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Title

Exploring Primary Care Capacity in Preventable Hospitalization Bright Spots

Priority 1 (Research Category)

Research methodology and instrument development

Presenters

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Abstract

Context: Previous research found the influence of multiple factors on preventable hospitalizations varied by geographic location, particularly the Appalachian and Mississippi Delta regions. Objective: To explore primary care capacity and other characteristics of geographic clusters of counties with better-than-expected preventable hospitalization rates (bright spots). Study Design and Analysis: Cross sectional approach includes residual analysis and hot spot mapping. Our previous research, using a spatial regime approach, modeled preventable hospitalizations with hierarchical condition category [HCC] risk scores, social deprivation index [SDI], hospital beds per 100,000, rurality, and the percentage of black Medicare beneficiaries as independent variables. In this study we performed a Local Moran's I on the residuals to identify geographic clusters of counties with better-than-expected (bright spots) and worse-than-expected (hot spots) preventable hospitalization rates. Setting/Dataset: Centers for Medicare and Medicaid (CMS) public use file (PUF), Robert Wood Johnson County Health Rankings, Robert Graham Center (SDI); US Counties (n=3,141). Outcome Measures: Preventable Hospitalizations (rates of hospital stays for ambulatory-sensitive conditions per 100,000 Medicare enrollees). Results: The residual analysis identified bright spots (n=229) and hot spots (n=184) throughout the US, though many of them are concentrated in the Appalachia and Delta regions. Compared to hot spots, bright spots have significantly higher primary care physician rates and significantly lower rates rurality, SDI, and percentage of Black Medicare beneficiaries. Comparing hot spots (n=57) and bright spots (n=58) within the Appalachia and Delta regions, bright spots have significantly lower rates of dual-eligibles, social deprivation, smoking, and rates of chronic conditions (diabetes, asthma, COPD). There were no significant differences for hot spots and bright spots in terms of race/ethnicity, rurality, or HCC risk scores. Conclusions: This further points to the need for mixed methods studies of these populations in hot spots that can explain the root causes preventable hospitalizations beyond what is currently measured, and how this can help tailor interventions to improve public health.