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Vulnerable Neighborhoods Had Smaller Gains in Health Insurance Coverage During Early Covid-19

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Background:

The Covid-19 pandemic has illuminated the inequities that jeopardize health, prompting rapid interventions to promote care access. However, such efforts have had mixed success in eradicating disparities. One focus is the equity of improvements in insured rates.

Methods:

Self-reported health insurance coverage rates among adults aged 18-64 were obtained from the CDC's PLACES datasets for collection years 2018 and 2021, at the Census Tract level. These data were merged with the CDC's 2018 Social Vulnerability Index (SVI), which ranks Tracts on 15 measures of social determinants of health. Across Tracts nationally and by state, univariate correlations between Overall SVI and percentage change in uninsured rate from 2018 to 2021 were calculated. Then, national and state-specific multivariate models were created to assess the relationships between all 15 SVI variables and change in uninsured rate.

Results:

Health insurance coverage improved in all states. Nationally and across states, improvements were greater in lower-risk Census Tracts (34% average decrease in uninsured rate in lowest-risk decile nationally, vs. 16% in highest-risk decile, $p < 0.0001$). Most state-specific multivariate models demonstrated high correlations between SVI variables and change in uninsured rate, with mean Multiple R of 0.74 (0.72 to 0.76 95% CI, $F < 0.0001$ in all states).

Conclusions:

Nationally and in each state individually, pandemic-era improvements in health insurance access were disproportionately concentrated in lower-risk Census Tracts, which already had lower baseline uninsured rates. Multivariate models using SDOH inputs reliably identified vulnerable neighborhoods with lower health insurance access and smaller improvements in insured rates.

Keywords: health insurance, health insurance access, health care access, insured rate, uninsured rate, social vulnerability, social determinants of health, health equity, health disparities