

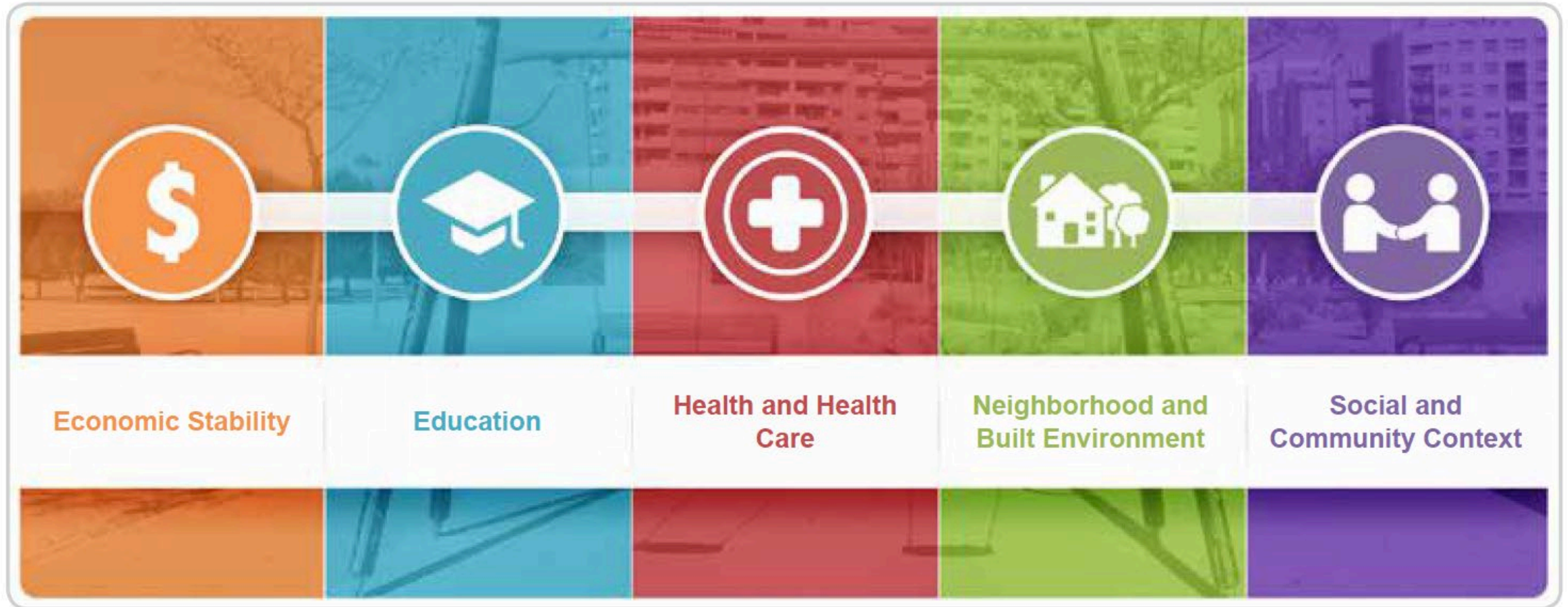
Reducing Disparities in Readmissions: The Role of Social Determinants of Health in Promoting Health & Health Equity

Julia Iyasere, MD

What are the social
determinants of health?

What are the social drivers
(influencers) of health?

Figure 39–1. Five-domain Model of Social Determinants of Health

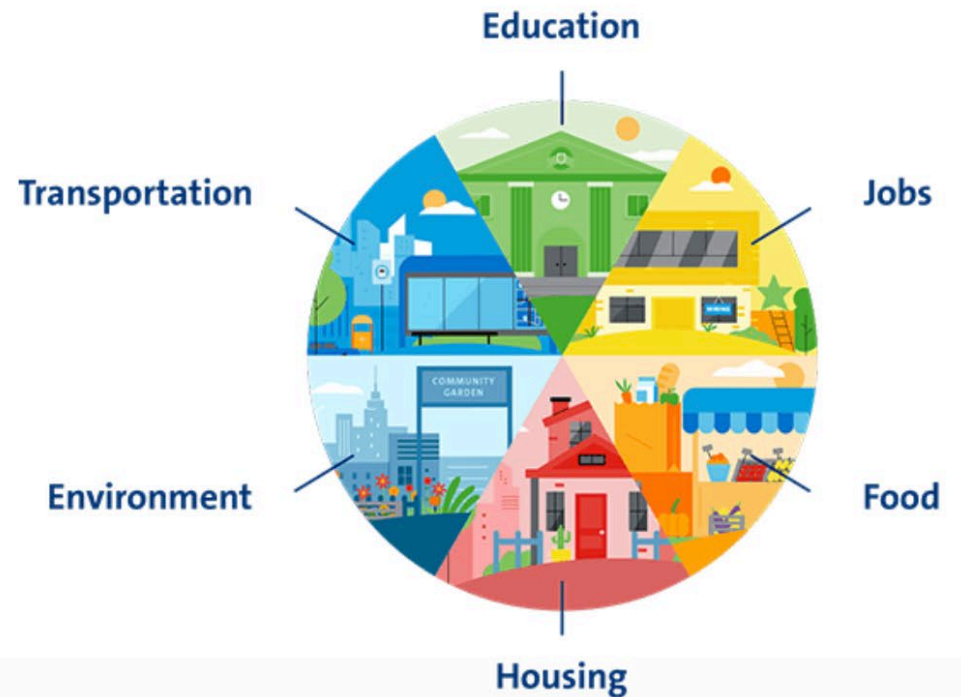


NewYork-Presbyterian

Dalio Center for Health Justice

Social Determinants of Health

Because 80% of health is driven by social, behavioral, and environmental factors, the Dalio Center's work is not limited to addressing health care access and quality. In addition to our clinical programs and community linkages programs, we plan to support targeted community initiatives addressing social determinants of health – understanding and championing economic empowerment, social engagement, workforce development, neighborhood revitalization, and education.

