

**ID: 44146189**

**Maternal and Child Health, Infectious Diseases - Host Site Description  
New Mexico Department of Health**

**Assignment Location:** Santa Fe, US-NM  
New Mexico Department of Health  
Infectious Disease Epidemiology Program/Emergency Response Division

**Primary Mentor:** Chad Smelser, MD  
Deputy State Epidemiologist  
Department of Health New Mexico

**Secondary Mentor:** Mika Gehre, PhD, MPH  
HIV/Hepatitis Surveillance Program Manager  
Department of Health New Mexico

**Work Environment**

Hybrid

**Assignment Description**

New Mexico has one of the highest rates of hepatitis C virus (HCV) infection in the nation. As the most prevalent infectious disease in the state, HCV causes significant liver disease and disability to persons across the NM. Thanks to the amazing new curative medical treatments, this harm can be eliminated through prevention, testing, treatment and policy efforts that help prevent and cure HCV infected individuals. New Mexico commits to lead and innovate in order to be among the first states in the nation to eliminate HCV as a public health threat by the year 2030. We envision a future where new infections are rare and all people in our state impacted by HCV have access to quality, innovative and best practice services for prevention and care. This will achieve health equity and social justice for all persons and communities impacted by HCV regardless of race/ethnicity; sexual orientation; gender, gender identity and gender expression; age; socio-economic circumstance; disability; language; immigration status; religion, spirituality, and cultural tradition; and geographic location including rural, frontier and tribal areas. There have been over 64,700 cumulative cases of HCV infection reported to the New Mexico Department of Health (NMDOH) over the past two decades. Since some persons have already successfully completed curative treatment and others have naturally cleared the infection, it is estimated that roughly 25,800 persons still need curative treatment to achieve the elimination goal. NM sees 3000 to 5000 new Hepatitis C infections annually, with a third of them women. The goal of the fellowship is to establish a perinatal Hepatitis C program for the state to a) track perinatal transmission, b) increase early detection of HepC during pregnancy, c) connect women of childbearing age to treatment, d) collect and analyze risk factors and outcome, d) inform key stakeholder and e) establish perinatal protocols to prevent HepC infection in newborns.

The fellow will work closely work with the Hepatitis surveillance program in the Infectious Disease Epidemiology Bureau (IDEB) within ERD (Emergency response Division) to collect data, follow up with pregnant HepC positive individuals and work with the STD prevention programs (Public Health Division) to learn from their strategies to lower the number of congenital Syphilis cases in the state. As the program is part of the EndHepC-NM coalition (statewide collaboration of key stakeholders in the community), the fellow will have a lot of opportunities to work closely with health care providers and maternity wards to establish protocols. Part of the work will be the collection of data and analysis of the infectious disease surveillance database NMEDSS using SAS, R and SQL. Data visualization will be done using Tableau. The fellow will perform active and passive surveillance. Infrequent in-state travel will be part of this experience.

**ID: 44146189**

**Maternal and Child Health, Infectious Diseases - Host Site Description  
New Mexico Department of Health**

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

NM uses a NEDSS based surveillance system (disease registry) called NMEDSS to monitor case, outbreaks and do contact tracing. The backend of the database can be accessed by SQL. As we don't have an integrated database, information can be extracted from the public health databases PRISM, E2NM and HIE. NM uses predominantly SAS, but R and Python are more and more integrated. Tableau and other programs are used for data visualization. NM is in the middle of a data modernization process and is actively integrating electronic case reports (eCR) into the surveillance database.

**Projects**

**Surveillance Activity Title: Establish a Perinatal Hepatitis C Program**

*Surveillance Activity Description:*

Collection of Hepatitis C laboratory and case reports to define the case status of a person and the extent of perinatal exposure risk in NM. Investigation of cases of HepC perinatal transmissions. Evaluate completeness of reporting by health care providers and maternity wards.

*Surveillance Activity Objectives:*

- 1) Understanding of the Hepatitis epidemic in NM by analyzing HepC data.
- 2) Defining Variables necessary to track perinatal exposure and analysis data.
- 3) Present the data to the EndHepC coalition to inform about the number of perinatal exposure and transmission in NM.

