

Economic Cost of Racial Health Disparities in Minnesota

Marilyn S. Nanney, Kateryna Kent, Samuel Myers, Man Xu, Thomas Durfee, Huda Ahmed, Michele Allen, University of Minnesota
Darrick Hamilton, The New School



UNIVERSITY OF MINNESOTA

Research Question

What is the Economic Cost of Racial Health Disparities in Minnesota:

- Saved lives from excess deaths
- Increased employment
- Increased productivities of weeks worked

Methodology

Data Sets:

- American Community Survey (2007, 2011-2015)
- Center for Health Statistics Mortality Data (2011-2015)

Mortality:

- Estimate the age-standardized crude death rates by race/ethnicity/origin
- Construct the counterfactual age-standardized crude death rates based on white non-Hispanics age-standardized crude death rates

Employment:

	p	1-p	β_{minority}	S_{Minority}	N_{weighted}
Model 1	0.0554	0.9446	0.32	0.1337	462,109
Model 2	0.0554	0.9446	0.24	0.1337	462,109
Model 3	0.0554	0.9446	0.02	0.1337	462,109

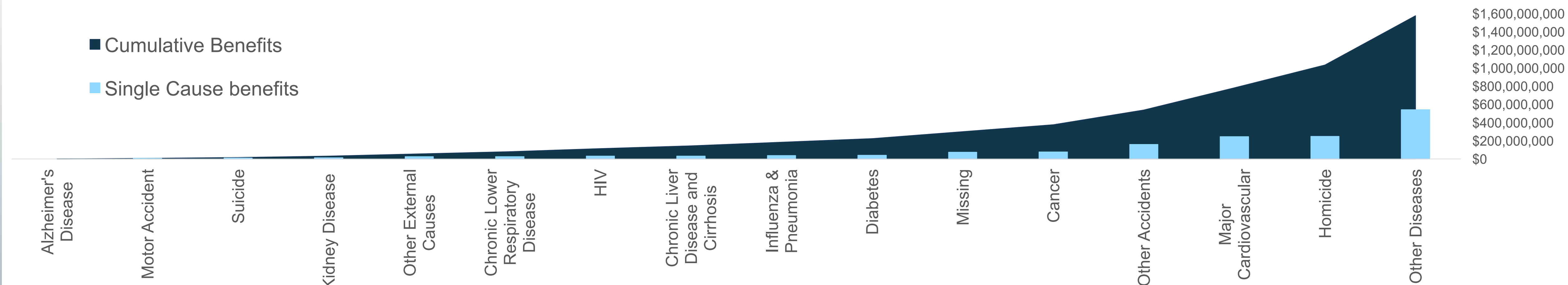
Productivity:

	Unexplained Portion	P_{ET}	N_{weighted}
Model 1	1.72	0.0575	462,109
Model 2	1.94	0.0575	462,109
Model 3	2.02	0.0575	462,109
Model 4	2.12	0.0575	462,109