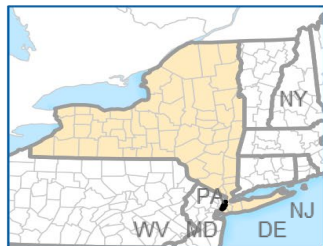
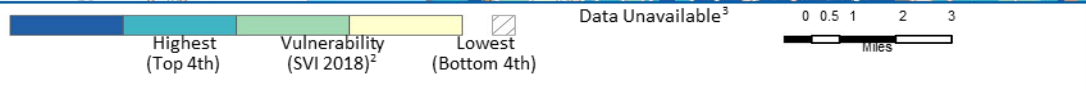
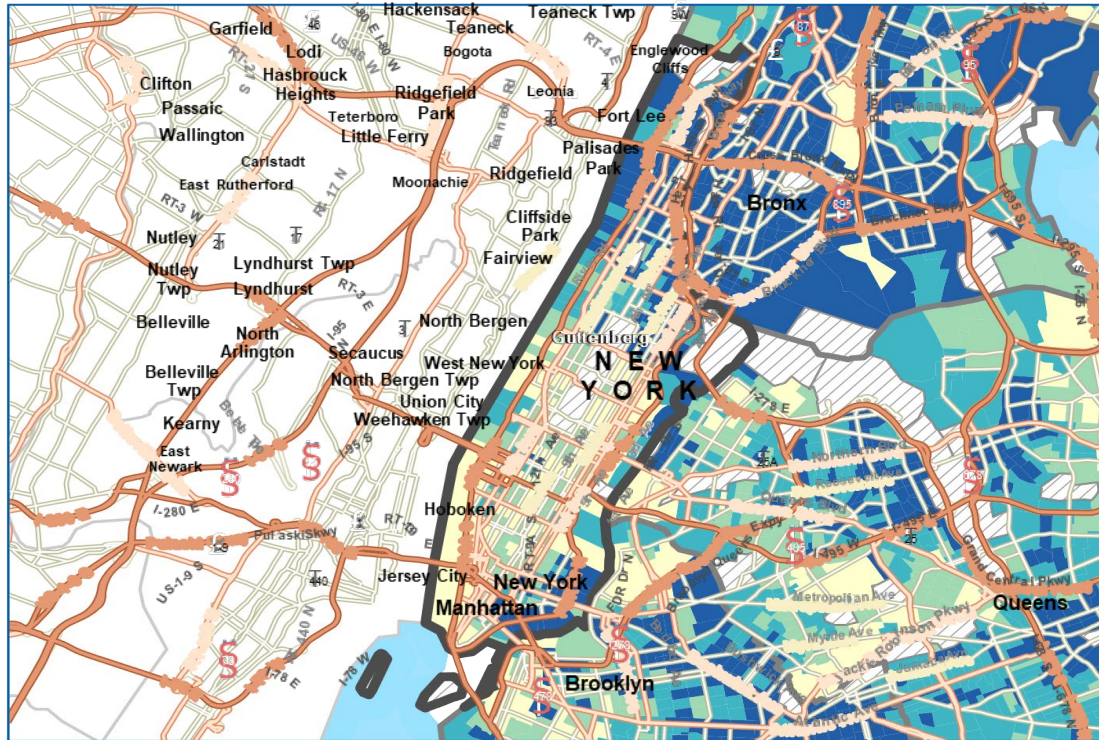


CDC Social Vulnerability Index 2018

New York County, New York

PART 1

Overall Social Vulnerability¹



Social vulnerability refers to a community's capacity to prepare for and respond to the stress of hazardous events ranging from natural disasters, such as tornadoes or disease outbreaks, to human-caused threats, such as toxic chemical spills. The **CDC Social Vulnerability Index (CDC SVI 2018)³ County Map** depicts the social vulnerability of communities, at census tract level, within a specified county. CDC SVI

2018 groups **fifteen census-derived factors** into **four themes** that summarize the extent to which the area is socially vulnerable to disaster. The factors include economic data as well as data regarding education, family characteristics, housing, language ability, ethnicity, and vehicle access. Overall Social Vulnerability combines all the variables to provide a comprehensive assessment.

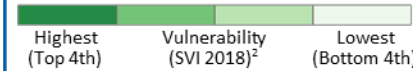
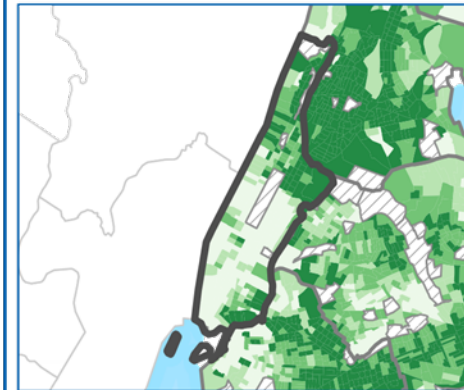


CDC SVI 2018 – NEW YORK COUNTY, NEW YORK

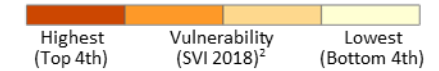
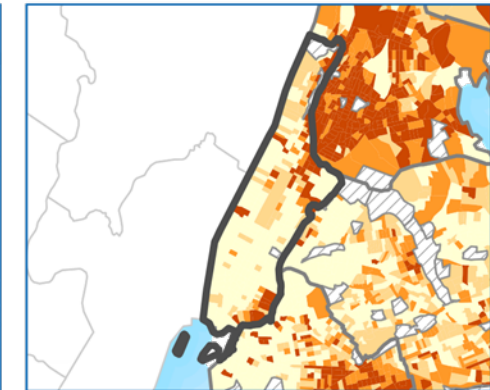
PART 2

CDC SVI Themes

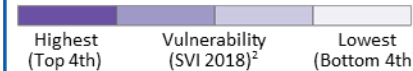
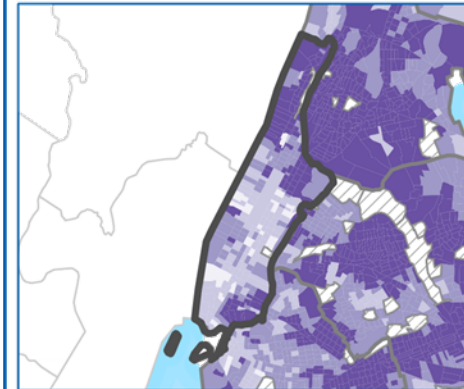
Socioeconomic Status⁵



