

Depression in New York City

A Cross-Sectional Analysis of the 2018 Community Health Survey

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Background

- Depression is the second most common mental illness among U.S. adults.
- Major depressive disorder is the largest source of disability in New York City (NYC).¹
- Understanding the populations impacted by depression and identifying characteristics associated with depression is a critical component of mental health surveillance.

Methods

- Health outcomes and predictors were measured using data from the 2018 **Community Health Survey (CHS)** (n=10,076), an annual survey of NYC adults administered by the NYC Department of Health and Mental Hygiene
- Depression was measured using the **PHQ-8**, an eight-question validated screening tool for depression contained within the CHS:

Over the last 2 weeks, how often have you been bothered by:

 - Little interest or pleasure in doing things?
 - Feeling down, depressed or hopeless?
 - Trouble falling or staying asleep, or sleeping too much?
 - Feeling tired or having little energy?
 - Poor appetite or overeating?
 - Feeling bad about yourself-or that you are a failure...?
 - Trouble concentrating on things...?
 - Moving or speaking so slowly...or the opposite...?

0
Not at all

1
Several days

2
More than half the days

3
Nearly every day

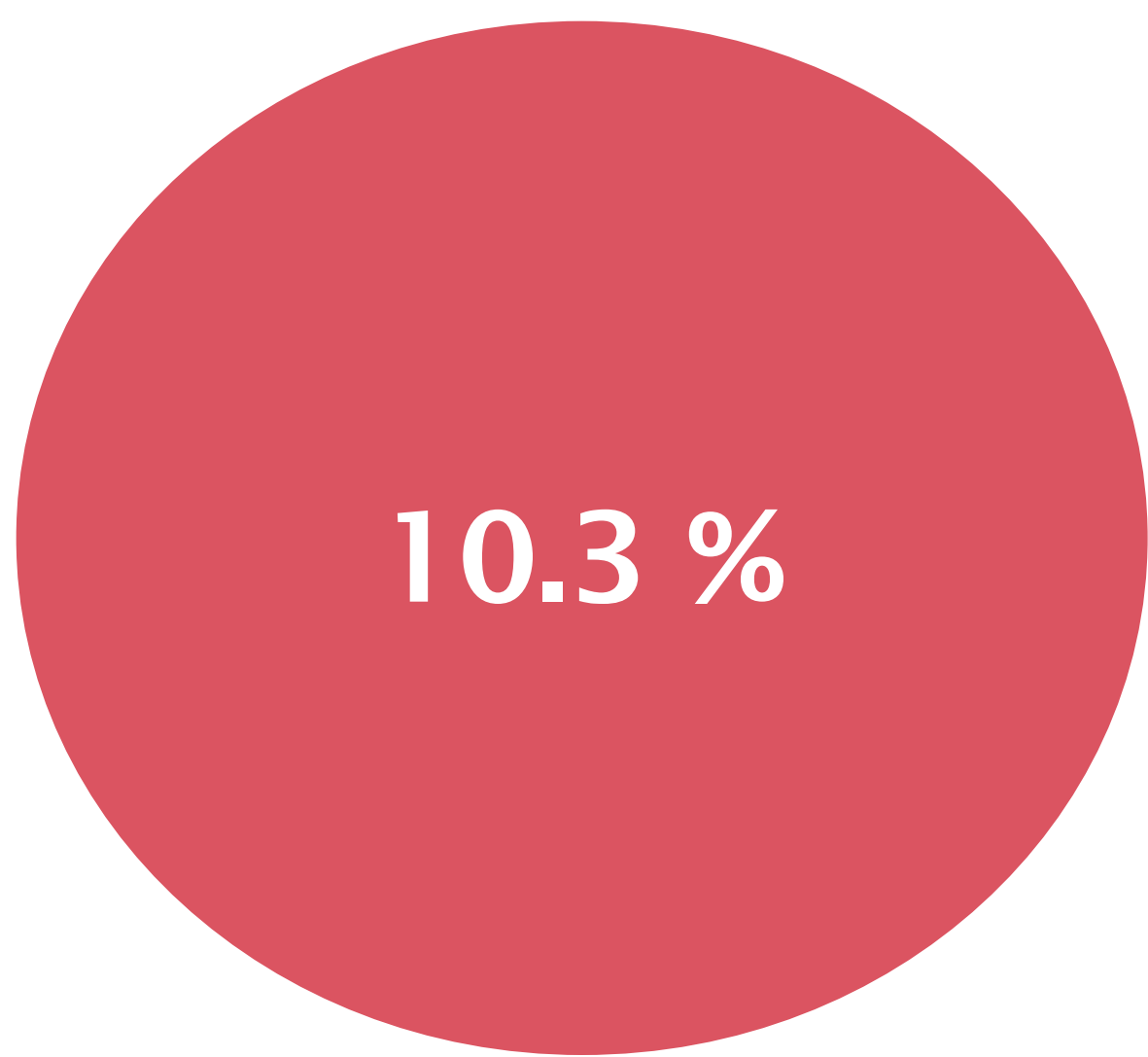
Score range 0 - 24
Depression PHQ-8 >=10
- Results were age-adjusted to the US 2000 Standard Population and weighted to the adult residential population per the American Community Survey, 2017. Data analyses were conducted in SAS and SUDAAN. Statistical significance was assessed using t-tests.

