

PC⁴  PAC³

PC⁴/PAC³ Diversity Survey

Sarah Plummer &
Titus Chan



Hosted by  children's health?

Disclosures

- None!

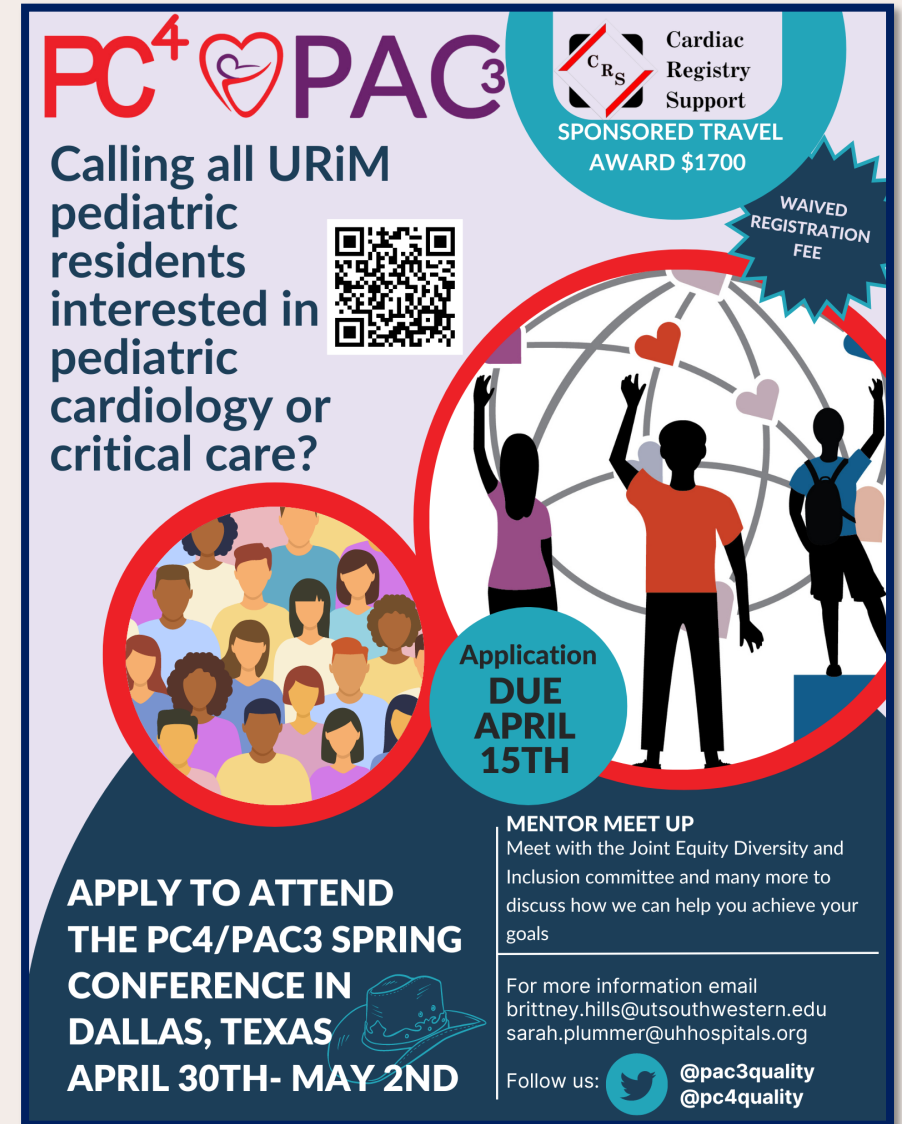
Disclosures

- Actually, Pooja Nawathe was instrumental in creating and driving the survey



Background

- There are currently significant efforts focusing on workforce diversification
- Research has demonstrated that the outcomes of minority patients are better when they are taken care of by minority providers



The poster features a central graphic of a globe with silhouettes of three people reaching up towards it. A red heart is positioned above the globe. To the left, a circular inset shows a diverse group of people's faces. The background is a mix of light blue and white with a dark blue base at the bottom.

PC⁴ PAC³ Cardiac Registry Support
SPONSORED TRAVEL AWARD \$1700
WAIVED REGISTRATION FEE

Calling all URiM pediatric residents interested in pediatric cardiology or critical care?

Application DUE APRIL 15TH

APPLY TO ATTEND THE PC4/PAC3 SPRING CONFERENCE IN DALLAS, TEXAS APRIL 30TH- MAY 2ND

MENTOR MEET UP
Meet with the Joint Equity Diversity and Inclusion committee and many more to discuss how we can help you achieve your goals

For more information email
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Follow us: @pac3quality @pc4quality

Background

2023

JAMA
Network | **Open**[™]



Original Investigation | Equity, Diversity, and Inclusion

Black Representation in the Primary Care Physician Workforce and Its Association With Population Life Expectancy and Mortality Rates in the US

John E. Snyder, MD, MS, MPH; Rachel D. Upton, PhD; Thomas C. Hassett, PhD; Hyunjung Lee, PhD, MS, MPP, MBA; Zakia Nouri, MA; Michael Dill, MAPP

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- Longitudinal cohort study of the adult PCP workforce
- Counties with at least 1 Black PCP
- Higher levels of Black representation in the physician workforce were:
 - Directly associated with longer life expectancy
 - Inversely associated with all-cause mortality rates and all cause mortality rate disparities

Background

2020

Physician–patient racial concordance and disparities in birthing mortality for newborns

Brad N. Greenwood^{a,1,2} , Rachel R. Hardeman^{b,1} , Laura Huang^{c,1} , and Aaron Sojourner^{d,1} 

^aSchool of Business, George Mason University, Fairfax, VA 22030; ^bSchool of Public Health, University of Minnesota–Twin Cities, Minneapolis, MN 55455; ^cHarvard Business School, Harvard University, Boston, MA 02163; and ^dCarlson School of Management, University of Minnesota–Twin Cities, Minneapolis, MN 55455

Edited by Christopher W. Kuzawa, Northwestern University, Evanston, IL, and approved July 16, 2020 (received for review August 2, 2019)

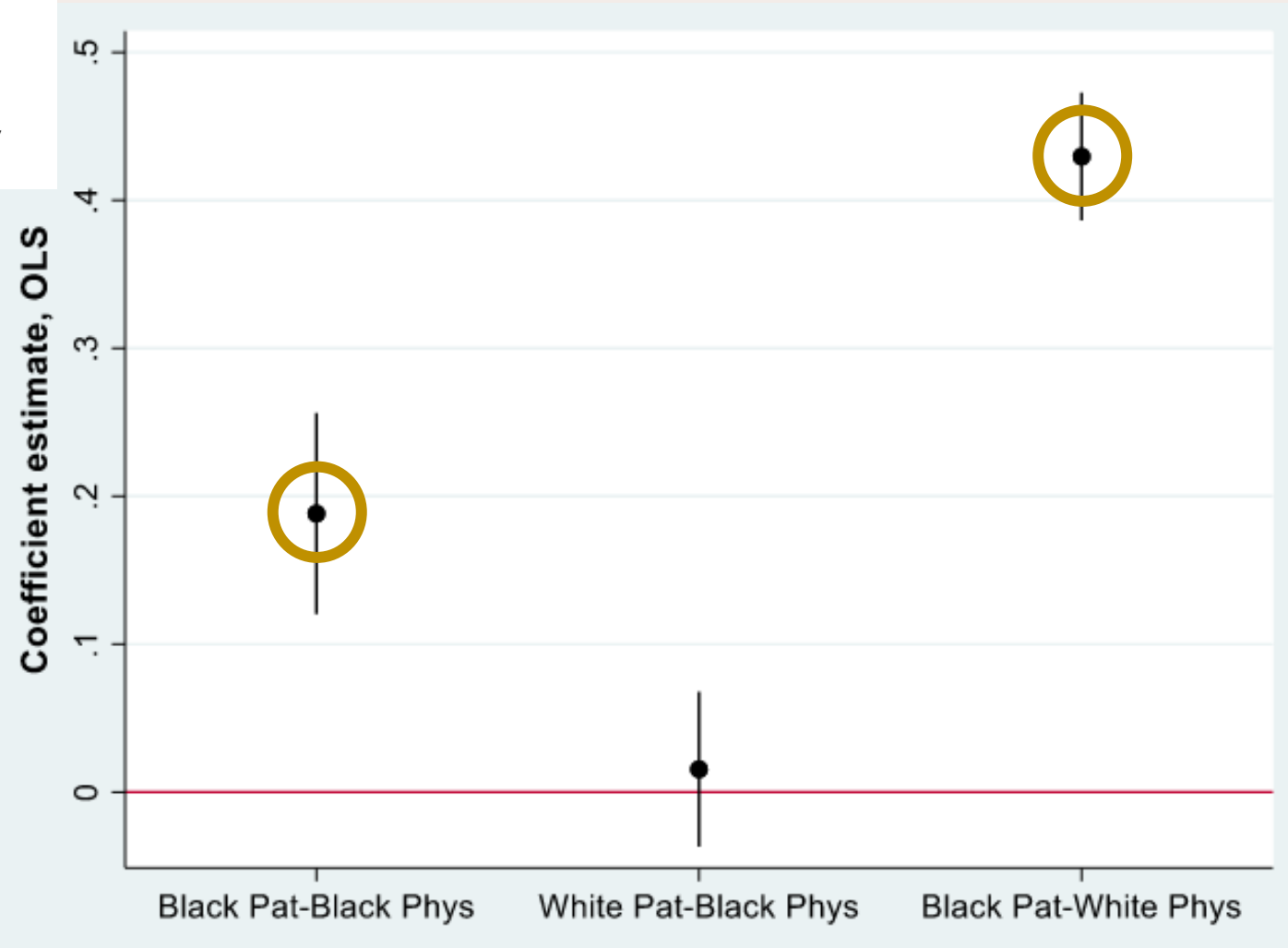
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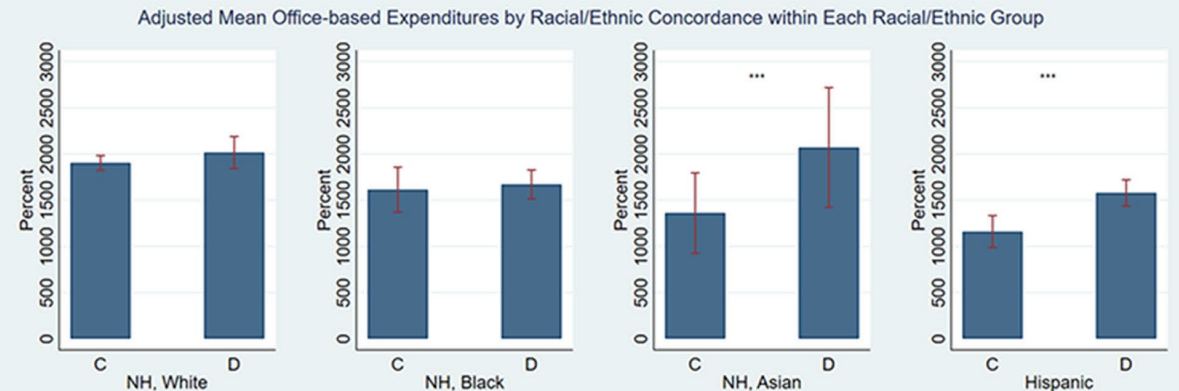
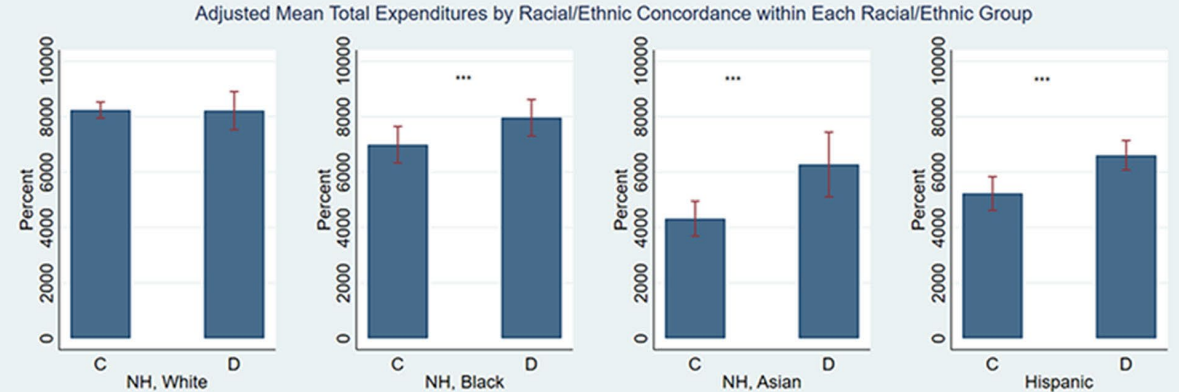
Background

2021

Patient-Physician Racial Concordance Associated with Improved Healthcare Use and Lower Healthcare Expenditures in Minority Populations

Anuradha Jetty¹  · Yalda Jabbarpour² · Jack Pollack¹ · Ryan Huerto³ · Stephanie Woo⁴ ·

Received: 2 September 2020 / Revised: 5 November 2020 / Accepted: 16 November 2020
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Background

Research

2019

JAMA Cardiology | **Brief Report**

Current Demographic Status of Cardiologists in the United States

Laxmi S. Mehta, MD; Kara Fisher, MPH; Anne K Rzeszut, MA; Rebecca Lipner, PhD; Stephanie Mitchell, BPh;
Michael Dill, MPAffP; David Acosta, MD; William J. Oetgen, MD, MBA; Pamela S Douglas, MD



Background

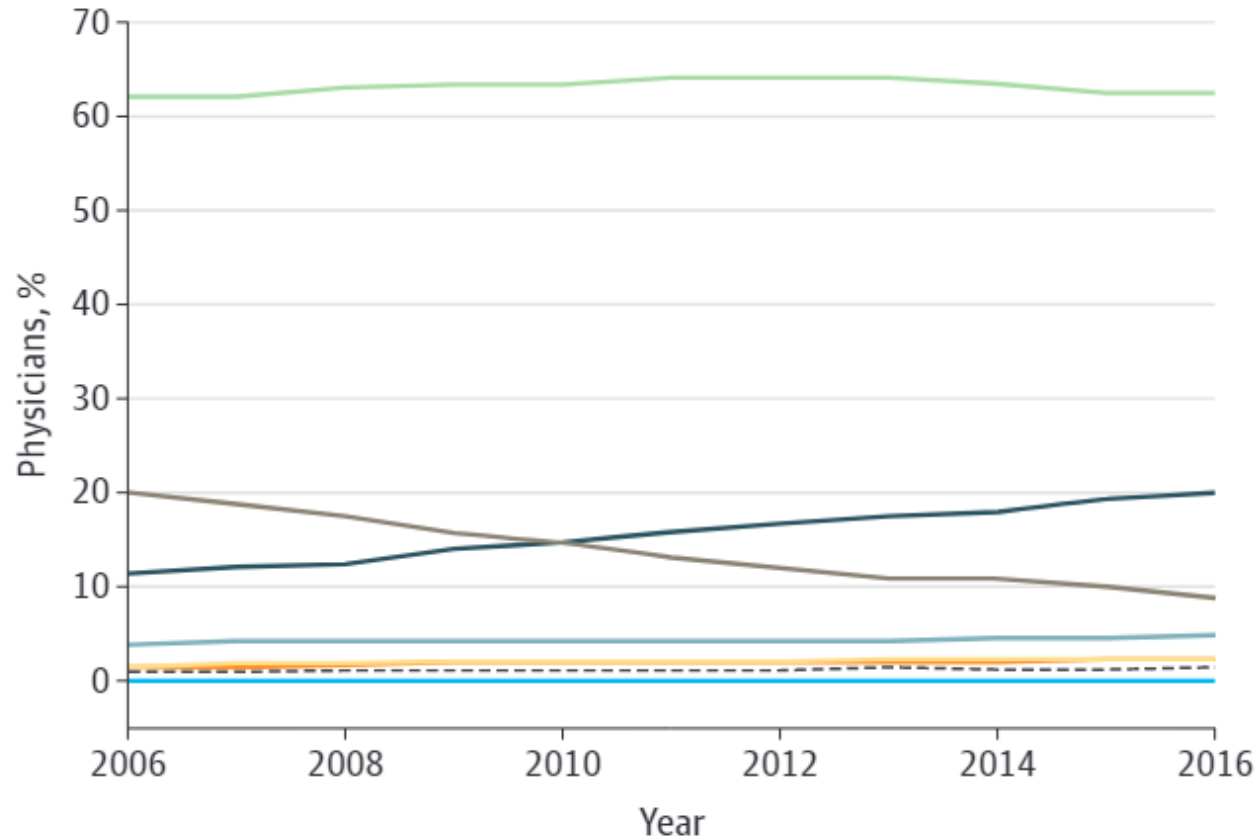
Research

JAMA Cardiology | Brief Report

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D Pediatric cardiologists by race/ethnicity



