Assignment Description

The fellow's assignment will primarily be focused on evaluating the previous birth defect and NAS active surveillance pilot project in the St. Louis metropolitan area. Lessons learned from this pilot will be used to strengthen a secondary active surveillance pilot project. Data collected from the pilot will be analyzed by the lead birth defect analyst and the CSTE fellow to identify strengths and weaknesses of the data and offer improvements for future data collection methods. Further evaluation of the data linkages that are integral to these surveillance activities is likely, as are opportunities to engage in data dissemination activities.

Day-to-Day Activities

Initially, the fellow will evaluate previous birth defect surveillance systems utilized in Missouri. Later, they will be asked to conduct an exploratory data analysis of passive and active surveillance systems using statistical programming code in SAS.

Potential Projects

Surveillance Activity Missouri Birth Defect Registry

The fellow will assist with the maintenance of the passive birth defect surveillance system. An additional activity may include offering insight and suggestions for the development and implementation of an active birth defect and NAS surveillance project. The fellow will also analyze data collected from the birth defect surveillance systems (active and passive).

Surveillance Evaluation Evaluating Current Passive and Previous Active Surveillance Systems

Evaluation of the current passive surveillance system to identify gaps or other areas of improvement. Evaluation of the previous active surveillance pilot to allow the identification of barriers, successes, and areas for improvement. The results of these evaluations will be used in improving the current passive surveillance system and the possible implementation of a secondary active surveillance pilot for both birth defects and NAS.

Major Project NAS Case Definition Analysis (Tier 2)

CSTE recently published a position statement with the goal of standardizing NAS case reporting and surveillance. As part of this position statement, two tiers of case definitions were developed: 1) clinical definition to be used in active surveillance and 2) an administrative definition that can be used in passive
surveillance. This fellow would be integral in determining the efficacy, predictive value, and potential improvement of the Tier 2 administrative case definition, utilizing hospital discharge data.

**Additional Project Maternal and Child Health Data Analysis and Dissemination**

Data analysis and dissemination from surveillance systems that capture data on a variety of MCH topics ranging from preconception to postpartum women’s and newborn health. The fellow will work with surveillance systems such as BRFSS, PRAMS, birth certificates and the Missouri Toddler Survey on specific chronic disease topic areas such as pre-pregnancy overweight and obesity. While MCH surveillance systems such as PRAMS will be used, the focus will be on chronic disease and MCH data integration. The associate will have a firsthand experience of data analyses for program planning and evaluation. The fellow is expected to play an active role in MCH Epidemiology data dissemination in terms of factsheets, presentations and publications in select MCH program areas.

**Additional Project Maternal Mortality and Morbidity**

Maternal mortality and morbidity with an emphasis on data pertaining to opioid misuse during pregnancy contributing to NAS in the newborn. The fellow will have the ability to work with maternal mortality data from both vital statistics and pregnancy associated mortality review providing them with an opportunity to assess the contribution of opioids / other drugs to maternal mortality and morbidity. The fellow will have an opportunity to work with overdose data to action project, maternal mortality data from vital statistics and morbidity surveillance data from PAS to assess the impact of opioids not only from an NAS but also from a maternal health perspective.

**Preparedness Role**

Missouri is one of the few states chosen to participate in an AMCHP / CDC Action Learning Collaborative to ensuring the needs of MCH populations are incorporated in planning, preparedness, and response efforts in the event of a natural or manmade emergency. Missouri is in the initial stages of this learning collaborative and this will provide an excellent opportunity for the fellow to work in emergency preparedness with Public Health Emergency Preparedness Program (PHEP) and local public health agencies (LPHAs) to enhance emergency preparedness for MCH populations in time of need.

**Additional Activities**

The fellow can identify areas of interest and potentially work with those topics, data, or groups.
Mentors

**Primary**  
Venkata Garikapati PhD, MPH  
Section Administrator/Chief of Bureau of Epidemiology and Vital Statistics

**Secondary**  
Elizabeth McCarthy MA  
Research Manager