

# Analyzing the Impact of Sleep and Distress on Preventable Hospitalizations Across Racial Groups

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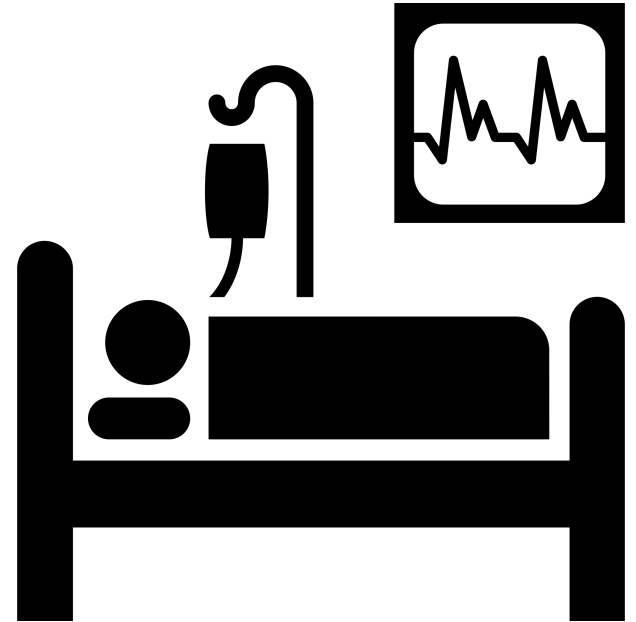
TA Advisor: Beomjo Park

