

NAPCRG 52nd Annual Meeting — Abstracts of Completed Research 2024.

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Title

Association between patient reported social risks and HOUSES index: A rural-urban comparison

Priority 1 (Research Category)

Social determinants and vulnerable populations

Presenters

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Abstract

Context - Socioeconomic status (SES) is one of the key determinants of health among rural populations. Integration of patient reported social risk questionnaires in electronic health records allows for assessment of individual-level SES, but this data is frequently missing. A housing asset-based measure of SES (HOUSEs) can provide individual-level SES without need for patient questionnaires.

Objective - To assess the association between patient-reported social risk and HOUSEs index in rural and urban patients in US Midwest primary care population

Study Design and Analysis – Cross-sectional analysis comparing rural vs urban patients in Mayo Clinic Midwest, chi-squared test and mixed effect model used to test associations

Setting – Mayo Clinic Midwest adult patients with primary care clinician in Department of Family Medicine in 2022

Population Studied – Mayo Midwest patients were identified by primary residence as urban (RUCA 1-3) or rural (RUCA 4-10)

Instrument – Patient-level social risks were identified by 2 separate instruments: Patient-reported questionnaires on 5 domains (housing risk, food insecurity, financial resource strain, transportation risk,

and intimate partner violence) completed in electronic health record and HOUSES index z-score converted to quartiles, based on publicly available property data nested in each county

Outcome Measures – Odds ratio of reporting any high risk social risk domain within each HOUSES quartile and by rural or urban status, controlling for demographic factors such as age, gender, and race

Results – Of 382,729 adult patients, 45.4% live in rural areas. Rural patients are more likely to be older, female, white, more medically complex with fewer outpatient visits. Rural patients are more likely to report social risks compared to urban patients (all p-values <.001) – food insecurity 8.0% vs 6.3%, housing risk 9.8% vs 8.9%, financial risk 4.1% vs 3.4%, transportation risk 3.3% vs 2.7% and intimate partner violence 3.2% vs 3.0%. In mixed effect model, patients in HOUSES Q1 (lowest SES) are 2.18 times more likely than HOUSES Q4 to report at least 1 of the 5 social risk domains, when controlling for demographics and rurality.

Conclusions – SES as measured by HOUSES index is the predominant driver of patient-reported social risk among both urban and rural populations in this primary care population. Further evaluation is needed to apply use of social risk questionnaires and HOUSES index in primary care settings.

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