Description: The Department of Biostatistics at the Virginia Commonwealth University (VCU) School of Medicine is seeking to fill a non-tenure track faculty position as an Instructor. The candidate will develop and apply biostatistical theory and methods to the study of life sciences at VCU Health. Analyzes assigned healthcare data associated with birth, death, disease, and infection records. Organizes and analyzes clinical and administrative data from multiple sources and synthesizes results into meaningful reports and presentations. Creates audience appropriate data interpretation and detailed visual presentations including complex graphics. Prepares analyses utilizing benchmark data from a number of sources as appropriate. Identifies and compiles data from multiple sources to produce reports. Designs and maintains large databases. Develops and implements processes necessary for aggregating information from primary data sources. Performs statistical analysis to evaluate performance data including report generation. Assists in the development of metrics to support VCU Health care and compliance. Establishes relationships with various departments in the hospital to obtain and validate data. Maintains the confidentiality of all data and correspondence. Manages multiple projects, works independently and with groups, prioritizes time, adapts to a rapidly changing environment. Uses statistical software and techniques in the analysis, interpretation, and presentation of complex data sets. Solves complex problems. Performs analysis of quasi-experimental studies, including segmented regression analysis for interrupted time series studies if required. Creates summary reports using statistical tools, charts, and graphs. As the biostatistician in charge of the accuracy and completeness of assigned data, may advise other team members to improve data integrity and quality. Validates or assists in validating data requirements, data sources, data elements, measures, and resulting reports and presentations as requested. Some after hours and weekend work and/or flex scheduling will be required to meet deadlines.

Qualifications: The candidate must have excellent oral and written skills and an established ability to work in multidisciplinary research groups. Demonstrated expertise programming in the R computing environment. Extensive experience modeling the effects of correlated covariates and health outcomes. Publication record that demonstrates experience leading statistical analysis efforts for multiple research projects. Experience performing data quality assessment in epidemiologic and clinical data sets. Experience presenting research findings at national statistical meetings. Minimum of 5 years’ experience in biostatistics or epidemiology. Experience in the use of web-based applications, word processing, spreadsheet, graph, presentation and database management software. Mastery of SAS language and/or other statistical packages such as Statistical Package for the Social Sciences (SPSS) and/or Minitab. Minimum of two (2) years of experience performing advanced analytics projects/studies. Design of complex databases. Able to apply and interpret analytical and mathematical tools through the programming environment to address complex issues involving multiple table structures with complex query designs. Experience working with national clinical quality measures and measure programs. Experience working in an academic medical center. Master’s degree in biostatistics, epidemiology, or business/statistics equivalent with at least 12 credit hours of statistics, biostatistics, or epidemiology is required. Ph.D. in biostatistics, epidemiology or related field is preferred.

Performance Expectations:

Statistical Analysis: Provides biostatistical consultation to clients or colleagues as required. Independently prepares analyses utilizing benchmark data from any and all resources as deemed appropriate. Aggregates information from primary data sources. Performs complex statistical analysis to evaluate data and metrics. Provides analyses and recommendations to quality program leaders regarding detailed opportunities for improvement in national quality reporting programs and with other clinical measures. Leads the interpretation of the output of the statistical models developed. Designs and conducts advanced analytics on complex, multi-variate data sets, in collaboration with clinical leaders.

Data Base Management: Establishes and maintains complex data bases as needed. Establishes and maintains data base for BBF exposure as directed by Hospital Epidemiologist. Performs data entry and abstraction. Communicates with IP’s at least monthly to ensure data base validation. Communicates with Employee Health Services for blood and body fluid exposure data. Establishes and maintains data as deemed appropriate by Hospital Epidemiologist. Queries data warehouse and other databases for needed data, pulling together disparate data and analyzing to draw meaningful conclusions. Maintains clinical databases and produces accurate and timely
extracts and reports from those databases. Designs and oversees data collection and data quality control processes to assure reliability and validity. Prepares statistical data for inclusion in reports to data monitoring committees, federal regulatory agencies, managers, or clients. Seeks opportunities to automate or otherwise improve the accuracy and efficiency of data collection.

Data Management: Obtains healthcare data from internal and external sources as appropriate. Validates assigned data as required. If needed, performs edits to capture data errors and corrects if appropriate. Generates ad hoc, custom, and recurring large and small reports. Prepares statistical data for inclusion in reports to data monitoring committees, federal regulatory agencies, managers, or clients. Produces graphical and visual presentations of data. Disseminates analyzed data electronically as well as paper copies as appropriate. Reports analyzed data and results to appropriate departments as requested with approval by leadership.

Subject Matter Expert (SME): Analyzes complex risk adjusted data and models and advises team regarding data use and improvement opportunities. Educates team members about data use and data analysis methods. Reads and interprets current regulatory requirements regarding data measures and data reporting; advises program leaders. Stays current on details of reporting requirements, data definitions and their clinical rationale and sources of data and serves as a resource to others on these topics. Maintains current knowledge in methodological or conceptual developments in fields such as biostatistics, pharmacology, epidemiology, and other life and social sciences. Serves as SME regarding statistical methods and the best technology tools to support the analyses; acts as a statistical and analytics methods subject matter expert and resource to others.

Performs other duties as assigned and/or participates in special projects in order to support the mission of VCU Health and the department. Participates in department activities and meetings/events as required. Provides assistance to team members. Accepts alternate assignments, as required, graciously. Must demonstrate experience working in and fostering a diverse faculty, staff, and student environment and make a commitment to do so as a faculty member at VCU.


Virginia Commonwealth University is an urban, research intensive institution with a diverse university community and a commitment to multicultural opportunities. VCU is an equal opportunity/affirmative action employer. Women, minorities and persons with disabilities are encouraged to apply.