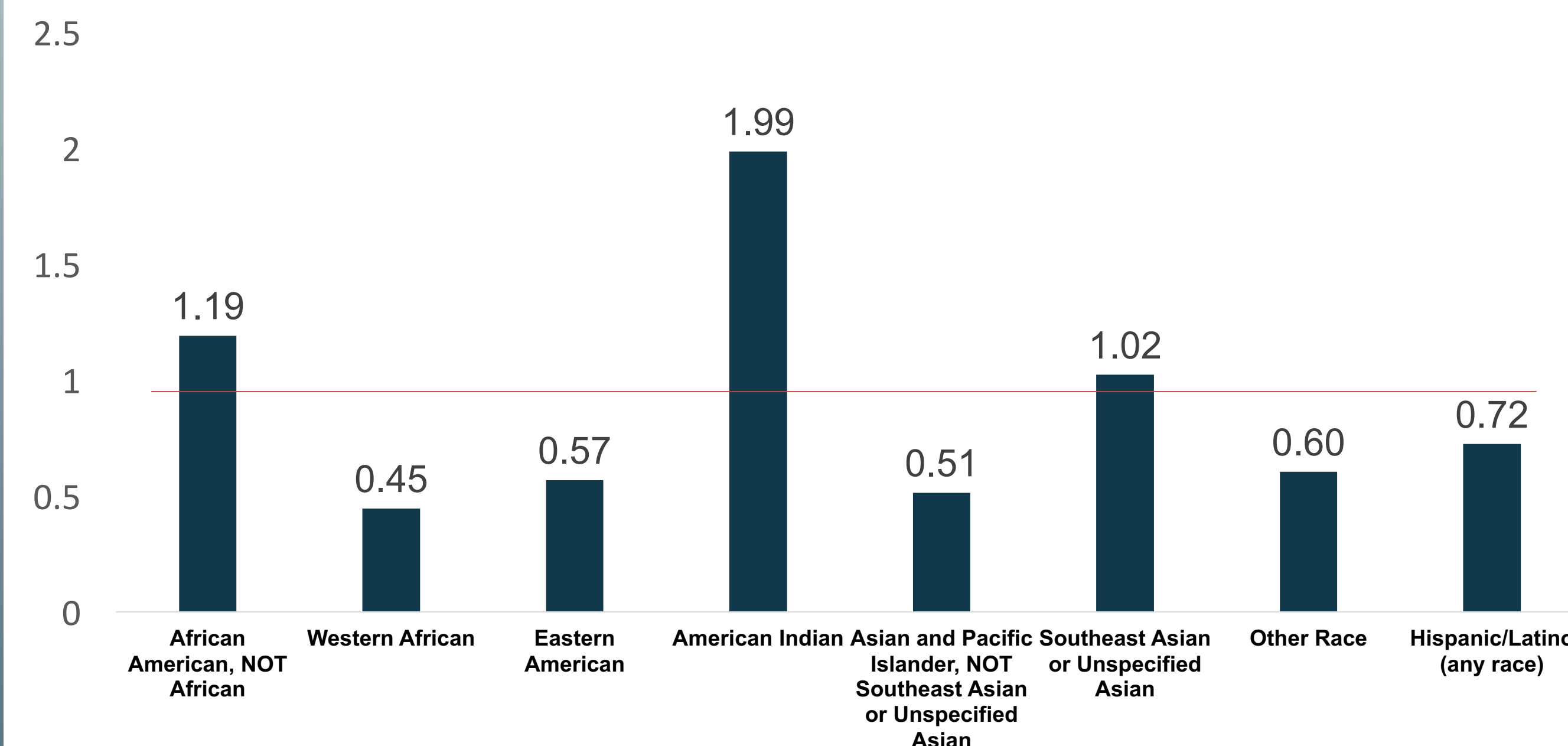
Limitations:

- Lack of detailed health indicators for subgroup race, ethnicity
- Inability to track insurance coverage, health care access, and health care quality

