

Appendix

Sources:

1. Blackwelder, Amanda, et al. "Effect of Inadequate Sleep on Frequent Mental Distress." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 8 July 2021, www.cdc.gov/pcd/issues/2021/20_0573.htm.
2. Cervantes, Sammy, and Jennifer Tolbert. "Key Facts about the Uninsured Population." *KFF*, 18 Dec. 2024, www.kff.org/uninsured/issue-brief/key-facts-about-the-uninsured-population/.
3. Geist, Katherine. "calcSplitRatio-3.R." Dr. Katherine Geist.
4. "Mental Illness." *National Institute of Mental Health*, U.S. Department of Health and Human Services, 24 Sept. 2024, www.nimh.nih.gov/health/statistics/mental-illness.
5. "Products - Data Briefs - Number 154 - June 2014." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 6 Nov. 2015, www.cdc.gov/nchs/products/databriefs/db154.htm.
6. 2023 BRFSS Survey Data and Documentation - [CDC - 2023 BRFSS Survey Data and Documentation](#)
7. Xu, Huan, et al. "Robustness and Regularization of Support Vector Machines." *Journal of Machine Learning Research* 10, 9 July 2009, www.jmlr.org/papers/volume10/xu09b/xu09b.pdf.

Data Dictionary:

Variable Name	Label	Role
ment14d	Number of days respondent reported poor mental health in last 30 days	Target
hlthpl1	Do you have any kind of health care coverage?	Access to Care
persdoc3	Do you have one person you think of as your personal doctor or health care provider?	Access to Care
medcost1	Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?	Access to Care
checkup1	About how long has it been since you last visited a doctor for a routine checkup?	Access to Care
primins1	What is the current source of your primary health insurance?	Access to Care
addepev3	Ever told you had a depressive disorder?	Mental Health
acedeprs	ACE: Did you live with anyone who was depressed, mentally ill, or suicidal?	ACE Mental Health
decide	Do you have serious difficulty concentrating, remembering, or making decisions?	Mental Health / Cognitive
exerany2	During the past month, did you participate in any physical activities?	Behavioral

pa150r4	Adults who engage in 150+ minutes of physical activity per week	Behavioral
sex	Respondent sex	Demographic
age80	Age capped at 80+	Demographic
race	Race category	Demographic
educa	Education level	Demographic
employ1	Employment status	Demographic
marital	Marital status	Demographic
incomg1	Total income	Demographic
numadult	Number of adults in household	Demographic
state	State of residence	Demographic

Results (Tables, Visualizations, and Brief Interpretations)

Within our EDA analysis, we incorporated a number of visualizations to explore and identify patterns in the data. Below, these visualizations and interpretations are explained in greater detail.

Characteristic	N = 433,323¹
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ment14d	4 (8)
hlthpl1	391,946 (95%)
medcost1	37,198 (8.6%)
persdoc3	234,388 (62%)
exerany2	325,227 (75%)
IMPUTED AGE VALUE COLLAPSED ABOVE 80	55 (18)
sex	
Male	203,800 (47%)
Female	229,523 (53%)
race	
White only	313,067 (85%)
Black only	32,919 (8.9%)
American Indian/Alaska Native	6,795 (1.8%)
Asian only	12,105 (3.3%)
Other single race	2,097 (0.6%)
Multiracial	3,359 (0.9%)
incomg1	

Less than \$10k	19,187 (5.5%)
\$10k–\$15k	31,069 (9.0%)
\$15k–\$20k	38,508 (11%)
\$20k–\$25k	47,502 (14%)
\$25k–\$35k	107,027 (31%)
\$35k–\$50k	76,637 (22%)
\$50k–\$75k	26,770 (7.7%)
Over \$75k	0 (0%)
¹ Mean (SD); n (%)	