shadac
STATE HEALTH ACCESS DATA ASSISTANCE CENTER

Neighborhood Support and Child Health Outcomes

APHA Annual Meeting

October 24, 2021

Natalie Schwehr, PhD, MAc | Lynn Blewett, PhD, MPA

Funding

Robert Wood Johnson Foundation

shadac
STATE HEALTH ACCESS DATA ASSISTANCE CENTER

Neighborhood support

- Neighborhood support is a form of **social capital**
  - Concept of social capital is multidisciplinary and was developed by sociologists and political scientists, including Pierre Bourdieu, James Coleman, and Robert Putnam
- Social capital and public health
  - **Cohesion** and **social network approaches** (Moore & Kawachi, 2017)
  - Both approaches recognize structural factors (organizations, policies, neighborhoods) with individual-level health consequences
  - Cohesion emphasizes cognitive aspects such as trust, perceptions of social belonging, and levels of social participation
  - Network approaches may include formal social network analysis
- Survey data is important for understanding **family perceptions** of neighborhood cohesion

Neighborhood support and social capital

- Studies of social capital have illustrated the breadth of social determinants of health associated with outcomes including mortality.
  - Growing evidence on the importance of neighborhoods for children.
- Relatively few studies have examined the role of supportive communities on a range of child health outcomes.
  - Neighborhood characteristics have been associated with children's oral health, mental health conditions, obesity, quality of life, and recurrent ED visits.

Oral Health

Utilization and Access

Overall Health

shadac
STATE HEALTH ACCESS DATA ASSISTANCE CENTER

Research objective

- We examined the association between living in a supportive neighborhood and child health outcomes.

Data

National Survey of Children's Health (NSCH)

- Pooled 2018-2019

- Nationally representative

- Family-centered perspective

- Large sample of children (aged 0-17) in all 50 states and DC

HRSA National Survey of Children's Health

Measuring neighborhood support

- A supportive environment includes a place where:

  ✓ People help each other out

  ✓ Neighbors watch out for each other's children

  ✓ People know where to go for help

- Required valid answers to all three survey items
  - "Somewhat agree" or "definitely agree" with all items
  - "Definitely agree" with at least one item

Outcomes

- Emergency department (ED) visits (≥1 during the past year)

- Unmet health care needs (medical, dental, hearing, vision, or mental health needs)

- Preventive dental visits

- Parent-reported overall child health (fair or poor)

- Parent-reported children oral health (fair or poor)
  - We selected measures that emphasize family experiences rather than medical diagnoses (e.g., parent-reported oral health rather than cavities), because the latter depends on seeing a healthcare provider, which varies by socioeconomic status.

Covariates

- Age, sex, race/ethnicity, primary language spoken at home (English or not), income (with imputation by survey administrators), parental education, children with special healthcare needs (CSHCN; based on a 5-item screener), a composite measure of family resilience, and health insurance coverage

- Family resilience: "When your family faces problems, how often are you likely to do each of the following?"
  - All or most of the time responses to four items:
  - Talk together, work together, draw on strengths, stay hopeful

Analyses

- Cross-tabulation with design-based F statistics for bivariate analysis of the association between neighborhood support and child characteristics

- Multivariate logistic regression to assess the association between living in a supportive neighborhood and child health outcomes
    - Models were adjusted for all covariates described previously

