

ID: 33919248

Infectious Diseases, Infectious Diseases - Host Site Description

Guam Department of Public Health and Social Services

Assignment Location: Tamuning, CA-GU
Guam Department of Public Health and Social Services
Office of Epidemiology and Research

Primary Mentor: Ann Pobutsky, BA, MA, PhD
Territorial Epidemiologist
Guam Department of Public Health and Social Services

Secondary Mentor: W. Thane Hancock, MA, MD, MPH
USAPI Regional Epidemiologist (Chief Epidemiology Field Officer)
US Centers for Disease Control and Prevention

Work Environment

100% In-person

Assignment Description

The Guam Department of Public Health and Social Services (DPHSS) serves the community as both a local and state health department. It consists of five major divisions – General Administration, Division of Public Welfare, Division of Senior Citizens, Division of Environmental Health, and the Division of Public Health. Unlike other state health departments in the continental US, the Guam DPHSS provides health services in three health centers territory wide. In addition, the department has seven boards that license and regulate health care professionals. The Fellow for this project would be placed in the Office of Epidemiology and Research (OER) and Epidemiology and Laboratory Capacity Program (ELC), which are under the Division of Public Health, Chief Public Health Officer.

The Guam DPHSS-Office of Epidemiology and Research (OER) and the CDC funded Epidemiology and Laboratory Capacity Program (ELC) currently partner with all hospitals, clinics and numerous organizational entities for both infectious (e.g. private laboratories) and non-communicable diseases (community organizations). The Guam DPHSS also partners with the University of Guam (UOG) and the Research Corporation of the University of Guam (RCUOG). Currently the OER partners with the UOG and RCUOG on a CDC funded Health Disparities Survey of Vulnerable and Hard to Reach (H2R) populations for COVID-19 and other infectious diseases. Numerous governmental and community organizations are involved in public health projects as needed, depending on the topic.

The Fellows main assignment will be to (1) examine available data on multi-drug resistant organisms (MDRO) affecting Guam for the past 10 years (and historically) from annual summaries, as well as the most current data from morbidity and lab reports in the NEDDS system, and from all hospitals reporting to the DPHSS, and (2) develop evidenced-based protocols and programmatic strategies to address the problem, including a Cluster/Outbreak Response Plan, based on these data. The fellow will be placed in the Office of Epidemiology and Research (OER) with the Primary mentor Guam's Territorial Epidemiologist and will work closely with the Epidemiology and Laboratory Capacity Program under the Chief Public Health Officer and the Bureau of Communicable Disease Control, Division of Public health. The secondary mentor will be the Chief Epidemiology Field Officer (CEFO) who acts as the regional epidemiologist for the US Affiliated Pacific islands of Micronesia.

The training experience will provide the fellow with specific knowledge on the problems of MDRO's in Guam as well as more generalized applied knowledge in data retrieval, cleaning and analysis as well as report writing and data presentations. The Fellow will also gain the ability to work with all health care partners (clinics, hospitals, dialysis centers) that currently work with the Guam Department of Public Health and Social Services (DPHSS) and provide required, reportable data on infectious diseases of public health significance, including MDROs and HAIs.

ID: 33919248

**Infectious Diseases, Infectious Diseases - Host Site Description
Guam Department of Public Health and Social Services**

The learning opportunities for the Guam DPHSS site will include involvement and collaboration with all members of the Epidemiology and Laboratory Capacity Program's Surveillance Unit, the Office of Epidemiology and Research and related programs in the Bureau of Communicable Disease Control.

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

Microsoft Excel, morbidity & lab reports from NEDDS (National Electronic Disease Surveillance System), hospitals/clinics lab and morbidity reports, and data from the NHSN (National Healthcare Safety Network).

Projects

Surveillance Activity Title: An examination of data on Multi-Drug Resistant Organisms on Guam for Mitigation and Prevention

Surveillance Activity Description:

The Fellows main assignment will be to assist in (1) the examination of available data on multi-drug resistant organisms (MDRO) affecting Guam for the past 10 years (and historically), including HAI's using criteria from the and (2) develop evidenced-based protocols and or programmatic strategies to address the problem. The intent of this project is a better understanding the epidemiology of MDRO's in Guam. The surveillance activity will examine data and expand on the existing MDRO compiled report (i.e. https://dphss.guam.gov/wp-content/uploads/2021/05/MDRO-Report_2016_2020_FINAL_5_12_2021.pdf), and provide more detailed analysis since that report covered only five years and lacked detailed analysis by demographic and geographic factors.

The Fellow will then create a system to track MDRO's and work with Guam Public Health Laboratory to establish antimicrobial susceptibility and testing for isolates (all G.2/ARLN activities). Then this project will start looking at device-associated hospital acquired infections (HAI's), including at dialysis centers.

Surveillance Activity Objectives:

The objectives of this project are to examine all available data for the past 10 years (as well as historically) to assess the on-going problems of Multi-Drug Resistant Organisms (MDROs) on Guam. Once the data are examined in detail, and by key demographic variables, a report will be completed and protocols and programmatic activities to address the problem of MDRO's will be recommended, in collaboration with all healthcare partners who report to the DPHSS.

Surveillance Activity Impact:

Reduction in the impact of MDRO's and increased anti-biotic stewardship.

Surveillance System Evaluation Title: Evaluation of MDRO/HAI data and mitigation strategies in the Territory of Guam

Surveillance System Evaluation Description:

This project will be evaluated using the CDC's evaluation framework: <https://www.cdc.gov/evaluation/index.htm>. This project will include the development of short-term, intermediate and long-term goals objectives to evaluate the project, including timelines for.

