Measures of Neighborhood Opportunity and Adherence to Recommended Pediatric Primary Care

Visit Article

IMPORTANCE: Neighborhood conditions are known to broadly impact child health. Research to date has not examined the association of the Childhood Opportunity Index (COI), a multidimensional indicator of neighborhood environment conditions, specifically with pediatric primary care outcomes. OBJECTIVE: To determine the association of neighborhood opportunity measured by the COI with health metrics commonly captured clinically in pediatric primary care, reflecting both access to preventive care and child well-being. DESIGN, SETTING, AND PARTICIPANTS: This cross-sectional observational study used electronic health record data from a large pediatric primary care network in the northeastern US. Participants included patients aged 0 to 19 years who were active in the primary care network between November 2020 and November 2022. Data were analyzed in December 2022. MAIN OUTCOMES AND MEASURES: Outcomes included up-to-date preventive care and immunization status and presence of obesity, adolescent depression and suicidality, and maternal depression and suicidality. Multivariable mixed-effects logistic regressions estimated associations of these outcomes with COI quintiles, adjusted for age, sex, race and ethnicity, and insurance type. RESULTS: Among 338?277 patients (mean [SD] age, 9.8 [5.9] years; 165?223 female [48.8%]; 158?054 [46.7%] non-Hispanic White, 209?482 [61.9%] commercially insured), 81?739 (24.2%) and 130?361 (38.5%) lived in neighborhoods of very low and very high COI, respectively. Living in very high COI neighborhoods (vs very low COI) was associated with higher odds of being up-to-date on preventive visits (odds ratio [OR], 1.40; 95% CI, 1.32-1.48) and immunizations (OR, 1.77; 95% CI, 1.58-2.00), and with lower odds of obesity (OR, 0.55; 95% CI, 0.52-0.58), adolescent depression (OR, 0.78; 95% CI, 0.72-0.84) and suicidality (OR, 0.79; 95% CI, 0.73-0.85), and maternal depression (OR, 0.78; 95% CI, 0.72-0.86) and suicidality (OR, 0.71; 95% CI, 0.61-0.83). CONCLUSIONS AND RELEVANCE: This cross-sectional study of electronic health record data found that neighborhood opportunity was associated with multiple pediatric primary care outcomes. Understanding these associations can help health systems identify neighborhoods that need additional support and advocate for and develop partnerships with community groups to promote child well-being. The findings underscore the importance of improving access to preventive care in low COI communities.

Journal:

JAMA Network Open
Authors: Stephanie Mayne, Mary Kate Kelly, Katie McPeak, George Dalembert, MD, MSHP, Brian Jenssen, Alexander Fiks

Related Content

- Cumulative Health Vulnerabilities Among Adolescents by Age and Neighborhood Opportunity
  Article
  Dec 2023

- Clustering of Unhealthy Behaviors in a Nationally Representative Sample of U.S. Children and Adolescents
  Article
  Jan 2020