

**ID: 87836920**

**Infectious Diseases - Host Site Description**

**Arizona Department of Health Services**

**Assignment Location:** Phoenix, US-AZ  
Arizona Department of Health Services  
Bureau of Infectious Disease and Services, Office of Rapid Response Disease Investigation

**Primary Mentor:** Chelsey Donohoo, BS, MPH  
Interim Office Chief/Epidemiology Program Manager  
Arizona Department of Health Services, Office of Rapid Response Disease Investigation

**Secondary Mentor:** Sasha Harb, BS, MPH  
Epidemiology III  
Arizona Department of Health Services, Office of Rapid Response Disease Investigation

**Work Environment**

100% Virtual

**Assignment Description**

The assigned CSTE Fellow will operate as an Epidemiologist within the ADHS Office of Rapid Response Disease Investigation STI Control Program focusing on STI surveillance and disease prevention. This includes the following day to day activities:

- Managing and maintaining STI surveillance data and the STI surveillance data system for the state of Arizona and verifying data collected is within required quality standards.
- Identifying, analyzing, and interpreting trends in complex data sets, developing reports including public health impact and recommended actions, and using STI surveillance data for reporting, data analysis and data visualization needs to turn data into information and knowledge.
- Providing technical assistance and training to all county and tribal users of PRISM (the STD surveillance system), providing STI reporting and investigation guidance to county and tribal health departments, and assisting with grants writing and other funding proposals.
- Developing, designing, and documenting workflows, dashboards, alerts, reports, user guides, data request, and other STD surveillance system related information/data.
- Participating in after-hours activities including system testing, maintenance and quality assurance as needed.
- Specialized projects as assigned.

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

The Fellow will work within the following surveillance systems at the Arizona Department of Health Services: MEDSIS (the Arizona surveillance database for reportable communicable diseases), PRISM (the Arizona surveillance database for sexually transmitted infections), and the Arizona Department of Health Services Data Lakehouse platform which includes vital Record, EMS, and HDD data. To perform statistical analysis and data queries the fellow will use SAS Studio, Snowflake, and sql queries built directly within the Data Lakehouse. The fellow will also have access to PowerBi to build data visuals, Microsoft Office suite package, a google workspace, and a secure connection via Amazon Web Services (AWS).

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**Projects**

**Surveillance Activity Title: STI Outbreak Detection in Arizona**

*Surveillance Activity Description:*

An early detection system for STI outbreaks is critical for timely response and disease intervention efforts. The current ADHS STD Outbreak Response Plan was last updated in 2008 and needs to be updated to reflect current trends and surveillance mechanisms. The fellow will receive access to PRISM, the STI statewide surveillance database, to analyze historical trends and based on analysis findings, set recommended outbreak thresholds for syphilis, chlamydia, mgen, and gonorrhea. The fellow will update the ADHS STD Outbreak Response Plan with newly recommended thresholds. In collaboration with the ADHS STI Epidemiology Team, the ADHS STI Investigation Team, and local/tribal partners the STD Outbreak Response Plan will also be updated with recommended response activities. To monitor for emerging outbreaks, the Fellow will develop a process and/or dashboard to detect when outbreak thresholds have been met. If met, the fellow will communicate with internal and relevant external partners to ensure response activities are implemented. Following implementation, the fellow shall adjust outbreak thresholds and STD Outbreak Response plan as needed.

*Surveillance Activity Objectives:*

The Fellow shall achieve the following objectives:

- To utilize STI surveillance data to define STI outbreak thresholds
- To collaborate with ADHS STI Programs and local/tribal jurisdictions to update the ADHS STD Outbreak Response Plan
- To develop data visual for outbreak monitoring
- To monitor real-time STI surveillance data for potential outbreaks/clusters
- To communicate with relevant stakeholders when outbreak thresholds have been met
- To identify areas of improvement for STI outbreak surveillance and updates needs to the ADHS STD Outbreak Response Plan

The Fellow shall provide the following deliverables:

- Updated STD Outbreak Response Plan inclusive of newly defined outbreak thresholds, protocol for outbreak alerts communications, and recommended response activities
- Process/Dashboard to monitor outbreak thresholds

*Surveillance Activity Impact:*

Timely detection of STI outbreaks is critical for interrupting the chain of transmission. Arizona has seen an increase in STI rates since 2018; however current outbreak detection methods have not proven effective at quickly recognizing when/if an outbreak is occurring vs sustained community transmission. By updating the 2008 ADHS STD Outbreak Response Plan and developing a monitoring process, ADHS will be able to provide more timely notification to partners of potential outbreaks and, as a result, ensure adequate resources are directed to communities impacted and reduce the further transmission of STIs.