2018 prevalence of depression in NYC was highest among those with the lowest education levels and those with the poorest sleep quantity and quality.

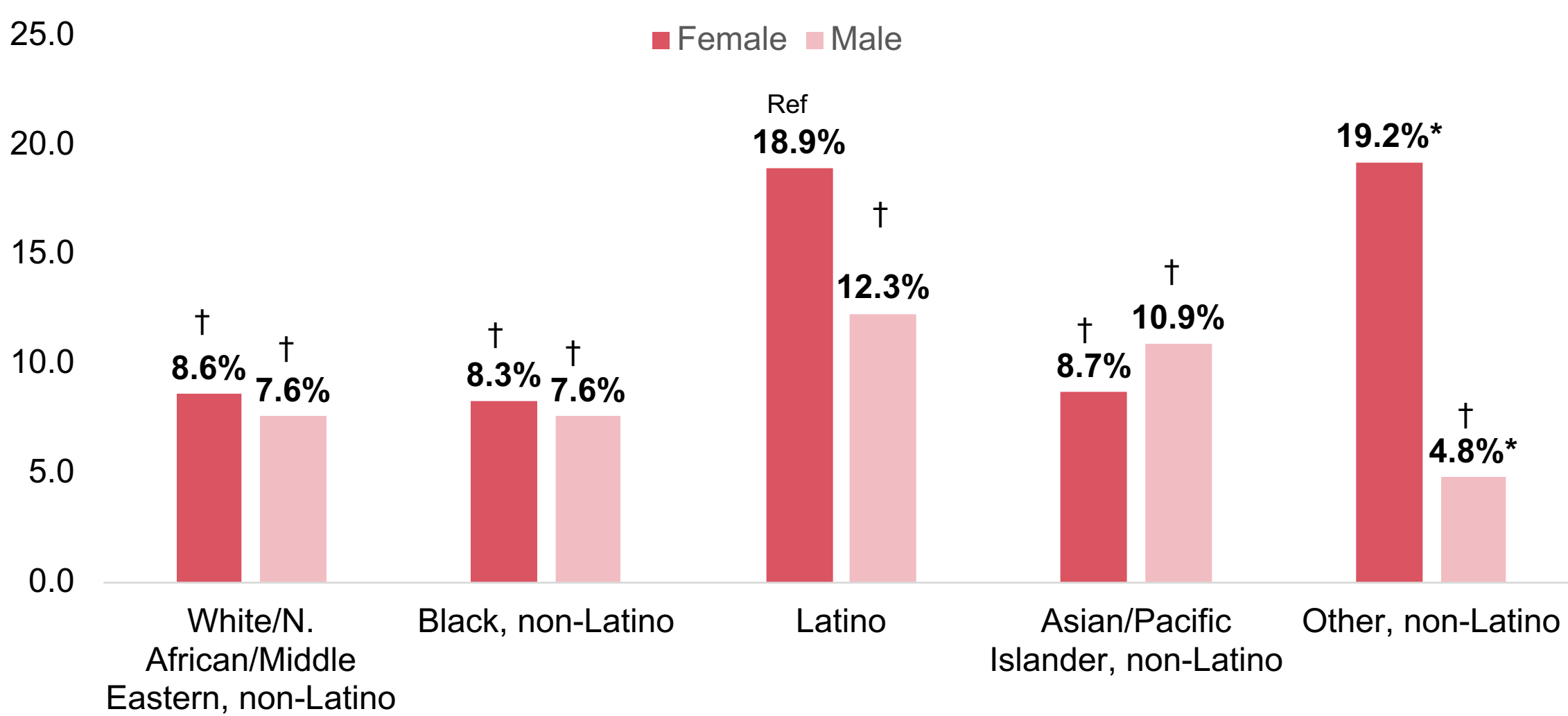
Results

- Overall prevalence of depression in NYC based on 2018 CHS data was **10.3%** (95% CI: 9.4% - 11.2%).
- Prevalence of depression was highest among those with the **lowest education levels** and those with the **poorest sleep quantity and quality**.
- Prevalence of depression was high in the **South Bronx, Chelsea/Village(s), and Long Island City/Astoria**.