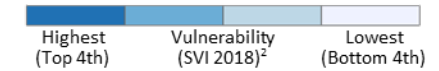
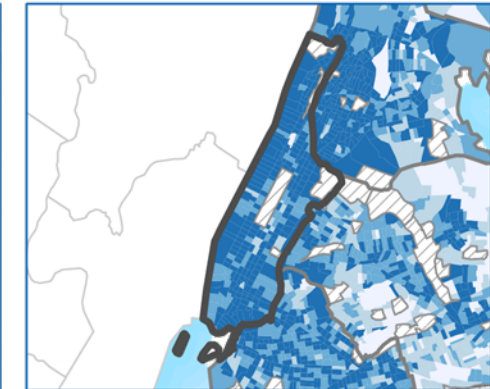
Household Composition/Disability⁶



Race/Ethnicity/Language⁷

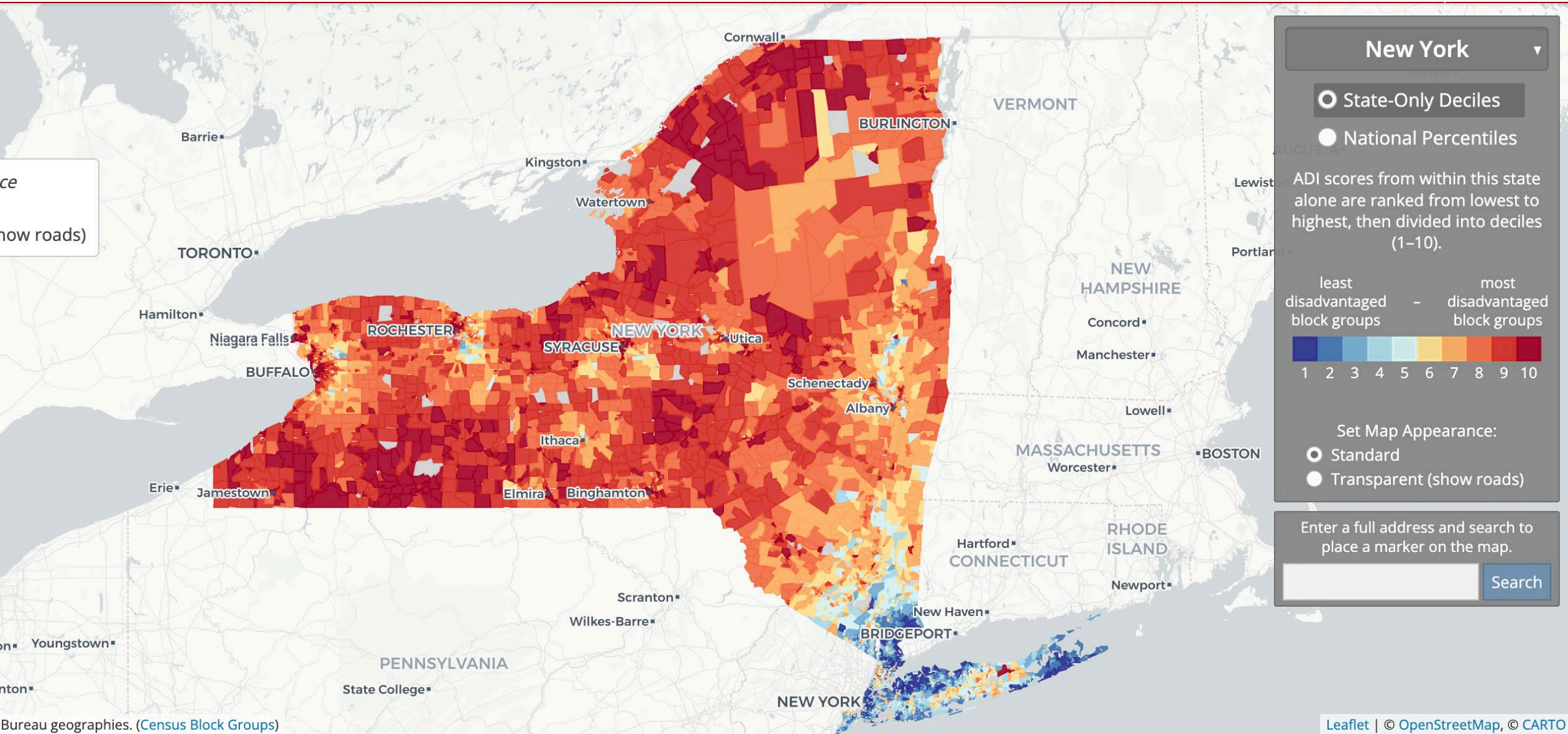


Housing Type/Transportation⁸



Data Sources: ¹CDC/ATSDR/GRASP, U.S. Census Bureau, Esri® StreetMap™ Premium. ²Notes: ³Overall Social Vulnerability: All 15 variables. ⁴Census tracts with 0 population. ⁵The CDC SVI combines percentile rankings of US Census American Community Survey (ACS) 2014-2018 variables, for the state, at the census tract level. ⁶Socioeconomic Status: Poverty, Unemployed, Per Capita Income, No High School Diploma. ⁷Household composition/Disability: Aged 65 and Over, Aged 17 and Younger, Single-parent Household, Aged 5 and over with a Disability. ⁸Race/Ethnicity/Language: Minority, English Language Ability. ⁹Housing Type/Transportation: Multi-unit, Mobile Homes, Crowding, No Vehicle, Group Quarters. ¹⁰Projection: New York NAD 1983 UTM Zone 18N, CM shifted to -76. ¹¹References: Flanagan, B.E., et al., A Social Vulnerability Index for Disaster Management. *Journal of Homeland Security and Emergency Management*, 2011. 8(1). CDC SVI web page: <http://svi.cdc.gov>.