July 28, 2023

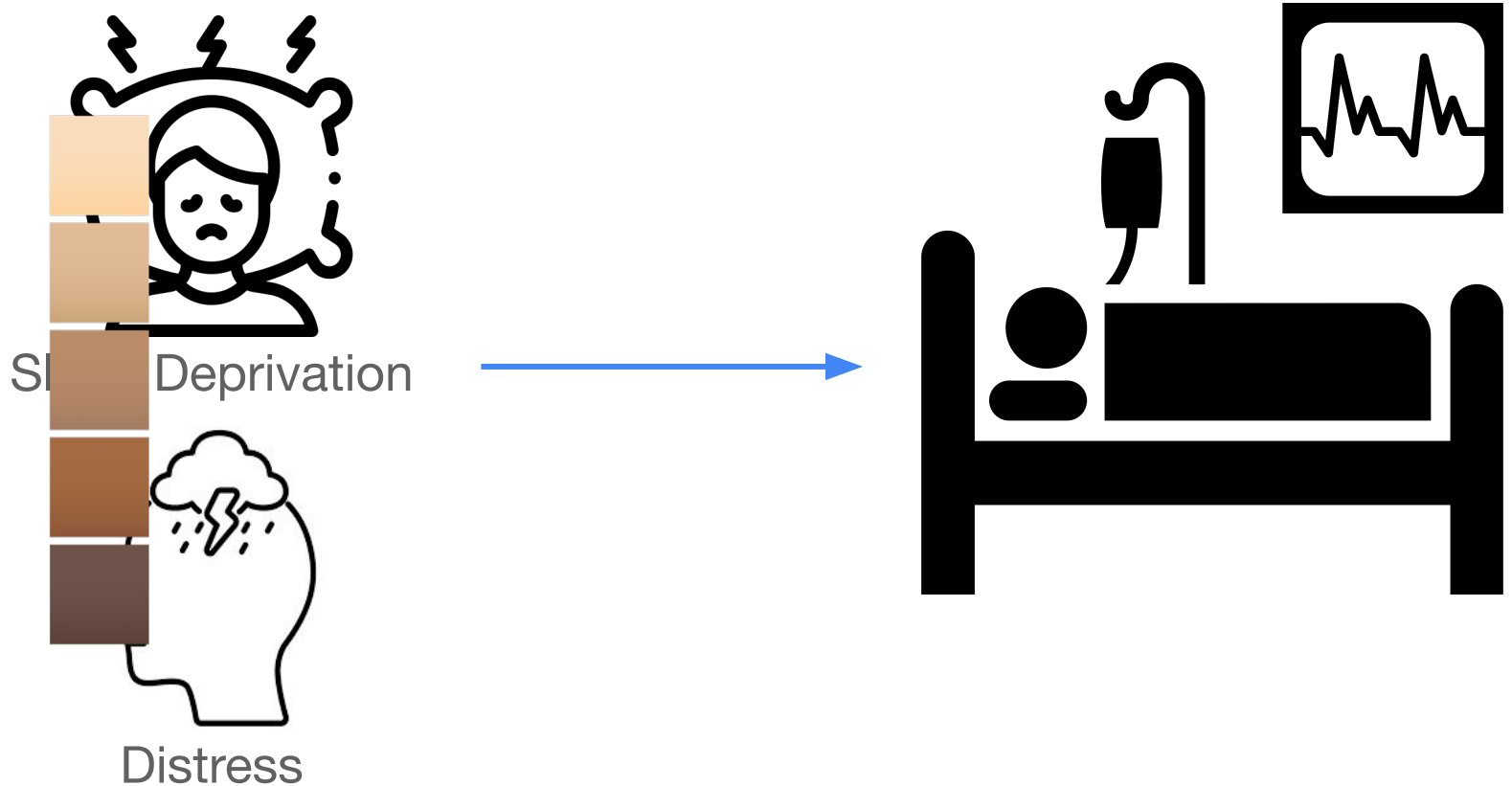


# Preventable Hospital Stays

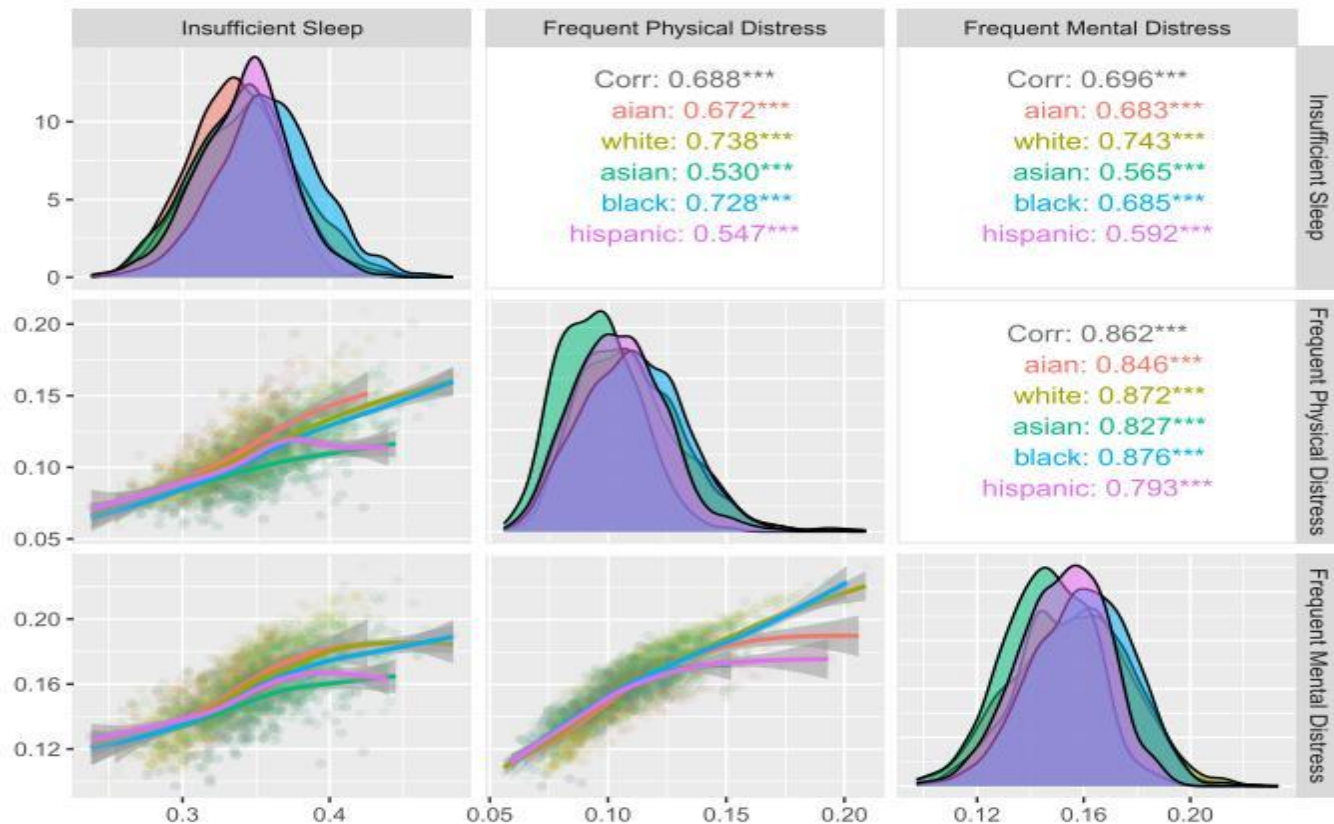
Hospitalizations due to  
Ambulatory-care-sensitive conditions



