

Substance Abuse, Injury

King County, WA, Public Health - Seattle & King County & Dept of Community and Human Services

Seattle, Washington

Assignment Description

The CSTE Fellow's primary appointment will be with Public Health - Seattle & King County (PHSKC) and the secondary appointment will be with Dept of Community and Human Services (DCHS). These two departments of King County (KC) serve the two million residents who reside in the urban, suburban, and rural locales that comprise the vast county. Similar to trends across the country, King County has experienced increasing rates of -overdose deaths in the last decade. One-quarter of drug overdose deaths in Washington occur in King County – more than any other county in the state. Addressing substance use is a regional priority for King County. Through a six-month, multi-sector collaborative process, King County coordinated the Heroin & Prescription Opiate Task Force to evaluate regional needs and evidence-based practices to address the opioid crisis. This work resulted in recommendations to pursue strategies to prevent opioid use disorder, prevent overdose, improve access to treatment and provide other supportive services ([Heroin Opiate Addiction Task Force Report](#)). The recommendations made by the Opiate Task Force have been endorsed by the King County Executive and Seattle Mayor.

The CSTE Fellow will be instrumental in informing the work of the Task Force. The Fellow will:

- (1) Contribute to overdose surveillance activities.
- (2) Evaluate PHSKC's approach to overdose surveillance.
- (3) Contribute to the first annual King County Substance Use Epidemiology Report.
- (4) Evaluate King County's Naloxone Program.
- (5) Evaluate drug user health programs.
- (6) Assist with other assessments of the behavioral health system.
- (7) Conduct equity impact assessments.

Day-to-Day Activities

- Review and summarize real-time overdose surveillance data on a weekly basis from:
 - Medical Examiner's Office (MEO) regarding suspected drug-involved deaths
 - King County Emergency Medical Services (EMS) regarding suspected overdose events
- Communicate alerts to members of the overdose surveillance and prevention work group if cases of public health importance emerge through the real-time monitoring of overdose surveillance data.
- Analyze a multitude of different databases, including death certificate data, MEO data, surveys with injection drug users, hospitalization data, Medicaid claims data, medical records data, etc.
- Assist with the design and implementation of program evaluations.
- Preparation of reports, manuscript for peer-review publication, and presentations.
- Development of data collection forms and databases.
- Participation in meetings/calls/webinars.

Potential Projects

Surveillance Real-time overdose surveillance Activity

Objective: Generate a weekly report summarizing the real-time fatal and non-fatal overdose data.

Description of Activity: The fellow will receive weekly reports from the King County Medical Examiner's Office and KC Emergency Medical Services offices regarding fatal and non-fatal suspected overdose events. The fellow will append these data to existing datasets and evaluate similarities and differences across cases and data sources in terms of substances involved, case characteristics and environmental context, temporality, and location.

Surveillance Evaluate King County's Approach to Real-Time Overdose Surveillance Evaluation

Objective: Evaluate the existing approach to real-time overdose surveillance and make recommendations on how to improve its efficiency and impact.

Description of Activity: PHSKC implemented real-time overdose surveillance in March 2017, and our processes and protocols are continually evolving. The CSTE Fellow will evaluate the approach that was initially established to monitor overdose in King County according to the following CDC criteria: usefulness, simplicity, flexibility, data quality, acceptability, sensitivity, positive predictive value, timeliness, stability, informatics system quality, informatics user experience, informatics interoperability. Following the evaluation the Fellow will make recommendations on how the surveillance approach can be improved upon.

Major Project Serve as Co-Editor for the Annual King County Substance Use Epidemiology Report

Objective: Design, coordinate, and contribute to the publication of a report summarizing King County data on substance use and overdose.

Description of Activity: Historically, King County employed a de-centralized approach to addressing substance use issues. For example, the KC Needle Exchange is operated by the HIV/STD program, the Hepatitis C program operated out of Communicable Disease –Epidemiology section, substance use treatment services were managed by the Behavioral Health and Recovery Division, fatal overdoses were managed by the MEO, and EMS responds to a large number of non-fatal overdoses. Each program publishes an annual report, which includes data corresponding to the projects they specifically oversee.

The Fellow will work with the primary mentor to compile programmatic data from across King County into a single, annual report that includes the following components:

- Substance Use Behaviors (Source: survey data)
- Fatal Overdose (Source: Death Certificate and MEO data)

- Non-Fatal Overdose (Source: EMS and Emergency Department data)
- Hospitalization rates for overdose & infections (Source: CHARS data)
- Diagnosis of Opioid Use Disorder (Source: Medicaid Claims and programmatic data)
- Treatment Demand & Utilization (Source: Survey & programmatic data)
- Naloxone Distribution & Utilization (Source: Survey & programmatic data)

Major Project Evaluation of the Availability, Utilization, and Impact of Naloxone in King County.

