

ID: 45532583

**Infectious Diseases, Maternal and Child Health - Host Site Description
County of Monterey**

Assignment Location: Salinas, US-CA
County of Monterey
Health Department

Primary Mentor: Brandon Gates, MPH
Epidemiologist and Public Health Program Manager II
County of Monterey Health Department

Secondary Mentor: Edward Moreno, MD, MPH
Health Officer and Director of Public Health
County of Monterey Health Department

Work Environment

Hybrid

Assignment Description

The fellow will be placed in the Health Department's Division of Communicable Disease Prevention and Control, which resides in within the Public Health Bureau. The Public Health Bureau protects the health and safety of Monterey County residents and visitors, provides credible information to enhance health decisions, and partners with federal, state and local organizations to promote sound public health practice and policy. Key responsibilities of the Bureau include preventing and controlling infectious diseases; performing laboratory testing for infectious diseases and water contamination; preventing injury, chronic disease and premature death; improving the health of county employees and reducing employer costs; preparing for and responding to emergencies and disasters; linking families to community and government services; improving the health of mothers, babies and young girls; improving health outcomes and reducing healthcare associate costs for homeless individuals; ensuring access to pediatric specialty health care services; improving nutrition for low-income families; registering births and deaths, and issuing burial permits. The Division of Communicable Disease Prevention and Control includes the HIV, STD, Immunization, Epidemiology and Surveillance, Tuberculosis Control, and Communicable Disease Units, as well as the Public Health Emergency Preparedness, Hospital Preparedness, Vital Records, and Medical Marijuana Identification Card Programs. The fellow will work collaborative with individuals within the Division, Bureau, Department, and community to improve surveillance for communicable diseases, collect and analyze health information during disease investigations, and create epidemiologic profiles to guide local program strategies.

The fellow's anticipated day-to-day activities include obtaining access to relevant databases, extracting information, cleaning data, and developing SAS code for analyzing data. He/she will attend meetings with Department staff and community partners and participate in statewide teleconferences. The fellow will investigate incidents and outbreaks of communicable diseases, as well as coordinate with public health nursing, laboratory, and environmental health staff. The fellow will review reports from other agencies, create epidemiologic summaries, identify health disparities, and inform stakeholders of local morbidity and mortality trends. The fellow will plan, implement, and evaluate surveillance systems.

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

The fellow will have access to the same statistical and data analysis support as the Department's epidemiologists. After undergoing appropriate training and credentialing, the fellow will have access to the Department's databases and

ID: 45532583

**Infectious Diseases, Maternal and Child Health - Host Site Description
County of Monterey**

registries developed from primary data collection. They will have access to the County's geodatabase, which contains spatial data covering a variety of multidisciplinary topics. The fellow will also have access to data extracted from statewide databases such as the California Reportable Disease Information Exchange (CalREDIE), hospital admissions and emergency room visits via electronic medical record systems and BioSense/Essence, the California Immunization Registry (CAIR2), and the California Vital Records Business Intelligence System (VRBIS). They will have access to software including the standard Microsoft Office suite, SAS, PowerBI, ArcGIS, Qualtrics, and open-source software like R. The Department Administrative Bureau will provide information technology support to the fellow.

Projects

Surveillance Activity Title: Enhanced Coccidioidomycosis Surveillance

Surveillance Activity Description:

The fellow will conduct detailed interviews of Monterey County residents recently diagnosed with coccidioidomycosis. They will obtain and review medical records, extracting relevant health information. The fellow will enter information into the California Reportable Disease Information Exchange (CalREDIE) and extract key variables. He/she will analyze the data for health disparities, risk factors for infection, and trends, then compile a summary report for local stakeholders.

Surveillance Activity Objectives:

Coccidioidomycosis is endemic in Monterey County. This object of this project is to obtain additional insight into coccidioidomycosis among Monterey County residents.

Expected deliverables include:

- 1) Thorough and accurate case reports completed in CalREDIE
- 2) Completed data analysis highlighting any health disparities, as well as data trends
- 3) Summary report suitable for distribution to local providers and other stakeholders highlighting risk factors, disparities, and trends, as well as re-enforcing reporting requirements
- 4) Infographic suitable for sharing on social media with the public highlighting key surveillance findings and risk reduction information.

Surveillance Activity Impact:

The desired impact of this project is to improve the quality of coccidioidomycosis surveillance data, better inform local medical providers on local morbidity trends, and increase awareness of coccidioidomycosis and risk reduction measures within the community.

Surveillance System Evaluation Title: Evaluation of compliance with reporting requirements by laboratories and clinicians

Surveillance System Evaluation Description:

The fellow will evaluate laboratory and clinician compliance with reporting requirements. Local and state mandatory reporting requirements were updated on October 1, 2019. Changes included new diseases and variables to be reported by laboratories and clinicians. Due to the COVID-19 pandemic, very little outreach and follow-up was completed to inform laboratories and clinicians about the changes. The fellow will conduct an evaluation of compliance with the new reporting requirements, including such key variables as reporting of pregnancy status among individuals diagnosed with an STI, completeness of race and ethnicity data, and treatment information. They will perform the full scope of the evaluation process including describing the surveillance system, planning the evaluation methods, performing the

ID: 45532583

Infectious Diseases, Maternal and Child Health - Host Site Description

County of Monterey

evaluation, and drafting a report for the Program Manager and Director of Public Health proposing any recommended actions to improve the system and/or identify agencies on which to focus outreach.

Surveillance System Objectives:

The objective of this project is to evaluate the completeness and timeliness of provider and laboratory reporting of infectious diseases mandated under Title 17 of the California Code of Regulations.

