Team 1 - UMD

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Abstract:

We analyzed the behavior changes in the COVID-19 behavior changes dataset. This dataset has 564 observations with a plethora of different variables pertaining to one's behavior and regular activities before and after the start of the COVID-19 pandemic, as well as different demographic and socioeconomic variables. The data is from a nationwide survey conducted through April 10, 2020 to July 8, 2020 by a group of researchers from the University of Maryland, College Park. About one fourth of our observations were Maryland residents. Our analysis focuses on finding the correlation between physical activity before and after the start of COVID and how different demographics related to such correlations. We have been utilizing Python, R, and Excel in our analyses and visualization of the data. We specifically used Python and Excel to clean our data, and R to run statistical tests and create visualizations. We found an inverse correlation between age and physical activity before, whereas we found no correlation between age and physical activity after. Thus, it is safe to conclude that the COVID-19 pandemic is the confounding variable causing an overall behavior change pertaining to exercise and physical activity. This is also revealed when we compare physical activity and exercise before and after the start of COVID when looking at the different house sizes. 64% of our observations changed their physical activity and exercise levels after the start of the COVID-19 pandemic. Out of these 64%, about 36.35% decreased, 27.66% increased, and 35.99% did not change their exercise and physical activity behavior