- Stata techniques to account for the complex sample design (e.g., unequal probability of selection, stratification, clustering)
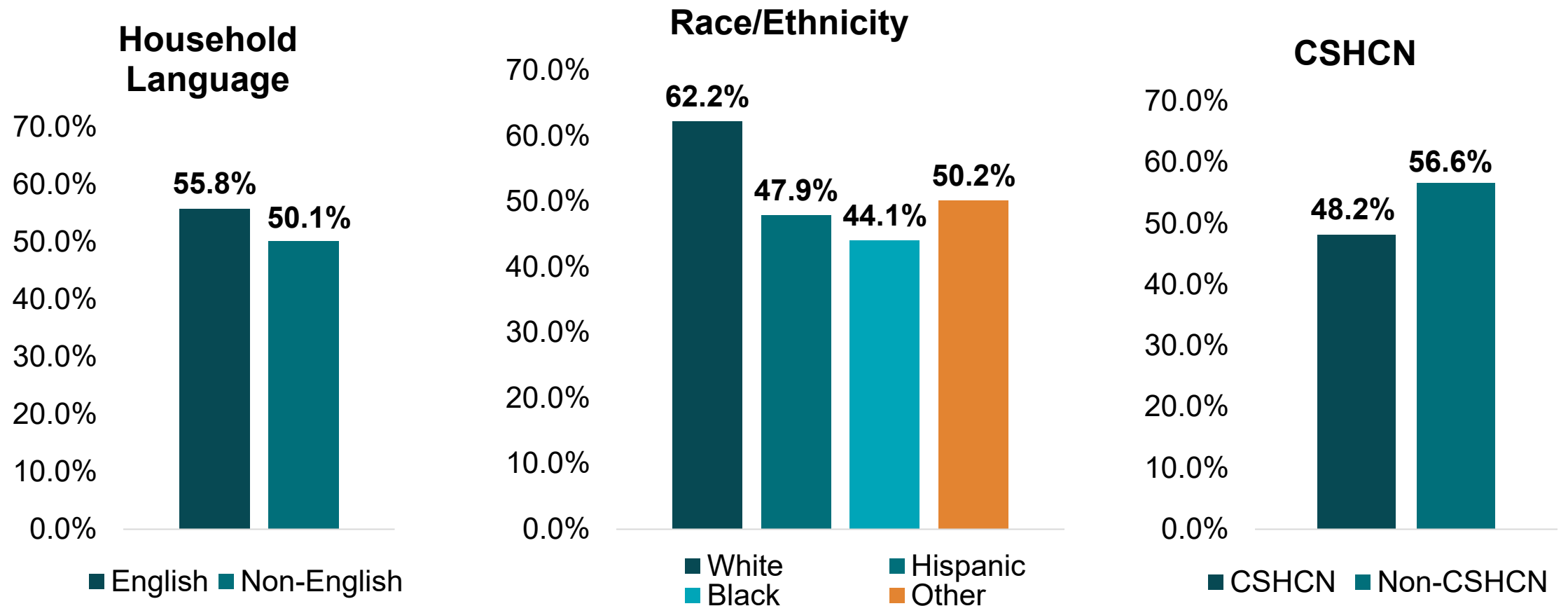
Limitations

- Examining association, not causality
  - Cross-sectional data
  - Models adjust for child characteristics, but variables of interest may be correlated with unobserved confounders
- Parent-reported data
  - Health status
  - Perceived need of healthcare services
- Measures of neighborhood support, and social capital more generally, vary across the literature, depending on the data source
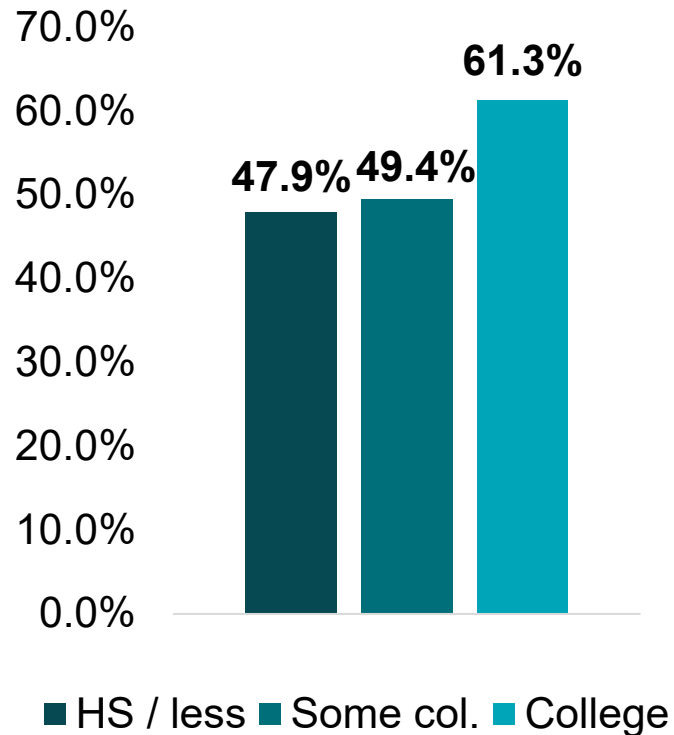
Descriptive Results