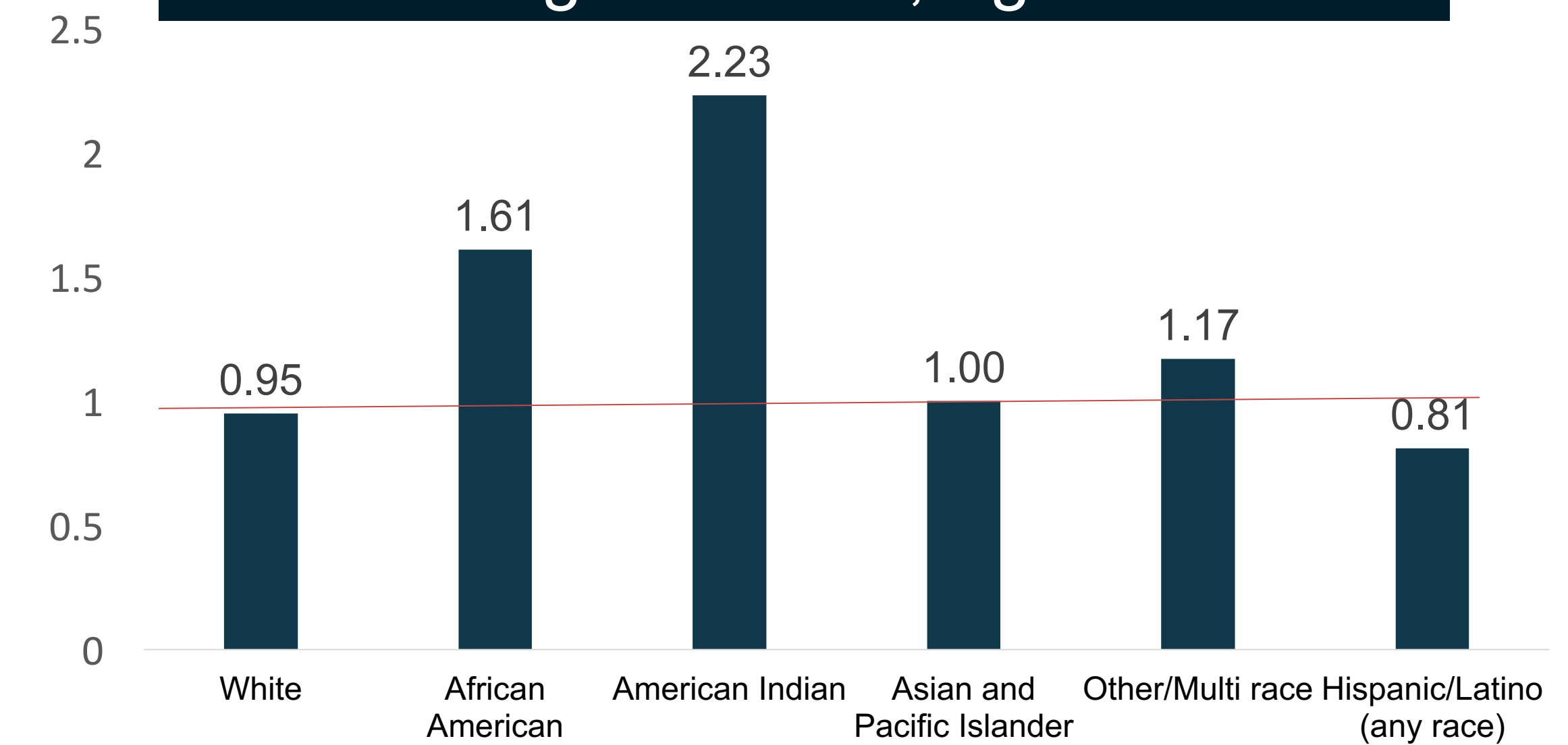
Annualized Economic Benefits for Saved Lives