*Surveillance Activity Impact:*

Creating awareness within the community, inform prevention efforts and track perinatal exposures in NM.

**Surveillance System Evaluation Title: Perinatal Hepatitis C surveillance in NM**

*Surveillance System Evaluation Description:*

The goal of this project is to evaluate existing Hepatitis specific reporting mechanism, perinatal testing protocols and case follow up in NM in collaboration with health care providers within the state.

*Surveillance System Objectives:*

- 1) NM needs assessment for the new perinatal Hepatitis program using RedCap surveys and meetings with community stakeholders, maternal health wards and treatment providers.
- 2) Work on the improvement of data completeness by creating a perinatal exposure specific case report form and distribute them.

*Surveillance System Impact:*

This project will help to build cooperations, improve data exchange and help improve data quality, subsequently leading to increase of women receiving HCV treatment.

**Major Project Title: Building a strong and integrated perinatal Hepatitis C surveillance program for New Mexico.**

*Major Project Description:*

As mentioned before, NM has one of the highest rates of new Hepatitis infections in the nations. The ultimate goal is to prevent perinatal HepC transmission. For this purpose, surveillance and prevention needs to work together to measure the extent of the problem and inform targeted strategies to improve the help of mother and child by improving early

**ID: 44146189**

**Maternal and Child Health, Infectious Diseases - Host Site Description  
New Mexico Department of Health**

detection, implement protocols to minimize the risk of transmission and promoting treatment for women in childbearing age.

*Major Project Objectives:*

Establish protocols for the new statewide perinatal HepC program, including:

- a) reporting, data collection and data quality
- b) recommendations for early detection, incl. testing guidelines
- c) case investigation and follow-up for perinatal transmissions
- d) work with stakeholders to improve connection to care and treatment, and provide comprehensive education materials.

*Major Project Impact:*

Altogether, this project should lead to a reduction in perinatal exposure, HepC in women of childbearing age and subsequently contribute to the elimination of HepC in NM.

**Additional Project #1 Title: Track and evaluate the status of the End-HCV New Mexico Elimination Project  
Project #1 Type: Project Evaluation**

*Project #1 Description:*

The candidate will work on the evaluation of the End Hepatitis Initiative by collecting statewide treatment data and integrate the information into the HCV surveillance database to determine the case status and subsequent re-infections.

*Project #1 Objectives and Expected Deliverables:*

- a) Contacting treatment providers in the state to collect treatment data
- b) Collect data from Health Insurance databases
- c) Analyse the integrated data to determine the rate of treatment success in NM

*Project #1 Impact:*

Providing an overview of current numbers will guide the expansion of treatment in regions of NM that show the highest rate of untreated HCV cases. Subsequently this will determine funding needs and the recruitment of providers to treat HCV.

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

New Mexico is in the process of writing a new HCV outbreak response plan and the CSTE Fellow will be involved in the development. Part of the ERD/IDEB role within DOH is to detect, track and respond to infectious disease outbreaks such as the recent MPOX outbreak. The Fellow will have the chance to get hands on experience within the bureau and be involved in outbreak surveillance. As this is part of the day-to-day work environment, time allocation will vary based on urgency but is anticipated to be between up to 20% of the weekly workload.

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

As the incidence rate for HepC in NM is very high, a comprehensive outbreak response plan is needed. Part of this plan is the screening of incoming data for transmission clusters. The program has experience doing these activities for HIV and is in the process of onboarding laboratories for the reporting of sequence data to detect clusters and respond to them.

**ID: 44146189**

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

**New Mexico Department of Health**

The Fellow will use the excising protocols as a model and implement them for HCV this will be part of the time allocated to above mentioned outbreak response activities.

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

N/A

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

As the HIV and Hepatitis surveillance and prevention programs are integrated, health equity is in the forefront of our efforts to improve the lives of people that have the highest health disparities. The program worked on the integration of SOGI questions into all databases, funded the questions in the 2023 BRFSS and uses community specific, culturally appropriate and non-stigmatizing messaging. There is a continues effort to learn and improve our work by inviting community leaders to train employees, having a health equity journal club and integrating measures of health equity into our data analysis.