Surveillance System Objectives:

The examination of available data on multi-drug resistant organisms (MDRO) affecting Guam for the past 10 years (and historically) will result in a description of and extent of the problem of multiple-drug resistant organisms (MDRO's) and hospital acquired infections (HAI's) on Guam. The intent of this project is a better understanding the epidemiology of

ID: 33919248

Infectious Diseases, Infectious Diseases - Host Site Description

Guam Department of Public Health and Social Services

MDRO's in Guam. This project will examine data and expand on existing MDRO compiled report (s), create a system to track MDRO's and work with Guam Public Health Laboratory (GPHL) to establish antimicrobial susceptibility and testing for isolates (all G.2/ARLN activities). This project will also include examination of device-associated HAI's, as well as devices at all Guam dialysis centers. The expected deliverables are a data/surveillance report and a needs/resource assessment on the GPHL capacity to test for antimicrobial susceptibility and testing for isolates (all G.2/ARLN activities).

Surveillance System Impact:

Reduction in both MDROs, and HAI as long-term objectives.

Major Project Title: Use surveillance data to inform and develop evidenced-based protocols, programmatic strategies and cluster/outbreak response plan to address the problem of MDRO's and HAI on Guam.

Major Project Description:

This project, based on the surveillance activity noted above, will use data to inform and develop evidenced-based protocols, programmatic strategies and a cluster/outbreak response plan to address the problem of MDRO's and HAI on Guam. This project will include working with Guam Public Health Laboratory to establish antimicrobial susceptibility and testing for isolates (all G.2/ARLN activities). This project will include the development of a cluster and outbreak response plan for MDRO's and HAI's. This project will involve assistance and collaboration from all health care partners involved (stakeholder-based evaluation).

Major Project Objectives:

Using data to assess the extent of the problem of MDROs and HAIs on Guam will be based on morbidity and laboratory reports from all Guam healthcare providers (including community/clinics, hospitals and dialysis centers). The project will involve the development of evidenced-based protocols, programmatic strategies and a cluster/outbreak response plan to address the problem of MDRO's and HAI on Guam. The expected deliverables include the evidence-based protocols and programmatic strategies that are developed, which will include assistance and collaboration from all health care partners involved (stakeholder-based evaluation) along with a MDRO/HAI Cluster/Outbreak Response Plan.

Major Project Impact:

Active protocols in place at all hospitals, clinics and dialysis centers, as well as community based-education about MDRO's, anti-biotic resistance and HAI's.

Additional Project #1 Title: Examination and assessment of Hepatitis data.

Project #1 Type: Surveillance Activity

Project #1 Description:

Re-examine and assess the existing hepatitis registry that did not include any relevant diagnostic variables and which transitioned out of use with the introduction of ELRs in 2015. Establish a way to incorporate ELR and current static registry from previous case reports to improve case reporting and provide guidance on acute vs. chronic and new vs. old case classification.

Guam's DPHSS currently does not have a 100%-funded Viral Hepatitis program. The Guam DPHSS does have programmatic activities related to (1) the development of appropriate public health strategies to prevent and control Hepatitis B and C in the island, and (2) to understand the extent of the prevalence of viral hepatitis among targeted populations.

ID: 33919248

**Infectious Diseases, Infectious Diseases - Host Site Description
Guam Department of Public Health and Social Services**

Project #1 Objectives and Expected Deliverables:

Review existing hepatitis registry, Develop a registry that integrates old registry and ELRs, Build a dashboard to quickly check reported labs against existing registry, Simplify reporting of hepatitis cases according to CSTE case definitions, Work to have negative hepatitis C lab reports reportable.

Project #1 Impact:

Develop a prototype for a disease registry in order to improve data quality, reporting and general workflow for the folks currently working on viral hepatitis. This project would provide a foundational piece of viral hepatitis surveillance for Guam as it works to establish a hepatitis program to enhance surveillance and improve care for hepatitis cases.

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

The Fellow's role in preparedness and response will involve the development of a cluster and outbreak response plan, as noted above, as part of the evidenced-based protocols and programmatic strategies to also be developed. The Cluster/Outbreak Response Plan will be based on CDC guidelines and involve assistance and collaboration from all Guam healthcare partners.

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

The Fellow will lead in the development of the Cluster/Outbreak Response Plan, developed in collaboration and assistance from all healthcare partners on Guam.

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

It is unknown if the Fellow will be needed to work on COVID-19 response. This will depend on what is occurring in the Guam community. Currently in January 2023 Guam's COVID-19 community risk level is low, and Guam is still seeing cases of COVID-19, as well as Influenza A, RSV as well as human Rhinoviruses. If surges happen, including those associated with new variants, it is likely that the fellow would provide additional needed assistance to the Guam SARS-CoV-2/COVID-19 Surveillance Unit team members.

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

Addressing health equity, based on health disparities data and information gleaned from the surveillance portion of the project will be embedded in this project. Guam is a “majority minority” population with 93% of the population comprised of Pacific Islanders, Asians and other groups with only 7.2% “whites” or Europeans. The population of Guam is multi-ethnic, which is comprised of the indigenous people of Guam, Chamorros at 34.6%; 30.7% Filipinos; 6.7% other Asians; 7.1% Chuukese (from the Federated States of Micronesia); 7.2% Europeans/“whites”; 5.9% other Pacific Islanders (mainly other Micronesians) and 11.8% other groups. Health disparities among Chamorro and Micronesian Pacific Islanders are readily apparent in COVID-19 and other infectious diseases. In addition, Guam is characterized by high poverty and among some groups, high household density and undesirable living conditions may put people at risk for COVID-19 and other infectious diseases, including MDROs. Addressing health disparities and moving toward health equity approaches (including community engagement) is embedded in all Guam DPHSS activities.