Assignment Description

The Fellow would be placed in the Public Health Research Section of the Division of Community Health Promotion at the Florida Department of Health central office in Tallahassee. The Public Health Research Section is tasked with providing guidance on research priorities and needs, implementing the Department’s Institutional Review Board, managing biomedical research grants, and overseeing non-infectious disease surveillance and epidemiology programs. The Public Health Research Section is also the lead of Florida’s OD2A project, overseeing the implementation of overarching strategies designed to improve the collection and timely dissemination of overdose data, as well as prevention strategies implemented at the local level, to address opioid misuse and deaths in Florida.

Day-to-Day Activities

The Fellow will work side-by-side with the Florida Department of Health’s team of non-infectious disease epidemiologists. Day-to-day activities will include:

- Participating in meetings and workgroups to include Department OD2A meetings, CSTE workgroups, and other meetings of the Public Health Research/Epidemiology and Statistics Unit
- Performing statistical analysis – will include updating, developing, and running code in a statistical software such as SAS
- Compiling and interpreting the results of statistical analysis projects – will include routine discussions with the primary and secondary mentors
- Communicating the results of statistical analysis – will include oral and written summary reports and presentations

Potential Projects

Surveillance Activity  Emergency Medical Services (EMS) Queries in ESSENCE

Florida’s syndromic surveillance system, Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE-FL), uses near real-time pre-diagnostic data and statistical tools to detect/characterize unusual activity for further public health investigation. ED and urgent care center (UCC) visit data are sent directly. These data consist of multiple fields including chief complaint and discharge diagnoses. ESSENCE-FL receives data from 99% of Florida’s emergency departments (ED) and from 100% of EDs in high intensity drug trafficking areas (HIDTA). Facilities submit data at least once a day with many facilities sending data every 2 hours or in real-time. ESSENCE-FL is integral to providing near real-time all-hazard surveillance for a variety of health-related challenges. ESSENCE-FL supports data visualization and analysis. Users can produce tables, maps, time-series graphs and calendar heat
maps to review disease trends. Users create graphics by overlaying data. Data can be exported to Excel and analyzed with statistical software packages. Under the terms of the OD2A grant, Florida will submit drug poisoning data from EDs to CDC every two weeks.

ESSENCE-FL currently facilitates access to seven data streams: 1) acute care visit data from 266 of 268 EDs and 80 urgent care centers (updated in real-time, once every 2 hours, or once a day); 2) reportable disease case data from Merlin (Florida’s reportable disease surveillance system) and STARS (Florida’s sexually transmitted diseases (STD) surveillance system); 3) complete Florida Poison Information Center Network data (updated every 10 minutes); 4) complete Florida Office of Vital Statistics mortality data (updated once a day), 5) Assistant Secretary for Preparedness and Response (ASPR) mission data with data transmission (occurring only when teams are deployed in the state); 6) National Weather Station data (uploaded once daily); and 7) National Air Quality data (uploaded once daily). Real-time Emergency Medical Services (EMS) ambulance data were recently added to ESSENCE-FL; however, queries have not been developed to allow for standardized access and reporting of EMS data.

The Fellow would be expected to help develop and refine a comprehensive set of Florida-specific syndromic surveillance definitions to identify and track indicators of drug overdose-related EMS runs in ESSENCE-FL. The Fellow will review EMS data and explore existing queries and definitions from various sources, including literature reviews, CSTE workgroups, Florida-specific and national syndromic surveillance communities of practice, and other states to develop and test queries for standardized access and reporting of EMS data in Florida. The Fellow will validate new and existing queries using the state’s Emergency Medical Services Tracking and Reporting System (EMSTARS) dataset or through manual review of records captured through specific queries. The Fellow will summarize the query development process, outlining the methodologies used, validation results, and practical implications for drug overdose surveillance into a written report for Department review by epidemiologists and other ESSENCE-FL users.

**Surveillance Evaluation**

**Evaluation of the Florida Opioid and Neonatal Abstinence Syndrome Surveillance Plan and Dashboard Report**

In December 2018, the Florida Department of Health developed the first Opioid and Neonatal Abstinence Syndrome Surveillance Plan. The purpose of this plan was to provide an inventory of opioid-related data sources including details on limitations, access, and timeliness, share standardized case definitions, and support the publication of a suite of data measures that would be part of the first Florida Opioid Use Dashboard report.

The Surveillance Plan has not been updated since it was released one year ago. In this time, CSTE has released position statements on nonfatal overdoses and Neonatal Abstinence Syndrome. In addition, there has been a lot of work to improve the availability of data from various sources and to validate and standardize data measures. Opportunities to add data sources and measures to the Florida plan continues to expand under the new Overdose Data to Action activities.

The Opioid Use Dashboard was released shortly after the Surveillance Plan. The dashboard provides data on key health outcomes such as fatal and nonfatal overdoses and Neonatal Abstinence Syndrome, medical treatment measures such as poison control center information and referral to services through
Early Steps, prescription access and prescriber measures from the prescription drug monitoring program, and drug-related consequences measures from sources such as the Florida Department of Law Enforcement. Measures are presented quarterly and annually, and reports are available for every county along with a statewide view for the years 2015 through 2019.

The Fellow would be expected to develop and administer a survey of data stewards to assess changes in data availability, barriers and opportunities to improve data access and reporting, and recommendations for changes to key data measures. The Fellow will also develop and administer a survey to data users and other stakeholders. This survey will collect information on use of the Surveillance Plan and/or Opioid Use Dashboard, limitations of current reporting, and recommendations for future revisions to the Plan and/or Dashboard. Finally, the Fellow will review CSTE case definitions, workgroup recommendations (CSTE committees and other state and national workgroups), and indicator documents and dashboards from other states to be included in the evaluation report. The Fellow will analyze and summarize the results of these evaluations and will develop a presentation and report for the Injury and Drug Overdose Epidemiology team. The Florida Department of Health will provide guidance on submitting this project as an abstract for the CSTE annual conference.

**Major Project  Develop Real-time Data Communications Plan for Local Health Departments**

Epidemiologists working in county health departments throughout Florida receive alerts for drug overdoses through Florida’s syndromic surveillance system, ESSENCE. However, there is not a clear expectation of how to use this information. The Florida Department of Health plans to create a Communications Plan to provide guidance to local epidemiologists on how to share syndromic surveillance alerts with local partners. This guidance document will provide templates on sharing near real-time alerts with a variety of stakeholders including police, EMS, and school health.

To complete this project, the Fellow will first need to survey county epidemiologists to see if they have existing communications plans and/or processes in place for sharing this information. Existing plans and unwritten processes will be used to inform the final guidance document.

The Fellow will prepare a draft document for Department review along with providing a PowerPoint presentation to state and local epidemiologists and other stakeholders. Feedback from the presentation(s) will be used to revise the guidance document.

**Preparedness Role**

Florida’s large and diverse population and unique environment offers opportunities for the fellow to engage in emerging public health issues and disaster response. During a disaster such as a hurricane, epidemiologists may be asked to assist in preparation and response activities such as monitoring health outcomes using Florida’s syndromic surveillance system. The Department also plays a role in longer term disaster surveillance including monitoring suicide trends in impacted areas. In the past year, epidemiology staff from state and local offices have participated in Community Assessment for Public Health Emergency Response (CASPER) efforts to collect information on hurricane recovery efforts and suicide risk. The Fellow would be invited to participate in these efforts.
Mentors

Primary  Keshia Reid PhD
          Senior Epidemiologist

Secondary Melissa Jordan MS, MPH
          Director of Public Health Research/Senior Epidemiologist