Area Deprivation Index



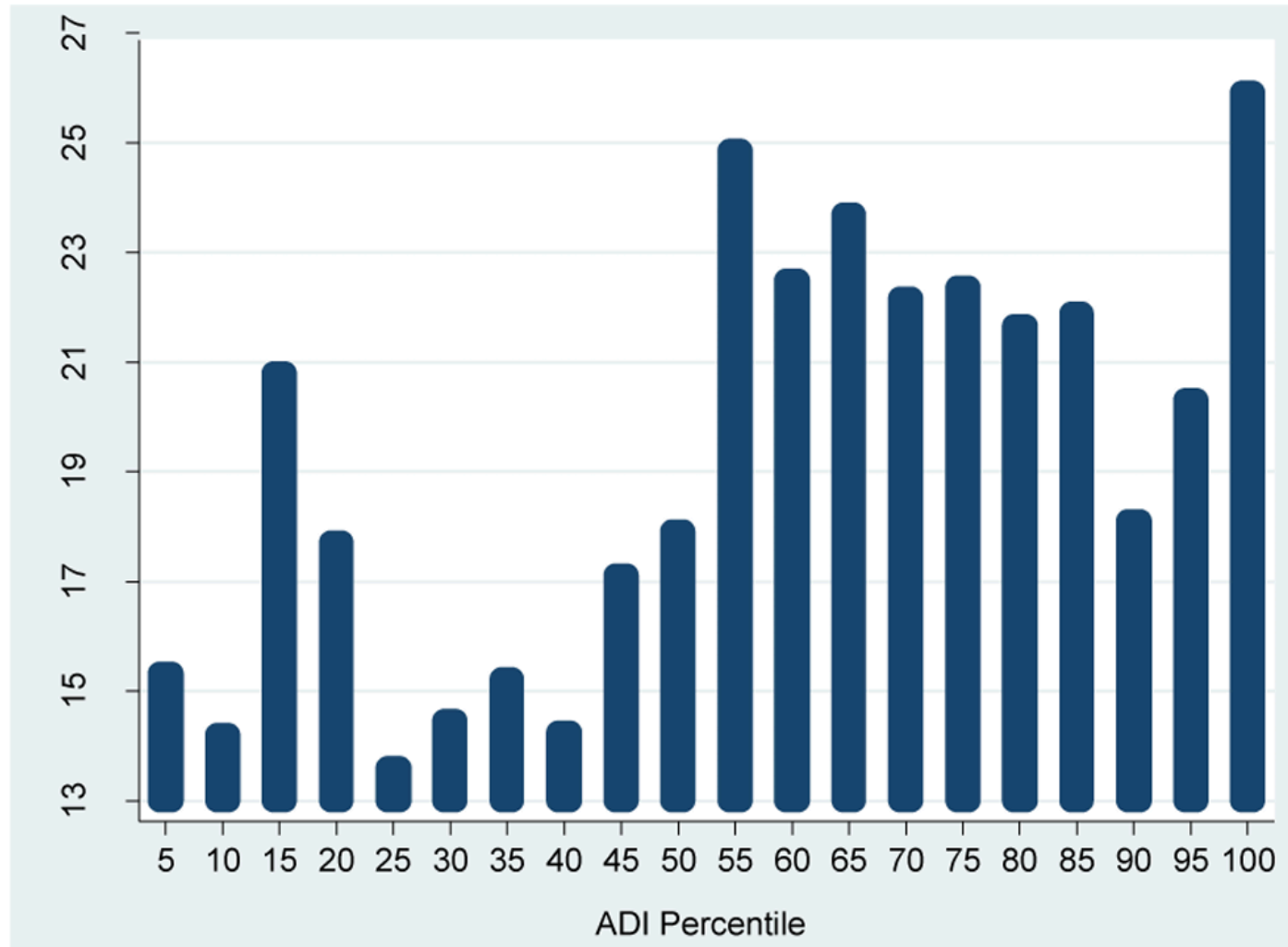


Figure 2.
Unadjusted Relationship between ADI Value (in Percentiles) and Readmission Rate: Henry Ford Hospital Medicare Fee-For-Service Beneficiaries 65+, 2010