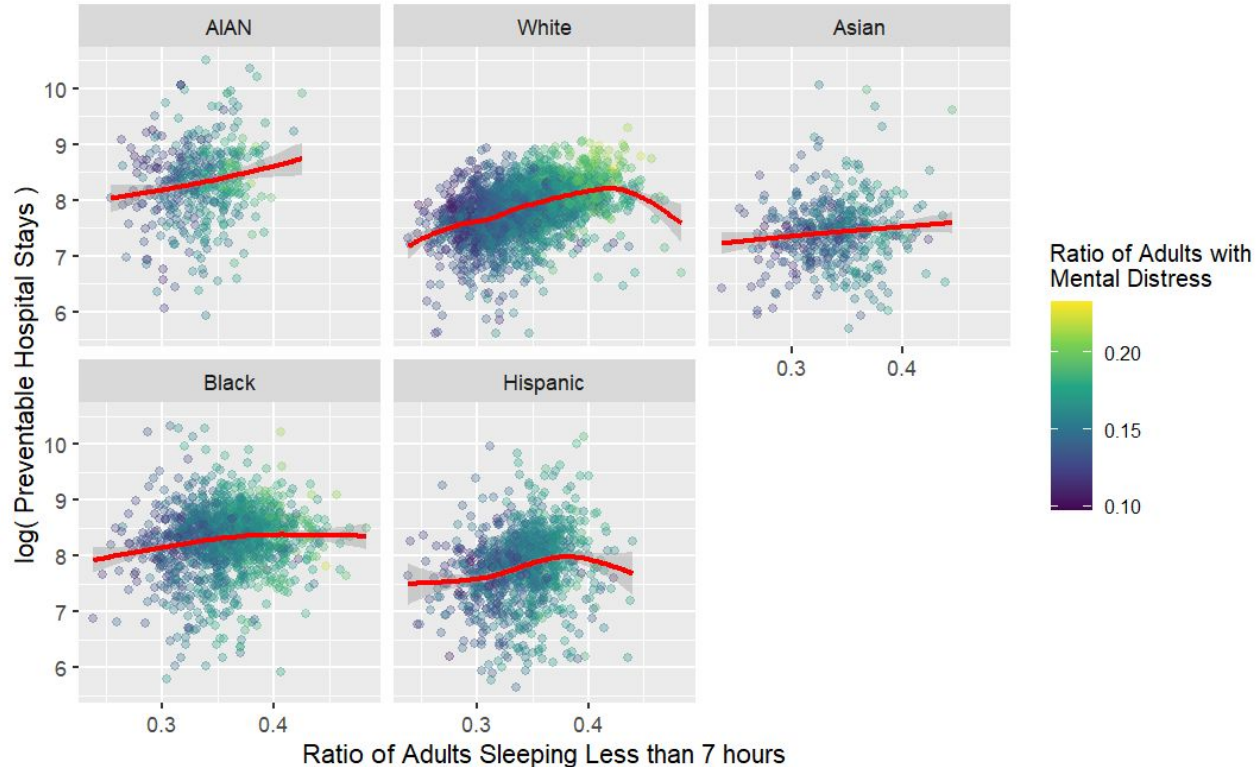
# Behavioral Factors affects Preventable Hospital Stays