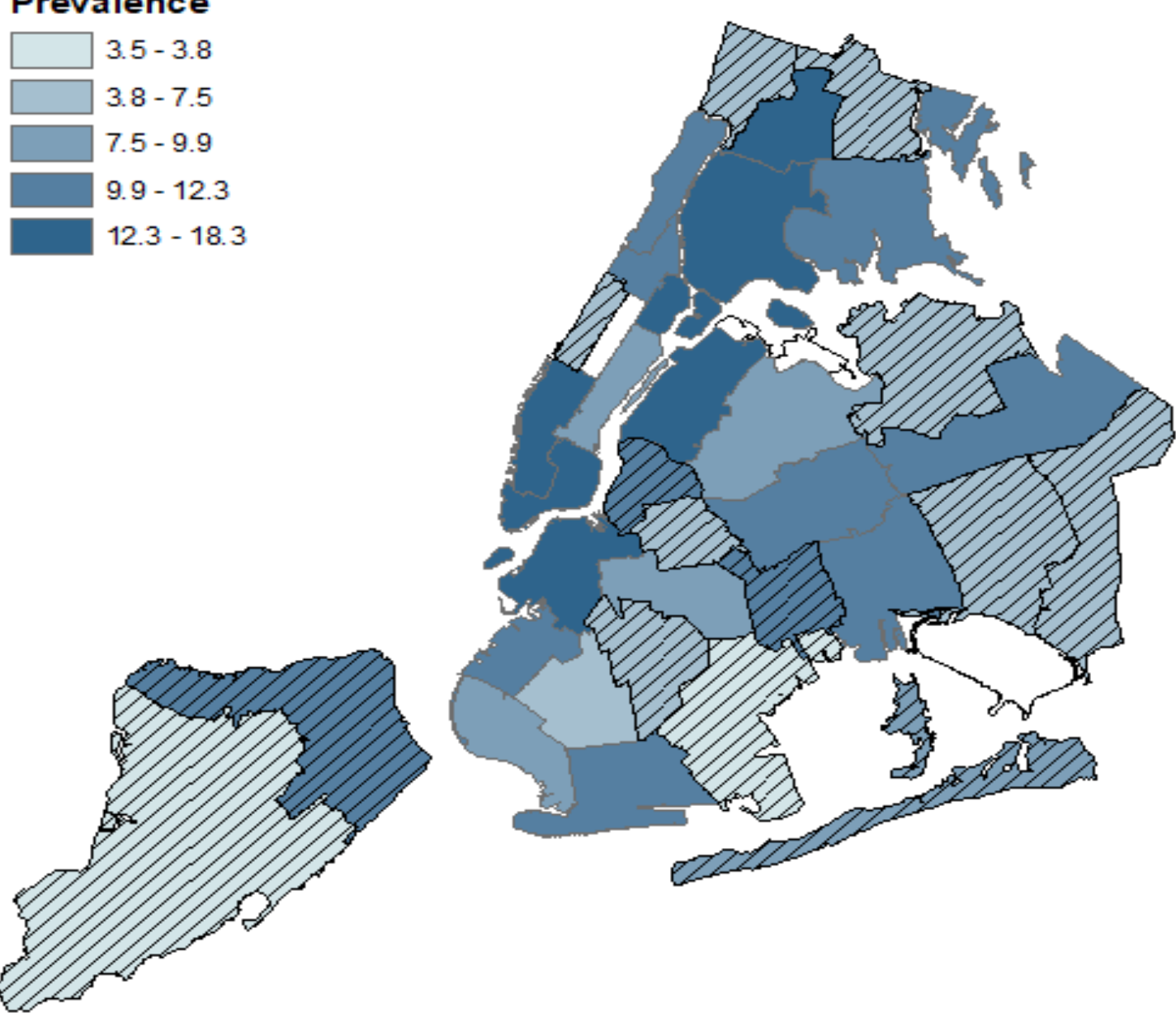
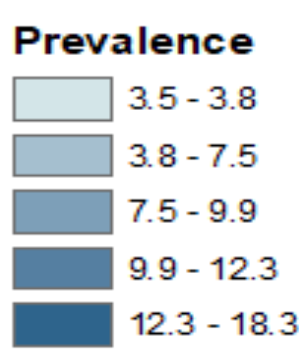
2018 Prevalence of Depression in NYC