Background

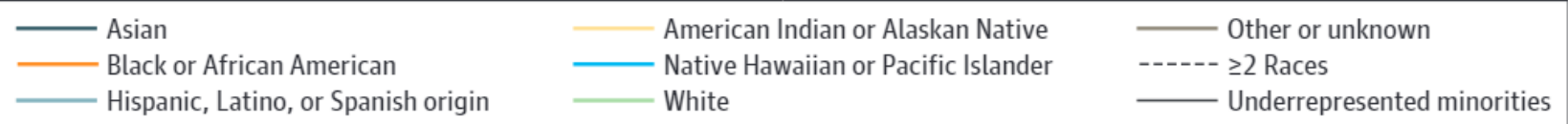
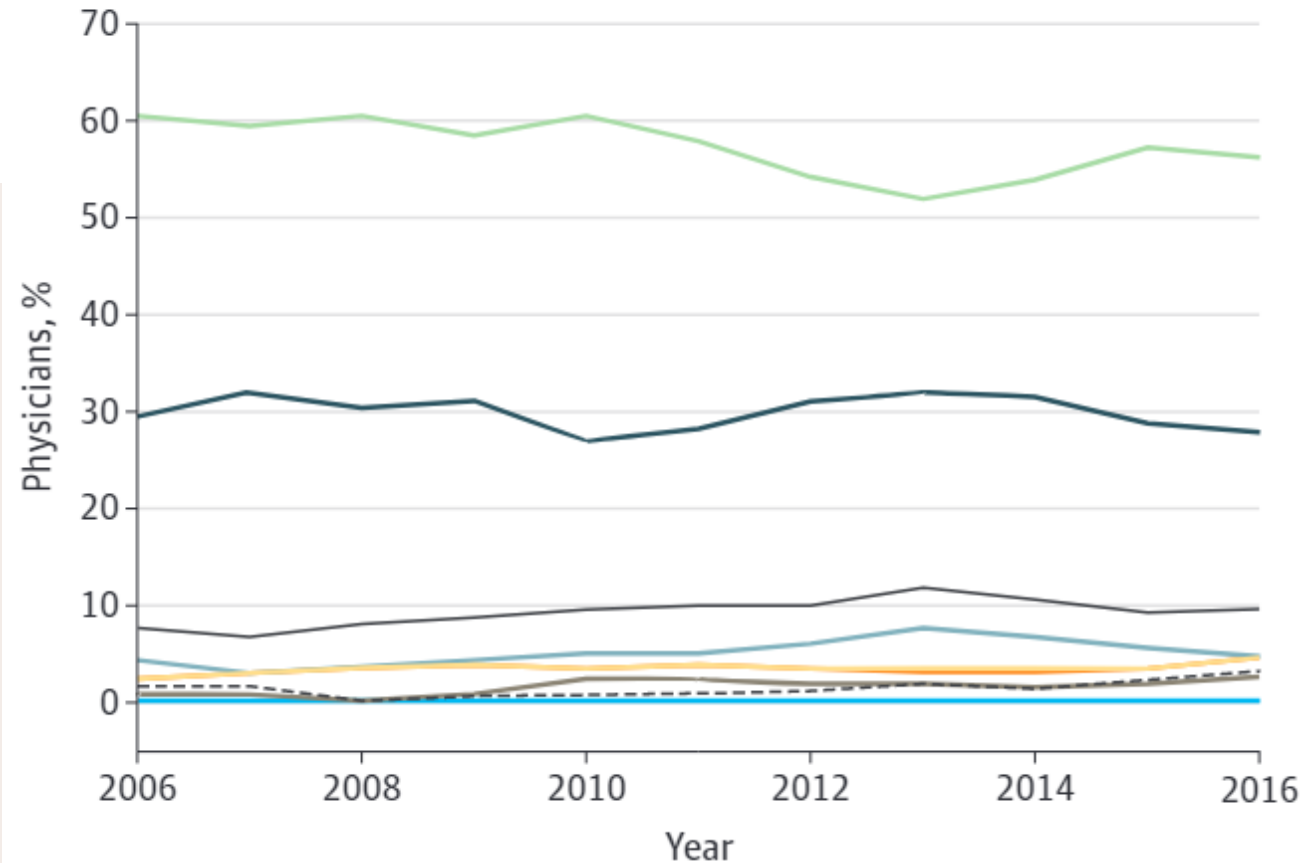
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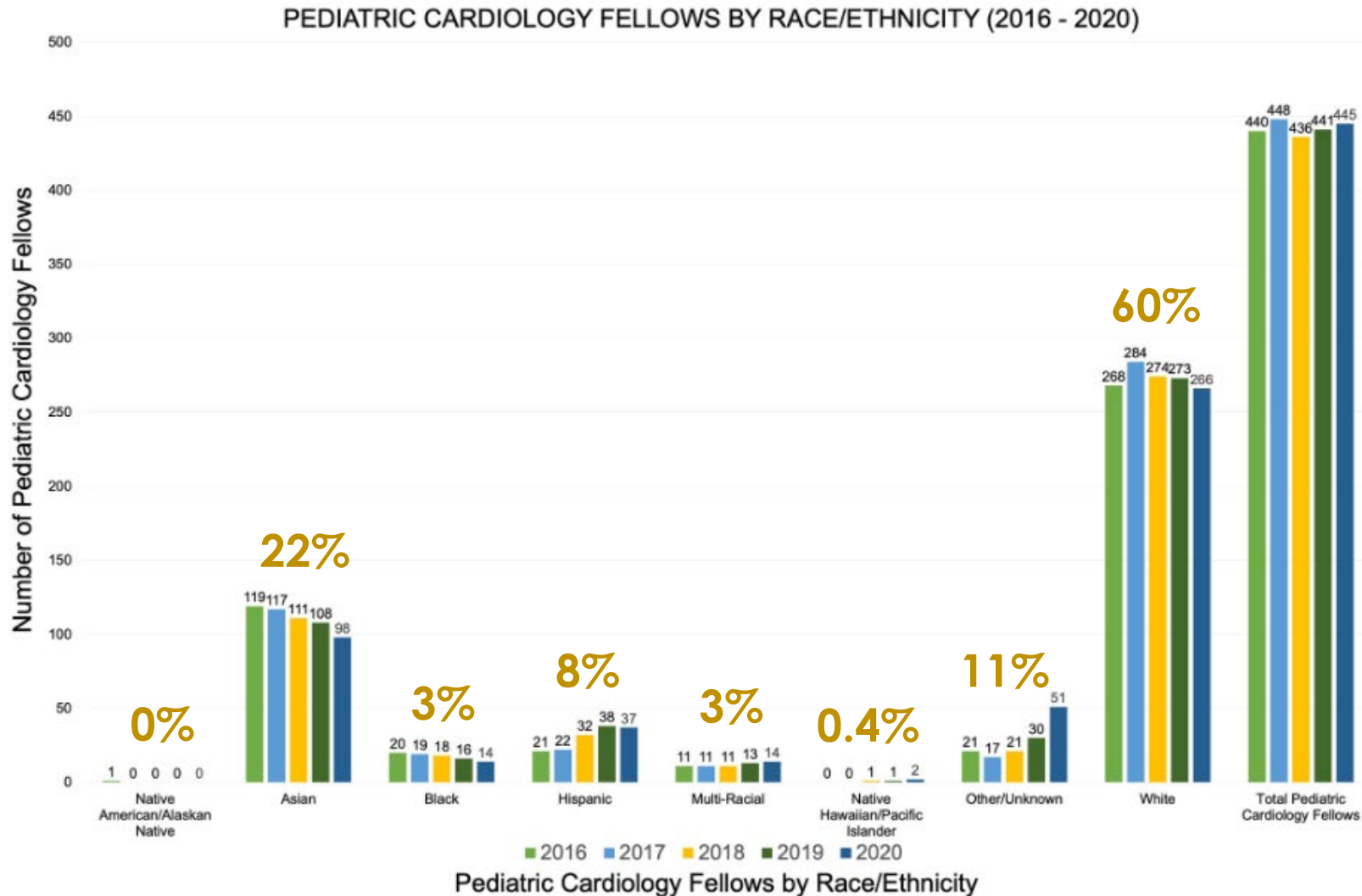
B Pediatric cardiology fellows by race/ethnicity



Background

The Heart of the Matter: A Path to Building Diversity in Pediatric Cardiology

Ogochukwu M. Ezeoke¹ · Jason Williams² · Vanessa Ogueri³ · Brittney K. Hills⁴



2023



Background

Diversity Survey

- Launched survey in Jan 2023
- Goal of the survey was to understand the current diversity of the PC4 and PAC3 as a means of setting goals to increase diversity over time
- Sent to PC4 and PAC3 Clinical and Data Champions
- Asked that champions distribute to all people participating in clinical care or data work as pertains to PC4 and PAC3

Background

- Diversity Survey
 - Asked participants to fill out survey anonymously
 - But then also asked survey participants to leave their name to track participation at each center without identifying responses

Background

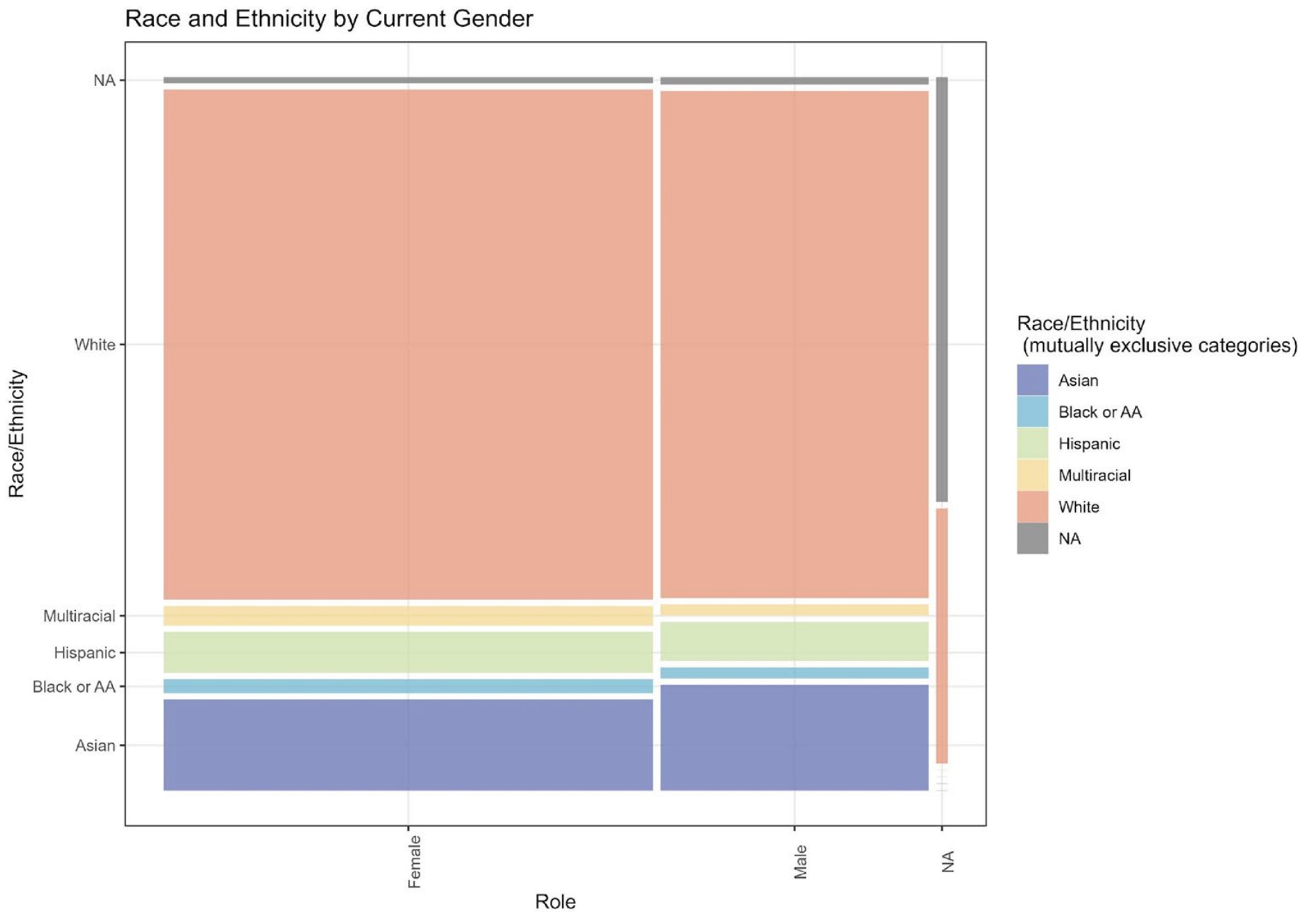
- Overall 553 responses from 56 centers

Objective

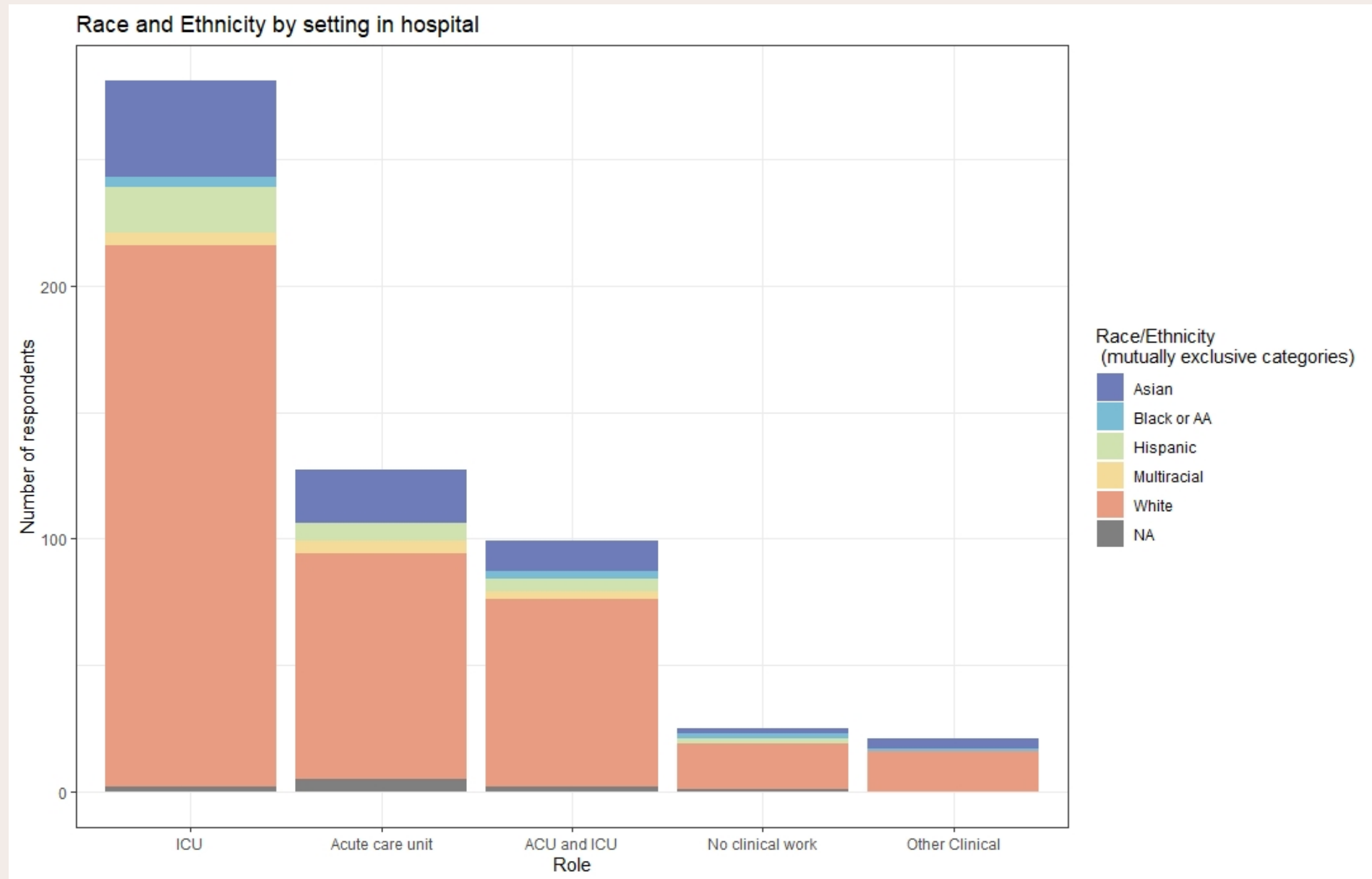
- We sought to examine if responses in the Diversity Survey correlated with outcomes in PC4/PAC3
- Specifically, we were interested to examine if increased provider diversity, increased patient diversity and positive opinions about Heart Center EDI support were correlated with:
 - ICU Medical and Surgical mortality (risk adjusted)
 - ICU Medical and Surgical cardiac arrests (risk adjusted)
 - ACU Major Complications
 - ACU readmissions
 - ACU Length of Stay