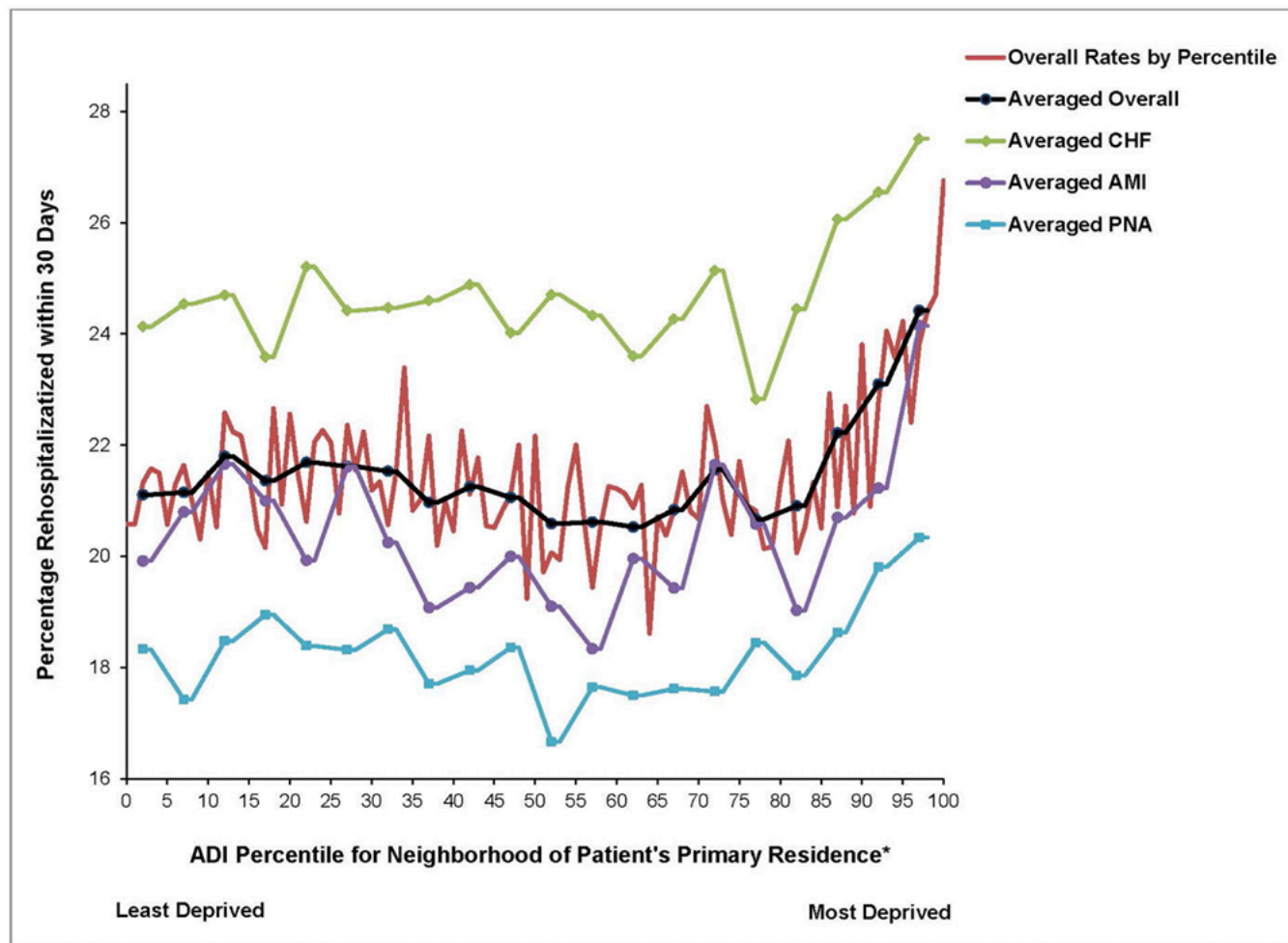
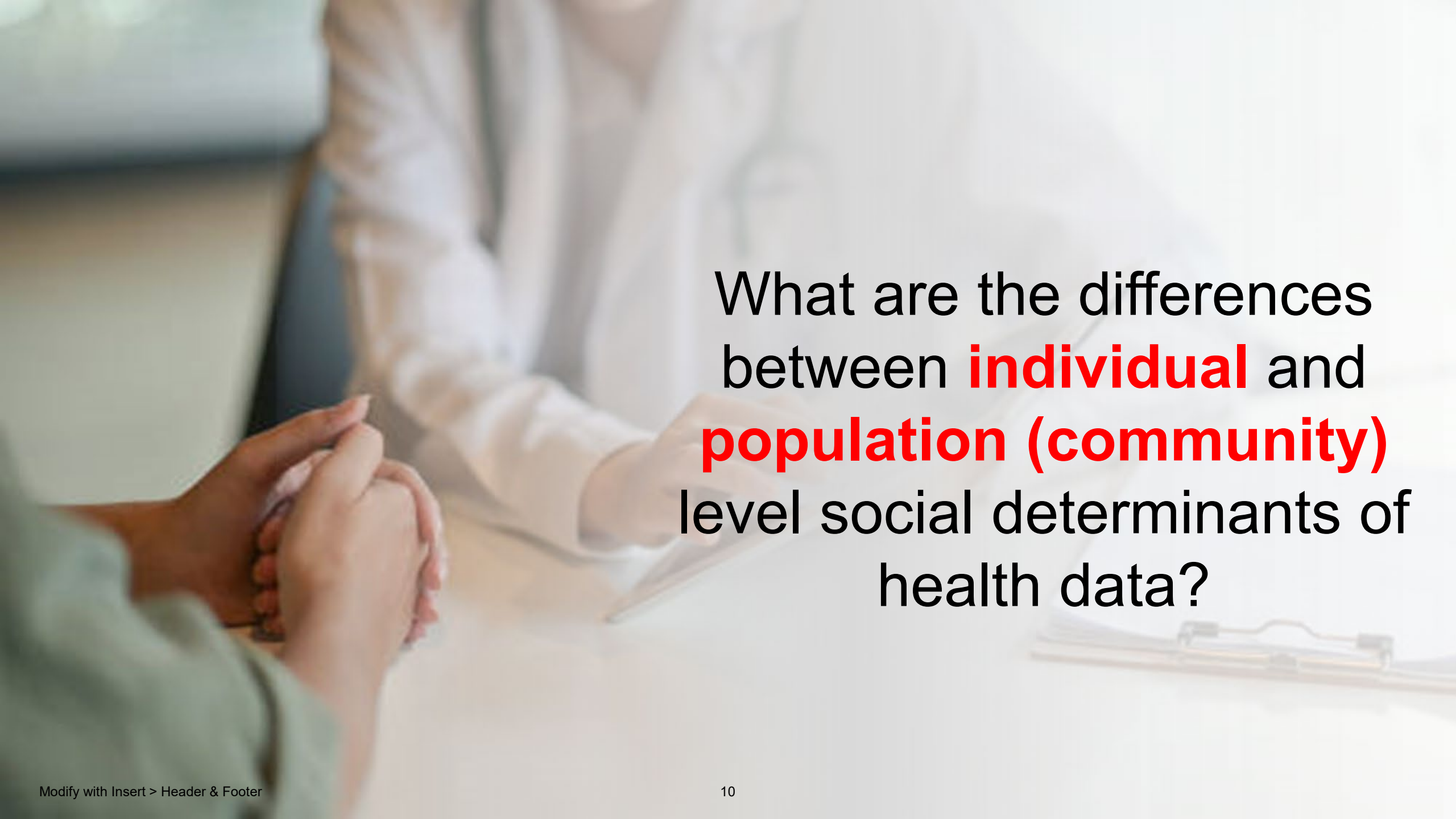


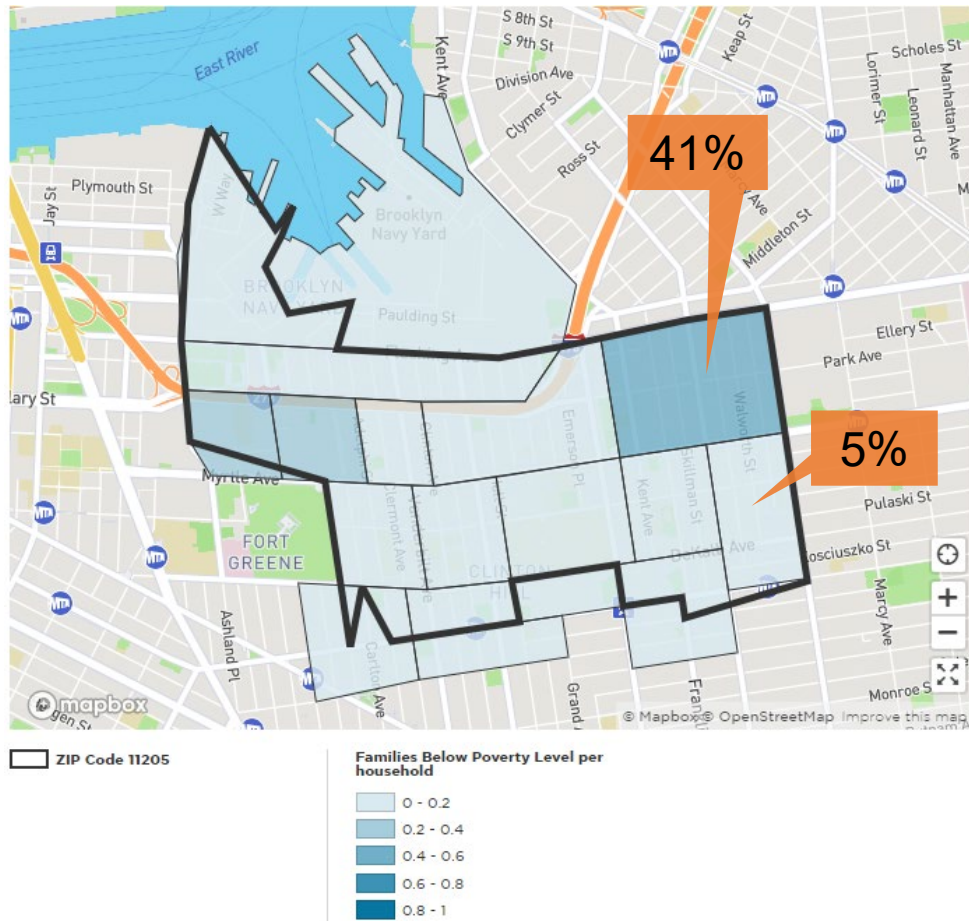
Figure 1. Unadjusted Relationship Between Area Deprivation Index (ADI) Percentile of a Medicare Patient's Neighborhood and 30 Day Rehospitalization

