BACKGROUND: With increasing COVID-19 vaccination rates, public spaces have become more accessible to fully vaccinated individuals, while some remain restricted for the unvaccinated. This may result in differences in 24-hour (24-h) activity behaviors. 24-h activity behaviors can be classified as the synthesis of three main behaviors: sedentary behavior (SB), physical activity (PA), and sleep. These activity behaviors are important indicators of chronic diseases such as cardiovascular disease and type 2 diabetes. The purpose of this proposed research study is to investigate the behavioral differences between fully vaccinated and unvaccinated populations over the 24-h day. METHODS: In Spring 2022, male and female adults (n=≥50 fully vaccinated, n=≥50 unvaccinated), age 18-35 years old who own and habitually wear their Apple watches (series 4, 5, or 6) will be recruited from the UNC Chapel Hill community. All participants will be asked to self-report demographic information (age, biological sex, race, and ethnicity), sleep, SB, and PA data for 5 days. Data will be collected over 5 days to model an average workweek. Rather than counting each day as a midnight-to-midnight period, each day will begin at the waking time and conclude after one period of nightly sleep. Individual days may not consist of 24 hours; however, data will be reported as a percentage of time, so any discrepancies in the total time of each day will be accounted for. To be included in the data, each day must have 20-28 hours of data. All data will be obtained through an online survey. A young and healthy sample was chosen to limit the potential age-related differences in health status and behavioral patterns. Sleep, SB, and PA percentages will be averaged for each individual, and the mean percentages of all participants within both groups will be reported and compared using independent samples t-tests. ANTICIPATED RESULTS: We hypothesize that individuals that are fully vaccinated will report higher rates of physical activity, lower rates of sedentary behavior and more sleep across the 5 days as compared with unvaccinated individuals.