Results

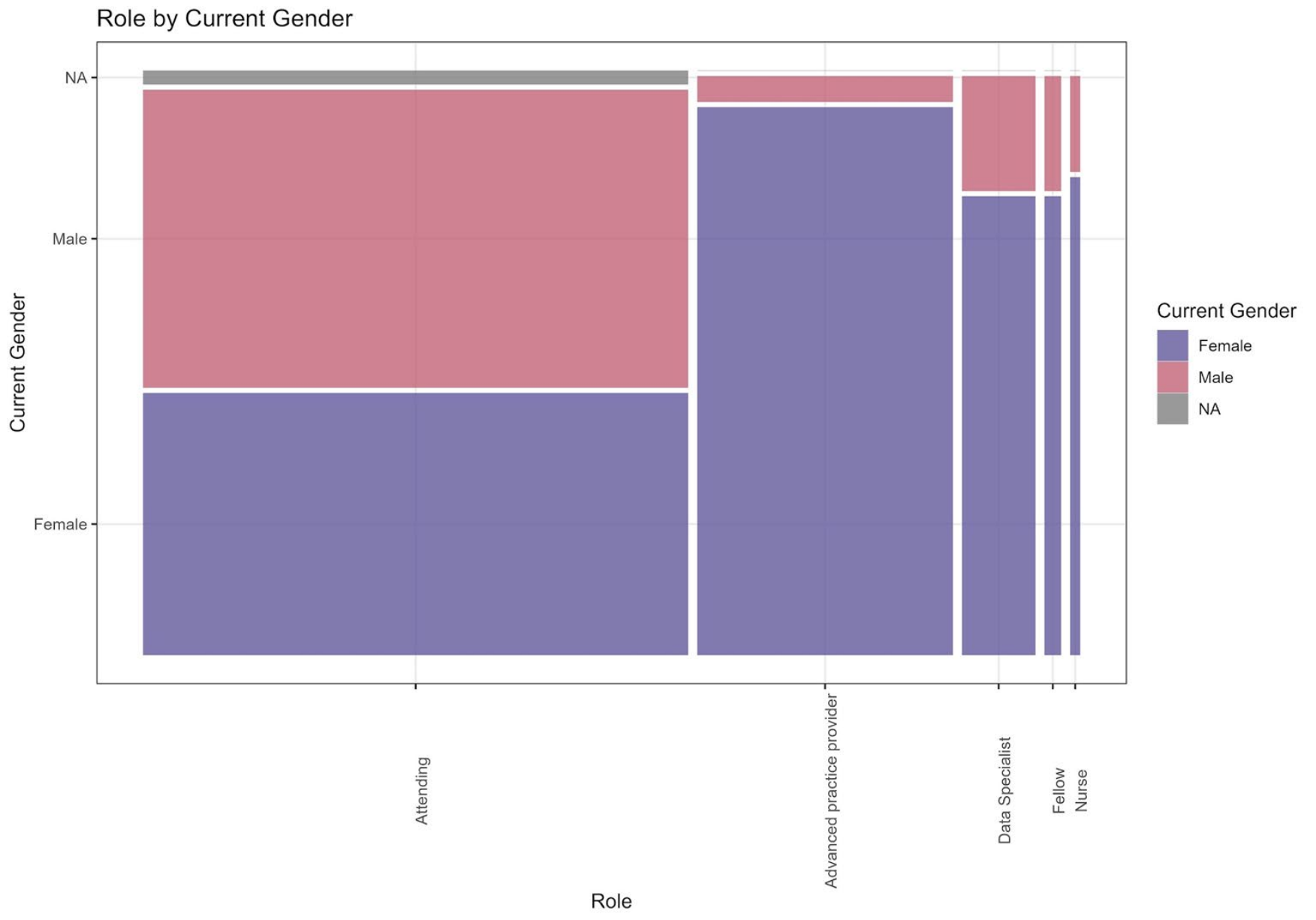
Race/Ethnicity and Gender



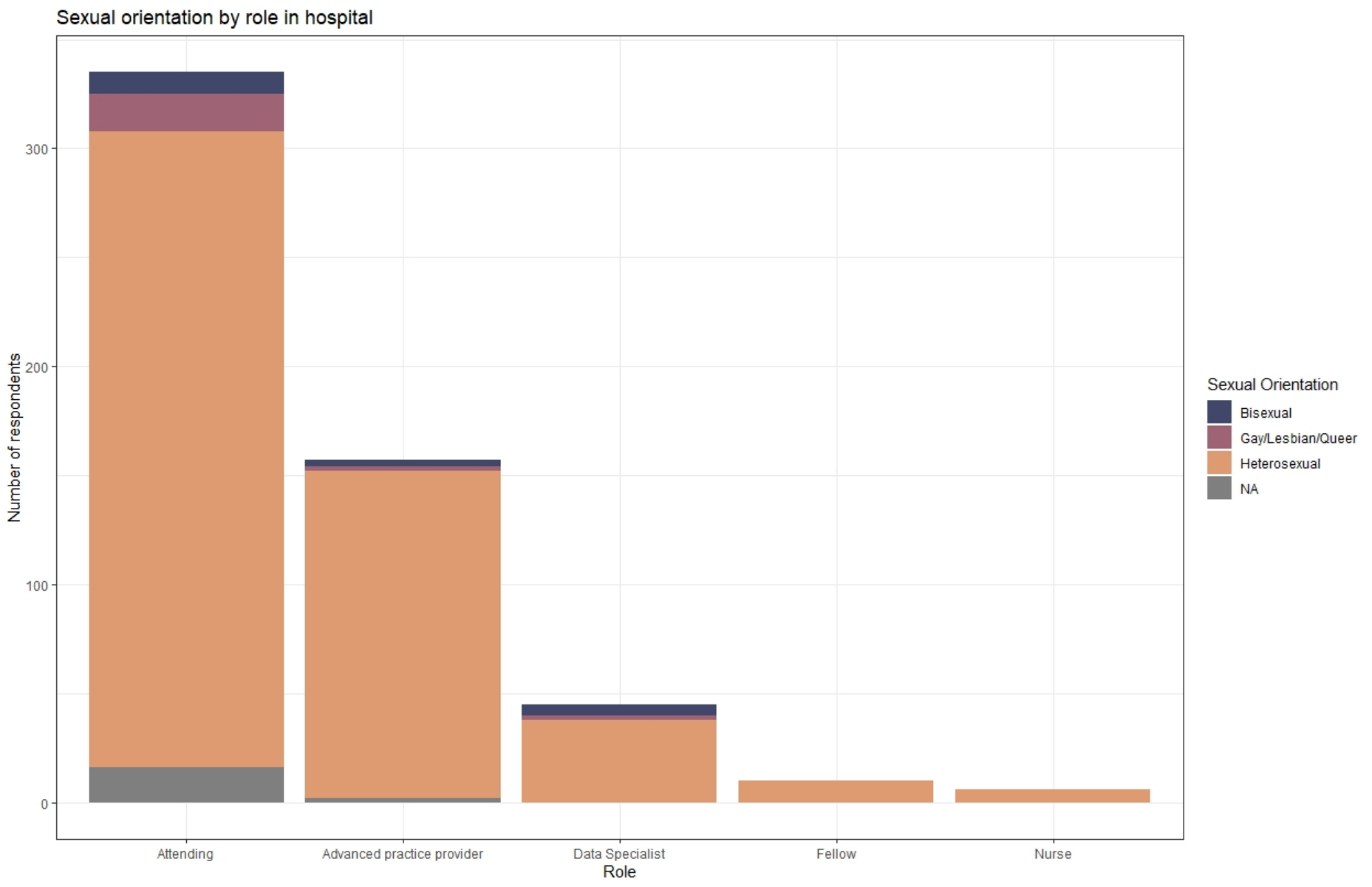
Race/Ethnicity by Setting



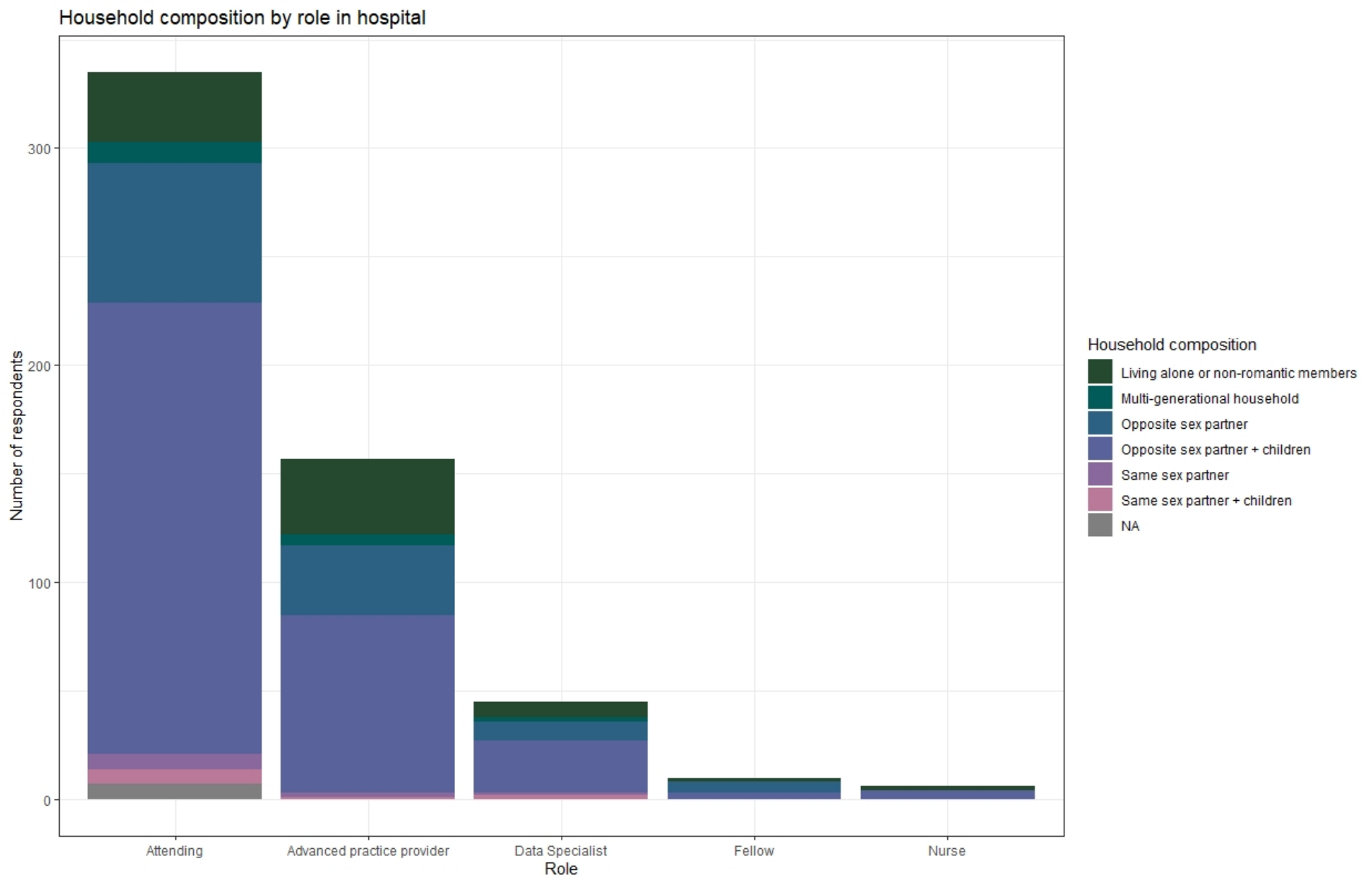
Gender by Role



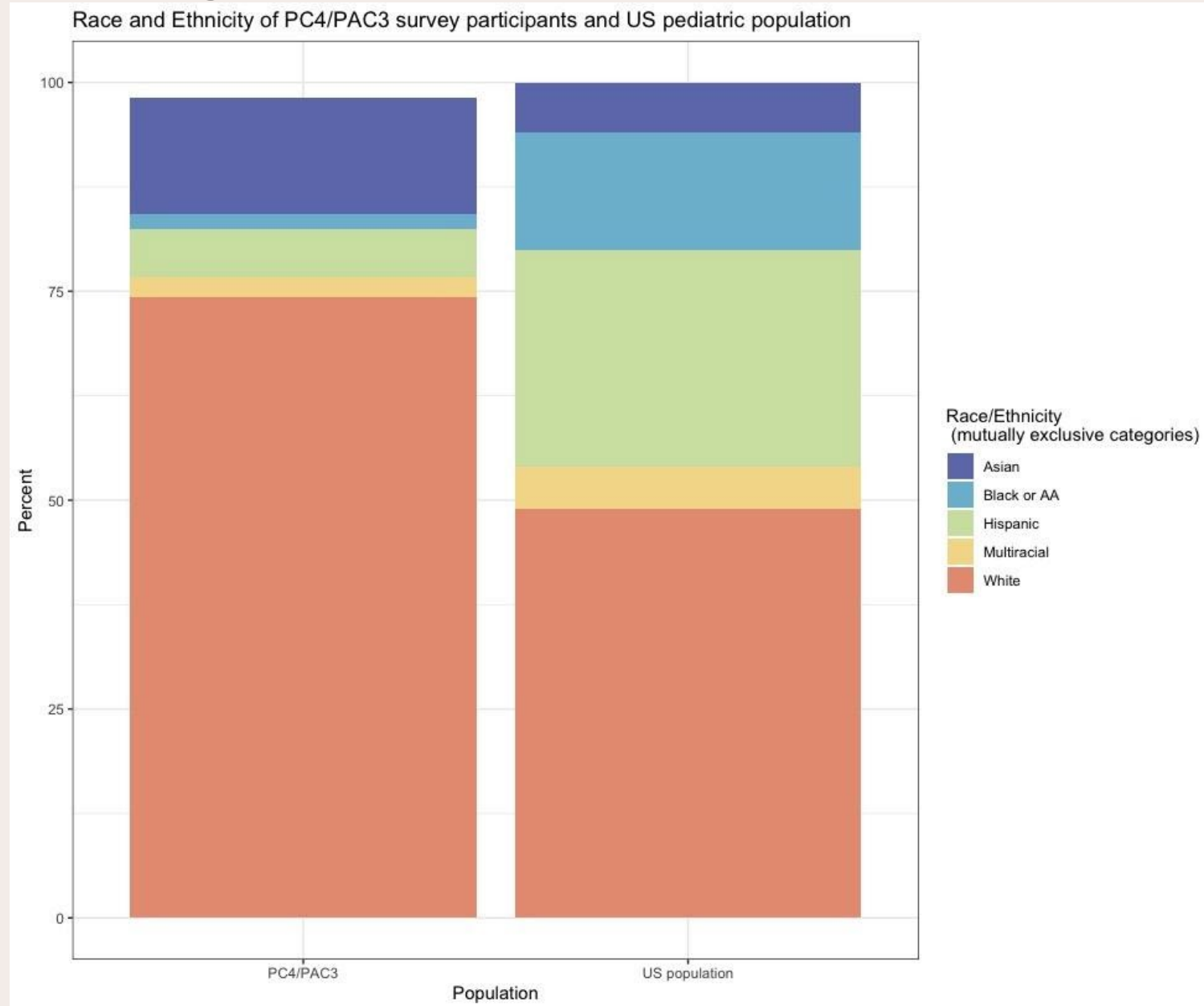
Sexual Orientation by Role



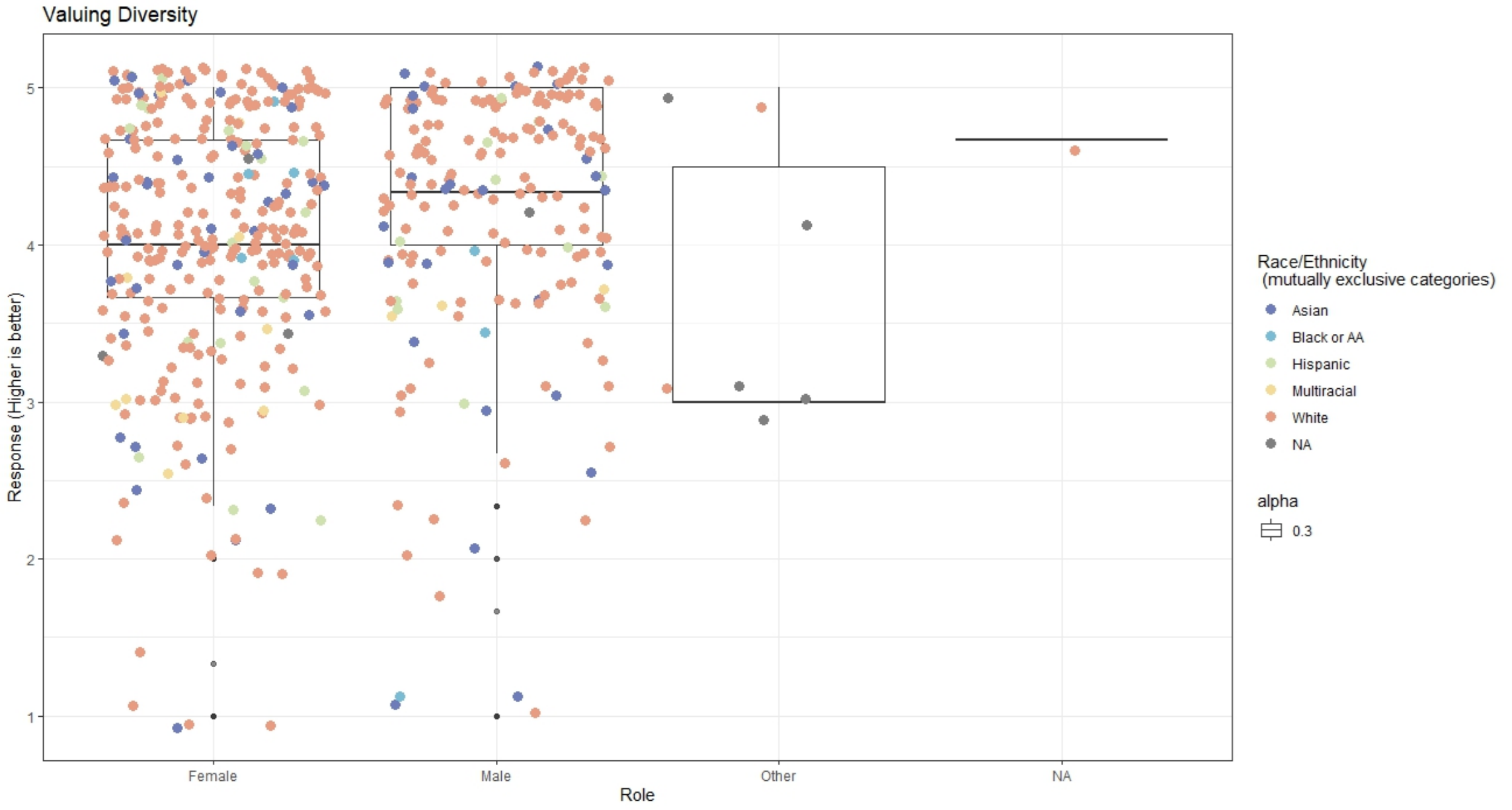
Household composition by Role



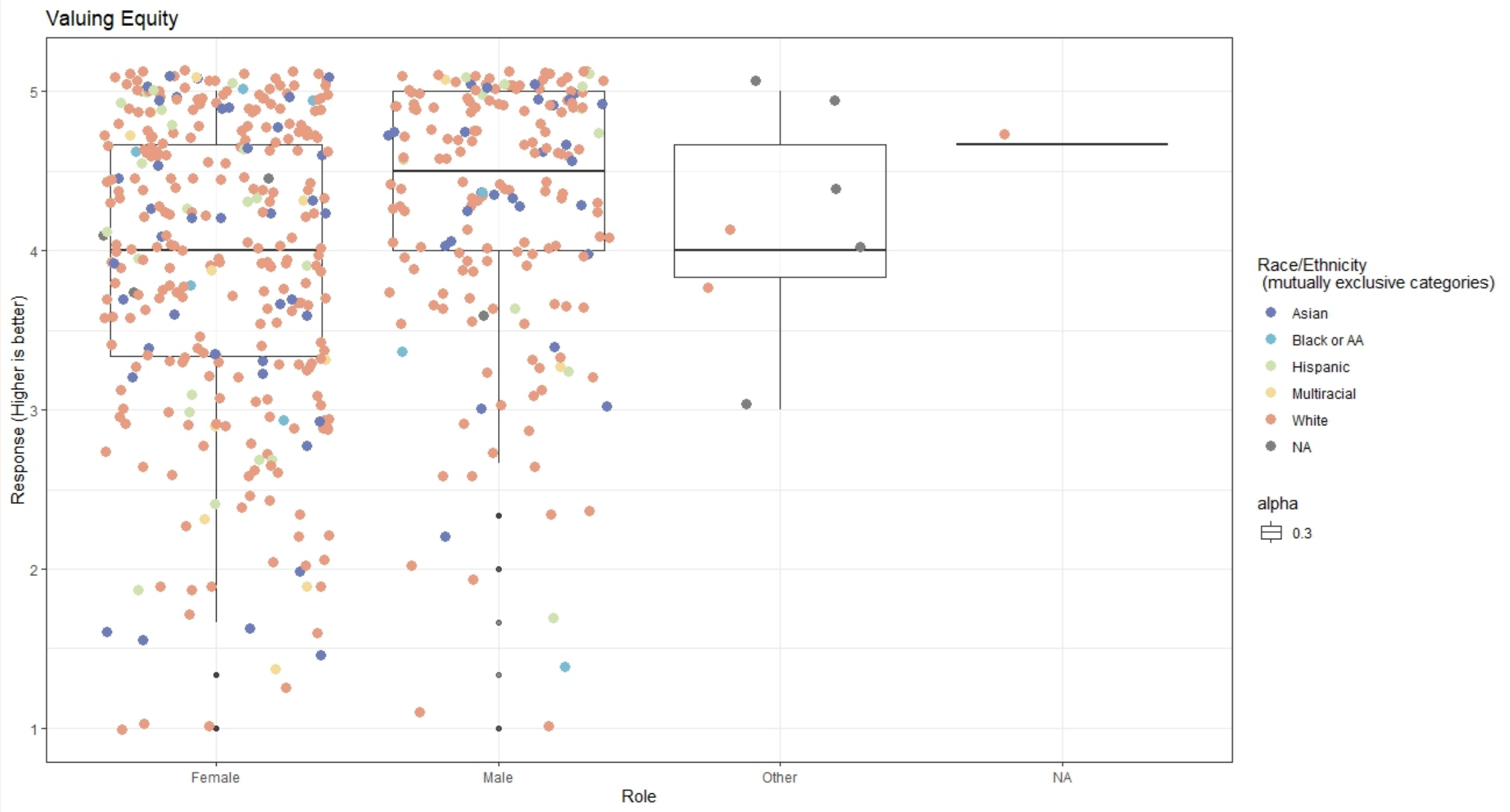
