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Title

Exploring Health Center Geographic Variation of Flu Vaccination Coverage & the Impact of COVID-19

Priority 1 (Research Category)

Screening, prevention, and health promotion

Presenters

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Abstract

Context: COVID-19 disrupted care delivery for patients at Health Resources and Services Administration (HRSA)-supported health centers. Research suggests that many patients are foregoing critical preventive care such as immunizations. Little is known about the characteristics or geographic patterns of health center declines in preventive care. Objective: To explore geographic variation and characteristics of health centers with the lowest flu vaccination rates (2020) [flu shot cold spots] and the largest declines in flu vaccination rates (2017-2020) [missed flu shot cold spots]. Study Design and Analysis: Local Moran's I to identify flu shot cold spots, defined as clusters of health centers with low flu shot rates (2020). Differential Local Moran's I to identify missed flu shot cold spots, defined as clusters of health centers with decreases in flu shot rates (2017-2019 to 2020). We also explored characteristics of health center patients who visited flu shot cold spots and missed flu shot cold spots. Dataset: Health Center Program Awardees and Look-Alikes, Uniform Data System (UDS), 2017-2020. Outcome Measures: Health center flu vaccinations. Results: We found clusters of 2020 flu shot cold spots in the central and southern U.S. Flu shot cold spot health centers have significantly higher percentages of Black patients but significantly lower percentages of Hispanic patients. Differential Local Moran's I analysis reveals clusters of missed flu shot cold spots in urban areas in California, the Pacific Northwest, and the Northeast. Missed flu shot cold spot health centers have significantly higher percentages of Hispanic patients, higher percentages of Black patients (but not significant), and significantly higher percentages of patients in poverty. Conclusions: While COVID-19 impacted flu shot rates across the U.S., several areas were impacted more severely and had significant declines or lower rates. Flu shot cold spots are consistent with overall lower rates based on data from the Centers for Disease Control and Prevention (CDC). HRSA should consider targeted research on health centers identified as flu shot and missed flu shot cold spots to better understand local contexts. Follow-up investigations could also compare geographic variation and characteristics of "bright spot" health centers (i.e., health centers with high flu shot rates), particularly those with increases in flu shot rates in 2020, to that of cold spot health centers.