**Surveillance System Evaluation Title: Evaluation of Syphilis Surveillance and Treatment Referrals in the Arizona State Correctional Facilities**

*Surveillance System Evaluation Description:*

There are fourteen state correctional facilities in Arizona. All facilities enter STI communicable disease reports into the statewide surveillance database, MEDSIS, which in turn are transferred over to PRISM. The State Correctional Facilities utilize an EHR, Naphcare, where clinical information is documented. There is often a delay in reports being received as

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well as challenges with all reportable fields being included. This can result in a delay in care and may lead to a person being not treated or incorrectly treated. The fellow will evaluate STI surveillance data reported from state correctional facilities for timeliness and completeness. The evaluation will also include the proportion of reported syphilis records that are receiving the correct treatment for their infections. Based on their findings, the Fellow will make recommendations on how to improve STI surveillance among persons incarcerated at the Arizona State Correctional Facilities as well as recommend a process to ensure more timely treatment intervention. For this project they will partner with internal ADHS STI program members as well as with the nurses at the Arizona State Correctional Facilities.

*Surveillance System Objectives:*

The Fellow shall achieve the following objectives:

- To analyze STI surveillance and Naphcare data to determine reporting timeliness/completeness by facility
- To analyze STI surveillance and Naphcare data to determine treatment trends for syphilis records reported in State Correctional Facilities
- To collaborate with ADHS STI Programs and the clinical staff at the Arizona State Correctional Facilities to implement process improvements for STI reporting
- To develop a report overviewing evaluation findings
- To present findings to relevant stakeholders
- To monitor real-time STI surveillance data for emerging reporting/treatment challenges within the Arizona State Correctional Facilities

The Fellow shall provide the following deliverables:

- A code/process to compare STI Surveillance data and Naphcare data
- Evaluation report overviewing Arizona State Correctional Facility STI reporting accuracy and syphilis treatment referrals
- Presentation of evaluation findings

*Surveillance System Impact:*

Incarcerated persons are a vulnerable population at higher risk of STIs. By partnering with the Arizona State Correctional Facility, there is the unique opportunity to ensure incarcerated persons are appropriately screened and treated for STIs to reduce the potential long term health impacts and reduce further transmission. Delayed STI reporting to ADHS and missed referrals for treatment can result in the incarcerated person not receiving the recommended care for their infection. Once released from the correctional facility, there is often no contact information for a local disease investigation to initiate outreach. Through the evaluation of the current STI reporting practices and existing treatment referral systems within the State Correctional Facilities, ADHS will gain a better understanding of which facilities may require outreach and education as well as ways to improve the current surveillance processes within these facilities. As a result, incarcerated persons in Arizona will have improved health outcomes.

**Major Project Title: Evaluation of DoxyPEP Referrals among High-Risk Populations in Arizona**

*Major Project Description:*

The Fellow shall conduct an evaluation of DoxyPEP referrals among high-risk populations in Arizona. Doxy PEP has proven to reduce the risk of getting some bacterial STIs for gay, bisexual, and other men who have sex with men and transgender women at increased risk for STIs (specifically, syphilis, chlamydia, and in some studies, gonorrhea). Modeling the Diffusion of Innovation Theory, the Fellow will engage with clinics that are utilizing DoxyPEP in their Arizona practices to learn the challenges and successes of implementation. Next, the Fellow, in partnership with internal and external stakeholders, will develop a data collection tool in REDCap to assess provider knowledge of DoxyPEP and current usage practices. They will partner with local and tribal jurisdictions to collect and distribute the information. Responses will be analyzed and mapped to gain a better understanding of where DoxyPEP is being used and where

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educational resources may be shared. The Fellow will work with local and tribal jurisdictions to distribute educational materials for DoxyPEP. Following the statewide education campaign, Fellow will send out a post-intervention knowledge assessment to providers to see if there was a change in DoxyPEP usage. Findings will be shared with internal and external stakeholders.