Race/Ethnicity proportions



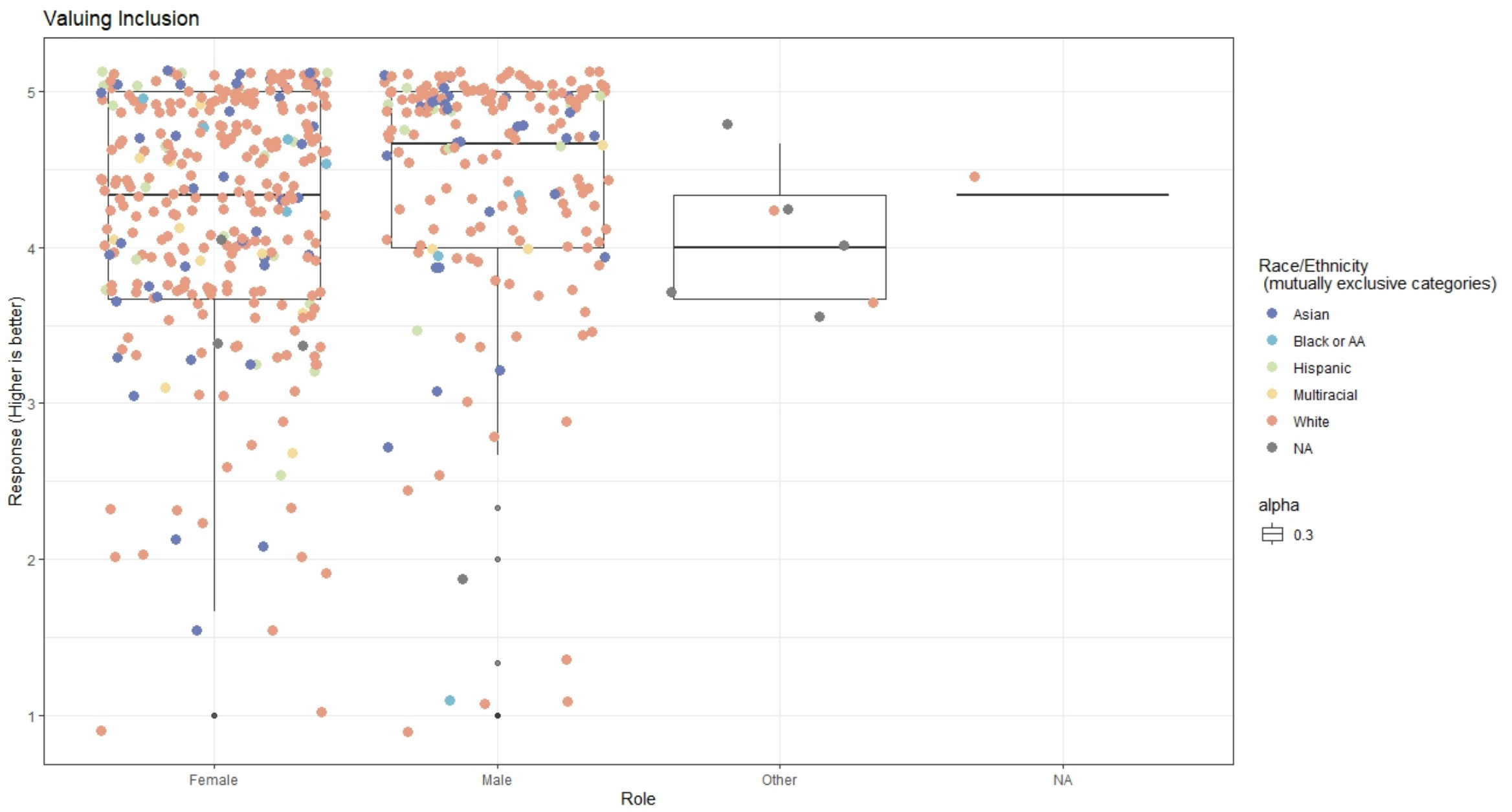
Opinions about your Heart Center



Opinions about your Heart Center



Opinions about your Heart Center



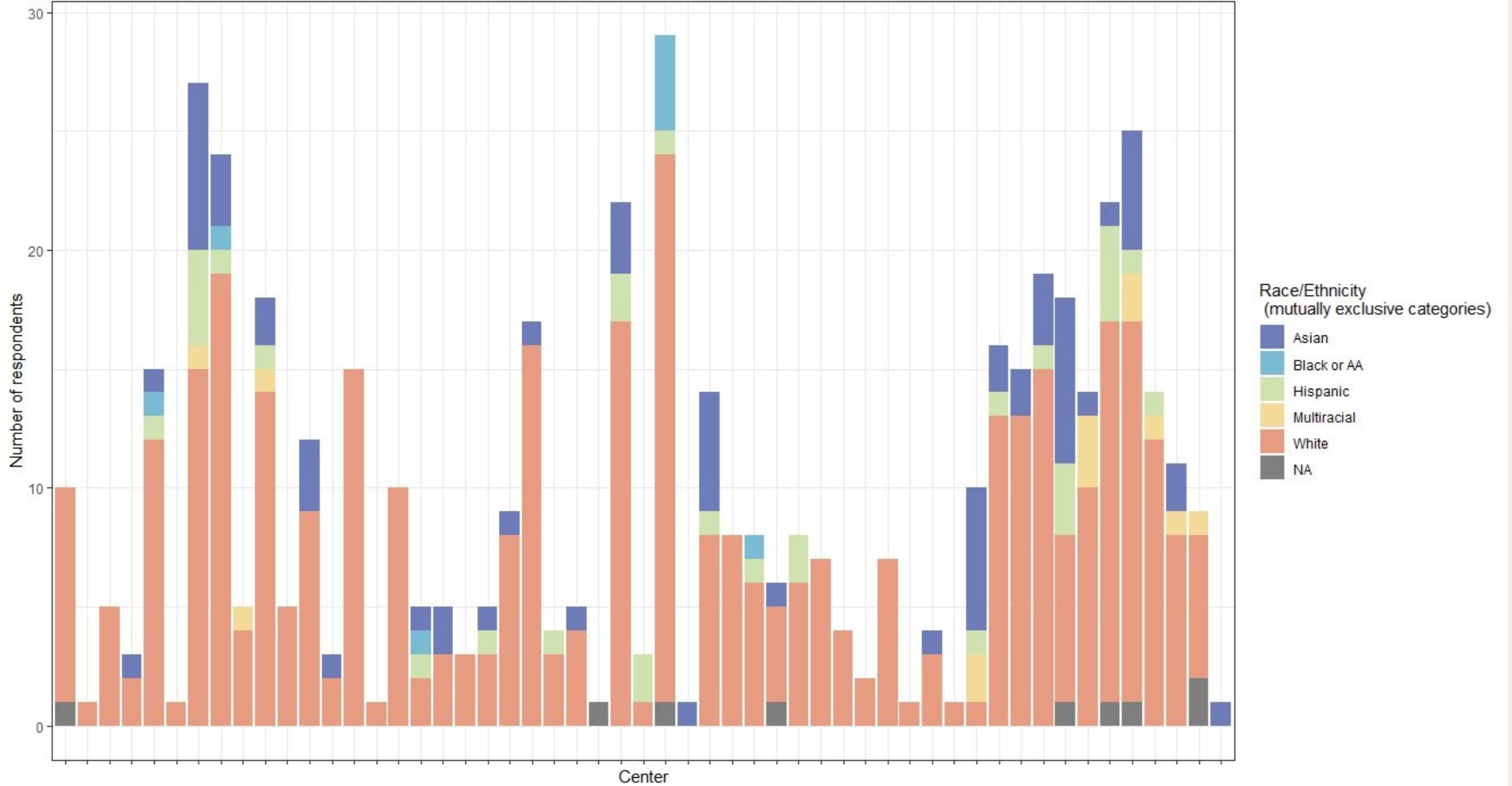
Survey vs Outcomes

Objective

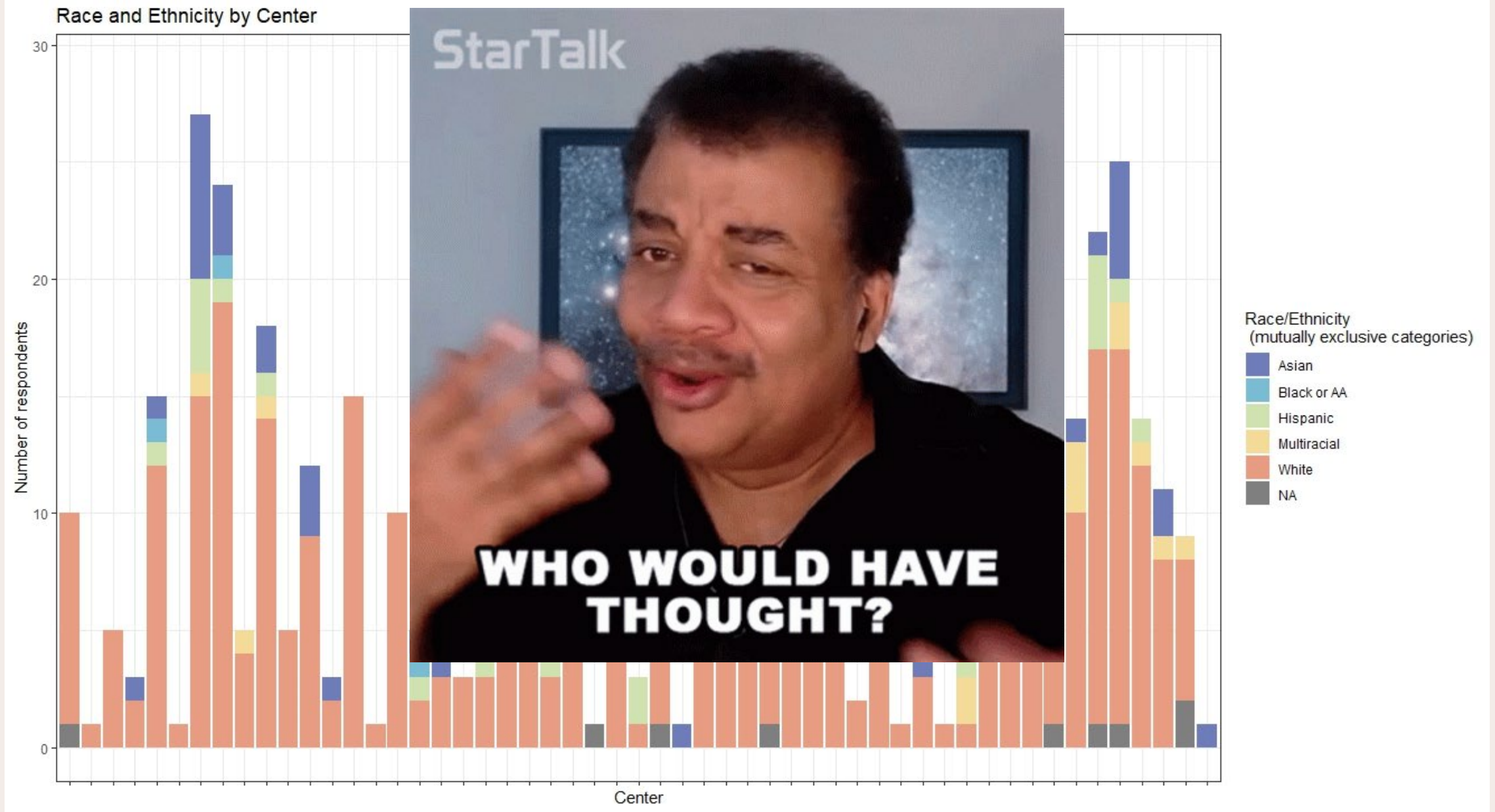
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Responses by center