*On the ADI percentile range shown, 0 is the least socioeconomically disadvantaged group of neighborhoods ranging sequentially by equally sized neighborhood groupings up to 100 as the most disadvantaged group of neighborhoods. 'Average' lines represent the averaged relationship over each 5 ADI percentiles.



What are the differences between **individual** and **population (community)** level social determinants of health data?

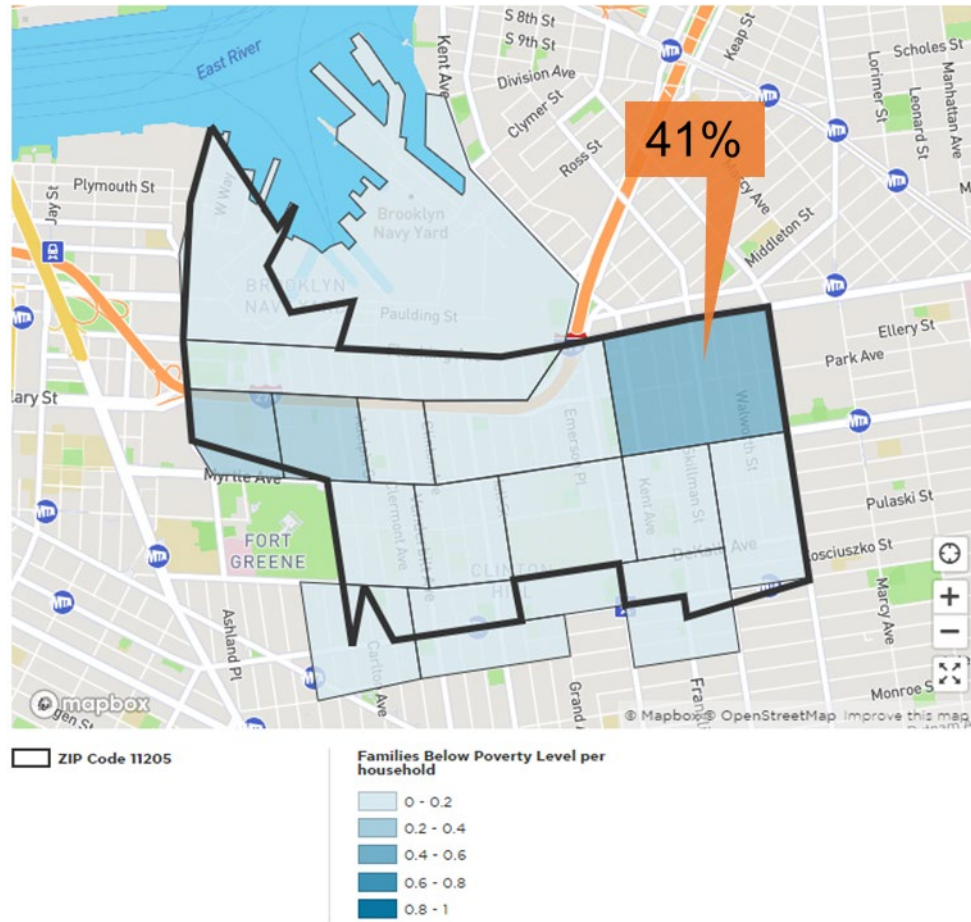
% of Families below Poverty Level, 11205 US Census 2010



Sources: US Census Bureau 2010

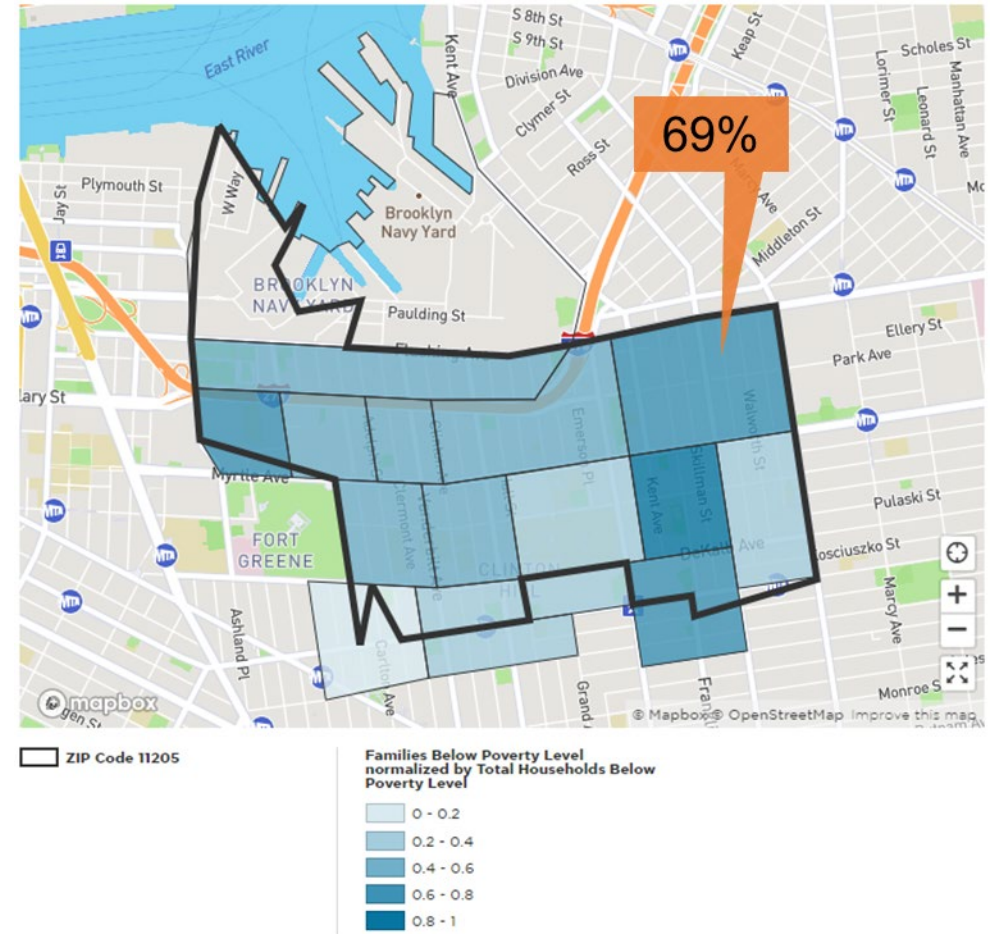
What are the differences between **individual** and **population (community)** level social determinants of health data?