Neighborhood support among subgroups of children

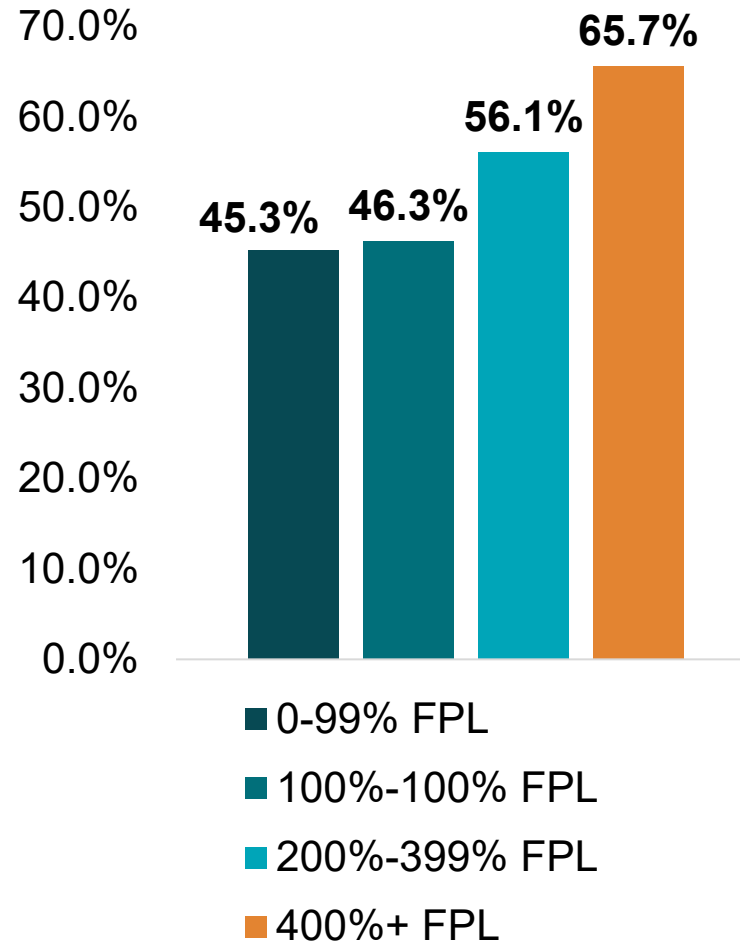# 55% of all children had supportive neighborhoods and rates varied by child characteristics (1)

Household Language

- English: 55.8%
- Non-English: 50.1%

Race/Ethnicity

- White: 62.2%
- Black: 44.1%
- Hispanic: 47.9%
- Other: 50.2%

CSHCN

- CSHCN: 48.2%
- Non-CSHCN: 56.6%

55% of all children had supportive neighborhoods and rates varied by child characteristics (2)

Household Education

- HS / less: 47.9%
- Some col.: 49.4%
- College: 61.3%

Federal Poverty Level

- 0-99% FPL: 45.3%
- 100%-100% FPL: 46.3%
- 200%-399% FPL: 56.1%
- 400%+ FPL: 65.7%

Insurance Coverage

- Private: 59.4%
- Public: 47.0%
- Uninsured: 49.1%

shadac
STATE HEALTH ACCESS DATA ASSISTANCE CENTER
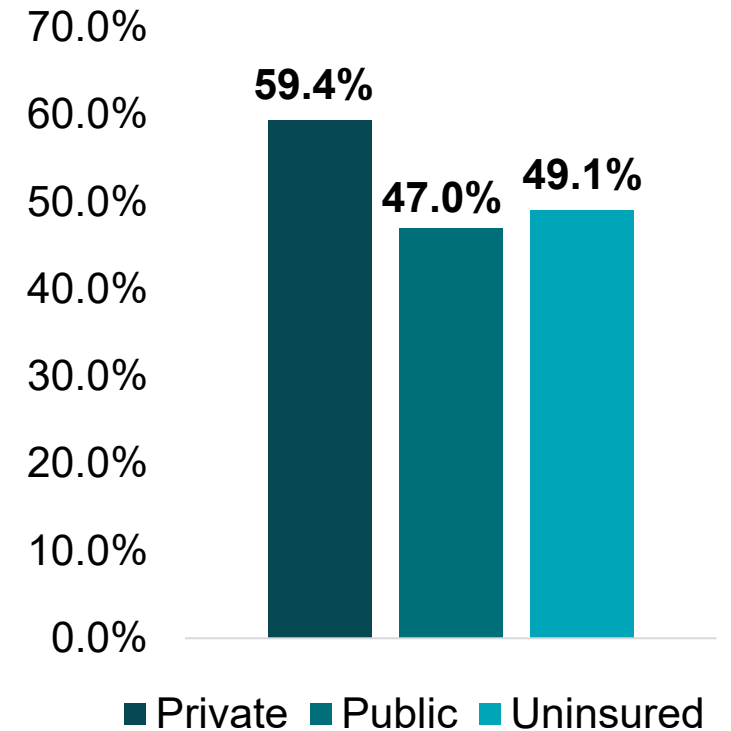
Multivariate Results