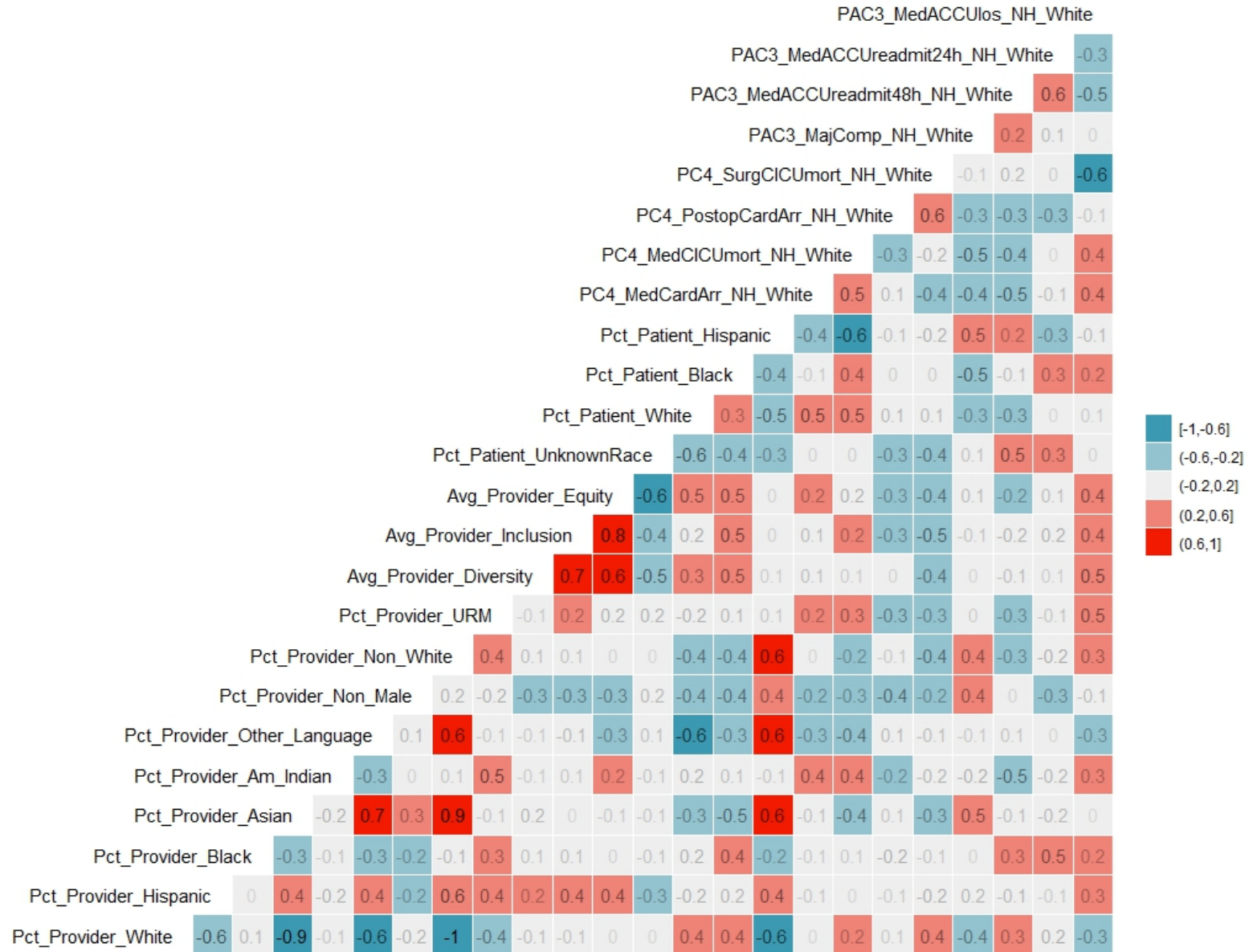
Race and Ethnicity by Center



Responses by center



Outcomes for White Patients

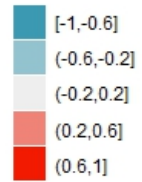


Outcomes for White Patients

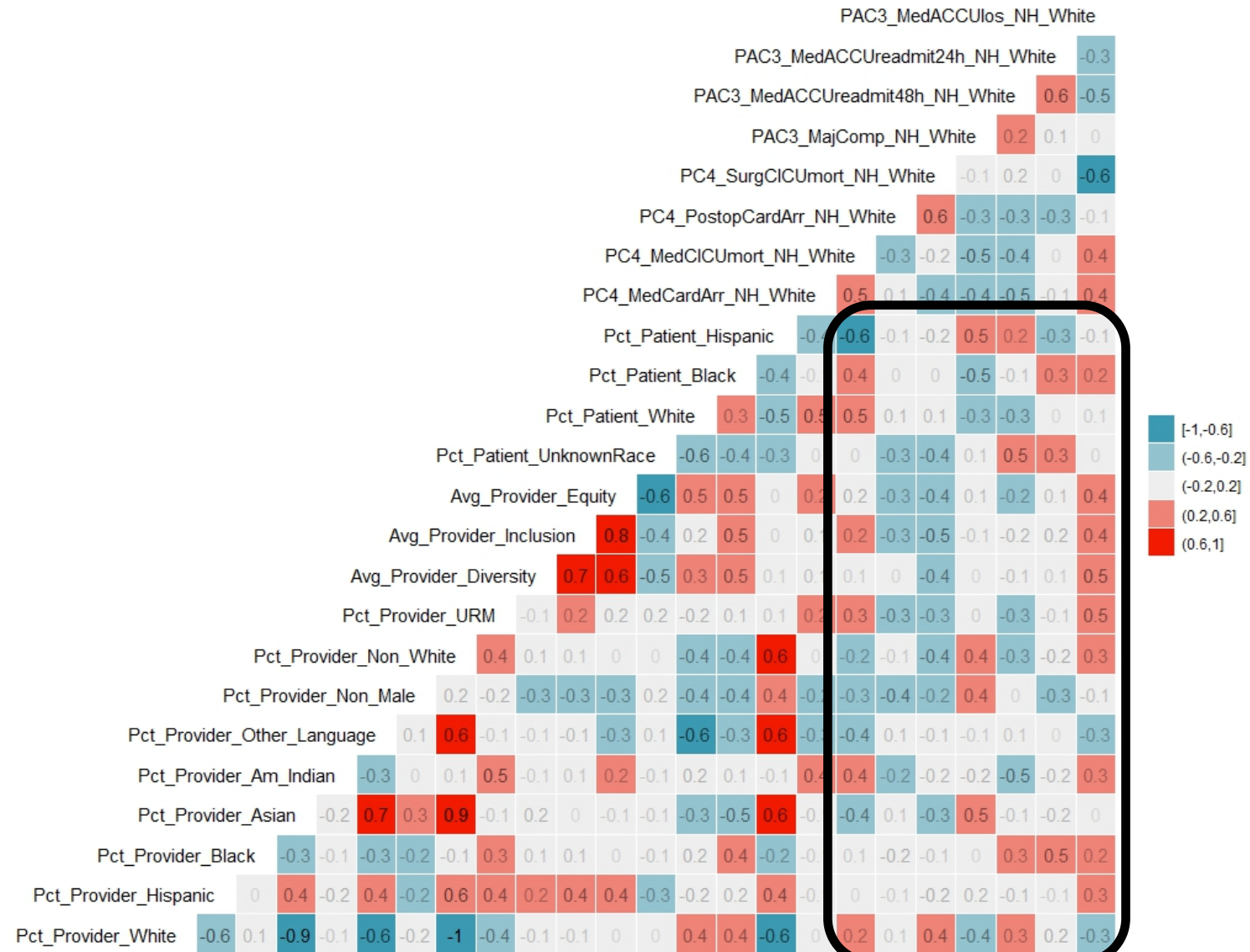
PAC3_MedACCUlos_NH_White							
PAC3_MedACCUreadmit24h_NH_White				-0.3			
PAC3_MedACCUreadmit48h_NH_White	0.6			-0.5			
PAC3_MajComp_NH_White	0.2	0.1		0			
PC4_SurgCICUmort_NH_White	-0.1	0.2	0	-0.6			
PC4_PostopCardArr_NH_White	0.6	-0.3	-0.3	-0.3	-0.1		
PC4_MedCICUmort_NH_White	-0.3	-0.2	-0.5	-0.4	0	0.4	
PC4_MedCardArr_NH_White	0.5	0.1	-0.4	-0.4	-0.5	-0.1	0.4

Pct_Patient_Hispanic	-0.4	-0.6	-0.1	-0.2	0.5	0.2	-0.3	-0.1			
Pct_Patient_Black	-0.4	-0.1	0.4	0	0	-0.5	-0.1	0.3	0.2		
Pct_Patient_White	0.3	-0.5	0.5	0.5	0.1	0.1	-0.3	-0.3	0	0.1	
Pct_Patient_UnknownRace	-0.6	-0.4	-0.3	0	0	-0.3	-0.4	0.1	0.5	0.3	0

Avg_Provider_Equity	-0.6	0.5	0.5	0	0.2	0.2	-0.3	-0.4	0.1	-0.2	0.1	0.4											
Avg_Provider_Inclusion	0.8	-0.4	0.2	0.5	0	0.1	0.2	-0.3	-0.5	-0.1	-0.2	0.2	0.4										
Avg_Provider_Diversity	0.7	0.6	-0.5	0.3	0.5	0.1	0.1	0.1	0	-0.4	0	-0.1	0.1	0.5									
Pct_Provider_URM	-0.1	0.2	0.2	0.2	-0.2	0.1	0.1	0.2	0.3	-0.3	-0.3	0	-0.3	-0.1	0.5								
Pct_Provider_Non_White	0.4	0.1	0.1	0	0	-0.4	-0.4	0.6	0	-0.2	-0.1	-0.4	0.4	-0.3	-0.2	0.3							
Pct_Provider_Non_Male	0.2	-0.2	-0.3	-0.3	-0.3	0.2	-0.4	-0.4	0.4	-0.2	-0.3	-0.4	-0.2	0.4	0	-0.3	-0.1						
Pct_Provider_Other_Language	0.1	0.6	-0.1	-0.1	-0.1	-0.3	0.1	-0.6	-0.3	0.6	-0.3	-0.4	0.1	-0.1	-0.1	0.1	0	-0.3					
Pct_Provider_Am_Indian	-0.3	0	0.1	0.5	-0.1	0.1	0.2	-0.1	0.2	0.1	-0.1	0.4	0.4	-0.2	-0.2	-0.2	-0.5	-0.2	0.3				
Pct_Provider_Asian	-0.2	0.7	0.3	0.9	-0.1	0.2	0	-0.1	-0.1	-0.3	-0.5	0.6	-0.1	-0.4	0.1	-0.3	0.5	-0.1	-0.2	0			
Pct_Provider_Black	-0.3	-0.1	-0.3	-0.2	-0.1	0.3	0.1	0.1	0	-0.1	0.2	0.4	-0.2	-0.1	0.1	-0.2	-0.1	0	0.3	0.5	0.2		
Pct_Provider_Hispanic	0	0.4	-0.2	0.4	-0.2	0.6	0.4	0.2	0.4	0.4	-0.3	-0.2	0.2	0.4	-0.1	0	-0.1	-0.2	0.2	-0.1	-0.1	0.3	
Pct_Provider_White	-0.6	0.1	-0.9	-0.1	-0.6	-0.2	-1	-0.4	-0.1	-0.1	0	0	0.4	0.4	-0.6	0	0.2	0.1	0.4	-0.4	0.3	0.2	-0.3

