners using data to inform public health policies and practice in Massachusetts. Potential partners within MDPH include the Asthma Prevention and Control Program, the Worksite Wellness Initiative and the Bureau of Environmental Health.

The Fellow will evaluate an OHSP surveillance system for one of the following occupational health conditions: work-related asthma, fatal occupational injuries, injuries to working teens, sharps injuries to hospital workers, injuries and illnesses among employees of state agencies, adult lead poisonings, or acute chemical poisonings.

Day-to-Day Activities:

The Fellow will be engaged in:

- Collection, management, analysis and interpretation of occupational health surveillance data;
- Triage of reported cases for follow-up interviews/worksite investigations;
- Field investigations of outbreaks/incidents;
- Preparation of written and oral reports of surveillance findings;
- Meetings with project team members to plan and coordinate project activities;
- Review of relevant epidemiologic/policy literature; - Meetings with data providers; assisting with developing interagency data use agreements, IRB applications, etc.;

- Meetings with agency and community partners working to translate data to action;
- Evaluating a surveillance system, following both CDC guidelines and a logic model approach
- Preparing of grant reports/applications;
- Participating in educational/policy forums to enhance epidemiologic skills and understanding of applied public health practice, MDPH “epi brown bags”, seminars at local academic institutions, Public Health Council meetings, etc,

Potential Projects:

The following are examples of potential projects the Fellow may undertake:

- Design and conduct an evaluation of the MA surveillance system for work-related asthma.
- Design and conduct quantitative and/or qualitative analysis of surveillance data obtained through hundreds of interviews with teens injured on the job.
- Participate in field investigations and preparation of investigation reports that include prevention recommendations. These may include, for example, investigation of infectious occupational disease outbreaks, fatal and serious non-fatal occupational injuries, and assessment of exposures and exposure control programs in worksites of individuals with work-related asthma reported to OHSP.
- Prepare a user friendly “annual surveillance update” or special topic report for one of the following OHSP surveillance projects: Tracking Fatal Occupational Injuries; the Massachusetts Sharps Injury Surveillance System; Surveillance and Prevention of Work-related Asthma; Teens at Work Injury Surveillance and Prevention Project; Surveillance of Work-related Injuries among Immigrant and Minority Workers; develop a dissemination plan for the report.
- Use surveillance findings in developing educational materials for various audiences on occupational health risks in Massachusetts, e.g. healthcare providers, workers, employers, and job placement staff in the workforce development system.
- Design and conduct a survey of hospitals regarding safe patient handling programs and policies and needs for technical assistance from OHSP.
- Design and conduct a survey of hospital staff to assess under-reporting of sharps injuries.
- Conduct interviews with reported cases of work-related asthma and teen injuries.
- Design a surveillance system for work-related amputations using multiple data sources, to include development of a case follow-up questionnaire.
- Design and conduct a study using statewide emergency department database of over 2 million visits annually to characterize work-related injuries by nature, cause and locale; explore use of new data on 32 race/ethnicity categories to examine occupational risks by race and ethnicity.
- Create a MS Access database for managing case referrals for worksite follow-up investigations.
- Design and complete a study of work-related musculoskeletal disorders among employees of state owned health facilities using data collected in a new web-based case reporting system; design standard facility specific surveillance reports for use by local health and safety committees in planning intervention activities.
- Use statistical software to complete analysis of population-based data sets, including, for example, analysis of information on work-related asthma in the BRFSS, or analysis of trends in work-related injuries in the new state Trauma Registry.

- Explore usefulness of the new state database of all health care insurance claims for occupational injury and illness surveillance.

The Fellow will have the opportunity to present project findings at local, state or national meetings. These may include, for example, meetings of the OHSP Advisory Board, the MDPH Public Health Council, the Massachusetts Asthma Action Partnership, the Massachusetts Ounce of Prevention Conference, the NE Occupational Health Surveillance meeting, and the CSTE Annual Meeting.

Emergency Preparedness Role:

The Fellow will have the opportunity to work with OHSP and other MDPH programs on occupational health issues relevant to Emergency Preparedness (EP). Examples of possible EP activities include: participation in H1N1 planning meetings addressing occupational risks; development and implementation of a survey to assess current status of occupational respiratory protection programs in Massachusetts hospitals in response to concern about airborne transmitted diseases; incorporation of information about emergency response procedures for workplace health emergencies in the MDPH Worksite Wellness tools for employers; collaboration with the Bureau of Infectious Disease in conducting outbreak investigations of emerging infectious disease in the workplace. The Fellow will also participate in MDPH EP drills as appropriate.

Assignment Location:

Boston, MA

Primary Mentor:

Letitia Davis, ScD, EdM
Director, Occupational Health Surveillance Program
Massachusetts Department of Public Health

Secondary Mentor:

Shona Fang, ScD
Epidemiologist, Occupational Health Surveillance Program
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