% of Families below Poverty Level, 11205 US Census 2010



Sources: US Census Bureau 2010

% of Families below Poverty Level, 11205 US Census 2000



Sources: US Census Bureau 2000

Food Insecurity, Missed Workdays, And Hospitalizations Among Working-Age US Adults With Diabetes

[Joshua M. Weinstein](#), [Anna R. Kahkoska](#), and [Seth A.](#)

[Prev Med Rep.](#) 2021 Sep; 23: 101400.

Published online 2021 May 18. doi: [10.1016/j.pmedr.2021.101400](https://doi.org/10.1016/j.pmedr.2021.101400)

PMCID: PMC8178117

PMID: [34136336](https://pubmed.ncbi.nlm.nih.gov/34136336/)

Link between redemption of a medical food pantry voucher and reduced hospital readmissions

Food Insecurity in Patients with High Hospital Utilization

Etienne J. Phipps [✉](#), S. Brook Singletary, Clarissa A. Cooblall, Horacio D. Hares, and Leonard E. Braitman

Published Online: 1 Dec 2016 | <https://doi.org/10.1089/pop.2015.0127>

Thirty- and 90-day readmission rates by homelessness status (adjusted analysis)

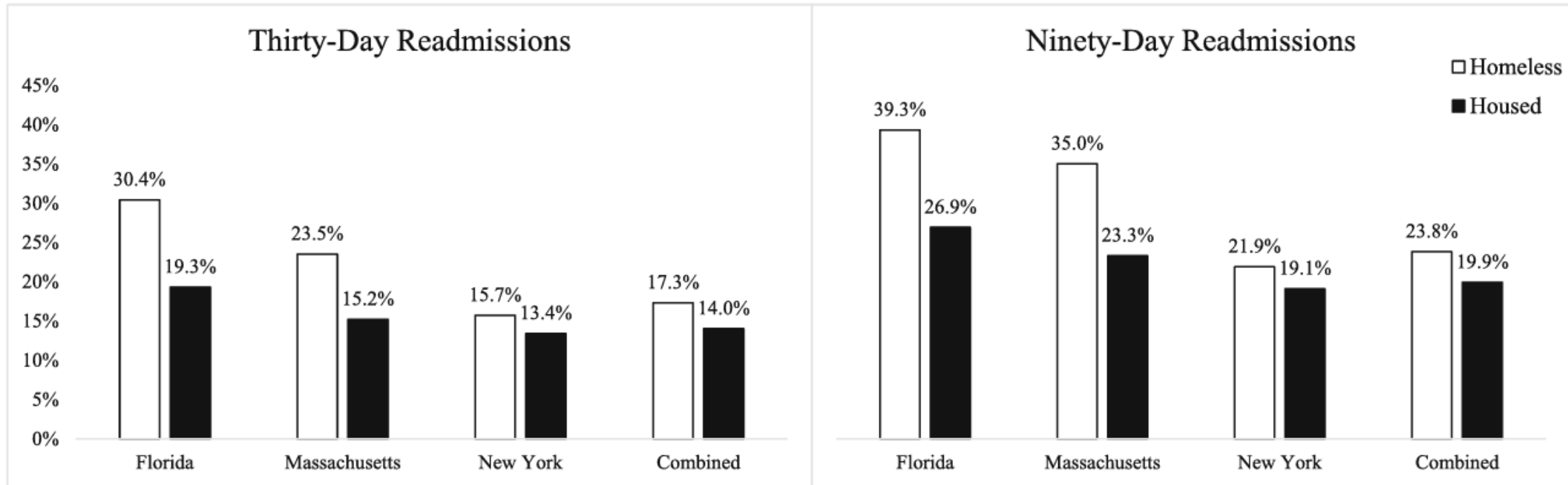
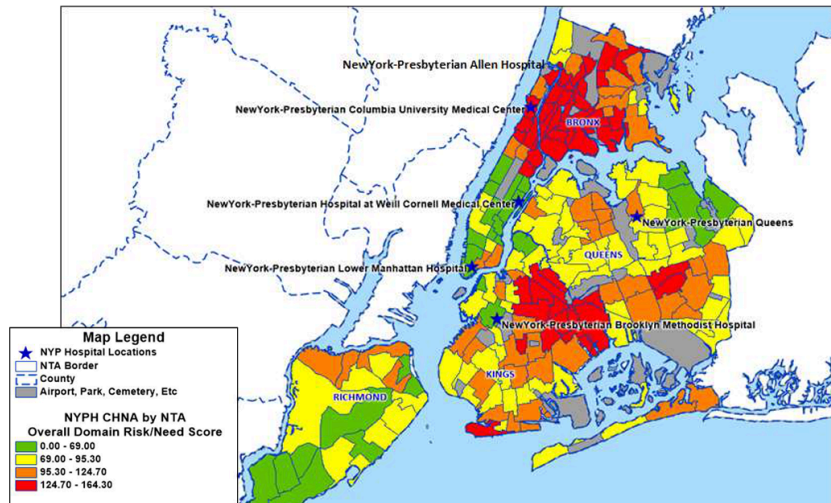


Figure 1 Adjusted for age, demographics, gender, race/ethnicity, state, cause of index hospitalization by clinical classification of diseases (CCS) category, and presence of 22 clinical comorbidities. Error bars omitted due to small standard errors

