

ID: 42371501

Injury - Drug Overdose, Injury - Host Site Description

DC HEALTH

Assignment Location: Washington, US-DC
DC HEALTH
Center for Policy, Planning and Evaluation

Primary Mentor: Kenan Zamore, BA, MPH
Senior Research Epidemiologist
DC HEALTH, Center for Policy, Planning and Evaluation

Secondary Mentor: Larissa Pardo, BA, MPH
Statistician
DC HEALTH, Community Health Agency

Work Environment

Hybrid

Assignment Description

The Fellow will join a team of data analysts, epidemiologists and statisticians in data analysis and production of statistical reports for tracking progress, program and policy development within the Center for Policy, Planning and Evaluation (CPPE) They will be mentored in using methods of data analysis to achieve research goals. The fellow will primarily be tasked with injury surveillance, from overdoses to firearm injuries to traffic, and will have exciting levels of engagement with both Government and Community partners. The fellow will benefit from a level of integration that is rare at the state level. Our size and independence facilitates collaboration across a wide variety of agencies, with DC Health usually playing a convening role and leading analytical activities.

Describe Statistical and Data Analysis Support, Such as Databases, Software, and Surveillance Systems Available to the Fellow

The fellow will have access to additional statistical support from four senior epidemiologists within CPPE as well as three statisticians who are advanced SAS users and other software. Training in GIS will be provided by a GIS specialist if necessary. The fellow will also have access or will be provided data from the cancer registry, BRFSS, YRBS, hospital discharge data, vital records (births and deaths), drug overdose and DC Violent Death data, medical examiner data and the ESSENCE syndromic surveillance system. Space for the fellow will be located within CPPE. The fellow will be allocated a cubicle with a desktop computer. In addition to standard LAN operations, support includes database managers and access to SAS, SPSS, GIS, Tableau, and other software packages. Other epidemiologists and data analysts are also available to provide support. Professional coaching is also available from ESRI (for GIS projects) and HealthDataViz, our tableau/data visualization resource.

Projects

Surveillance Activity Title: Drug-related morbidity and mortality surveillance

Surveillance Activity Description:

The fellow will collaborate with both government and community/harm reduction partners to analyze and disseminate timely and actionable data to inform our prevention partners and evaluate the progress of the city's overall opioid response strategy.

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The fellow will work in conjunction with the data leads for both OD2A and the State Opioid Response Grants in designing and improving real time surveillance systems using syringe testing data, toxicology data, hospital biosurveillance, EMS transports, treatment and harm reduction data. The fellow would be expected to attend meetings and participate regularly with both Government partners and the community.

DC was also recently funded by APHA's Injury and Violence Prevention Data Science Demonstration Project to create a case definition to rapidly detect fatal overdoses. The fellow would play a complementary role in this project and work with a team of data scientists from the CDC, the DC Government, and Johns Hopkins University's Applied Physics Lab.

Surveillance Activity Objectives:

- Updated Live Long DC Dashboard (monthly)
- Annual Report
- Monthly Ward/Neighborhood Reporting
- Ad hoc Analyses
- Opioid Fatality Review Board Annual Report

Surveillance Activity Impact:

Improved data collection infrastructure, improved data dissemination, reduced morbidity/mortality

Surveillance System Evaluation Title: SUDORS Evaluation

Surveillance System Evaluation Description:

The fellow will evaluate DC SUDORS (DC State Unintentional Drug Overdose Reporting System-fatal drug overdose surveillance) in line with the CDC's most recent guidelines. SUDORS is DC's statewide surveillance system containing information on accidental and undetermined intent overdose death. SUDORS uses data from death certificates, medical examiner reports, and law enforcement reports when available. The fellow will assess data entry, data completeness, existing data products and data sharing arrangements.

Surveillance System Objectives:

- Evaluation report with identified weaknesses and suggestions for improvement
- Paper or report using data from 2017-23 (n >3000) to look at predictors and correlates of fatalities

Surveillance System Impact:

Improved fatal overdose surveillance. Improved capability to perform linkage and establish the trajectory to fatal overdose from key events.

Major Project Title: Risk-modelling/time series analysis/ Overdose-related data science

Major Project Description:

The fellow will amalgamate as many available data sources as feasible from the entire citywide strategy, including treatment data, EMS morbidity data, Autopsy reports, socioeconomic variables, history of recidivism, recent release from incarceration and perform geospatial analysis/clustering, regressions and time-series analysis to quantify risk of overdose recidivism and risk of death. This effort will be complimentary to the major surveillance activity, and will be feasible after the fellow becomes familiar with overdose surveillance, data sources and owners and data science towards the latter part of their fellowship.

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Major Project Objectives:

- Academic Paper, Report or whitepaper, and Presentation to Harm reduction Stakeholders

Major Project Impact:

- Decreased rate of opioid misuse and OUD
- Improved provision of evidence-based treatment for OUD

Additional Project #1 Title: Injury Surveillance

Project #1 Type: Major Project

Project #1 Description:

The fellow will have the opportunity to apply similar ideas to the overdose realm to injuries, especially non-fatal firearm injuries and homicides. The fellow will work with the Criminal Justice Coordinating Council, The Office of Gun Violence Prevention and The Office of the Chief medical examiner to replicate surveillance activities, analysis and risk terrain modelling to our gun violence problem.

Project #1 Objectives and Expected Deliverables:

- White Paper, Published Paper, and Annual Report

Project #1 Impact:

- Increased integration of public health and public safety
- Improved surveillance of fatal/non-fatal assaults

Please Describe the Fellow's Anticipated Role in Preparedness and Response Efforts – Include Activities and Time Allocation (Required Competency of Fellowship)

The fellow will also have the option of participating in emergency response training, exercises, and actual events based on the State Emergency Preparedness plan, especially events classified as National Special Security Events (NSSEs). He/she will have the option of participating in other emergency preparedness activities and surveillance during these events. If interested, the fellow can work or be involved in the planning of events like July 4, the State of the Union Address, and other special events as they arise. CPPE works closely with our emergency preparedness arm on several CDC grants (PHEP, ELC), and is the analytical arm for the majority of our emergency response protocols. Moreover, being in the Nation's Capital will provide frequent exposure to such opportunities. The primary mentor will ensure that the fellow's bandwidth is adequately assessed before deployment, and that any participation is beneficial to the fellow's growth.

Please Describe the Fellow's Anticipated Role in Cluster and Outbreak Investigations – Include Activities and Time Allocation (Required Competency of Fellowship)

The fellow will perform reporting and analysis of overdose clusters. The fellow will look at geospatial clustering, as well as amalgamating data from public health lab testing, fatal overdoses, prevention/outreach activity, and qualitative reports from community members. The fellow would also have the opportunity to work on infectious disease outbreaks (e.g., foodborne, school-based, healthcare-associated infections) as time, resources, and interest dictates. The fellow would initially shadow experienced team members but would eventually gain the confidence and competence to play a lead role or even initiate investigations of their own towards the end of their fellowship.