Objective: Evaluate current approaches to Naloxone distribution and make recommendations on how to improve the scope and impact of King County’s Naloxone Program.

Description of Activity: Naloxone (or “Narcan”) is used to reverse an opioid overdose, and thus serves as a key overdose prevention strategy. King County has recently expanded distribution of naloxone to housing providers, bicycle police in the City of Seattle, people exiting from the county jail, clients of the needle exchange program, and Basic Life Support EMS staff. Additional expansion is anticipated.

The fellow will analyze existing program data relating to naloxone demand, uptake, utilization, and overdose reversals. Pending the results from the analysis of existing data, the fellow will have the opportunity to design an assessment that responds to gaps in knowledge. The methods for the assessment are “to be determined” and could include adding questions to existing intake forms and surveys, conducting key informant interviews, and/or designing and implementing a new survey.

Major Project Evaluation of Health Services/Programs for Drug Users in King County

Objective: Evaluate substance use treatment programs and overdose prevention programs and disseminate “lessons learned”.

Description of Activity: The Heroin and Opiate Addiction Task Force recommended the expansion of low-barrier treatment programs and exploration of other overdose prevention strategies ([Heroin Opiate Addiction Task Force Report](#)). With guidance from the primary and secondary mentors, the Fellow will assist in: (1) the development of evaluation plans, data collection instruments, and databases; (2) collection of new data; (3) analysis of program data; (4) preparing written reports and oral presentations.

Preparedness Role

Objective: Develop a coordination strategy to be implemented in the event of a drug-related crisis.

Description of Activity: The real-time overdose surveillance strategy was established to detect clusters in overdose and emerging threats (e.g. <https://publichealthinsider.com/2017/10/02/illicit-fentanyl-found-locally-in-fake-opioid-pills/>) . With guidance from the primary and secondary mentors, representatives from PHSKC preparedness section, and PHSKC communications team, the Fellow will contribute to the development of a response plan that includes the following components:

- Description of roles of key persons to be involved in response.
- Contact list including people/agencies to be included in issued health alerts.
- Coordination strategy.
- Description of intervention options.

Additional Activities

Needs Assessment – Youth Detoxification

King County is exploring how to achieve zero youth detention. One area that contributes to youth detention is substance abuse. As no youth detoxification facility per se currently exists, there is interest in quantifying the level of need for this service. The Fellow will analyze existing data sources and supplement this analysis with interview and/or focus group data from youth service providers on need for youth detox capacity. The Fellow will prepare a report of the findings and make recommendations.

Assess existing data sources on suicide and suicidal behaviors.

The county is engaged in a number of suicide prevention initiatives. Better understanding of suicide trends can help inform prevention initiatives, and help assess the impact of these interventions. The Fellow will analyze the state and county epidemiological data, and hospital and emergency department data to determine suicide death and attempts patterns by demographics and compare to state and national trends. Many of the same databases mentioned above would be used for this project (e.g. death certificate/MEO data, EMS data, hospitalization data, survey data, etc.)

Exploring surveillance methodologies for hidden populations

This project would involve identifying populations currently missed by current methodologies attempting to quantify drug use/mental illness/unmet need for behavioral health services. Current data is based primarily on the National Household Survey, which only reaches people who have landline telephones, and the Healthy Youth Survey, which only reaches in-school youth. This means that these surveys are most likely to miss populations at highest risk for mental illness and substance abuse, such as those who are in correctional or psychiatric institutions, individuals who are homeless, and out of school youth. Survey data is supplemented by prescription monitoring program (PMP) data, state crime lab data, and WA Recovery Helpline data. The Fellow would make recommendations on better ways to gather data on and include hidden populations.

Homelessness and Behavioral Health

There is strong interplay between behavioral health and homelessness. There are multiple initiatives within King County that seek to improve outcomes for those who are affected by both behavioral issues and unstable housing. The Fellow will use existing data sources to develop a more in-depth picture of the specific ways homelessness affects behavioral health treatment trajectories and criminal justice involvement. The Fellow will use hospital, Housing Management Information System (HMIS), DCHS behavioral health, Department of Juvenile Justice and Detention, and Medicaid claims data to determine health services treatment trajectories of individuals with behavioral health conditions who are homeless, create data visualizations based on these data, and make recommendations to program planners based on results.

Miscellaneous Activities

- Participate in the state Unintentional Poisonings Work Group.
- Participate in the King County Drug Trends Work Group.
- Depending on the Fellow's interests, it may be possible to identify additional epidemiologic or evaluation projects related to major King County initiatives.

Mentors

Primary

Julia Hood PhD, MPH

Epidemiologist

Secondary

Domin Chan PhD, MHS

Performance Measurement Evaluator