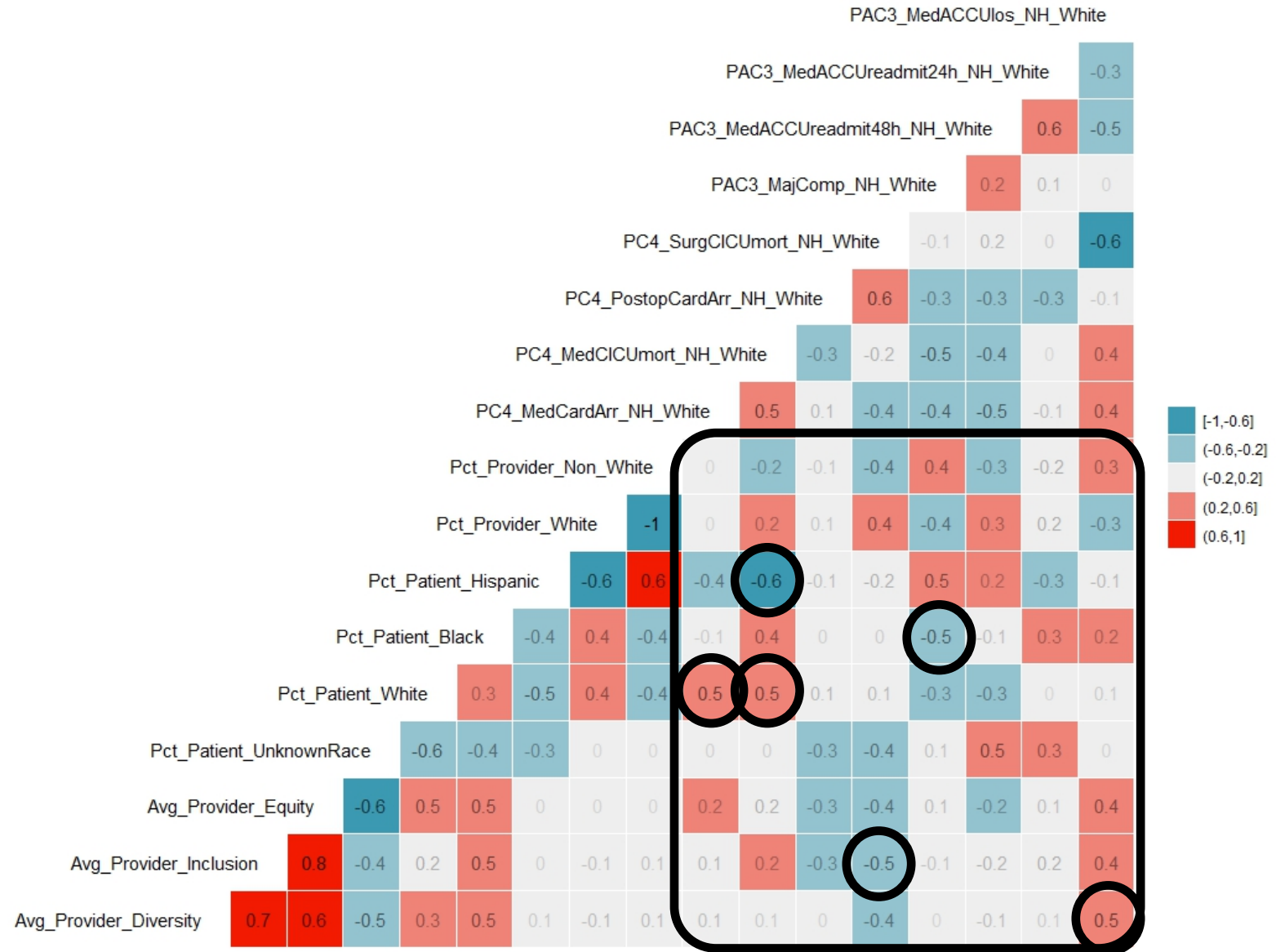


Outcomes for White Patients





Outcomes for White Patients



Outcomes for White Patients

ICU

↑ Med Cardiac Arrests = ↑ Percent White Patients

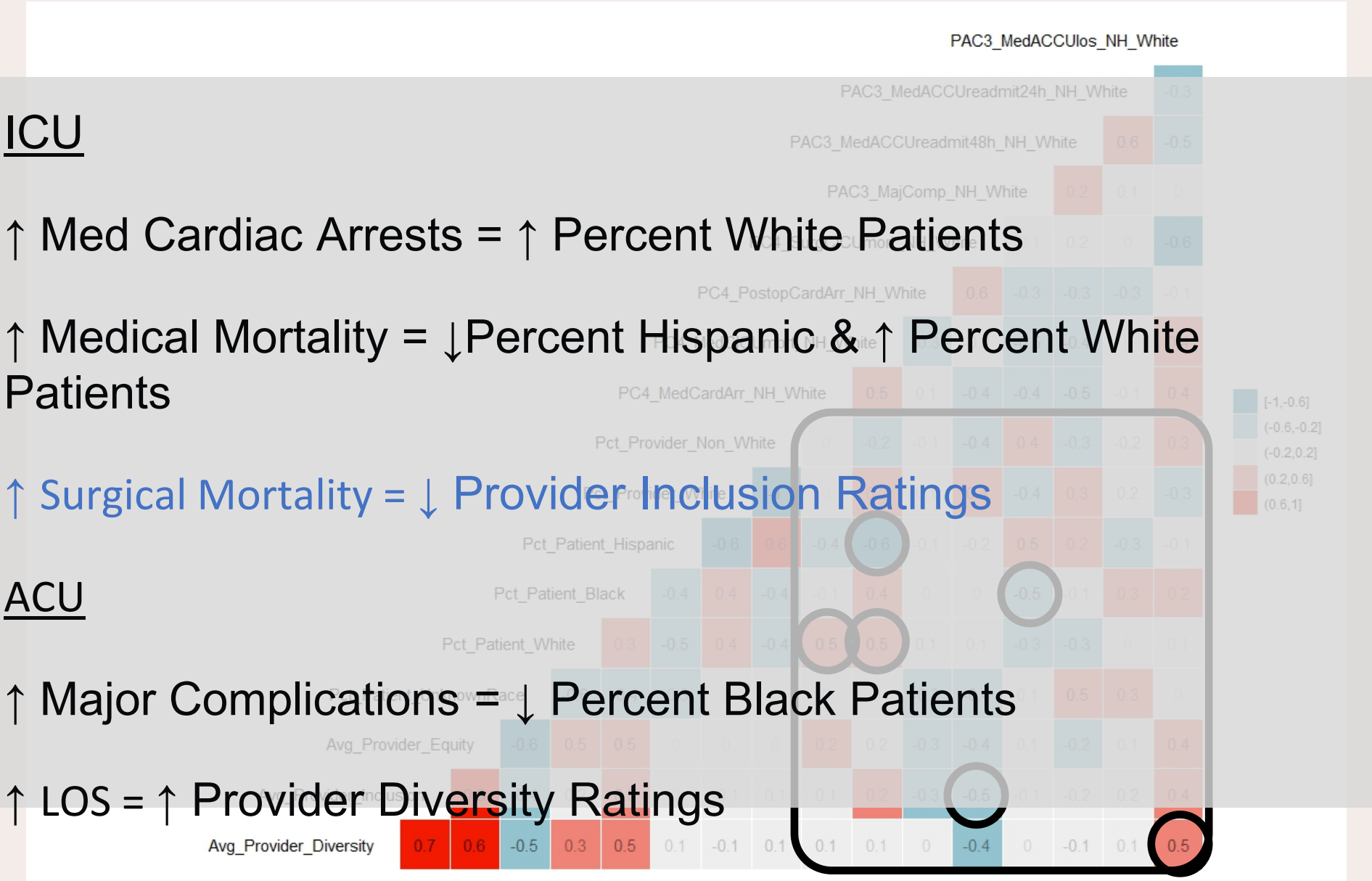
↑ Medical Mortality = ↓ Percent Hispanic & ↑ Percent White Patients

↑ Surgical Mortality = ↓ Provider Inclusion Ratings

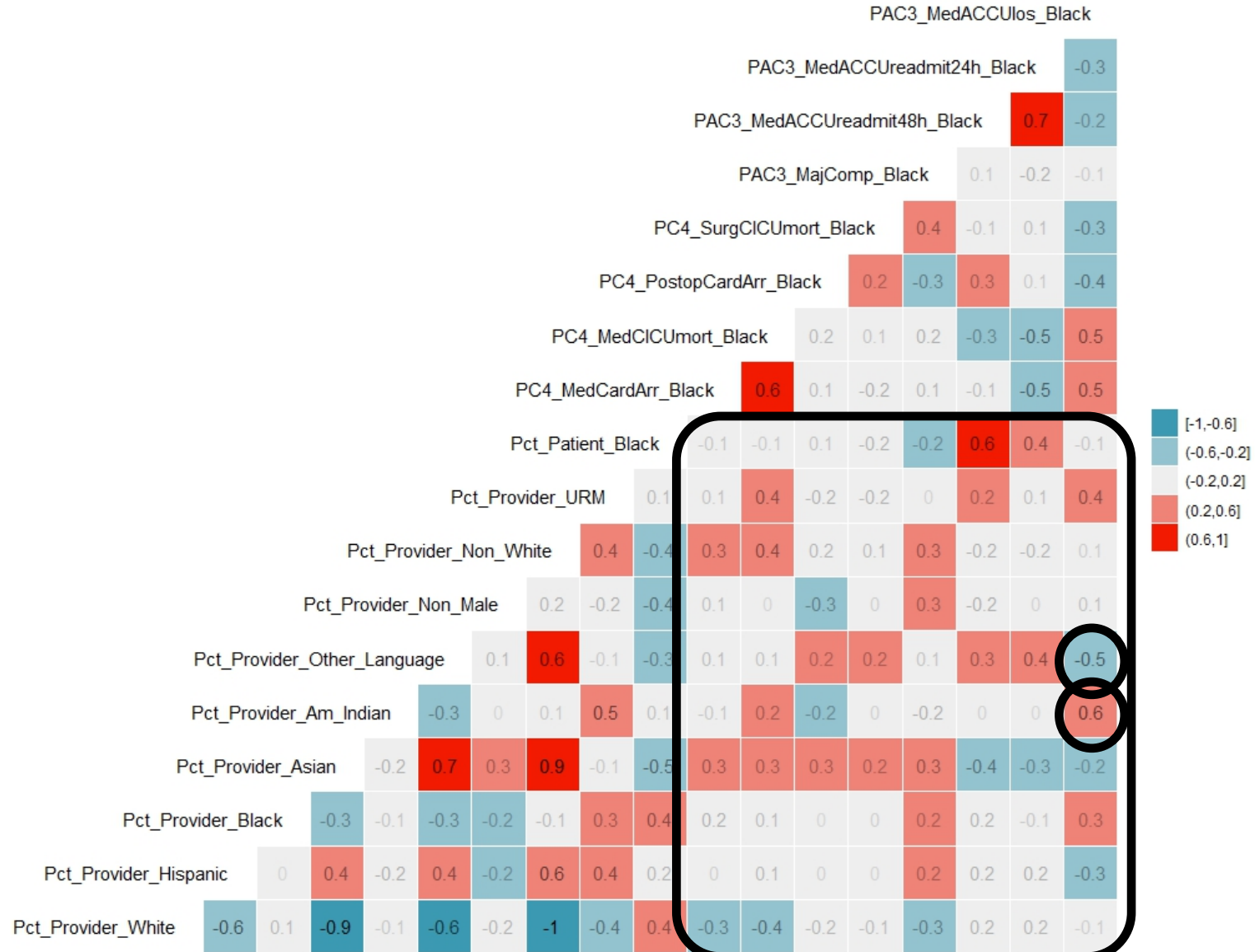
ACU

↑ Major Complications = ↓ Percent Black Patients

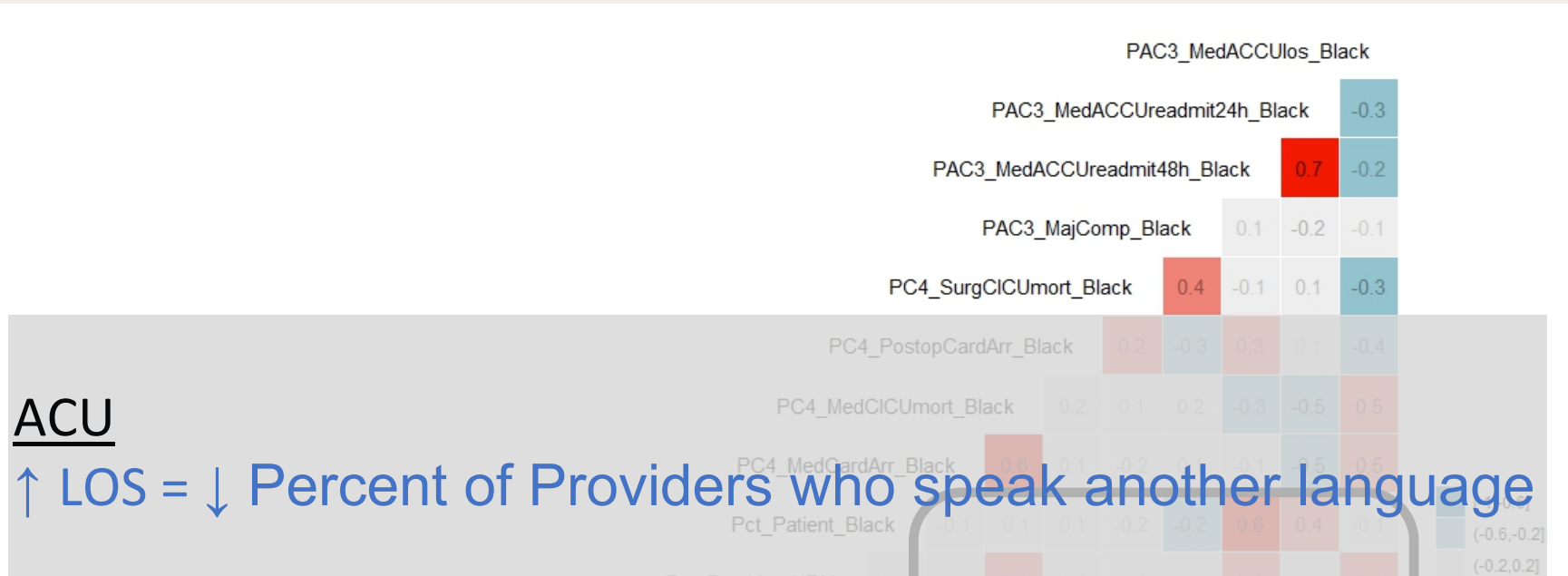
↑ LOS = ↑ Provider Diversity Ratings



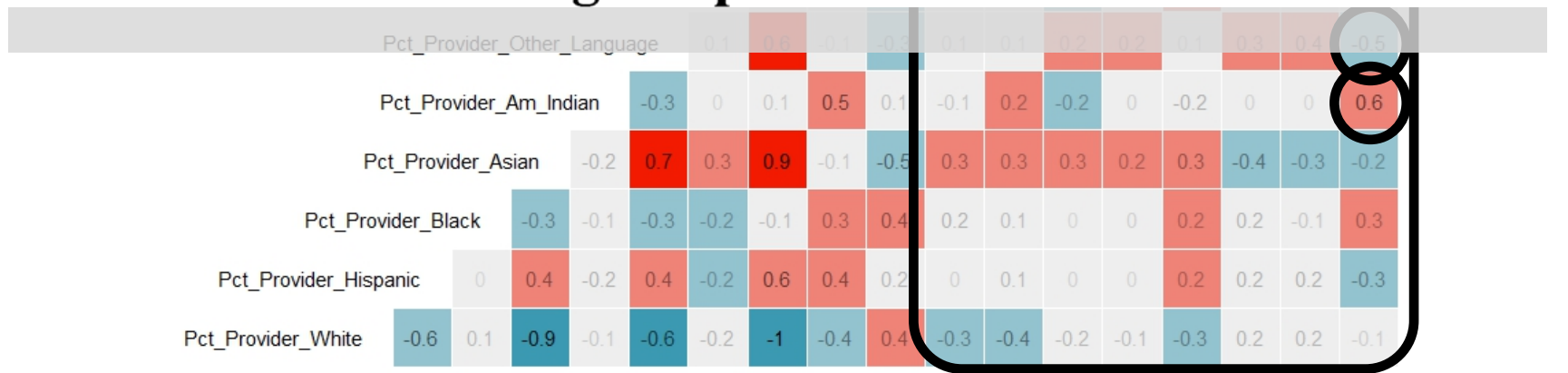
Outcomes for Black Patients



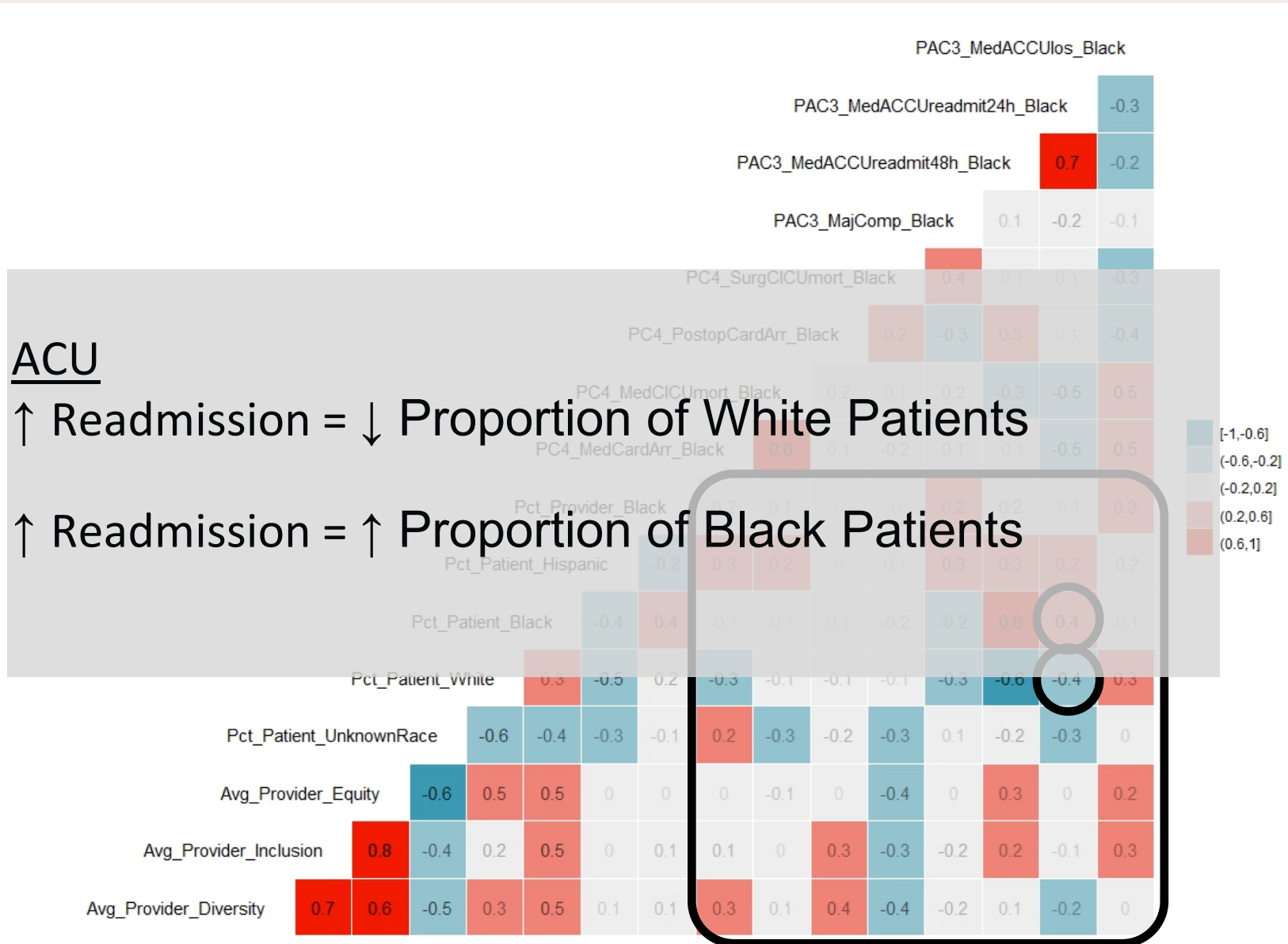
Outcomes for Black Patients



Association Between Language, Serious Adverse Events, and Length of Stay Among Hospitalized Children



