Injury-Drug Overdose
Linn County Public Health, Assessment and Health Promotion
Cedar Rapids, Iowa

Assignment Description

The Applied Epidemiology Fellow will be assigned to the Assessment and Health Promotion branch under the Community Health Division at Linn County Public Health (LCPH). The core functions of the Assessment and Health Promotion branch are assessment and data analysis, community collaboration, health promotion, and planning. The primary responsibility of this branch is to guide the development and implementation of the Community Health Assessment and Community Health Improvement Plan in Linn County, monitor changes in health status, provide recommendations for action, support implementation of best practice programs and interventions, and work with community partners to drive policy, systems, and environmental changes to improve the health of the community LCPH serves. The Assessment and Health Promotion branch consists of five front-line staff including a Health Education Specialist, Program Planner, Chronic Disease Program Specialist, Epidemiologist, and Emergency Preparedness and Disaster Recovery Specialist. While there are many different positions that make up the Assessment and Health Promotion branch, the branch and agency have an Epidemiologist who will provide day to day mentorship for the fellow. In addition, both the Assessment and Health Promotion Supervisor and Community Health Division Manager have had experience as applied epidemiologists and can provide additional mentorship during the fellow’s time with LCPH.

Day-to-Day Activities

Day to day activities will include data collection, data analysis, report writing, engagement of external partners to support data collection and visualization and attending internal and external meetings.

Potential Projects

Surveillance Activity  Surveillance of Opioid Overdoses Using ESSENCE

Linn County Public Health in partnership with one of the two hospitals in Linn County, belong to the National Syndromic Surveillance Program's ESSENCE platform. Through this agreement, LCPH receives hospital and clinic data from the hospital system, which provides near real-time medical record data. This activity will include the use of ESSENCE to monitor opioid and drug overdoses as well as development of surveillance reports to alert local public health partners.

Surveillance Evaluation  Shared Data System for Opioid Overdose Surveillance

Linn County Public Health in partnership with Marion Police Department and our emergency medical services, hospital, substance treatment, and social service partners are in the process of developing a secure data sharing system that will allow for cross-sector surveillance of opioid overdoses. The intent of the system is to increase understanding of the opioid overdose issue in Linn County through shared data connection and inform deployment of a multi-disciplinary response team to a person in crisis or at
increased risk for repeat overdoses. As the system is implemented, the fellow will evaluate it’s effectiveness in meeting the system goals and provide recommendations for improvement.

**Major Project  Retrospective Evaluation of The Risk for Repeat Drug-Related Overdose**

The intent of this project is to assess the risk for death associated with drug overdose and repeat overdoses in the 1 year following release from treatment, jail, and discharge from the hospital or emergency department. Priority for evaluation will take in to account the most prevalent drugs associated with drug overdose deaths.

**Additional Project  Firearm Analysis**

Use shots fired data from partnering law enforcement agencies and additional sources to develop a profile of firearm related incidents in Linn County, outlining demographic characteristics of individuals involved, geographic distribution, type of incident, and correlation with other social factors.

**Surveillance Evaluation  Creation of Opioid and Drug Overdose Query (ESSENCE)**

This project will be in concert with the "Surveillance of Opioid Overdoses using ESSENCE" project and will include development and evaluation of a query in ESSENCE to capture drug and opioid overdose cases to support surveillance activities.

**Preparedness Role**

As with all Linn County Public Health staff, the fellow will receive National Incident Management System (NIMS) training coordinated through our Emergency Preparedness and Disaster Recovery Specialist. Once trained, the fellow will participate in preparedness drills and appropriate meetings associated with the Linn Area Partners Active in Disaster (LAP-AID) coalition.

The fellow will work with the Emergency Preparedness and Disaster Recovery Specialist to inform development of a collaborative system in the Linn County service area that enables first responders to assess, treat, and refer patients with opioid overdose and addiction.

**Additional Activities**

1. Participate in the design, collection, and evaluation of the health status and needs of Linn County associated with the community health assessment.
2. Work with the action team associated with the community safety priority in the Community Health Improvement Plan to better understand the issue and the factors that are driving a perception of lack of safety.
3. Use visualization software such as Tableau or ArcGIS insights to communicate health data.
4. Investigate additional unintentional and intentional injuries
Mentors

Primary  Amy Hockett, PhD, MPH
          Epidemiologist

Secondary Kaitlin Emrich, MPH
          Assessment and Health Promotion Supervisor