**Smoking Habits in Youth**

**Anjana Dehli, Becky Ruth, Fred Salzmann**

**Introduction**

According to the CDC, each day in the US, approximately 1600 adolescents smoke their first cigarette[1](https://www.zotero.org/google-docs/?xeZnYm). Using a survey from the CDC, we created a dataset to answer questions about the relationship between smoking and adolescents[2](https://www.zotero.org/google-docs/?u76MJY). The three questions we focused on are: “What race is more likely to start smoking?”, “What age do teenagers start smoking?”, and “What type of marketing media is most effective?”. We answered these questions by re-coding the survey answers and analyzing the data.

**What race is more likely to start smoking?**

To answer this question, we first broke down our original dataframe into four smaller dataframes, smokers (cigarette smokers), Non\_smokers (cigarette nonsmokers), vap (vape smokers), Non\_vap (vape nonsmokers). Then we graphed the data in the race column using the value counts function. The smokers, Non\_smokers and vap all similarly resulted with white as the most percentage, black in the middle, and other being the least. Whereas, Non\_vap resulted with white as the most, other in the middle, and black with the least.

**What age do teenagers start smoking?**

Next, we used the same dataframes to find what age teenagers first tried smoking. We used bar graphs to best represent the results. We found that the mean age of first trying cigarettes is 11 and the mean age of first trying vaping is 13, while conducting a t-test.

**What type of marketing media is most effective?**

Lastly, we used the data frames to determine which ads are the most viewed. Each data frame has a separate column for internet, print, store, and stream ads. We created charts to see how often each ad was viewed by cigarette and vape smokers. We also created a column that indicates whether or not each cigarette or vape smoker had seen all of the ads. From the newly created column, we determined which ad was the most viewed by the smokers. The most effective advertisement for both cigarettes and vapes were in-store ads.

**Conclusion**

In conclusion, teens are more likely to try cigarettes before they try vapes even though there are more teens who smoke vapes compared to cigarettes. When looking at demographics white has the highest percentage of all smokers and nonsmokers. Lastly, store ads are the most effective way to promote smoking.

**References:**

[1. CDCTobaccoFree. About the Office on Smoking and Health. Centers for Disease Control and Prevention. Published February 11, 2020. Accessed September 22, 2020. https://www.cdc.gov/tobacco/about/osh/index.htm](https://www.zotero.org/google-docs/?1lYe7y)

[2. Historical NYTS Data and Documentation | CDC. Published December 17, 2019. Accessed September 22, 2020. https://www.cdc.gov/tobacco/data\_statistics/surveys/nyts/data/index.html](https://www.zotero.org/google-docs/?1lYe7y)