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**Title**

*Characterizing acute and chronic complications among patients with diabetes mellitus in community health centers*

**Priority 1 (Research Category)**

Diabetes and endocrine disease

**Presenters**

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**Abstract**

Context: Diabetes mellitus affects about 10% of the world's population and can lead to serious complications, which reduce life quality and expectancy. People with low income have higher risk of diabetes complications than those with high income, but data on the trends of diabetes complications in underserved populations are scarce. Community health centers (CHCs) serve millions of patients in the United States regardless of their health insurance status and are an ideal setting for assessing the rate of diabetes complications in underserved populations. Objectives: To describe diabetes-related acute and chronic complications among patients served by CHCs. Study Design: Retrospective cohort study of electronic health record data from the ADVANCE clinical research network. Population studied: Patients with diabetes between ages 19 and 64 (excluding pregnant women) and  $\geq 1$  primary care ambulatory CHC visit in 2017 (N=85,442). Outcome Measures: Rates and type of diabetes-related acute and chronic complications recorded in 2017. Results: The incidence of acute complications among patients with diabetes in 2017 was 14%. Patients experiencing acute diabetes-related complications had on average 1.8 complications (range 1-33). The most common acute complications were infections (58.3%), abnormal blood glucose or related metabolic abnormalities (20.5%), and strokes or transient neurological deficits (6.8%). Patients with acute complications were proportionally more likely to be female, non-Hispanic white, have Medicaid insurance, out-of-control diabetes, a prescription for insulin, a diagnosis of substance use disorder, and co-occurring physical or mental conditions. For chronic complications, the prevalence in 2017 was 77% among patients with diabetes. Patients experiencing chronic diabetes-related complications had on average 2.3 complications (range 1-19). The most common chronic complications were cardiovascular disease (33.9%), endocrine/metabolic symptoms (22.8%), and neurological symptoms (13.0%). Patients with chronic complications were proportionally more likely to be male, non-Hispanic black, have health insurance, obesity, substance use disorder, longer period with diabetes diagnosis, and co-occurring conditions. Conclusions: The vast majority of patients with diabetes receiving care in CHCs had chronic complications. These findings are concerning,

as diabetes-related complications are associated with greater healthcare utilization and patient morbidity.