

ID: 35509281

Substance Use/Mental Health, Infectious Diseases - Host Site Description

Santa Barbara County

Assignment Location: Santa Barbara, US-CA
Santa Barbara County
Public Health Department - Epidemiology

Primary Mentor: Joy Jacobsen, MPH - Epidemiology
Senior Epidemiologist
Santa Barbara Public Health Department

Secondary Mentor: Michelle Wehmer, MPH - Epidemiology
Epidemiologist
Santa Barbara County Public Health Department

Work Environment

100% Virtual

Assignment Description

The fellow will be placed with the Epidemiology Team, which is part of the Community Health Division of the Public Health Department. The Epidemiology team is responsible for providing the County, Department, community partners, and the public with actionable data to protect and improve the health of Santa Barbara County.

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

The fellow will have access to the following type of data: drug overdose, syndromic surveillance, hospital discharge, emergency room visit, pre-hospital, population estimates, reportable disease and condition surveillance systems, outbreak, birth and death, homeless, and child death review.

Available data software includes: Geographic Information Systems, R, SAS, Smartsheets, Tableau, and Microsoft Office.

Projects

Surveillance Activity Title: Syndromic Surveillance

Surveillance Activity Description:

The fellow will assist the Syndromic Surveillance Senior Epidemiologist in onboarding, validating, analyzing, and reporting syndromic surveillance. The Fellow will gain experience in learning about how syndromic surveillance can be used to understand real-time trends with infectious and chronic diseases as well as injuries. The fellow will learn about limitations and strengths of syndromic surveillance. Using SAS, the fellow will import and clean the syndromic surveillance data. They will assist in creating a database and analyze trends, paying special attention to data impacting health equity.

The Fellow will work with community partners to ensure the syndromic surveillance dashboard meets a variety of needs.

Surveillance Activity Objectives:

The objective is to establish and utilize syndromic surveillance data to report key data. The fellow will clean, manage, analyze, and report trend data using SAS. The deliverable will be a Tableau dashboard for providers, emergency preparedness, public health and community leaders, and the public.

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Surveillance Activity Impact:

Starting a new surveillance system to understand local, real-time health trends.

Surveillance System Evaluation Title: Evaluation of Syndromic Surveillance

Surveillance System Evaluation Description:

The newly form syndromic surveillance will be evaluated by the Fellow. The fellow will evaluate this surveillance system to ensure the most important data is being reported efficiently. Recommendations will be made on how to improve the system.

Surveillance System Objectives:

Project objectives include learning about the surveillance system and understanding how the surveillance system is being used. The fellow will evaluate the surveillance system in accordance with CDC's measures for simplicity, flexibility, acceptability, sensitivity, predictive value positive, representativeness, and timeliness.

Deliverables include: description of system being evaluated, level of usefulness of system, evaluating attributes of system, description of resources needed, listing objectives of the system, and creating a flow chart of the system. This will lead to determining if system is meeting its objectives and any recommended modifications to the surveillance system.

Surveillance System Impact:

New surveillance systems should be evaluated to ensure they're efficient and meeting objectives. The Fellow will play an important role in understanding if the newly formed syndromic surveillance is useful and meeting objectives.

Major Project Title: Analysis of Substance Use Data

Major Project Description:

Substance use has become an increasing priority at Santa Barbara County Public Health Department. Recently, the Epidemiology Unit has become involved with opioid settlement funds awarded to the County and has built a relationship with the coroner. The Fellow will learn to analyze a variety of local and publicly available data on substance use, including: Coroner, death certificates, ED visits, and pre-hospitalization (EMS). The Fellow will contribute to the building of a community dashboard to communicate substance use trends in Santa Barbara County. The Fellow will write a Press Release to announce the newly formed dashboard.

Major Project Objectives:

The primary objective is to analyze and collate substance use data for the community. This will require a deep understanding of substance use, which intersects with multiple populations, including: people experiencing homelessness and/or mental health. The expected deliverable will be the creation of a dashboard that is utilized by multiple community and County Department leaders.

Major Project Impact:

The public health impact will be empowering local drug overdose prevention and treatment leaders and community members with data to understand and curtail the drug epidemic in Santa Barbara County. The dashboard will help strengthen partnerships on drug overdose prevention and treatment.

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Additional Project #1 Title: Violence Prevention Data Analysis

Project #1 Type: Major Project

Project #1 Description:

The fellow will help analyze primary and secondary data on violence data, which will include: intentional and unintentional injuries and deaths. Data sources will include pre-hospital (EMS) data and ED visit data. Priority populations will include youth and families, LGBTQI, women, and recent immigrants.

Project #1 Objectives and Expected Deliverables:

The Fellow will support the newly formed Office of Violence Prevention with needed data to apply for grant opportunities and determine local trends. The aim of the Fellow will be to utilize data to support violence prevention efforts.

Project #1 Impact:

Violence data has not been well studied in Santa Barbara County. The Fellow's impact will be uniting community partners (including the Sheriff and police departments) around violence data to better address and prevent violence in the County.

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

Santa Barbara County has a strong Public Health Emergency Preparedness team. As part of the Epidemiology Unit, the fellow will participate in Emergency Preparedness in the Plans section. This includes a role in preparedness trainings, which all employees are required to take. In addition, the fellow will participate in table top exercises that occur yearly. There may also be opportunities for a surged role during local emergencies, such as floods and wildfires. The fellow will also learn about how incident command system was used during the COVID pandemic and have a role in recovery. At least 5% of the fellow's time will be dedicated to preparedness and response efforts.

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

The fellow will be involved in investigations of cluster and outbreak investigations. During these investigations, the fellow will collect and analyze available data (including case reports, outbreak reports, hospitalization information, laboratory testing, and pathology reports). The fellow will use this data to form recommendations for additional investigation and mitigation. These recommendations will be presented to the Disease Control and Prevention Division. At least 5% of the fellow's time will be dedicated to cluster and outbreak efforts.

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

The Fellow will be trained on analyzing and publishing seasonal respiratory data, which includes COVID-19. The Fellow will be involved with creating a seasonal respiratory dashboard for providers and the public. At least 25% of the fellow's time will be dedicated to COVID-19, during the respiratory virus season.

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

The Fellow will have a role in producing Santa Barbara County's first Health Equity report, which will highlight health equity challenges and opportunities. The report will be published in partnership with Santa Barbara County's Office of

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Health Equity. The Office of Health Equity is a partnership between the Public Health Department and CBOs to address health inequities with a focus on those disproportionately affecting diverse communities in Santa Barbara County.

Joy takes time to explain hiring practices and tips for landing epidemiology jobs. The Fellow will gain important insights into the application, interview, and salary negotiation process at local health departments.