Injury-Drug Overdose, Injury

Connecticut Department of Public Health, Community, Family Health, Prevention Section; Injury and Violence Surveillance Unit

Hartford, Connecticut

Assignment Description

This fellow will be placed in the Injury and Violence Surveillance Unit. However, this fellow will be given the opportunity to work across silos with staff from infectious disease, EMS, and public health preparedness in order to provide surveillance support for suspected overdoses and other injuries.

Day-to-Day Activities

1) The fellow’s day to day activities may include:
2) Receiving training on DPH surveillance systems
3) Using surveillance data to conduct data analyses and visualizations
4) Preparing reports and presentations to disseminate surveillance findings to key stakeholders
5) Participating in outbreak and cluster investigations, as identified
6) Documenting best practices to support surveillance activities
7) Meeting with DPH staff 1:1 or via scheduled meetings
8) Participating in calls, trainings, and workgroups with CDC and other partner agencies

Potential Projects

Surveillance Activity   EMS Overdose Surveillance

During November 2019 the Office of EMS implemented a new EMS Data Management System. This system will allow DPH to use high quality, timely data to monitor EMS utilization statewide, including encounters related to suspected overdoses. Historically, these data have not been used to conduct surveillance for overdoses due to technical barriers related to the collection and management of these data. By June 2020, EMS data from 2017-current will be available in the new system.

The specific aims of this surveillance project will be to 1) develop an overdose-specific case definition for Connecticut based on national best practices; 2) describe trends statewide and by local geography; 3) identify and describe data quality issues and 4) disseminate the results to key stakeholders via written reports of verbal presentations at professional meetings.

Surveillance Evaluation   SWORD Initiative

The Connecticut Department of Public Health Office of Emergency Medical Services (OEMS), in collaboration with the Connecticut Poison Control Center (CPCC) at UCONN Health, and pursuant to Act No. 18-166, Sec. 5 have enacted a real time reporting mechanism for Opioid Overdoses in the State through Emergency Medical Services called the CT EMS Statewide Opioid Reporting Directive (SWORD). All CT certified and licensed EMS organizations and providers are now reporting to the CPCC after any
call where the patient is suspected of opioid use causing decreased responsiveness, respiratory depression or death, whether naloxone was administered.

The project was rolled-out in two phases by DEMHS Region beginning with Region 3 reporting by April 1, 2019, followed by all other Regions (1, 2, 4 and 5) reporting on or before June 1, 2019.

The CSTE Fellowship will evaluate the success of the SWORD initiative to date. The CSTE fellow will be given access to key informants from the Department of Public Health (Injury and Violence Surveillance Unit and Office of EMS), Poison Control Center, New England HIDTA, first responders, and emergency department staff in order to evaluate all stages of data collection and use associated with this initiative.

**Major Project Data Linkage**

DPH has built capacity around surveillance of suspected overdoses by the establishment of multiple data systems:

- Emergency Department Syndromic Surveillance (via the DPH EpiCenter Platform and the National Syndromic Surveillance Program)
- OD Map
- EMS Data Management Surveillance System
- Connecticut Electronic Disease Surveillance System
- OCME Fatality Data
- PDMP Data (limited)

A major project for this Fellow will involve linking data across these data sets using best practices. Many of these data sets are de-identified, so probabilistic matching may be employed to develop estimates of suspected overdoses and improve the value of data to inform public health action.

**Additional Project Syndromic Surveillance of Injury Conditions**

Currently the EpiCenter Syndromic Surveillance System has primarily been used by the Injury and Violence Surveillance Unit to conduct surveillance for suspected overdoses due to staffing constraints. This fellow will use syndromic surveillance data to describe trends and identify clusters of non-overdose injuries. Specifically, this project will involve:

1) Assessing stakeholder needs
2) Defining use cases
3) Creating syndromic case definitions for conditions of interest
4) Analyzing and visualizing results
5) Disseminating findings to key stakeholders

**Additional Project Protocol for Acute Outbreaks of Injury Conditions**

At DPH, acute outbreaks of overdoses and injuries can be challenging from an organizational perspective as the Injury and Violence Surveillance Unit is the lead program from injury surveillance, but the Infectious Disease Section holds expertise on responding to acute outbreaks. This fellow will be tasked with developing a protocol and supporting job aids to support these activities, based on feedback from leadership in the Injury and Violence Surveillance Unit and Infectious Disease Section.
**Preparedness Role**

The Fellow will be involved in emergency preparedness activities by actively participating in any drills or exercises pertaining to suspected overdoses or injury-related conditions.

**Additional Activities**

This fellow will be mentored by senior staff in the Office of Injury and Violence Prevention and Infectious Disease Program, which will provide the fellow with exposure to a wide range of infectious and chronic disease activities at the Department. The fellow will have the opportunity to participate in any investigations related to emerging public health issues. Examples in investigations conducted by DPH in the past year include: Hepatitis A infectious in individuals experiencing homelessness or with substance use, e-cigarette and vaping related lung injuries, a mass overdose of synthetic cannabinoids in a public green, and an outbreak of overdoses due to cocaine contaminated with fentanyl.

**Mentors**

**Primary**
Susan Logan, MS, MPH
Supervising Epidemiologist

**Secondary**
Kristen Soto, MPH
Syndromic Surveillance Coordinator