*Major Project Objectives:*

The Fellow shall achieve the following objectives:

- To conduct a focus group with providers using DoxyPEP
- To develop knowledge assessment survey tool in REDCap
- To collaborate with ADHS STI Program and local/tribal health departments to distribute DoxyPEP knowledge assessment survey
- To develop a dashboard overviewing responses received, inclusive of a map showing geographical distribution of usage
- To collaborate with ADHS STI Program and local/tribal health departments to distribute educational materials for DoxyPEP
- To conduct a post-intervention knowledge assessment to providers
- To present findings to relevant stakeholders

The Fellow shall provide the following deliverables:

- Knowledge Assessment tool, pre- and post-intervention
- Dashboard overviewing knowledge assessment findings
- Presentation of evaluation findings

*Major Project Impact:*

Since the CDC Clinical Guidelines on the Use of Doxycycline Postexposure Prophylaxis for Bacterial Sexually Transmitted Infection Prevention was released in 2024, ADHS has not conducted an analysis of DoxyPEP usage in Arizona to understand where this prevention tool is being leverage and how ADHS can increase awareness of DoxyPEP. This prevention tool is critical in light of the 2025 reduction in STI disease investigation workforce at the state and local levels that has resulted in less persons being offered partner notification services. By understanding where DoxyPEP is and is not currently being offered, ADHS can create a targeted education campaign to increase availability in the community.

**Additional Project #1 Title: Syphilis Investigation Timeliness Improvement Project**

**Project #1 Type: Major Project**

*Project #1 Description:*

The Fellow will conduct an analysis of STI syphilis investigation data to establish a baseline for syphilis investigation timeliness and outcomes. Findings will be visualized in a dashboard that will be made accessible to local/tribal jurisdictions conducting syphilis case investigations. The Fellow will work with jurisdictions to improve investigation outcomes and ensure high priority syphilis investigations are conducted in a timely manner. Based on their analysis and collaboration with partners, the Fellow will make recommendations to investigative policy and strategy in order to improve investigation outcomes in Arizona.

*Project #1 Objectives and Expected Deliverables:*

The Fellow shall achieve the following objectives:

- To conduct an analysis of STI syphilis investigation data
- To develop a dashboard overviewing syphilis investigation metrics
- To collaborate with ADHS STI Program and local/tribal health departments on syphilis investigation outcomes

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- To recommend syphilis investigation process/prioritization improvements

The Fellow shall provide the following deliverables:

- SAS Code evaluating to analyze syphilis investigation metrics
- Syphilis investigation metrics dashboard
- Updated syphilis investigation processes guidance

*Project #1 Impact:*

Timely investigation for syphilis cases is critical to ensure persons receive proper care and to reduce the further spread of disease. In 2025, there was a reduction in STI disease investigation workforce at the state and local level creating a backlog of cases pending investigation. Through the visualization of syphilis investigation metrics, jurisdictions will have better awareness of investigation outcomes and areas that may need to be improved. It will also alert the ADHS ORRDI STI team of jurisdictions that need additional resources and if there needs to be an adjustment to current investigation strategies to ensure the highest priority cases are receiving timely interventions.

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

The Fellow will be included in the Emergency Operations Center (10% of their time allotted) if mobilized. As part of the onboarding process the fellow will be expected to complete FEMA’s Emergency Management Institute training series on ICS structure, National Incident Management System, and National Response Framework. As part of Arizona’s response to outbreaks, the fellow may be called to assist with surveillance/intervention efforts outside of sexually transmitted infections. Additionally, the Fellow will participate in planning activities for syphilis outbreak and treatment shortage responses.

**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 heavily involved in syphilis cluster/outbreak investigations (20% of their time allocation). Their surveillance activity is the development of a syphilis surveillance early detection system and as such, they will be tasked with coordinating with the state and local STI investigation teams to ensure proper follow-up is conducted. The Fellow will also have the opportunity to conduct disease interviews as well as analyze data collected in the course of the investigation to help inform future interventions.