Outcomes for Black Patients



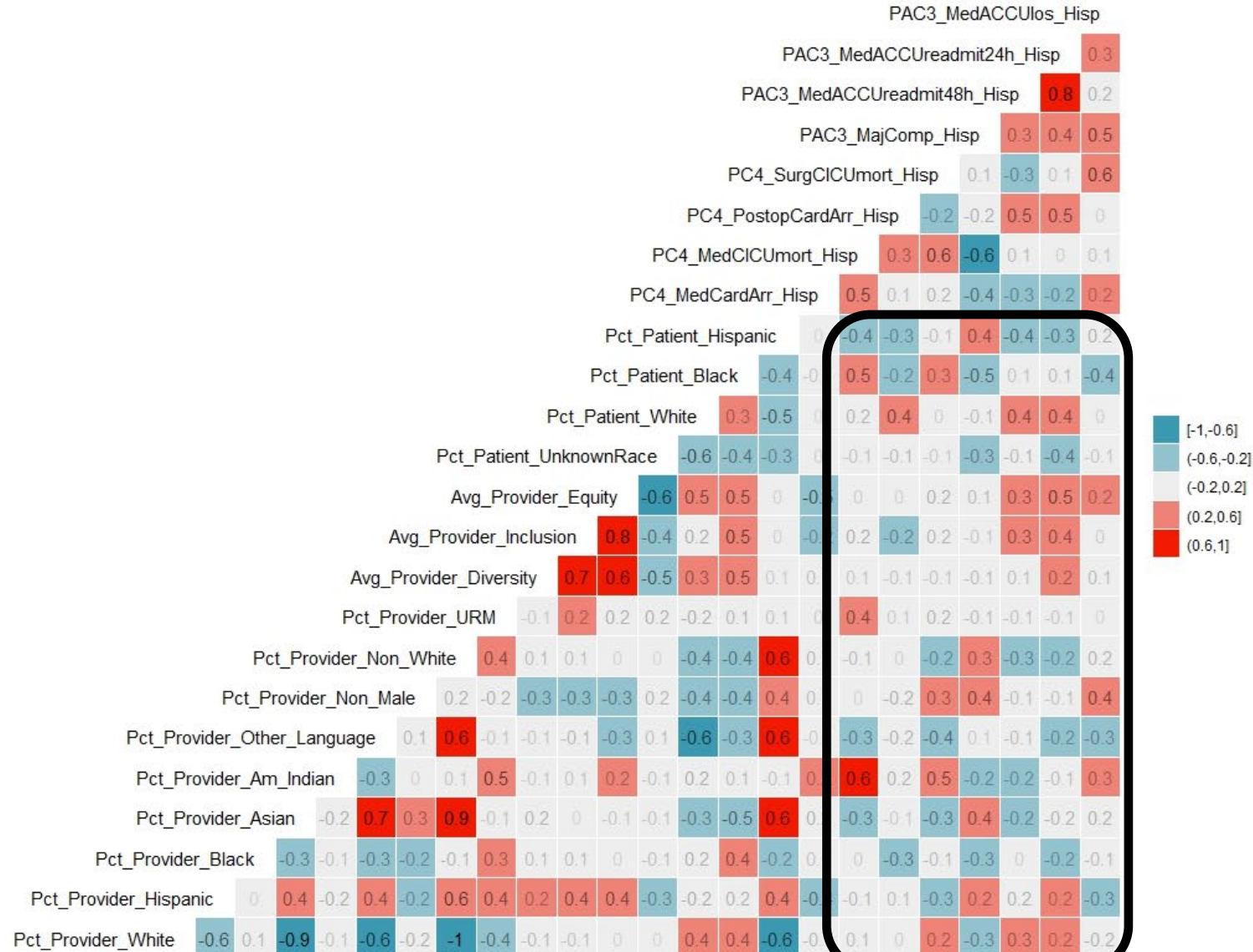
Outcomes for Black Patients

ACU

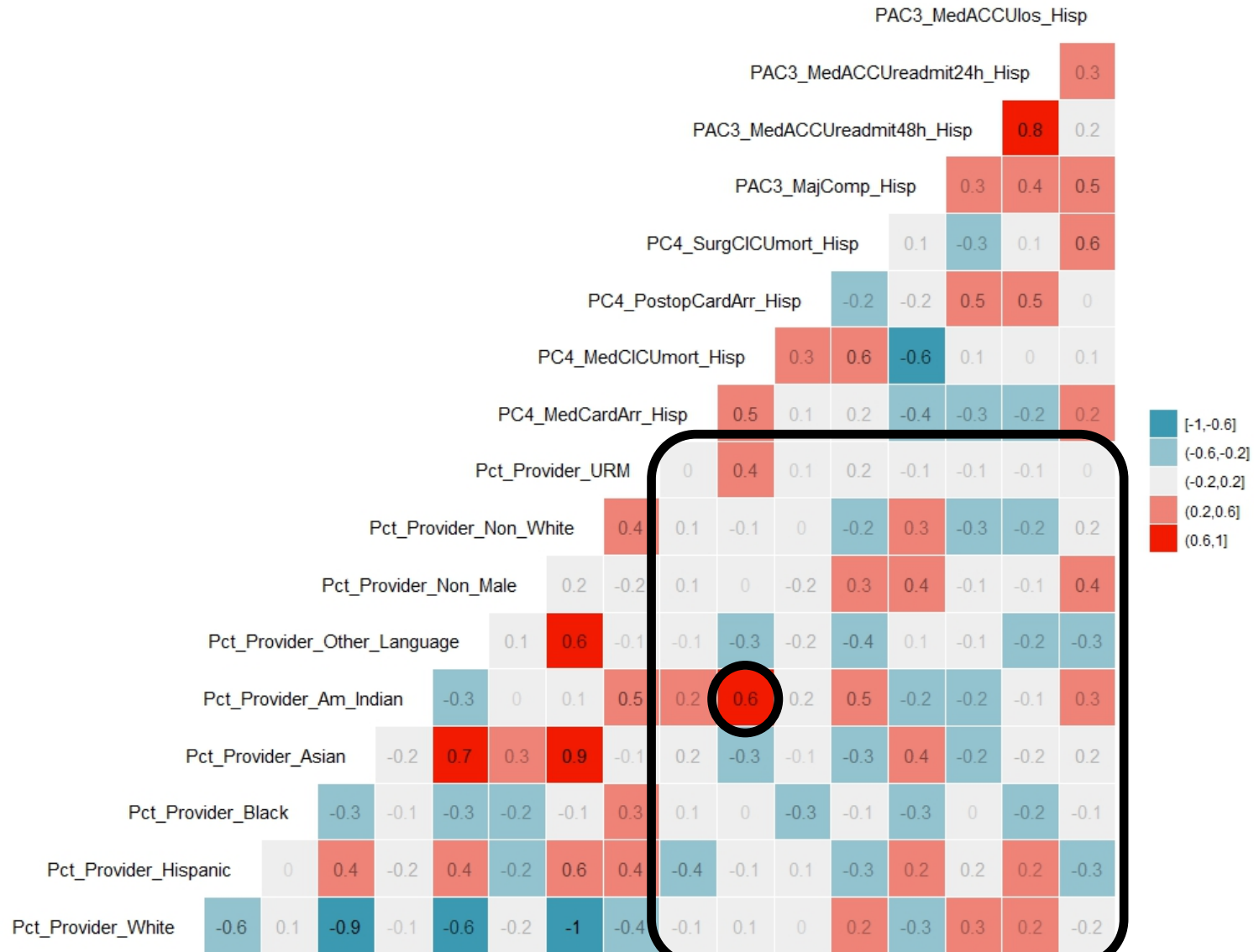
Racial and Ethnic Differences in Pediatric Readmissions for Common Chronic Conditions



Outcomes for Hispanic Patients



Outcomes for Hispanic Patients



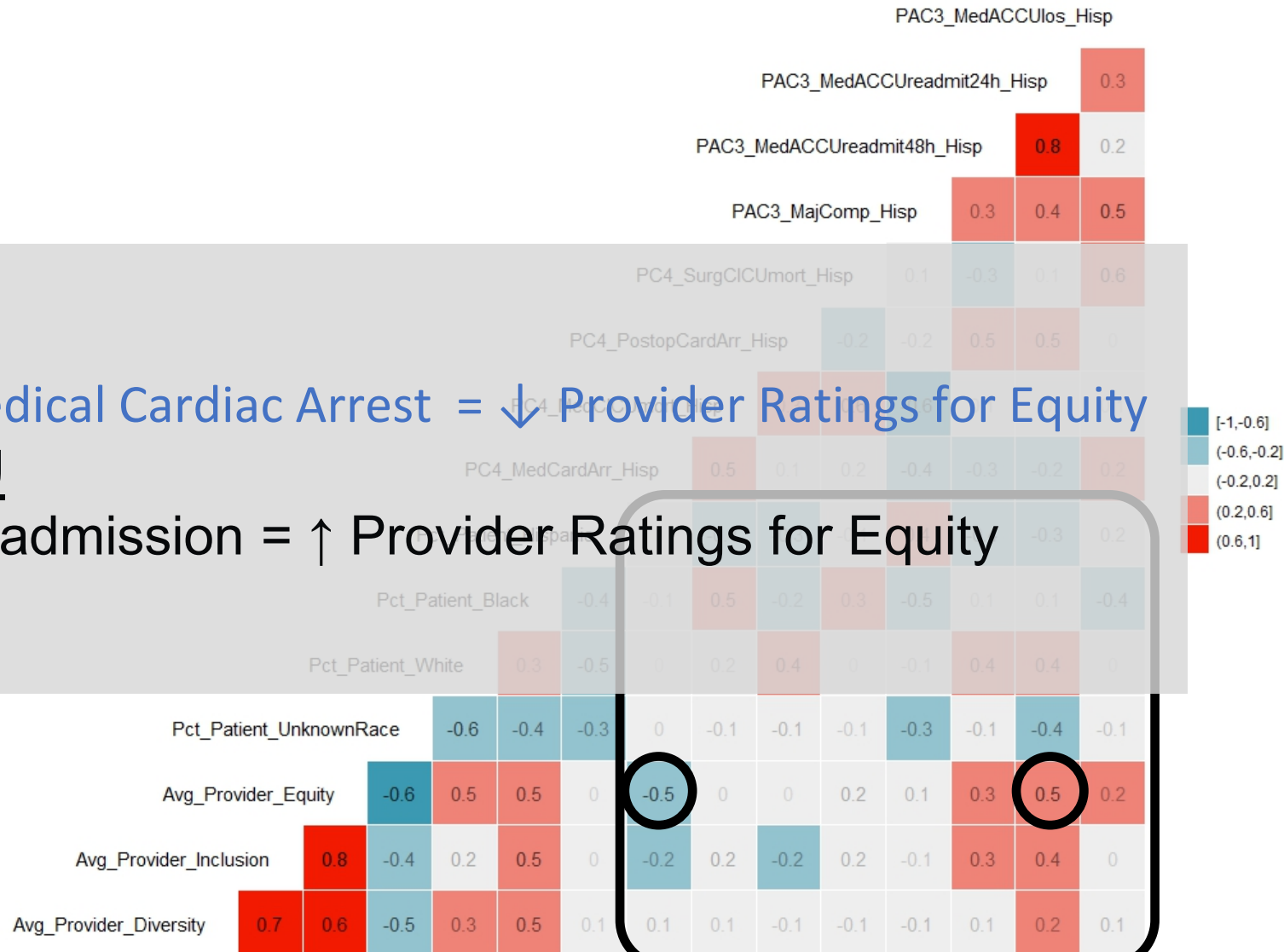
Outcomes for Hispanic Patients

ICU

↑ Medical Cardiac Arrest = ↓ Provider Ratings for Equity

ACU

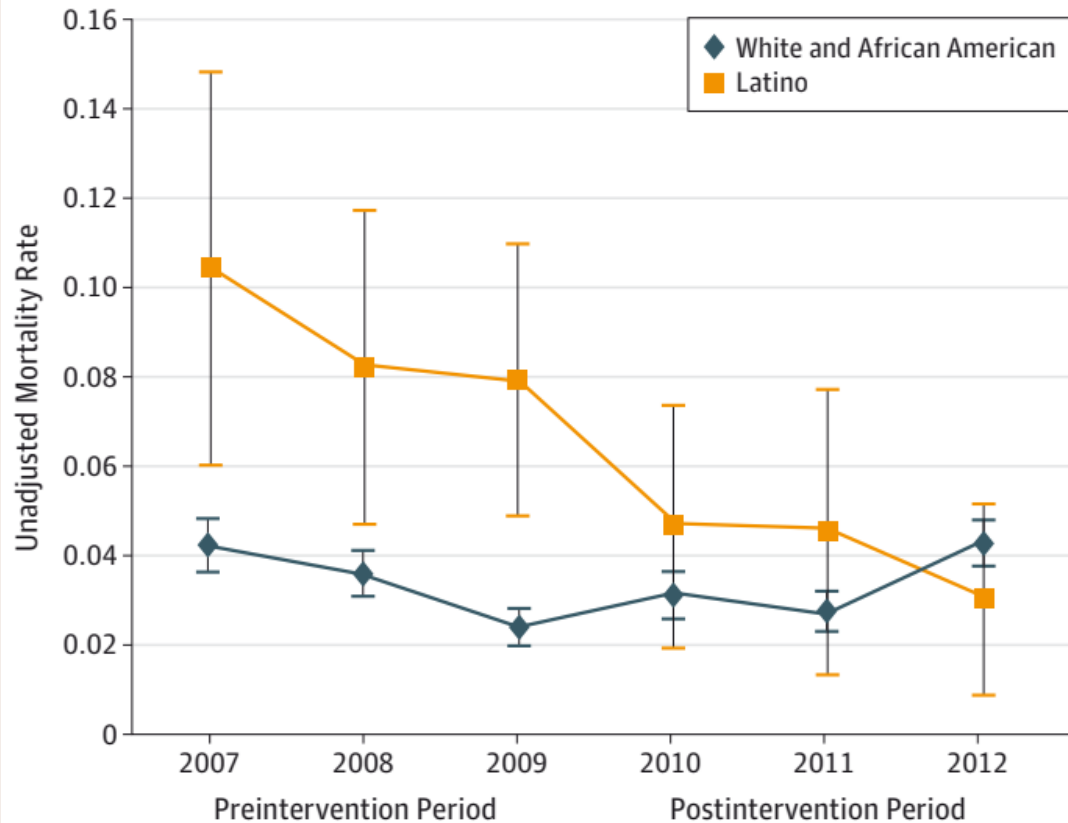
↑ Readmission = ↑ Provider Ratings for Equity



Pediatric Intensive Care Unit Mortality Among Latino Children Before and After a Multilevel Health Care Delivery Intervention

Kanwaljeet J. S. Anand, MBBS, DPhil; Robert J. Sepanski, MS; Kimberley Giles, MBA, MSHA; Samir H. Shah, MD, MBA, FRCPC; Paul D. Juarez, PhD