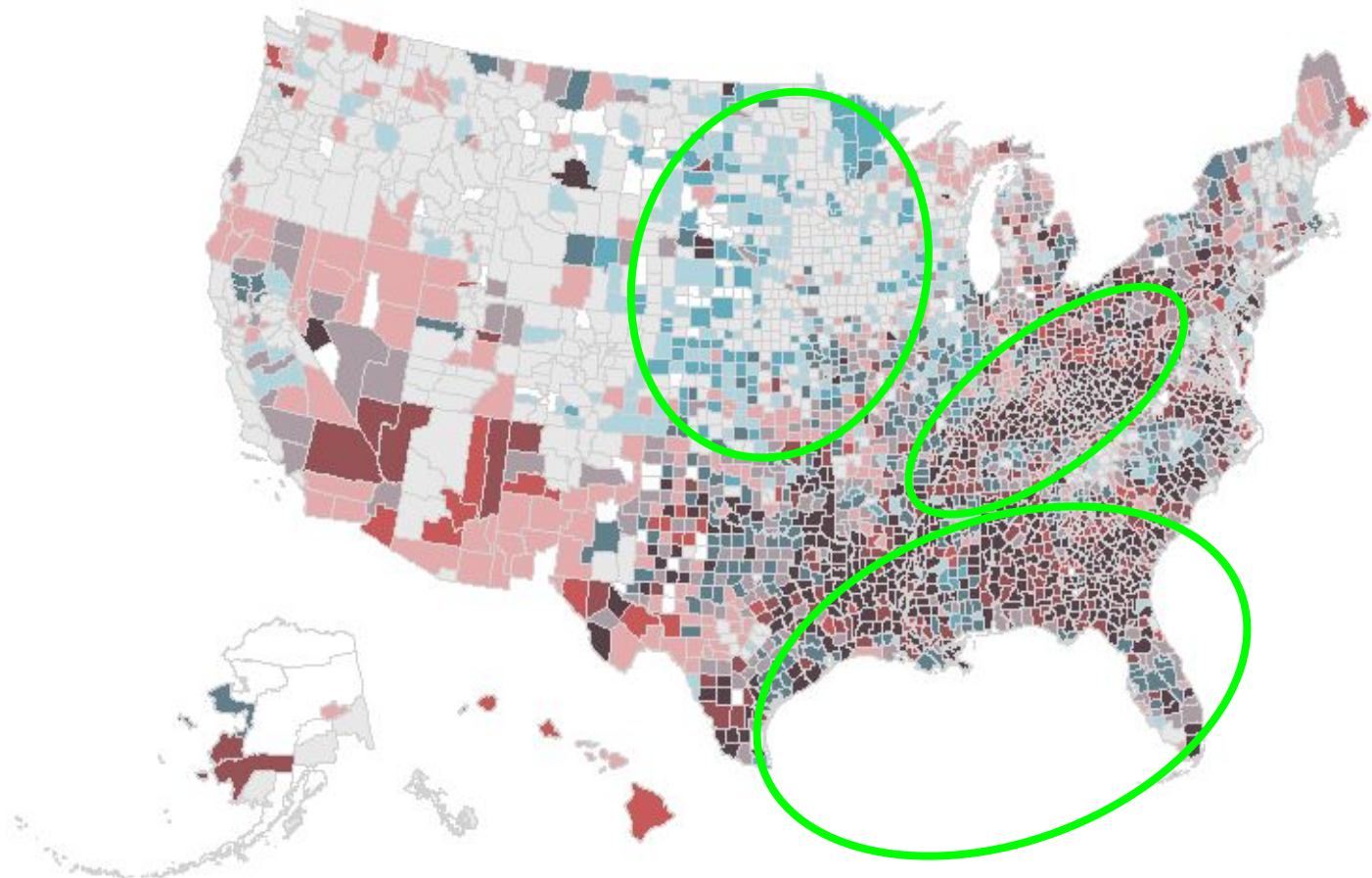


# Sleep deprivation, physical and mental distress are positively correlated pairwise across all racial groups.

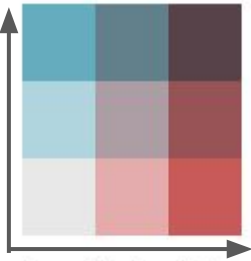


# Higher Preventable Hospital Stays correlates with Insufficient sleep with varying racial impacts.



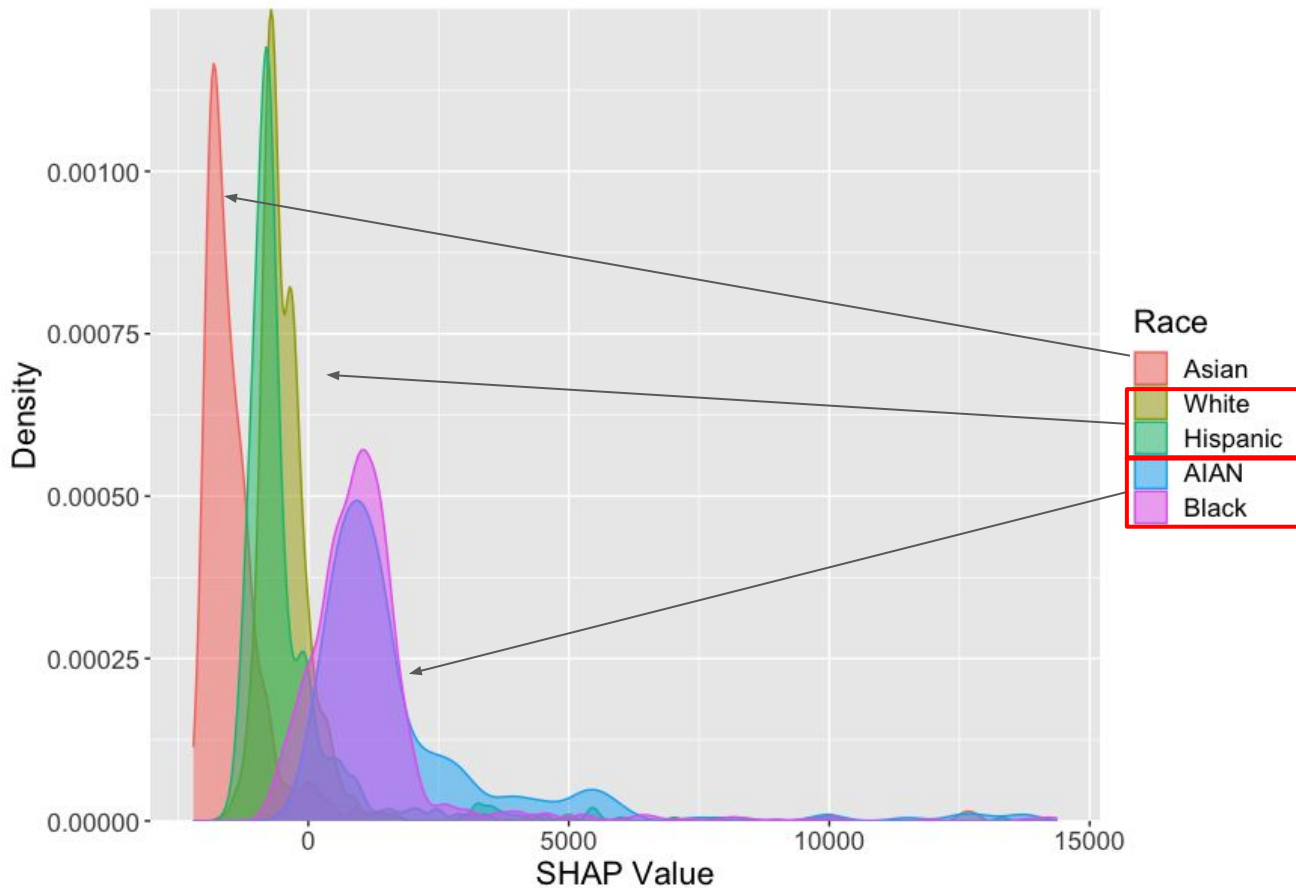


Preventable Hospital Stays □

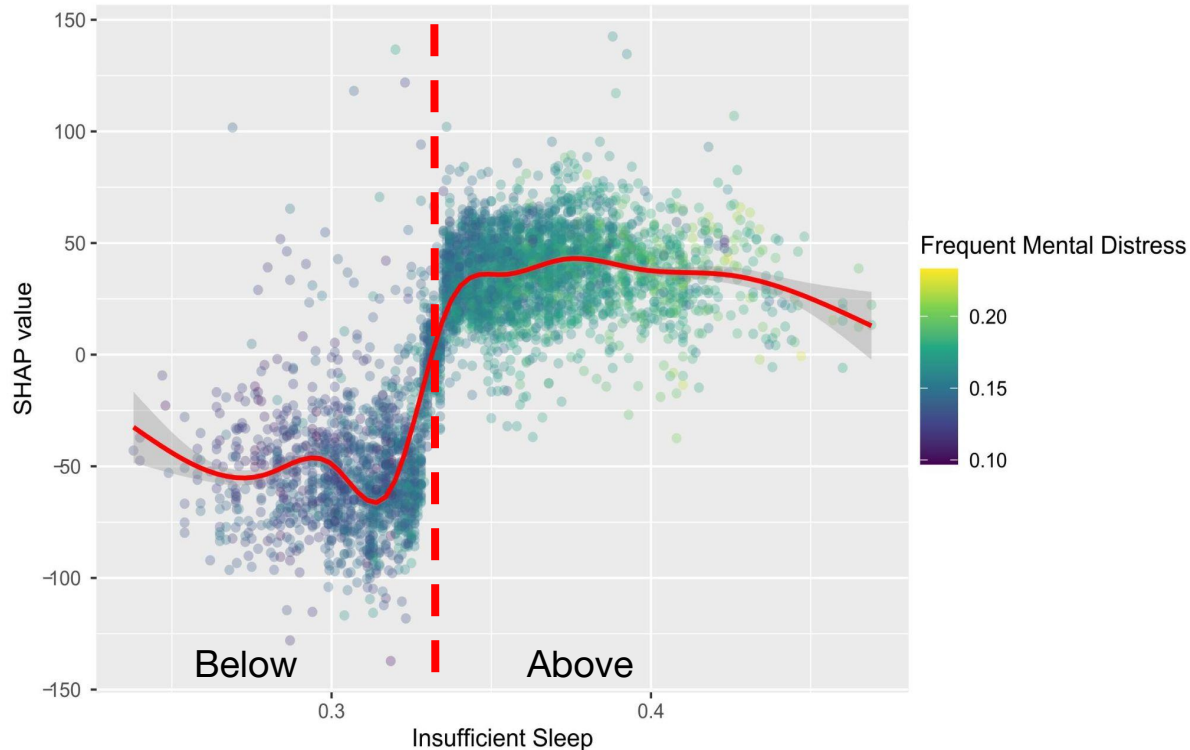


Insufficient Sleep

# Three racial clusters vary in predicting Preventable Hospital Stays



# Predicted Preventable Hospital Stays are significantly higher in heavily sleep-deprived counties





# References

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- Grandner, M. A., Smith, T. E., Jackson, N., Jackson, T., Burgard, S., & Branas, C. (2015). Geographic distribution of insufficient sleep across the United States: a county-level hotspot analysis. *Sleep health*, 1(3), 158–165. <https://doi.org/10.1016/j.sleh.2015.06.003>
- Wesselius, H. M., van den Ende, E. S., Alisma, J., Ter Maaten, J. C., Schuit, S. C. E., Stassen, P. M., ... “Onderzoeks Consortium Acute Geneeskunde” Acute Medicine Research Consortium. (2018). Quality and quantity of sleep and factors associated with sleep disturbance in hospitalized patients. *JAMA Intern Med.* 178 (9): 1201-1208