Birth Defects and NAS, Maternal and Child Health

New Mexico Department of Health, Epidemiology and Response Division
Santa Fe, New Mexico

Assignment Description

The Fellow would be working in the Epidemiology and Response Division (ERD) of the New Mexico Department of Health (NMDOH). ERD houses most on NM’s public health surveillance databases making for easy access to these for the fellow. ERD provides the primary epidemiology capacity for NMDOH. Within that division s/he would be working in the Environmental Health Epidemiology Bureau. EHEB Programs include: Environmental Public Health Tracking, Birth Defects Surveillance and Prevention, Private Wells, Occupational Health, Four Corners States' Biomonitoring Consortium, and Childhood Lead Poisoning Prevention.

Day-to-Day Activities

1. Attend monthly EHEB and ERD all-staff meetings, as well as pertinent Family Health Bureau (FHB) meetings when scheduled
2. Attend Quarterly Epidemiology Meetings, which alternate between Santa Fe and Albuquerque. This meeting is a forum for epidemiologists across the state (in state government, private businesses, and academia) to present on their current research and to discuss topics that impact data analysis in general, such as population estimates.
3. Attend monthly NM Comprehensive Addiction and Recovery Act (CARA)/Child Abuse Prevention and Treatment Act (CAPTA) workgroup meetings
4. Attend quarterly NM Neonatal Abstinence Syndrome (NAS) Coordination meetings
5. Attend CSTE NAS Workgroup meetings
6. Conduct surveillance activities
7. Evaluate surveillance systems
8. Conduct data collection and analysis
9. Present results of at least one epidemiology project at the Quarterly Epidemiology Meeting (QEM) and at one of the annual CSTE meeting
10. Participate in epidemiologic investigations, which may include working with the Cancer Concerns Workgroup on cluster inquiries, working with Occupational Health Surveillance staff on exposures in the workplace, and working with Private Wells Surveillance staff on analysis of waterborne diseases
11. Learn about GIS and applications
12. Fellow will provide one day of on call per month for ERD. Members of the public can call the NMDOH about a variety of issues. EHEB provides on call Monday through Friday from 8 am to 5 pm and answers questions about environmental health. Analyze on-call data on a monthly basis.
Potential Projects

Surveillance Activity Birth Defect Surveillance

The fellow will support birth defects surveillance activities. The fellow will identify (a) particular condition(s) of interest and prepare a report about it/them which will also include follow-up data of cases, as the Birth Defects Surveillance and Prevention Program works closely with a Community and Social Services Coordinator, housed at the FHB. The fellow will also support NAS surveillance activities.

Surveillance Evaluation Birth Defects Surveillance and Prevention Program Evaluation

The fellow will assist the planning and work on implementing an evaluation of the surveillance activities of the Birth Defects Surveillance and Prevention Program. Additional evaluation activities will also be part of the fellow’s main project.

Major Project Assessment of the Implementation of the Tier 1 NAS Surveillance Case Definition in New Mexico

NM is looking into implementing surveillance on NAS using the newly approved NAS Surveillance Case Definition. The fellow will collaborate in the assessment of the implementation of the case definition and compare it to NM’s criteria used so far. Additionally, the fellow will assist in preparing documentation for proposing edits to the current NAS Surveillance Case Definition, planned to be introduced in 2021 CSTE Annual Meeting.

The Fellow would perform the following activities:

1) Identify maternal and infant data sources relevant for the implementation of the Tier 1 NAS Surveillance Case Definition
2) Meet with stakeholders, clinicians, and experts to introduce the Tier 1 NAS Surveillance Case Definition, obtain their buy in and feedback on its implementation, and open lines of communication for improvements
3) Collect, maintain, and analyze data
4) Plan and implement an evaluation of this surveillance mechanism, including but not limited to comparing it to the Tier 2 NAS Surveillance Case Definition as well as the prior surveillance mechanism.
5) Prepare and present a report on these activities at different meetings, including but not limited to the CSTE NAS Workgroup, the NM NAS Coordination meeting, QEM, and CARA workgroup meeting.

Additional Project Birth Defects and Substance Exposures in New Mexico

This assignment stems from the interest of the Family Health Bureau and the Birth Defects Surveillance and Prevention Program in assessing the relationship between birth defects and prenatal exposures to alcohol, tobacco, and other drugs

The Fellow would perform the following activities:

1) Conduct literature of similar pertinent studies
2) Assist in the data management and linkage of pertinent databases, including but not limited to the Birth Defects Database, the Prescription Monitoring Program (PMP), and Birth Certificates Database
3) Collaborate in the analysis and preparation of a manuscript

Additional Project Neonatal Abstinence Syndrome (NAS) Spatial Analysis

This assignment stems from the interest in assessing spatial relationships between NAS rates and provision of services (i.e., prenatal care).

The Fellow would perform the following activities:

1) Conduct literature of similar pertinent studies
2) Get acquainted with GIS and geocoding
3) Collaborate in the analysis and preparation of a manuscript

Preparedness Role

The fellow will work with the Disaster Epidemiologist, housed in ERD's Bureau of Health and Emergency Management (BHEM). The fellow will work on responder safety and health. A system is being developed in Epi Info to track responders who worked in hazardous conditions such as in an area with chemical, toxic, or weather exposure (extreme cold or heat). Any health outcomes will be tracked. Fellow would work with the Disaster Epidemiologist to develop and/or launch and test this system.

Additional Activities

The fellow could also collaborate in the following project, provided it starts within the fellow's time at NMDOH:

Birth Defects and Cancer in New Mexico

This assignment stems from the interest in assessing the relationship between birth defects and cancer for the NM population

The Fellow would perform the following activities:

1) Conduct literature of similar pertinent studies
2) Assist in the data management and linkage of pertinent databases, including the Tumor Registry Database
3) Collaborate in the analysis and preparation of a manuscript
Mentors

Primary  Janis Gonzales, MD, MPH, FAAP
Family Health Bureau Chief, Medical Director, and Title V Maternal Child Health Direct

Secondary  Luigi Garcia Saavedra, MPH
Birth Defects Epidemiologist Supervisor