

# NATIONAL DATASET PREVALENCE ESTIMATES: NHIS, NHANES, & BRFSS (2015-2021)

Yan Wu, Zeel Thakkar, Mohammed Khan, Xinran Qi, George Hung, Nicholas Kikuta, Malathi Srinivasan, Robert Huang, Gloria Kim, Latha Palaniappan, Adrian Bacong

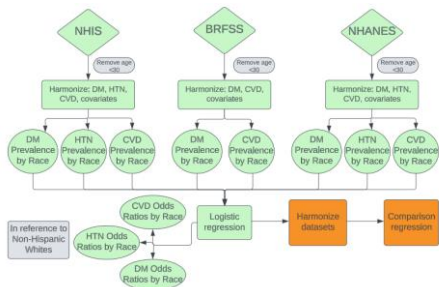


Stanford MEDICINE | Center for Asian Health Research and Education

## Introduction

- The United States uses three national surveys to monitor disease trends.
- The magnitude and direction of health disparities by race are less examined.
- Objective:** to compare prevalence estimates and disparities of chronic diseases across racial groups.

## Methods



## Results

Figure 1: Odds ratios of outcomes by dataset

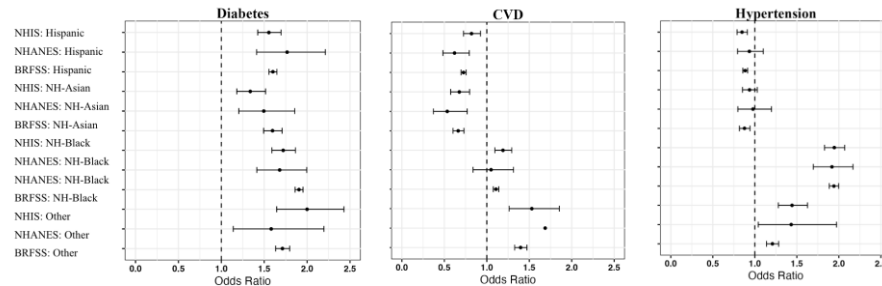


Table 1: Weighted outcome prevalence by dataset

	NHIS (95% CI)	NHANES (95% CI)	BRFSS (95% CI)
<b>Total #</b>	93,111	10,721	3,074,130
<b>Diabetes</b>			
Hispanic	13.4 (12.6 14.3)	16.0 (13.9 18.0)	15.2 (14.9 15.5)
NH-Asian	10.5 (9.4 11.6)	13.1 (11.3 14.9)	11.7 (11.0 12.3)
NH-Black	15.3 (14.4 16.2)	16.6 (14.7 18.5)	18.2 (17.9 18.5)
NH-White	10.7 (10.3 11.0)	12.1 (11.0 13.3)	12.1 (12.0 12.2)
Other/Multiple Race	16.5 (13.9 19.2)	16.2 (12.4 20.1)	17.2 (16.5 17.8)
<b>CVD</b>			
Hispanic	6.7 (6.0 7.3)	5.4 (4.4 6.4)	7.1 (6.9 7.3)
NH-Asian	5.3 (4.5 6.0)	4.6 (3.2 6.0)	4.6 (4.3 5.1)
NH-Black	10.0 (9.4 10.7)	9.4 (8.3 10.5)	10.6 (10.3 10.8)
NH-White	10.3 (10.0 10.6)	10.5 (9.0 12.1)	11.0 (10.9 11.1)
Other/Multiple Race	11.5 (9.8 13.2)	13.9 (9.8 18.1)	13.1 (12.6 13.7)
<b>Hypertension</b>			
Hispanic	29.2 (27.9 30.5)	30.8 (27.7 33.9)	30.7 (30.1 31.3)
NH-Asian	29.5 (27.7 31.2)	29.9 (26.2 33.7)	26.1 (24.9 27.4)
NH-Black	48.2 (46.8 49.6)	48.6 (46.2 51.1)	49.3 (48.6 49.9)
NH-White	38.0 (37.4 38.5)	37.7 (35.4 40.1)	38.8 (38.6 38.9)
Other/Multiple Race	40.6 (37.8 43.4)	42.5 (35.2 49.7)	40.2 (39.0 41.5)

- Highest hypertension prevalence: Blacks in NHIS (48.2%) and NHANES (48.6%).
- Lowest hypertension prevalence: Asians in NHANES (29.9%), Hispanics in NHIS (29.2%).
- Highest CVD: Other and multi-racial respondents
- Lowest CVD: Asians
- Highest diabetes: Blacks
- Lowest diabetes: Asians in NHIS, NHW in NHANES and BRFSS

## Conclusions

- Despite their methodological differences, the three surveys report **consistent prevalence** for chronic diseases.
- This study confirms the **validity of national datasets** and is suggestive of their ability to highlight potential health disparities.

## Future Directions

Longitudinal analysis will reveal how racial disparities have presented over the study period. This may provide insight into the relative stability of health disparities across the three datasets.