Expected deliverables include:

- 1) Analysis of information reported by local medical providers and laboratories to include completeness of key data elements (e.g., gender, sexual orientation, race, ethnicity, address, phone number, occupation/situation, and pregnancy status)
- 2) Analysis of timeliness of reporting as measured by time from lab result to receipt of report
- 3) Report of key findings suitable for distribution to the Program Manager and Director of Public Health
- 4) List of laboratories and medical providers to prioritize for outreach.

Surveillance System Impact:

The expected public health impact achieved by completion of this project includes better use of public health resources through targeted provider outreach and improved quality of communicable disease surveillance systems.

Major Project Title: Communicable Disease Profile

Major Project Description:

The fellow will complete a comprehensive profile of communicable diseases in Monterey County. The profile will include time trend and health disparity analyses for the most commonly reported communicable diseases. The profile will include graphs, tables, and written interpretation. The fellow will coordinate with the Program Manager, Assistant Director of Public Health, and Health Officer to highlight programs and/or services in the report that are focused on reducing morbidity and health disparities. The fellow will prepare the report in a manner suitable for web publication. The fellow will also prepare and deliver a presentation to the Monterey County Board of Supervisors' Health, Housing, and Human Services Committee summarizing the report and highlighting key findings.

Major Project Objectives:

The objectives of the project are to identify local communicable disease trends and health disparities, inform local public health policy and practice, and educate stakeholders. Expected deliverables are a completed communicable disease profile suitable for web-based publishing and a completed PowerPoint presentation.

Major Project Impact:

The expected public health impact is to identify health disparities and focus scarce prevention and control resources. Additionally, increased awareness of identified trends and health disparities may aid in future requests for additional resources to address concerning trends and disparities.

Additional Project #1 Title: Data Governance Project

Project #1 Type: Major Project

Project #1 Description:

The Fellow will develop and implement a data governance strategy for the Department's Public Health Bureau. The Fellow will research relevant state and federal laws and data governance model practices, assess existing practices and protocols, and identify gaps and strengths of current systems. Working closely with the Department's Privacy Officer, Information Technology team, and Public Health Administration, the fellow will update existing protocols and create a

ID: 45532583

**Infectious Diseases, Maternal and Child Health - Host Site Description
County of Monterey**

comprehensive data governance strategy. The Fellow will work closely with the Bureau's epidemiologists and administration to implement the developed data governance strategies. Examples of some activities include creating a comprehensive list of databases with metadata, developing and applying data cleaning tools to existing databases, and consolidating and organizing data in secure storage locations.

Project #1 Objectives and Expected Deliverables:

The project's objective is to manage and monitor data more effectively.

Expected deliverables include:

- 1) a written data governance strategy with corresponding data management protocols
- 2) an organized archive of databases.

Project #1 Impact:

This project will improve the overall quality of the Bureau's surveillance data, leading to better informed decision making. The project will also improve data security.

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

Public Health Emergency Preparedness is located in the Division of Communicable Disease Prevention and Control, in which the fellow will be placed. They will have opportunities to attend preparedness trainings and participate in preparedness exercises. The fellow will complete basic Incident Command System (ICS) training. The fellow will be assigned a position in Epidemiology Unit of the Department Operations Center (DOC) during activation and may have an opportunity to serve in the County's Emergency Operations Center (EOC). Depending on workload in other areas of professional development, the fellow may also have an opportunity to contribute to the development or update of a public health preparedness plan or protocol. Examples include pandemic flu, general epidemiology and surveillance, isolation and quarantine, and viral hemorrhagic fever preparedness plans. The fellow may spend approximately 10% of their time on general preparedness activities, though this may vary with a declared public health emergency.

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 called upon to assist with cluster and outbreak investigations, should they occur. In a typical year, the Department investigates over 100 clusters and outbreaks including but not limited to foodborne illness, legionellosis, COVID-19, influenza, norovirus, scabies, and multidrug resistant organisms. The fellow will work alongside a team of experienced epidemiologists, public health nurses, health educators, and environmental health specialists and collaborate with public health microbiologists. The fellow will be expected to conduct facility inspections, become proficient in use of personal protective equipment, and be competent in specimen collection and handling. The fellow will collect epidemiologic information, conduct basic epidemiologic analyses, and complete case and outbreak reports. The fellow will spend an estimated 20% to 50% of their time investigating cluster and outbreaks, depending on seasonality and morbidity patterns.

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

The fellow will participate in COVID-19 cluster and outbreak investigations, as described above. The fellow may also analyze COVID-19 case, testing, and vaccination data, including contributing to the Department's PowerBI dashboard. The fellow will attend and participate in collaborative meetings with local stakeholders including medical providers,

ID: 45532583

Infectious Diseases, Maternal and Child Health - Host Site Description

County of Monterey

community-based organizations, and schools. The fellow will participate in statewide calls with the California Department of Public Health and public health professionals from other local health departments.

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

The Monterey County Health Department's Strategic Plan is anchored on the principle of health equity. The Strategic Plan helps to cultivate activities, program, and policies that equalize opportunities for communities to be healthy. Health equity is incorporated into program performance measures. Integrity and respect are two of the Department's core values. The Department values the strengths, experiences, and perspectives of others. The fellow will work in a diverse environment. Like the community it services, the majority of the Department's employees identify as Hispanic or Latino. Monterey County has a large number of residents from Oaxaca, Mexico. The fellow will have the opportunity to learn about Triqui, Mixtecan, and Zapotecan indigenous cultures and ways to engage these unique populations. The fellow will have the opportunity to work with Department epidemiologists on exploring ways to improve the collection and sharing of disaggregated race, sexual orientation, and gender information.