Child health outcomes by neighborhood support

Outcomes associated with neighborhood support

	ED visit OR	Unmet health care needs OR	Preventive dental visit OR	Fair/poor health OR	Fair/poor oral health OR
Neighborhood support	0.89*	0.52***	1.16**	0.72	0.65***

Bolded if significant: *** p<0.001, ** p<0.01, * p<0.05
All models adjusted for age, sex, race/ethnicity, household language, income, parental education, CSHCN, family resilience, and health insurance coverage.

Sensitivity analyses
Results were robust across models

	ED visit OR	Unmet health care needs OR	Preventive dental visit OR	Fair/poor health OR	Fair/poor oral health OR
Main analysis	0.89*	0.52***	1.16**	0.72	0.65***
Model 2 (without family resilience variable)	0.88**	0.47***	1.18**	0.62**	0.60***
Model 3 (only age, sex, race, household language)	0.78***	0.38***	1.26***	0.43***	0.50***
Alternate model specification (linear)	-0.018*	-0.018***	0.020*	-0.005	-0.020***

Bolded if significant: *** p<0.001, ** p<0.01, * p<0.05

Summary
Neighborhoods matter

- About half (55%) of children lived in a supportive neighborhood.

- Perceived neighborhood support was less likely for non-English households, children of color, CSHCN, families with less education or income, and those with public coverage or uninsured.

- Neighborhood support was associated with significantly better outcomes in four of five measures (ED, unmet care needs, preventive dental visits, and oral health status) across all models tested

Discussion

- Our study provides evidence to support the important role that neighborhoods play in the health status of children.
    - **Family perceptions** of neighborhood support correlated with child health outcomes.
- Potential policies that build social capital:
- Strengthening **networks**: new and existing networks, building links to networks and capacity to link (Cook, 2016)
    - Community-based programs and health care
- Developing **community cohesion** to help build the social capital of children and support their growth and development
    - Neighborhood schools, playgrounds, and early childhood education

Contact Information

Natalie Schwehr, Senior Research Associate

schwe425@umn.edu

 SUBSCRIBE to SHADAC's e-newsletter to stay updated on the latest resources at shadac.org

 FOLLOW us on Twitter
@shadac

Contact Information

Natalie Schwehr, Senior Research Associate

schwe425@umn.edu

✉ **SUBSCRIBE** to SHADAC's e-newsletter to stay updated on the latest resources at shadac.org

🐦 **FOLLOW** us on Twitter
@shadac

shadac

STATE HEALTH ACCESS DATA ASSISTANCE CENTER

	ER visit	Unmet healthcare needs	Preventive dental visit	Overall health status	Oral health status
Neighborhood support	0.89*	0.52***	1.16**	0.72	0.65***
Family resilience	0.94	0.64***	1.10	0.62**	0.72***
Sex of Selected Child	1.11*	0.95	0.90*	0.84	1.25*
0-5	1.00	1.00	1.00	1.00	1.00
6-11	0.53***	1.56**	5.38***	1.08	2.11***
12-17	0.50***	1.67**	4.58***	1.38	1.51**
noneng	0.87	0.84	0.80*	1.49	1.46*
white	1.00	1.00	1.00	1.00	1.00
hisp	1.13	1.33	1.26*	1.48	0.97
black	1.62***	0.74	0.87	1.58*	1.15
other	0.97	0.93	0.88	1.07	1.17
0-99% FPL	1.00	1.00	1.00	1.00	1.00
100%-199% FPL	0.88	1.16	1.09	0.61	0.82
200%-399% FPL	0.79**	1.00	1.22*	0.69	0.68*
400% FPL or above	0.77**	0.49***	1.56***	0.40**	0.40***
HS or less	1.00	1.00	1.00	1.00	1.00
Some college	1.00	1.38*	1.30***	0.74	0.95
College degree	0.76***	1.17	1.65***	0.62	0.60***
Children with special health care needs	2.16***	3.74***	1.16*	16.99***	2.47***
private	1.00	1.00	1.00	1.00	1.00
public	1.44***	1.19	1.08	1.37	1.55***
uninsured	0.96	4.27***	0.33***	1.85	2.69***