Race/Ethnicity & Birth Sex

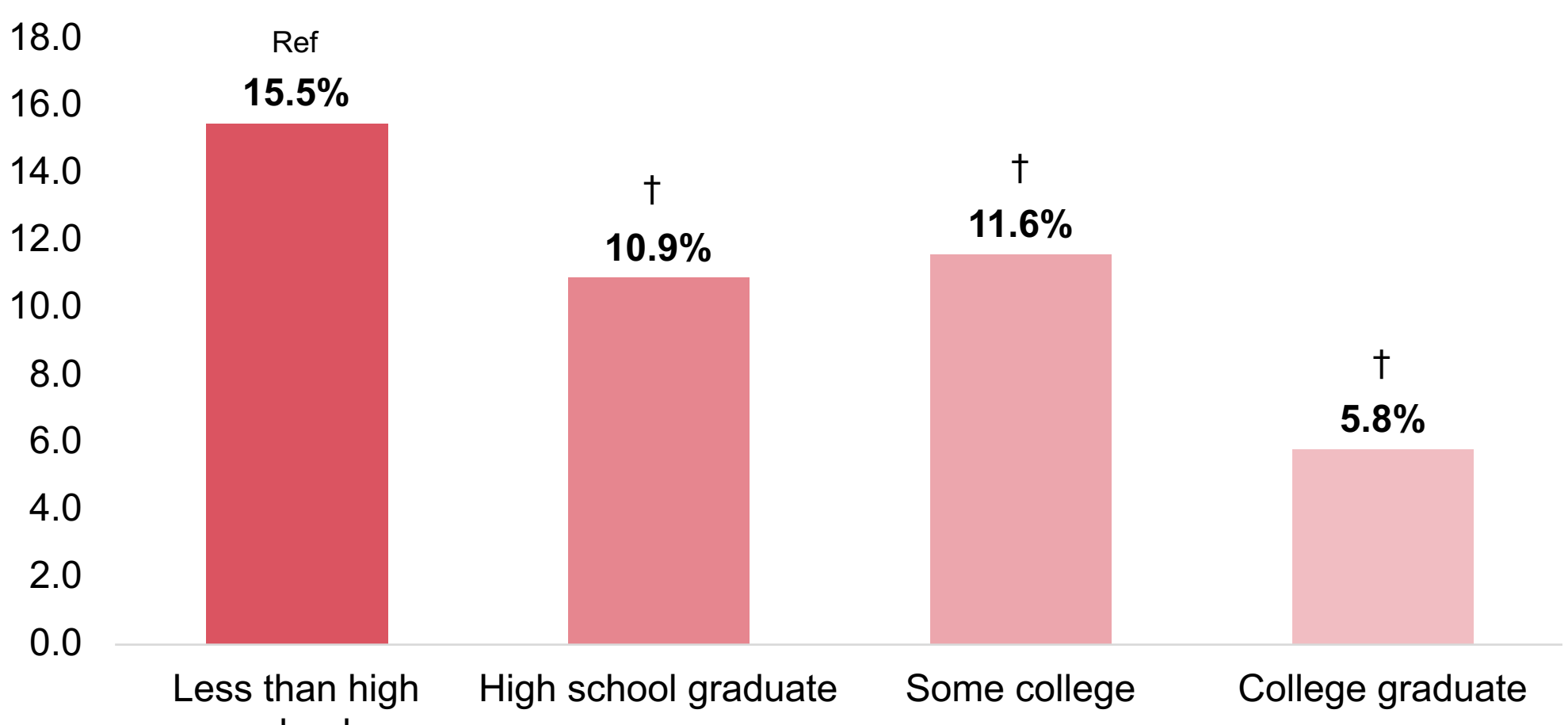


Depression by United Hospital Fund Neighborhood

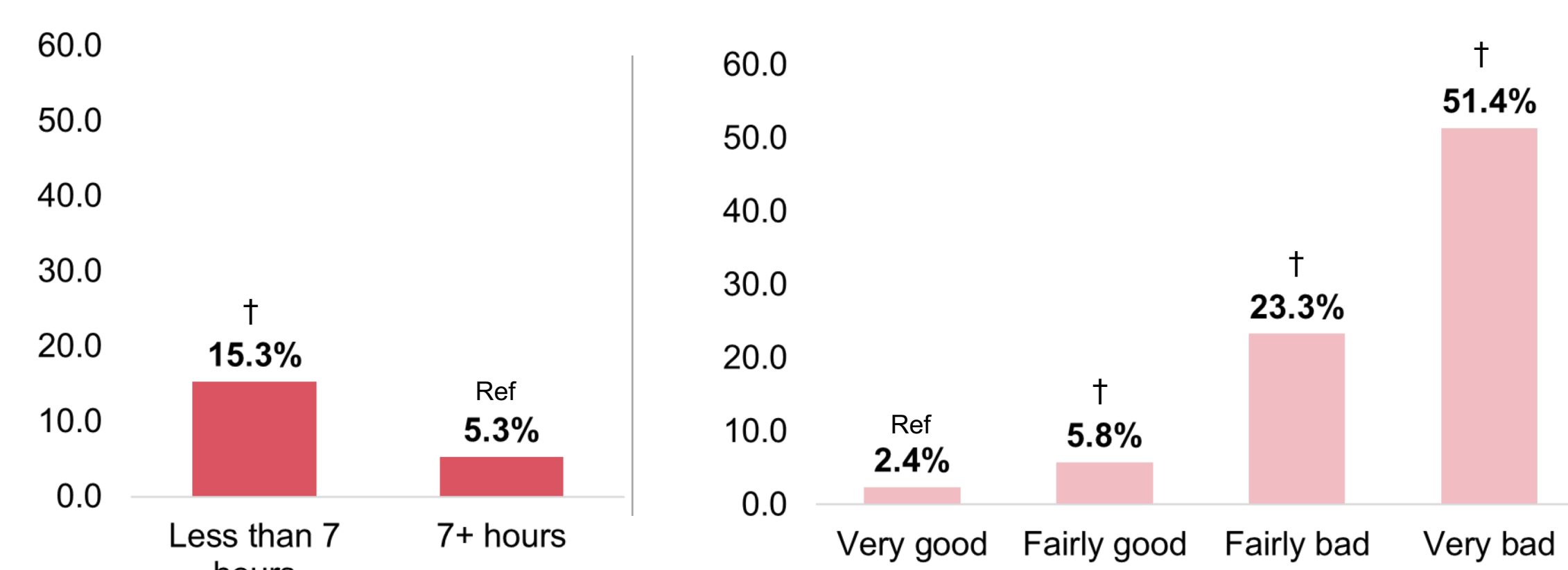


NOTE: Hatched areas should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30%; or the 95% Confidence Interval half-width is greater than 10; or the sample size is too small, making the estimate potentially unreliable. The United Hospital Fund classified NYC into 34 neighborhoods, comprised of contiguous zip codes.

Education



Sleep Quantity & Quality



Legend	
*	Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of precision) is greater than 30%, or the 95% Confidence Interval half-width is greater than 10 or the sample size is too small, making the estimate potentially unreliable.
†	p-value < 0.05
Note: Confidence Intervals (CIs) are a measure of estimate precision: the wider the CI, the more imprecise the estimate.	

Conclusions

- Prevalence of depression is disproportionately distributed across demographic and socioeconomic factors.
- Future research should be designed to investigate causal relationships between socioeconomic status, health behaviors, and depression. Demographic groups (i.e. "Hispanic" or "Other") should be disaggregated.
- Limitations:**
 - Cross-sectional design limits ability to make causal claims
 - Bias due to self-reporting
 - Estimates for certain subpopulations and neighborhoods must be interpreted with caution due to small sample size within the CHS

Student Contribution

- Conducted data analysis in SAS and SUDAAN using the CHS 2018 data set
- Created tables and graphs depicting analysis in Microsoft Excel
- Created GIS map depicting depression prevalence across the five boroughs
- Presented key findings within unit and to broader DOHMH audience

References

- Muenning, P., Goldsmith, J.A., El-Sayed A.M., Goldmann, E.S., Quan, R., Barracks S., Cheung J., Behavioral Health in New York City: The Burden, Cost, and Return on Investment. Unpublished Raw Data, 2015.