Job Title: Biostatistician/Epidemiologist

Reports to: Vice President of Analytics, Chief Analytics Officer

FLSA Status: Full‐Time, Exempt

Position End Date: 12/31/2022

**Job Summary:**

The Biostatistician/Epidemiologist will support the syndromic surveillance activities for CyncHealth contracting agencies and jurisdictions. The Biostatistician/Epidemiologist will conduct public health surveillance and enhance surveillance practices focused on various syndromes and subsyndromes (e.g., COVID-19, Influenza, Substance Abuse, etc.) through the use of syndromic surveillance data submitted by hospitals, emergency departments (EDs), and clinics. These activities support and improve public health agencies’ capacity to identify disease trends, conduct disease investigations, improve detection of clusters and hot spots, and provide essential information to inform control measures in states and regions. This position will also have the responsibility of providing technical consultation and assistance to other public health practitioners with regards to various epidemiology projects.

**Essential Functions:**

* Support daily operations of the syndromic surveillance system as Site Administrator (e.g., BioSense).
* Provide support to stakeholders by onboarding data providers during integration and testing phases for syndromic surveillance.
* Perform quality assurance activities to monitor compliance with Centers for Disease Control and Surveillence (CDC) requirements.
* Proposes and initiates epidemiological investigations using syndromic surveillance data to improve public health capability to characterize, prevent, and respond to syndromes.
* Evaluates and enhances syndromic queries and definitions used to monitor for trends in clinical encounters.
* Develops processes for the detection of suspected spatial-temporal clusters of infectious diseases in support of outbreak investigation and control efforts
* Works with investigators and others supporting infectious diseases to identify opportunities to leverage syndromic surveillance data to better characterize and respond to issues, including potential spillover health effects unrelated to direct infections.
* Designs, develops, and produces datasets, reports, and data visualizations to show trends in diseases and/or syndromes using syndromic surveillance data for use by public health practitioners, local health jurisdictions, and others as needed.
* Assist with efforts to model infectious disease outbreaks in Iowa to better predict geographical spread, severity, impact on persons at increased risk, burden on the healthcare system, and other key factors.
* Develops, validates, and utilizes advanced analytical tools (i.e., SAS, R) to improve surveillance practice.
* Use syndromic surveillance data to describe comorbidities and outcomes of diseases.
* Develop innovative methods to analyze trends in data given frequent changes in underlying transactional data.
* Provide support to public health agencies and other personnel on appropriate use and interpretation of syndromic surveillance data.
* Serve as Site Administrator for the ESSENCE platform.
* Perform other duties as assigned.

**Minimum Qualifications**

**Education**

* Master of Public Health degree in epidemiology, biostatistics, or a related field required. Doctoral degree from an accredited college or university with specialization in an appropriate field of public health, physical, biological, environmental or social science preferred.
* Graduate coursework in epidemiology and biostatistics.

**Work Experience**

* One year of full-time experience in an equivalent position or research capacity in the appropriate field of specialization
* Prior experience in ESSENCE or with other syndromic surveillance platforms/tools
* Epidemiology experience working in a public health agency or similar setting
* Experience with SAS, R, SQL, Tableau and/or HL7 standards
* Experience analyzing and interpreting clinical data especially from hospitals and Emergency Departments
* Experience with electronic medical record systems and/or using medical record data
* Experience developing geospatial visualizations and/or developing spatial-temporal cluster detection
* Experience preparing effective data visualizations
* Has experience with Agile methodologies and principles, preferably Agile/Scrum

**Skillsets**

* Ability to communicate and make recommendations to stakeholders and management
* Demonstrated statistical and analytical skills
* Demonstrated interpersonal/verbal communication skills
* Demonstrated written communication skills
* Demonstrated problem solving skills
* Ability to work as part of a team

**Technology**

* Microsoft Office Products
* SQL
* Data Marts
* SAS
* R
* ESSENCE or other Syndromic Surveillance platform

**Physical Requirements**

(DOT) – Characterized as light work requiring exertion up to 20 pounds of force occasionally, and/or up to 10 pounds of force frequently, and/or a negligible amount of force constantly to move objects.

**Disclaimer**

The above statements are intended to describe the general nature and level of work being performed by individuals assigned to this position. The statements are not intended to be construed as an exhaustive list of all responsibilities, duties and skills required for this position.