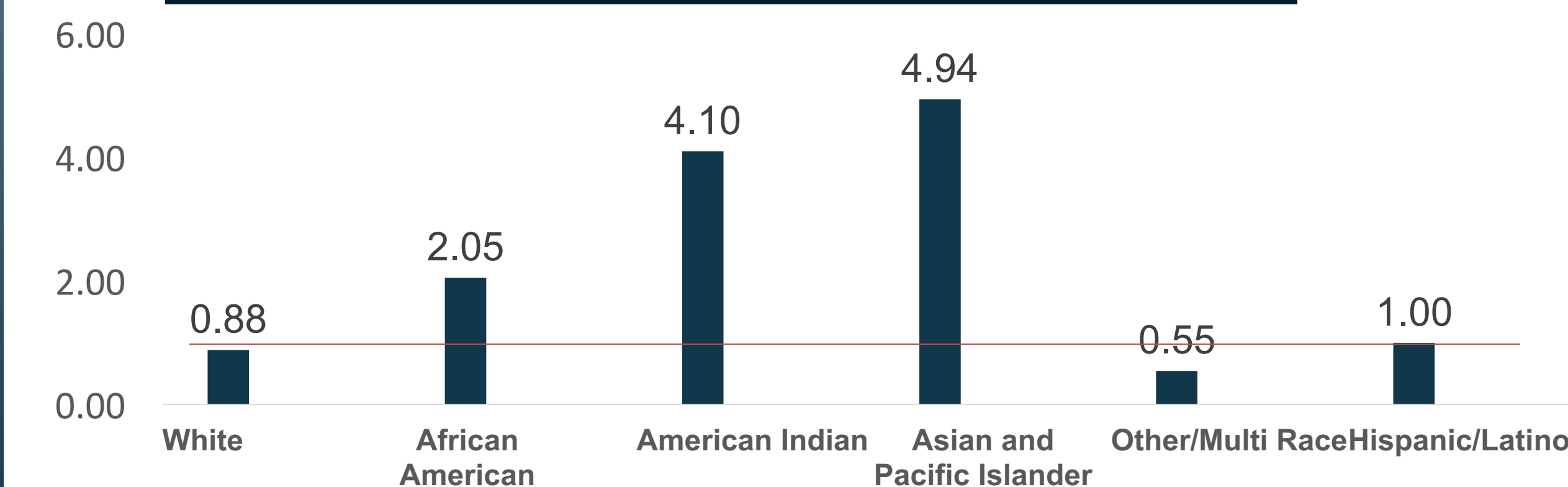
Disparity Ratios of ASDR



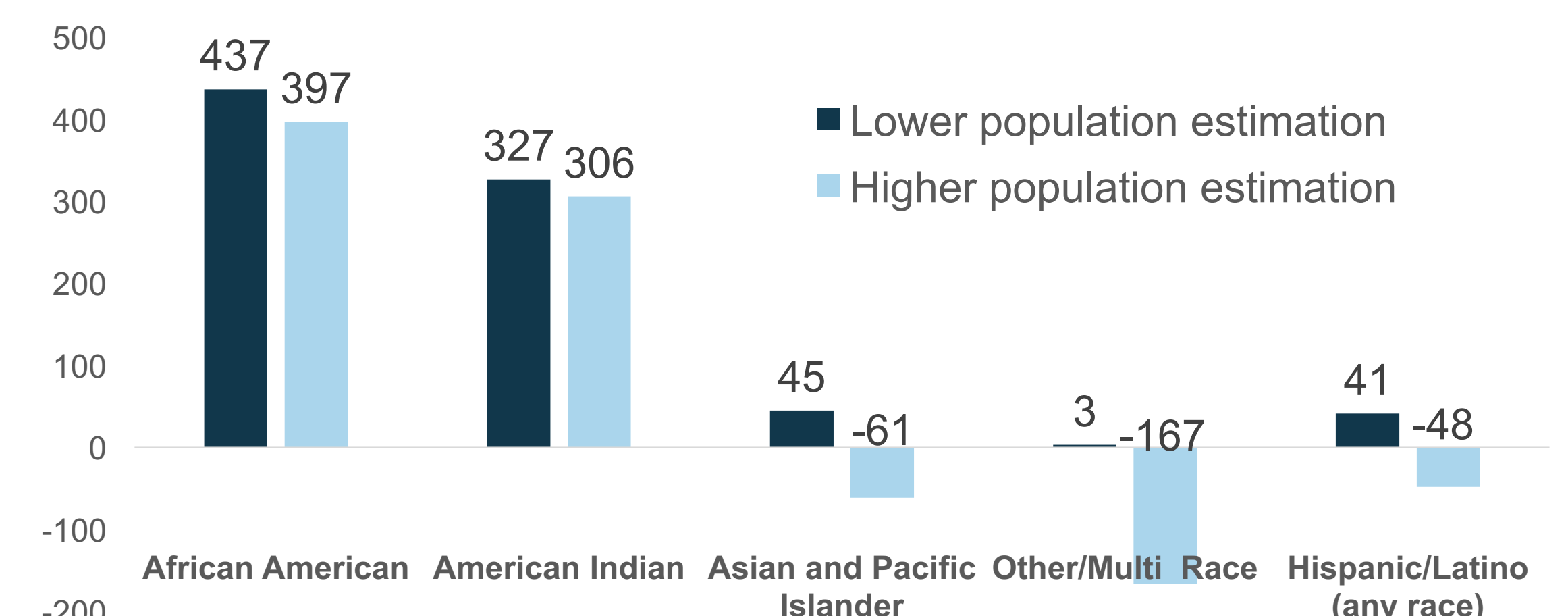
Disparity Ratio of Probability of Work Limiting Condition, Age: 16-65



Disparity Ratios for Top 16 Causes of Deaths, Children Ages 5-14



Disparity Ratios of ASDR



Highlights

Eliminating health disparities would save **\$2.26 billion dollars per year** for Minnesota:

- Saves **335 - 766** lives per year, which is **\$0.97 Billion -- \$2.12 Billion¹**
- Increase **65 – 1,034** Minorities who would have worked per year, which is **\$ 3.79 Million - \$ 60.69 Million**
- Offer the state of MN businesses **703 – 56,251** weeks per year, which is **\$ 67.07 Million - \$ 82.56 Million**

Note: The lower bound is adjusted by Consumer Price Index and the higher bound is adjusted by the Medical Care Service Price Index

Acknowledgements

- Funding for this project was provided by Blue Cross Blue Shield Center for Prevention.
- Travel Funding was provided by Minnesota Population Center.
- The full technical report can be found on: <https://www.healthdisparities.umn.edu/policy/hepi>