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Title

Disparities in Screening, Prevention, and Management of Cardiovascular Disease in Rural and Urban Primary Care

Priority 1 (Research Category)

Cardiovascular disease

Presenters

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Abstract

Context: Rates of preventive screening remain low in the United States. Levels of adherence to preventive guidelines are even lower underserved populations. Rural populations have higher modifiable risk factors for cardiovascular disease (CVD) than urban populations and bear a disproportionate burden of CVD. Screening, prevention, and management of CVD and its risk factors largely occur in primary care settings, particularly in rural areas.

With an increasing emphasis on value-based payment and quality reporting, it remains unknown if rural primary care practices have closed performance gaps.

Objective: To compare CVD screening, prevention, and management quality measures in a large national primary care registry between rural and urban practices and also assess for disparities by patient race/ethnicity composition of the practice.

Study Design and Analysis: Repeated measures analysis of practice level quarterly quality measure data. Regression models controlled for percent of patients 40 or older, minority patients, rural patients, and patients living in an area with high social vulnerability.

Setting or Dataset: 183 PRIME registry practices in the United States from January 2016 to December 2020 with data available in every quarter.

Population Studied: Adults aged 18+ in primary care practices.

Intervention/Instrument: n/a

Outcome Measures: Quality measures of controlling high blood pressure (linear) and tobacco use screening and cessation counseling in the bottom quartile (across the entire study period) of performance (binary).

Results: Unadjusted, mean blood pressure control improved from 57.5% to 68.0% and the percent of practices with low tobacco screening and counseling rates improved from 36.3% to 15.1%. In regression

models, blood pressure control improved 10.4% with all practice-level variables being non-significant except a micropolitan vs. metropolitan area (-4.2%). Odds of low tobacco screening improved over the study period, however only a higher proportion of patients with a higher social vulnerability index (OR=1.12 (1.03-1.32)) was associated with lower screening rates.

Conclusions: Rural primary care practices largely improved on quality measures for CVD disease prevention and management at the same rate as urban practices.