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“This award will provide me with a unique training opportunity to validate important clinical markers for type 2 diabetes (T2D), particularly laboratory test results and vital signs that are not available in the Minimum Data Set, to explore the value of this novel dataset for monitoring and managing T2D among nursing home (NH) residents.”

Dr. Zhang is an assistant professor in the Department of Population Health Sciences at Weill Cornell Medical College. His research interests lie in the intersection of long-term care and end-of-life care of older adults with complex medical and social conditions. As an emerging health services researcher, Dr. Zhang has unique experience and expertise with large-scale datasets, including administrative claims (e.g., Medicare fee-for-service, Medicare Advantage, Medicaid, and commercial payers), electronic health record (EHR) data, and many other datasets. Using these comprehensive healthcare data, Dr. Zhang’s research aims to develop accurate and fair prediction models to improve clinical decision making to target effective interventions, reduce disease burdens, and address disparities among patients who are near the end of life. Dr. Zhang has received funding from NIA, NIDDK, NHLBI, PCORI, and private foundations.

Evaluating LTC Data Cooperative EHRs to Study T2D among Nursing Home Residents

Diabetes is one of the most prevalent chronic conditions among NH residents and is associated with higher healthcare spending. Data elements, such as use of glucose lowering medications and blood glucose level, are important measures to manage and monitor diabetes but are rarely available in the Minimum Data Set. This project will validate key measures related to T2D in the LTC Data Cooperative EHR data. The Real World Data Scholar Award will provide Dr. Zhang with the necessary training and experience using the LTC Data Cooperative EHR data to: 1) Estimate the prevalence and trends of T2D among NH residents; 2) Determine the agreement between different computable phenotypes of T2D; 3) Describe the frequency, periodicity, and completeness of key measures (e.g., HbA1c test) related to T2D; and 4) Explore how findings from this study compare to findings from other similar studies. This project will generate firsthand evidence to demonstrate the usefulness, validity, and completeness of key measures of T2D using this novel EHR dataset for NH residents. These findings will provide insight into the extent to which EHR measures can be used to improve the treatment and management of T2D among NH residents. Training and findings from this award will lay the foundation and provide important preliminary evidence for the Scholar’s future research to develop individualized strategies for T2D monitoring and management for NH residents.