

ID: 55902443

Injury, Infectious Diseases - Host Site Description

Kansas Department of Health and Environment

Assignment Location: Topeka, US-KS
Kansas Department of Health and Environment
Infectious Disease and Emergency Response

Primary Mentor: Erica Thomasson, PhD, MPH
Career Epidemiology Field Officer
CDC and the Kansas Department of Health and Environment

Secondary Mentor: Danielle Sass, MPH
Senior Epidemiologist
Kansas Department of Health and Environment

Work Environment

Hybrid

Assignment Description

The Fellow will join the Trauma, Injury, and Overdose Epidemiology Section within the Bureau of Epidemiology and Public Health Informatics (BEPHI) located in the Curtis State Office Building, the newest building in the Capitol complex sitting catty-corner from the beautiful Kansas Statehouse in Topeka, Kansas.

This section serves programs in the Bureau of Health Promotions (BHP) and the Bureau of Community Health Systems (BCHS) allowing for the Fellow to see how epidemiologists interact across the Division of Public Health at the Kansas Department of Health and Environment (KDHE). The Fellow will gain a detailed understanding of injury/violence and overdose data to action surveillance and prevention program activities, as well as the cross-sectional work the team does with social determinants of health (SDOH) and occupational data.

The Fellow will become familiar with the application of CDC/CSTE injury definitions and related ICD-10-CM and ICD-10 codes for indicator tracking. To adjust for emerging areas of interest that may not be well captured by existing standardized codes, the Fellow will use natural language processing across surveillance systems' data to monitor changes and develop alerts through clusters or alert threshold detection.

The Fellow will have the opportunity to review the literature and collaborate with counterparts to develop solutions to improve data collection completeness, accuracy, and timeliness. They will also analyze and develop reports (potentially automated) for partners (community mental health centers, local health departments, coalitions, and advisory committees). The Fellow will be mentored and supported to complete all requirements and grow beyond, by collaborating and participating in local and national meetings.

To complete additional fellowship competencies including participating in at least one outbreak or cluster response and emergency response activities, the Fellow will collaborate with the Infectious Disease and Emergency Response Section of the Bureau of Epidemiology and Public Health Informatics. Collaboration with this Section will also enable the Fellow to appreciate the diversity of how epidemiology is used in different program areas and gain an understanding of epidemiology across the KDHE.

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Day to day:

- Meet with primary and secondary supervisors (weekly to start)
- Work on projects
- Review literature and forums for up-to-date methods
- Attend trainings
- Attend weekly Trauma, Injury, and Overdose Epidemiology Section meetings
- Attend daily phones meetings for awareness of reportable conditions updates
- Collaborate with supervisors, section staff, and other epidemiologists in the BEPHI
- Participate in CSTE Occupational Health workgroup meetings
- Participate in Zero Suicide meetings with partners
- Assist in facilitating the BEPHI SDOH quarterly data team meetings
- Participate in Essentials for Childhood (ACEs project) meetings with partners
- Participate in public health webinars as applicable

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

The Fellow will receive hands-on training on the use and application of multiple databases and state and national surveillance systems, including the Kansas Violent Death Reporting System (KSVDORS), National Outcome Measures (NOMS), State Unintentional Drug Overdose Reporting System (SUDORS), Behavioral Risk Factor Surveillance System (BRFSS) and EpiTrax. Available statistical analysis software includes Statistical Analysis System (SAS), R, SatScan, and Tableau; support and training will be provided via Fellow's supervisors and mentors, in addition to online training.

Projects

Surveillance Activity Title: Improving Surveillance and Reporting of Industry and Occupation Data for Reportable Conditions in Kansas

Surveillance Activity Description:

Examine industry and occupation data collected across all reportable conditions in the Kansas Surveillance System (EpiTrax).

Surveillance Activity Objectives:

- Determine completeness of the I/O fields by condition and by reporting organization
- Provide recommendations on improvement of data collection and quality
- Work with supervisor and EpiTrax team on refining I/O data collection form based on findings
- Build standard code that produces reports with demographic, industry, and occupation information by condition to be distributed to responding teams
- Run cluster analyses in SatScan for assessing worksite exposure/spread

Surveillance Activity Impact:

Workplaces have been identified during previous outbreaks, however maintaining active surveillance of industry and occupational categories of work has not been completed.

By developing this work, it is possible for earlier identification of sources for reportable conditions. This work will also allow for the identification of partners and fields of work that need to be collaborated with when developing prevention and response to reportable conditions.

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Surveillance System Evaluation Title: Evaluation of the Kansas Zero Suicide NOMs Surveillance System

Surveillance System Evaluation Description:

Evaluate the suicide referral and care plan surveillance system of National Outcome Measures (NOMs) data for Community Mental Health Centers (CMHC) participating in the Kansas Zero Suicide Program.

