

Injury

Assignment Description:

This Fellow would be assigned to the Department's Community Health Services (CHS) Department's Community Epidemiology Services (CES) program, with a primary focus in the area of injury prevention and mitigation. The CHS group includes early childhood services, WIC, environmental health, communicable disease services, STD/HIV/Hepatitis C services, community wellness and prevention, and community epidemiology services. Community Epidemiology Services (CES) includes resources for all of CHS and other parts of MCHD, including epidemiology, informatics, and quality improvement support. CHS programs also work closely with the Office of the Health Officer as well as neighboring counties to encourage tri-county projects that benefit the region. This includes work on new initiatives, such as the CDC STRYVE youth violence prevention project and new health care reform collaborations with the healthcare provider community. With these initiatives, CHS collaborates closely with the Health Department's Community Capacitation Center, other county agencies (e.g., Alcohol and Drug, law enforcement), and a new consortium in order to coordinate healthcare among the county's major healthcare provider organizations, including the Health Department's primary care system.

This fellowship assignment emphasizes a population-level public health perspective to promoting health and reducing the consequences of harmful conditions and behaviors that contribute to injury, adverse behaviors (e.g., violence, substance use, unhealthy lifestyle and eating), disease, and lack of well-being in our communities. The Fellow in this assignment will address public health surveillance priorities and assessments; participate actively in applied public health research; and learn how to investigate public health events. He or she will apply epidemiologic principles and analytic tools to proactively support the planning and implementation of public health services and response; and will provide consultation to Health Department managers and staff in the areas of epidemiological science, analysis, biostatistics, surveillance and applied research. This position will participate in sharing information through professional networks (meetings, conferences, peer-reviewed journals, etc.).

The Fellow in this position will gain an understanding of the health of the communities MCHD serves and the use of epidemiologic science to support front-line public health work. Specifically, this assignment will benefit the Fellow in the following competencies: advanced knowledge of the methods and techniques of investigative research; strong methodological and analytic skills in applied epidemiology; significant expertise in research design and quantitative survey methodology; communication skills; expert knowledge of public administration principles, best practices, and procedures appropriate to departmental scientific and technical research/evaluation practices; principles and practices of effective leadership; knowledge of scientific and technical management principles and practices for project management, strategic planning, and other functions; knowledge of federal, state, and local laws, and regulations related to public health practice.

Day-to-Day Activities:

CHS will involve the Fellow in day-to-day activities and research projects that provide "hands on" epidemiology experience. Functional responsibilities include:

- performing epidemiologic studies and developing public health surveillance systems
- providing consultation to county managers and staff on scientific, analytic, and technical aspects of epidemiologic investigations and public health surveillance
- working with program managers and community partners to develop health interventions, policies, or programmatic systems based on epidemiologic findings

- working with partners across Community Health Service and other programs to define meaningful health and well being outcomes
- participating in or leading public health emergency preparedness and responding to public health events
- writing material for internal reports, public information, and peer-reviewed journals
- participating in internal and external meetings as needed to involve project stakeholders and to learn how public health systems operate

Potential Projects:

Examples of potential projects are provided below, but others can be developed based on a wide array of options available to the Fellow:

- Study the risk and protective factors associated with experiencing acts of violence (physical, sexual or psychosocial), among school-aged adolescents in Multnomah County, contrasting differences among youth attending schools in communities with different levels of neighborhood disruption (e.g., high or low poverty; high or low crime areas).
- Set up routine sentinel death surveillance scanning preliminary death certificate data to monitor for changing patterns in injury deaths among population groups.
- Study the contribution of violent experiences and attending schools in violent neighborhoods to poor health behaviors, especially unhealthy eating and substance use, or childhood overweight and obesity, among school-aged adolescents in the county.
- Evaluate Multnomah County's new drug overdose death surveillance system based on reports from the state Medical Examiner's Office.
- Study factors affecting overdose mortality in opiate users.
- Evaluate the sensitivity and predictive value positive of drug-related cause of death codes on death certificates for detecting drug overdose deaths.
- Work with law enforcement and social services agencies, as part of our CDC STRYVE project activities, to monitor and better understand the dynamics of youth violence in the county before and during interventions implemented in partnership with the community.
- Study factors associated with pregnancy planning or adverse pregnancy and birth outcomes among women experiencing intimate partner violence, contrasting differences among groups of women, e.g., foreign and native born women.
- Evaluate the use of toxicology testing for ascertaining prescription and illicit drugs which caused or contributed to overdose deaths within the county.
- Study the role of neighborhood-level violence on pregnancy and birth outcomes in the county.
- Assess novel approaches for injury, substance use, or other surveillance activities that incorporate cohort effects.

Epidemiology projects in infectious disease are limited only by the imagination of the applicant. Particular areas of interest include pertussis, Hepatitis B and C, and vaccine hesitancy.

Preparedness Role:

In the event of a public health emergency, the fellow may be asked to participate on a NJDOH response team, which includes sub-teams in the areas of business continuity, Emergency Call Center, communications, epidemiology/surveillance, and data management. The fellow could serve in either the epidemiologic/surveillance or data management sub-teams. The Fellow will have the opportunity to participate in emergency preparedness and response activities and to attend Incident Command training. The person in this position is expected to share 24/7 coverage activities by participating in the

weekly after-hours on-call rotation (with appropriate training and Health Officer support). The fellow may be called upon to represent the County at the local, state, and national level in matters affecting epidemiologic activities --including multi-agency public health emergency preparedness planning.

Assignment Location: Portland, OR

Primary Mentor: Jame Gaudino, MD, MS, MPH, FACPM
Senior Epidemiologist
Multnomah County Health Department

Secondary Mentor: Amy Sullivan, PhD, MPH
Program Manager, Communicable Disease Services
Multnomah County Health Department