

# Health Disparities Among Older People Living with Disabilities in NYC



## Objective

The goal of this project is to explore the impact of social networks and access to healthcare on driving health inequalities for older adults living with a disability in NYC.

## Introduction

- Those with disabilities have higher risks of developing chronic health conditions (e.g. asthma, diabetes, stroke, obesity) [1].
- Social networks and social cohesion in NYC among the older people living with a disability may contribute to poor health status.
- Access to health care may contribute to poor health status among older people living with a disability.
- The Social Security Administration determines disability status to determine eligibility for federal programs.
- Public health care in New York City is more generous than most of the United States with extensions and addition groups for people with disabilities.
- People age 65+ in New York City automatically qualify for Medicaid eligibility in the Age, Blind, and Disabled Pathway.

## Methodology

We used the 2020 NYC Community Health Survey (CHS). CHS is an annual survey that provides estimates of health status and access to services for the entire city.

- We used two variables to define **disability**:
- Those who responded “yes” to the self-reported disability question OR those who responded “yes” to using an assistive technology.
- Conducted logistic regression models to predict self-reported health status (diabetes, asthma, high bp, and obesity).
- The models included variables for access to care, social cohesion, and socioeconomic status.

## Results & Findings

- Our initial findings reflected higher prevalence of obesity among younger groups with disability.
- Self-reported access to health care was not correlated with asthma, diabetes, stroke, or obesity.
- Race, ethnicity, and poverty were correlated with asthma among older adults living with a disability.
- Social cohesion was correlated with self-reported diabetes for the entire population of NYC, but it was NOT correlated with self-reported diabetes among the older population living with a disability.

## Analysis

glm(formula = Diabetes ~ Black + Hispanic + Asian + Other + H\_Edu + Employed + Poverty + Male, family = binomial, data = chs20)

Coefficients:

	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	-1.82704	0.10579	-17.270	< 2e-16 ***
Black	0.48531	0.09925	4.890	1.01e-06 ***
Hispanic	0.37643	0.09711	3.876	0.000106 ***
Asian	0.01161	0.11775	0.099	0.921485
Other	0.40419	0.17001	2.377	0.017433 *
H_Edu	-0.49466	0.07388	-6.695	2.15e-11 ***
Employed	-0.80324	0.07157	-11.223	< 2e-16 ***
Poverty	0.31307	0.07368	4.249	2.15e-05 ***
Male	0.23992	0.06710	3.576	0.000349 ***

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Figure 1. Socioeconomic Status model of Diabetes

- Figure 1: Among all respondents to CHS 2020, our Health Inequity model reflected a strong, significant association with Race, Higher Education, Employment, Poverty, and Gender variables.
- Figure 2: Among all respondents to CHS 2020, the variable Trusting Neighbors is a statistically significant predictor of diabetes.

glm(formula = Diabetes ~ Helping\_Neighbors + Trusting\_Neighbors, family = binomial, data = chs20)

Coefficients:

	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	-1.83636	0.05367	-34.218	< 2e-16 ***
Helping_Neighbors	-0.02909	0.06850	-0.425	0.67110
Trusting_Neighbors	-0.18259	0.06620	-2.758	0.00581 **

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Figure 2. Social Cohesion model of Diabetes



## Discussion

- Our findings highlight some of the social determinants of health being better predictors of health outcome.
- Social cohesion is correlated with diabetes in NYC, but not among older adults living with a disability population versus the general population.

## Limitations

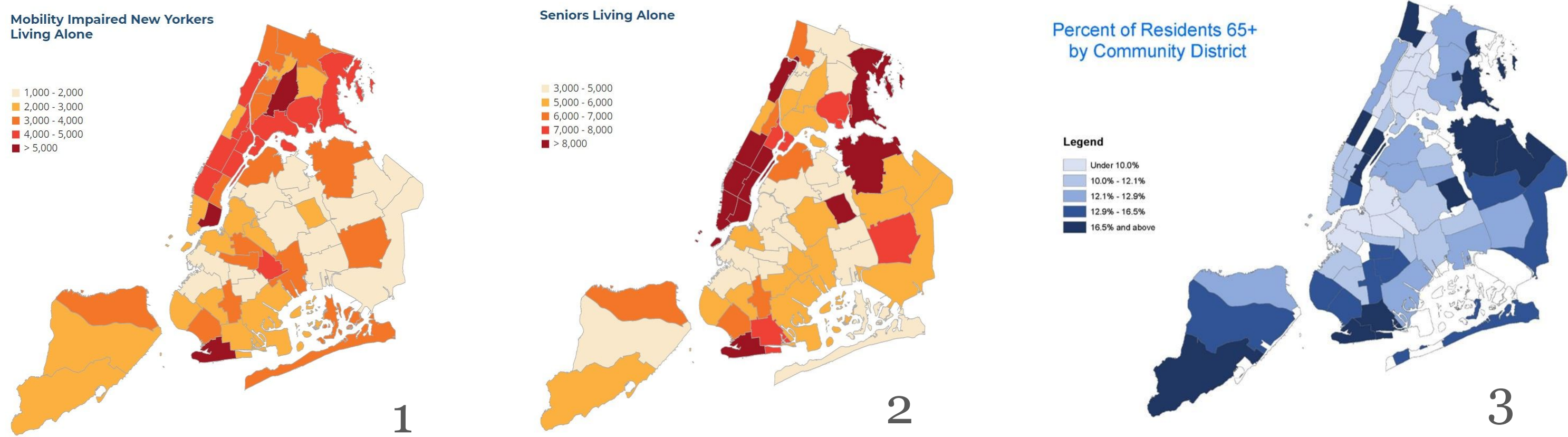
- The CHS Survey measure of disability status is limited.
- The federal poverty limit is inadequate to capture financial hardship among older people [2, 4].

## Implications

- This study adds to the growing literature on social cohesion and health.
- Further investigations can be done on datasets which use other validated forms of health status to measure the outcome of health status in addition to the self-reported data available in the NYC CHS.
- There is concern that the next cohort of older adults living with a disability may experience greater health problems given the higher obesity rates among younger people with disabilities.

## Acknowledgments & References

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- Maps 1 and 2 show that mobility impaired individuals living alone and seniors living alone are primarily located in Manhattan where medical care and public transportation are easily accessible [5]. This is in contrast to map 3 that shows that the majority of individuals 65+ live in Queens or Staten Island [6].