Surveillance System Objectives:

- Work with the supervisor and Zero Suicide Epidemiologist to understand the Kansas Zero Suicide Program flow of data
- Review the incoming data for timeliness, completeness, and accuracy
- Enter data into the SAMHSA's Performance Accountability and Reporting System (SPARS) surveillance system
- Work with CMHC sites on the process of collecting data
- Recommend areas for data collection workflow improvement
- Give an oral presentation

Surveillance System Impact:

This activity will help the Kansas Zero Suicide team understand the impact of the program. The results will inform changes in data flow for community mental health centers in Kansas to determine if the Zero Suicide Model is being fully implemented.

Major Project Title: Evaluating Kansas Social Determinants of Health Data and Use Across KDHE Programs

Major Project Description:

Evaluate the use of the KDHE Social Determinants of Health (SDOH) data dashboard by epidemiologists and programs in decision making and product development. Look for ways to improve updating data in the dashboard.

Major Project Objectives:

- Evaluate use of new SDOH data dashboard
- Maintain new SDOH data dashboard by updating data sources. Look for API and automation opportunities
- Analyze BRFSS SDOH data across demographic and geographic categories
- Assess demographic and geographic areas targeted across multiple agency programs because of SDOH data decision making
- Share results to relevant programs for collaboration efforts

Major Project Impact:

Improve and expand the use of SDOH data into KDHE programs. Improve program and partner decision making to include a health equity lens.

Additional Project #1 Title: Develop a public social norms survey to support work preventing adverse childhood experiences in Kansas.

Project #1 Type: Major Project

Project #1 Description:

Develop a survey on social norms to be distributed to the public via social media (this activity is part of a grant project to assess changes in public perceptions of social norms and will be repeated over 5 years).

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Project #1 Objectives and Expected Deliverables:

- Review literature on best practices for public surveys through social media
- Develop a survey on social norms to be distributed to the public via social media
- Develop randomization groupings of the questions to get useful results but prevent burnout/survey fatigue (expect only questions asked per person)
- Evaluate effectiveness of survey and refine for quality assurance
- Develop analysis plan
- Complete analysis of survey data
- Produce report on findings

Project #1 Impact:

The findings from this project will allow for the assessment of social norms perception at the state level. These findings will inform strategies for programs addressing adverse childhood experiences. These programs have the goal to enhance connectedness to build resilience in the face of adversity.

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

The Fellow will participate in any public health emergency responses, either in the field or incident command structure, working with a wide range of KDHE response staff and partners including local health departments, healthcare coalitions, federal partners, etc. Another opportunity for the Fellow to collaborate with partners may arise in response to a natural disaster (storms, floods, tornadoes, wildfires), the Fellow can collaborate with the Infectious Disease and Emergency Response Section epidemiologists to implement disaster epidemiology methods (rapid needs assessments, morbidity and mortality surveillance, hospital surveys, etc.) in partnership with local, state, and federal partners. Disaster epidemiology methods are utilized to measure disaster-related impacts on affected populations, as well as evaluate demands on health care delivery systems and the effectiveness of health interventions and disease control efforts.

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

KDHE's Bureau of Epidemiology and Public Health Informatics (BEPHI) is tasked with the surveillance of notifiable infectious diseases and responsible for collecting, analyzing, and interpreting data that provide information on conditions of public health importance and the health status of Kansas. The Infectious Disease Emergency Response (IDER) Section within BEPHI conducts infectious disease surveillance and outbreak investigations and provides subject matter expertise to physicians, veterinarians, the public, and local health departments.

The Fellow will be expected to participate in at least one Infectious Disease and Emergency Response Section cluster or outbreak investigation (including: questionnaire design, interview training and case/control interviews, data collection and management, data analysis, after-action reviews and field investigation report writing). There is also potential to assist KDHE's Sexually Transmitted Infections (STI) and Human Immunodeficiency Virus (HIV) Program or Tuberculosis Program with an cluster or outbreak investigation/response.

Time allocation: ~1 day/week for 4-12 weeks for an outbreak response or ~20 hours/week for 3 weeks for an acute outbreak.

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Please Describe the Fellow's Anticipated Role in the COVID-19 Response – Include Activities and Time Allocation

It is not anticipated that the Fellow will play a role in the COVID-19 response.

Please Describe Opportunities for Fellows to Work in Health Equity as well as Incorporating Diversity, Equity, and Inclusion into their Work

Health equity has been identified by KDHE as a key focus area with the 2023-2027 Kansas State Health Improvement Plan outlining improving inequalities in health/health outcomes and improving access to care, including behavioral health, as key priorities. The Fellow will have the opportunity to work in health equity as the major project is focused around collecting and utilizing data for health equity analysis by epidemiologists across all programs in the Division of Public Health.