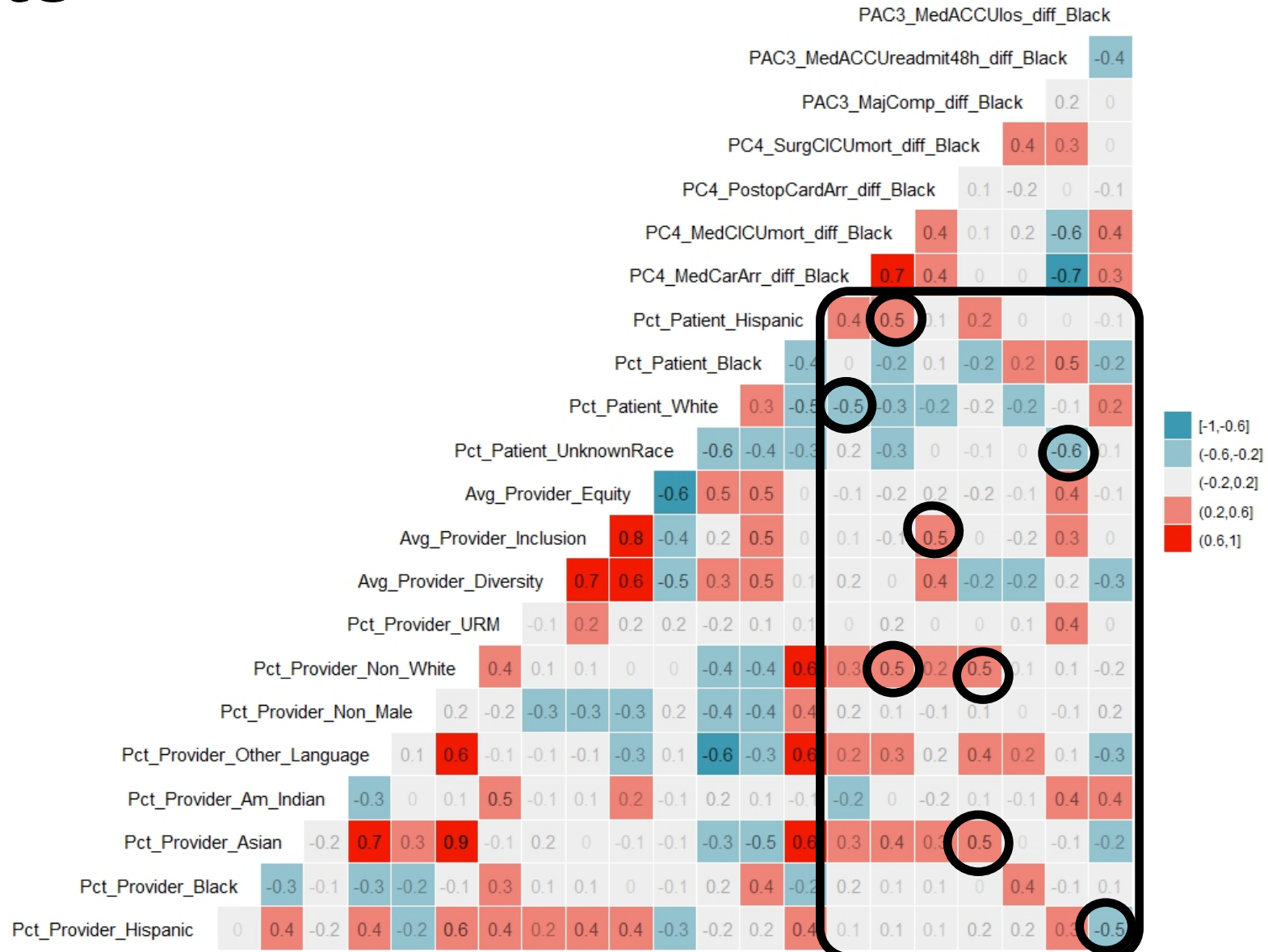
Figure. Unadjusted Mortality Rates and Asymptotic Standard Errors by Race/Ethnicity Over Time



Interventions:

- Education of health care professionals regarding culturally competent care
- Recruitment efforts to increase bilingual staff
- Availability of 24 hour interpreter services in ED & PICU
- Translation of consent forms & educational materials
- Culturally sensitive end of life care discussions
- Outreach efforts to remove barriers to health care access
- Increased preventive services

Outcomes for Black Patients vs White Patients



Outcomes for Black Patients vs White Patients

ICU

↑ Med Cardiac Arrests = ↓ Percent White Patients

↑ Medical Mortality = ↑ Percent Hispanic Patients & ↑ Percent Nonwhite Providers

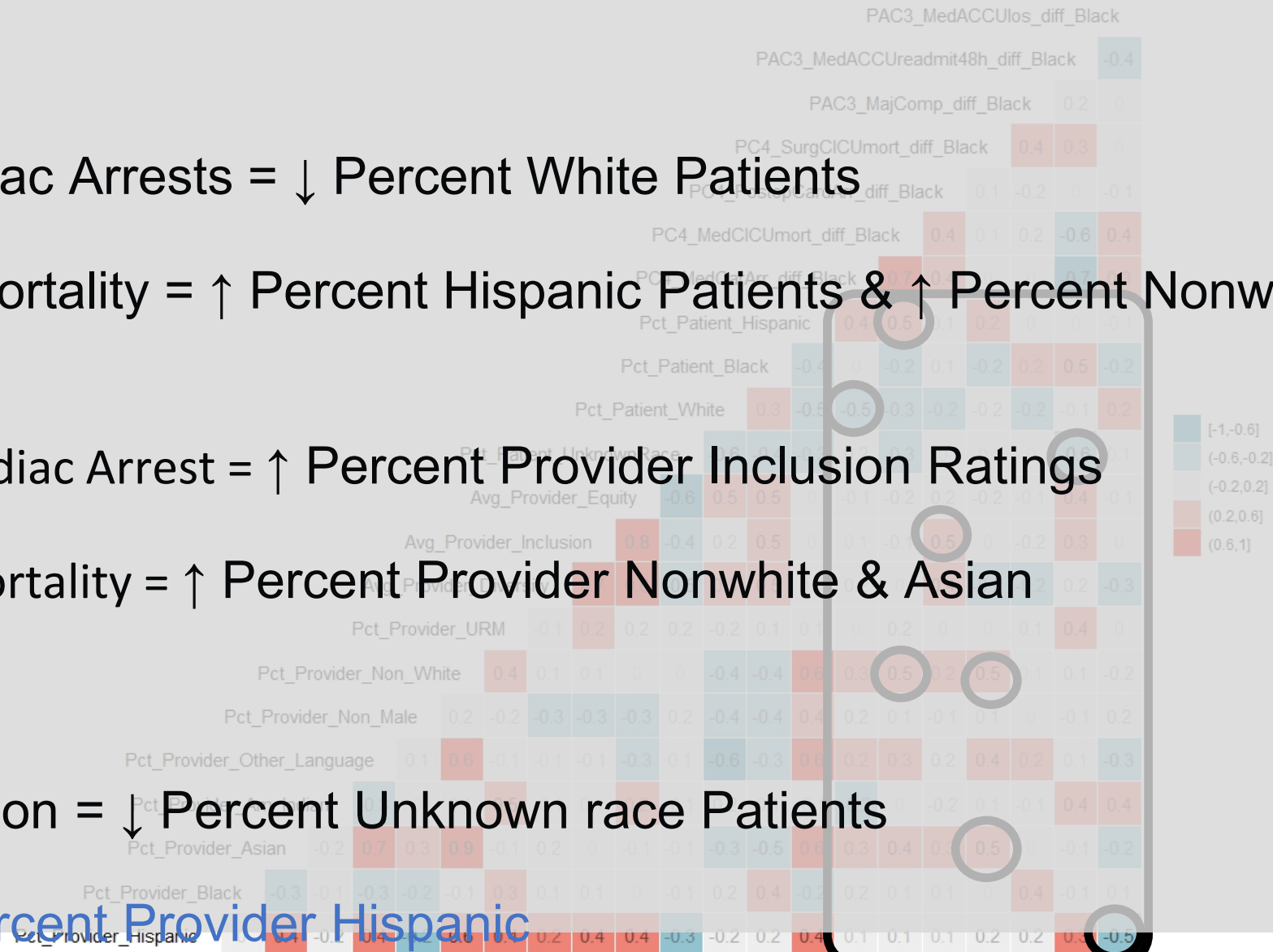
↑ Postop Cardiac Arrest = ↑ Percent Provider Inclusion Ratings

↑ Surgical Mortality = ↑ Percent Provider Nonwhite & Asian

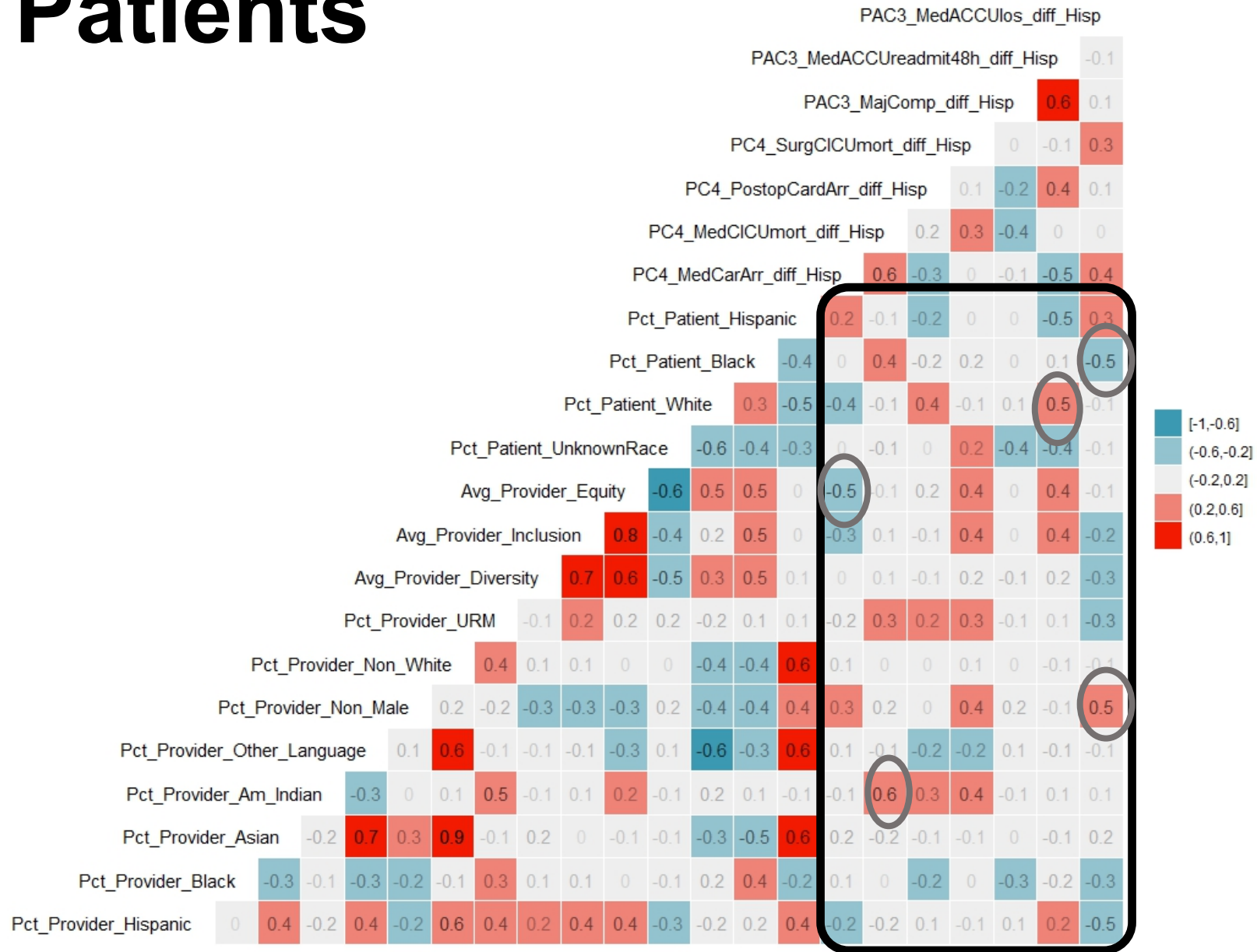
ACU

↑ Readmission = ↓ Percent Unknown race Patients

↑ LOS = ↓ Percent Provider Hispanic



Outcomes for Hispanic Patients vs White Patients



Outcomes for Hispanic Patients vs White Patients

ICU

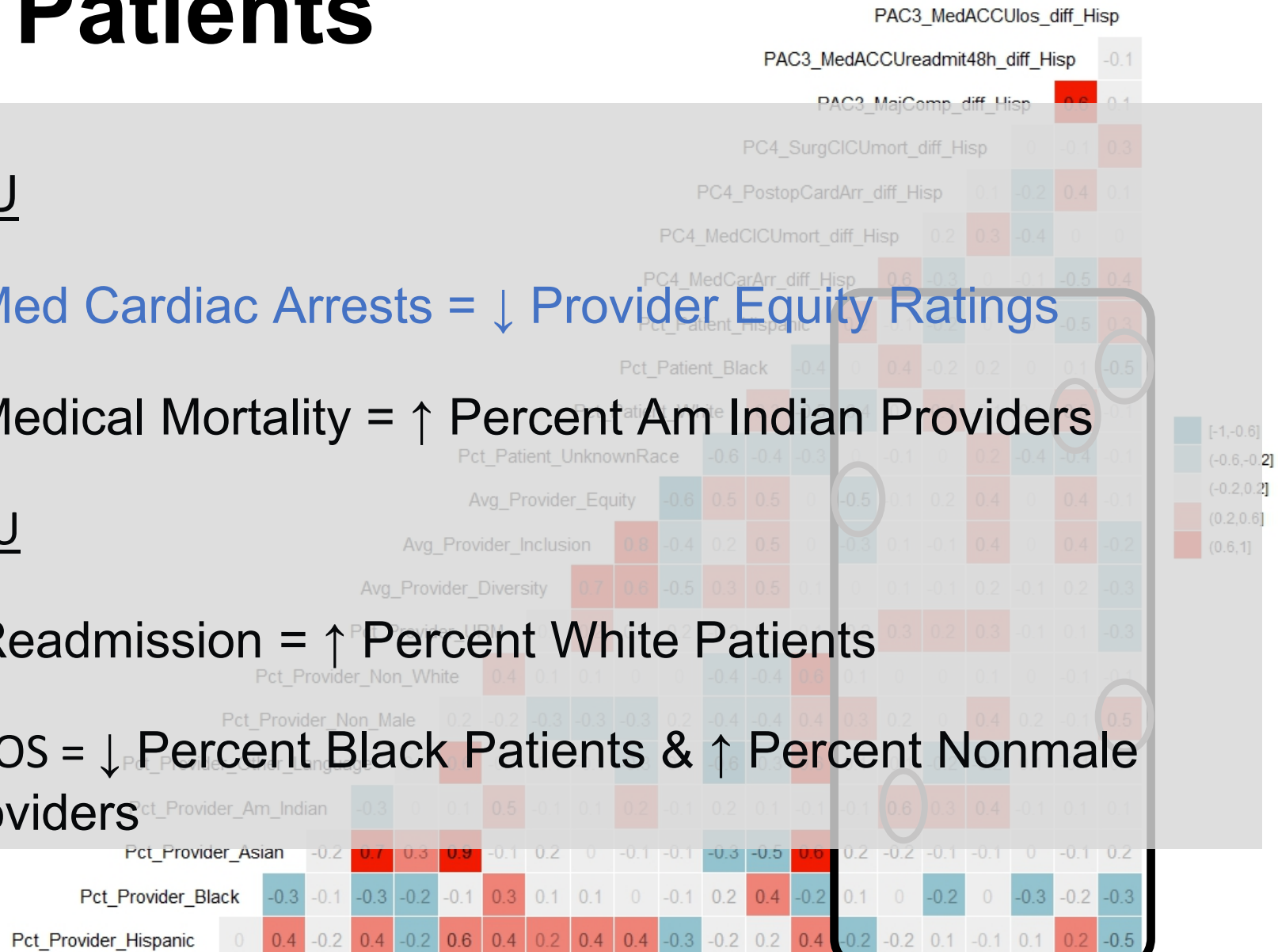
↑ Med Cardiac Arrests = ↓ Provider Equity Ratings

↑ Medical Mortality = ↑ Percent Am Indian Providers

ACU

↑ Readmission = ↑ Percent White Patients

↑ LOS = ↓ Percent Black Patients & ↑ Percent Nonmale providers



Limitations

- Small number of centers (24) that had more than 8 total respondents
- Correlation \neq Causation
- Univariate analysis
 - Many of these factors are inter-related
- P-value testing means that every 20th p-value can be significant by chance

Lessons Learned

- Tracking and increasing individual center participation is super important!
- If someone asks you to make a presentation about data you've collected, always look at the data before saying "Yes".

Conclusion

- While there is diversity among the PC4/PAC3 workforce, we still do not fully represent our patient population
- While we did have a great response to the Diversity survey, we suspect that we have not fully captured the entirety of our workforce at each center
- Not yet sure that we can say that increasing diversity in our workforce is associated with improved outcomes

References

- Greenwood BN, Hardeman RR, Huang L, Sojourner A. Physician-patient racial concordance and disparities in birthing mortality for newborns. *Proc Natl Acad Sci U S A*. 2020 Sep 1;117(35):21194-21200. doi: 10.1073/pnas.1913405117. Epub 2020 Aug 17. PMID: 32817561; PMCID: PMC7474610.
- Huckaby LV, Hardy WA, Walkowiak OA, Gregoski M, Mokashi S, Kilic A, Greenwood B, Rajab TK. Recipient-surgeon racial concordance in orthotopic heart transplantation outcomes. *J Card Surg*. 2022 Aug;37(8):2247-2257. doi: 10.1111/jocs.16573. Epub 2022 May 8. PMID: 35526128.
- Jetty A, Jabbarpour Y, Pollack J, Huerto R, Woo S, Petterson S. Patient-Physician Racial Concordance Associated with Improved Healthcare Use and Lower Healthcare Expenditures in Minority Populations. *J Racial Ethn Health Disparities*. 2022 Feb;9(1):68-81. doi: 10.1007/s40615-020-00930-4. Epub 2021 Jan 5. Erratum in: *J Racial Ethn Health Disparities*. 2021 Feb 24;: PMID: 33403653.