Community Level SDoH Screening at NYP

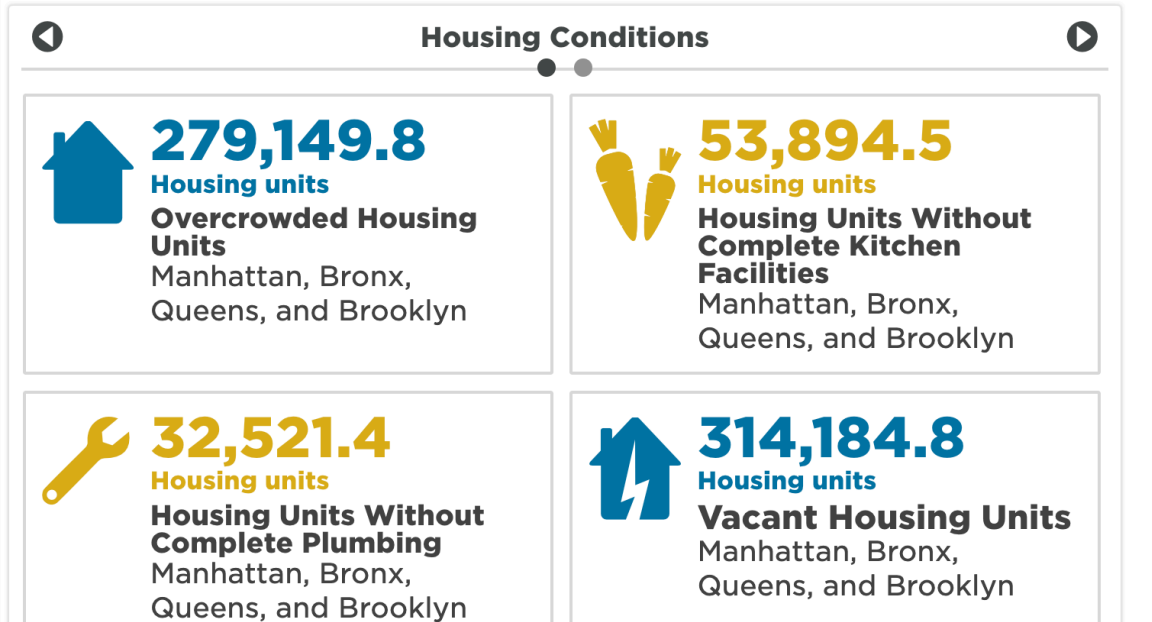
NYPH Communities of High Disparity Analysis (NYC)



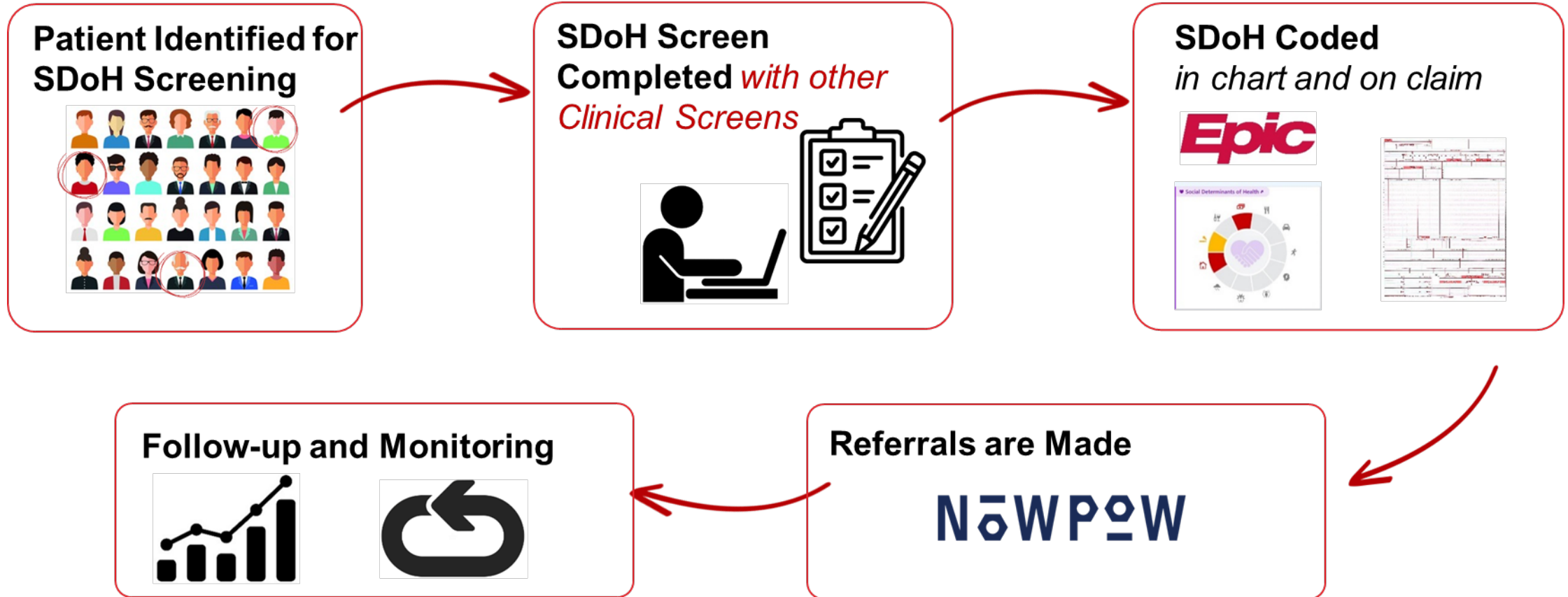
- An analysis of community health need and risk of high resource utilization was undertaken at the Neighborhood Tabulation Area (NTA) geography.
- The need score is a composite of 29 different indicators, carefully selected, across five domains: demographics, income, insurance, access to care and New York State Department of Health Prevention Agenda Priorities.
- The results show where there is more or less need comparatively between NTAs.
- The 380 NYPH ZIP codes were cross-walked to 195 NTAs categorized into four quartiles. Additional analysis was undertaken for the 97 NTAs of higher disparity.

Quality & Safety

When affordable housing is limited, people may be forced to rent substandard housing that exposes them to health and safety risks, like lead exposure, mold, pest infestation, poor ventilation and water leaks.



Patient Level SDoH Screening at NYP





Thank you!