Association Between Community Racial Composition and Population Health Activities

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Background

- Emerging research suggests improving health outcomes requires interventions beyond traditional clinical care.
- A more holistic approach that focuses on population health and partnerships that integrate health and social services may be particularly important for reducing health inequities.
- There is little known about the association between community diversity and population health system structure.
- This study explores the association between racial composition of a community and the multisector delivery of population health networks.

Methods

- We conducted a retrospective cohort study using data from the National Longitudinal Survey of Public Health Systems (NALSYS).
- NALSYS measures the connectedness of community organizations who are delivering health and social services by asking local public health officials about the availability of 20 core population health activities within their community and the range of sectors that deliver each activity, including hospitals, primary care providers, insurers, employers, schools, and community-based organizations.
- We categorized communities into tertiles based on the portion of the non-white population.
- We described multisector contributions to population health network across low (First tertile), modest (Second tertile), and high (Third tertile) community diversity, and estimated the Generalized Estimating Equations (GEE) model for each type of organization participation controlling for area-level covariates.

Figure1. Distribution of Cross-Sector Participation in Population Health Networks by Community Diversity and Organization Type

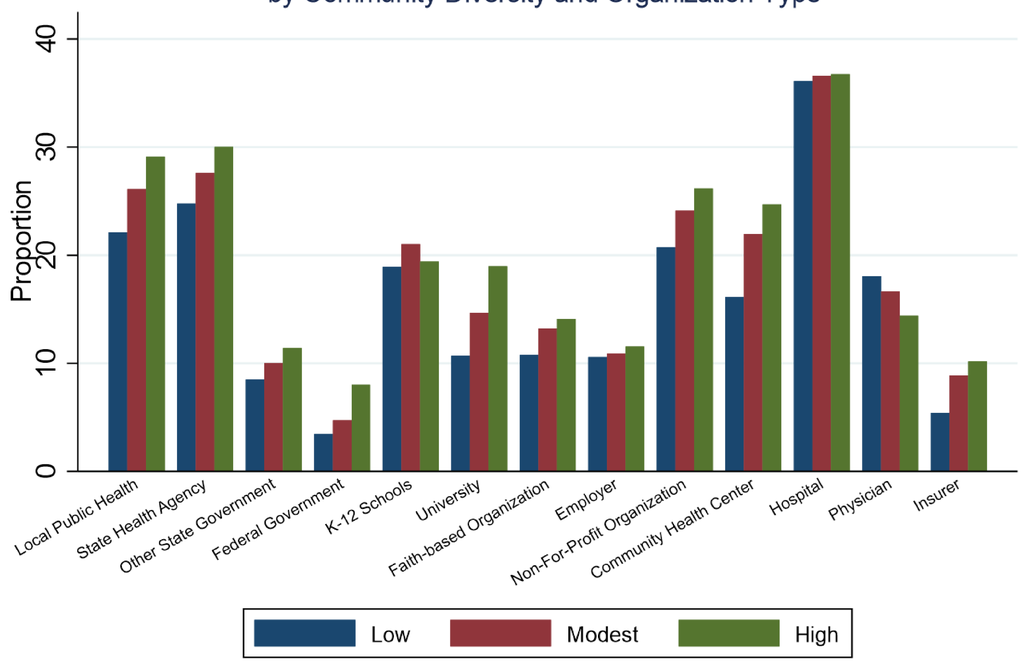

Table. Regression Results for Effects of Community Diversity on Cross-Sector Participation in Population Health Networks

	Modest Diversity			High Diversity		
	Coef.	S.E.	P-Value	Coef.	S.E.	P-Value
Governmental Organization						
Local Public Health	-0.69	(1.52)	0.6485	0.17	(1.89)	0.9288
State Health Agency	0.19	(1.45)	0.8978	-0.88	(1.84)	0.6339
Other State Government	0.94	(1.06)	0.3754	1.60	(1.36)	0.2374
Federal Government	0.35	(0.71)	0.6284	2.25**	(1.03)	0.0284
Community-Based Organization						
K-12 Schools	-0.87	(1.25)	0.4867	-4.35***	(1.53)	0.0044
University	-0.75	(1.19)	0.5305	-1.19	(1.54)	0.4403
Faith-based Organization	0.19	(1.05)	0.8531	-1.25	(1.31)	0.3413
Employers	-1.25	(0.99)	0.2095	-1.79	(1.28)	0.1599
Non-For-Profit Organization	-1.27	(1.41)	0.3686	-1.84	(1.69)	0.2752
Health-oriented Organization						
Community Health Center	1.32	(1.52)	0.3861	0.57	(1.84)	0.7571
Hospital	-3.95**	(1.58)	0.0121	-8.32****	(1.92)	0.0000
Physician	-1.97	(1.25)	0.1154	-4.24***	(1.53)	0.0056
Insurer	1.98**	(0.93)	0.0334	1.67	(1.18)	0.1584

Notes: We used the Generalized Estimating Equations model for estimation. Estimated coefficients are based on National Longitudinal Survey of Public Health Systems data in 2014, 2016, and 2018. Coefficients can be interpreted as the differences between the given diversity group and the reference group (Low Diversity Community) in the proportion of public health activities which the organization participated in. Sample size is 1,657 community-year observations. Robust standard errors are shown in parentheses. All regression models controlled for community-level covariates (i.e., poverty rate, total population size, uninsured rate, unemployment rate, rate of population above 65, rurality, hospital beds per 1000 persons and primary care physicians per 1,000 persons). *p<.1; **p<.05; ***p<.01.

Results

- Our results suggest substantial variation in the relationship between diversity and multisector contributions to population health.
- We found that community health centers, insurers, government agencies, universities, and faith-based organizations increased their participation in population health activities in more diverse communities.

Conclusions

- Findings suggest that a subset of sectors may be focusing their population health efforts on diverse populations that have both complex health and social needs.

References

Systems for Action. (2023). National Longitudinal Survey of Public Health Systems. https://systemsforaction.org/national-longitudinal-survey-public-health-systems

Acknowledgments

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