

NYU

Analytics and Visualization in Healthcare

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Final Project (PART 1)

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Relationship between smoking and alcohol habits

Why did we choose this topic?

According to the National Health and Nutrition Examination Survey, there is a positive association between current smoking status and alcoholic drinking per day. Also, smoking and alcohol are very harmful for health. Occasional drinking is not that bad for general well being but chronic drinking is. Also, smoking can cause severe health issues. Also it is usually advised for pregnant women to avoid smoking and drinking. Therefore, if we are able to find some correlation between drinking and smoking habits, it would be very helpful for spreading important information and general awareness.

Brief background explanation about this topic

Smoking tobacco/cigarettes and the chronic use of alcohol are one of the major risk factors affecting health in the United States[1][2]. Smoking has a direct impact on chronic drinking. Alcohol and smoking roughly cause 3 million deaths in the United States annually, which includes 0.7 million deaths of women and 2.3 million deaths of men.[4]

The dataset:

To examine the relationship between smoking and alcohol consumption, a sample of data was collected from the National Health and Nutrition Examination Survey (NHANES). The surveys were conducted for around 6000 patients in 3 age groups (18-34, 35-49, 50-65). The questionnaire used to conduct the survey was Computer Assisted Personal Interview (CAPI).

Dataset1: **Alcohol use** https://wwwn.cdc.gov/Nchs/Nhanes/2015-2016/ALQ_I.htm 5735 rows,
10 Columns

Dataset2: **Smoking: Cigarette use** https://wwwn.cdc.gov/Nchs/Nhanes/2015-2016/SMQ_I.htm
7001 rows × 42 columns

Dataset3 Smoking - Household Smokers:

https://wwwn.cdc.gov/Nchs/Nhanes/2015-2016/SMQFAM_I.htm 9971 rows × 4 columns

References:

1. Richard A. Grucza, Ph.D., M.P.E and Laura J. Bierut, m.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2431150/#:~:text=As%20expected%2C%20smoking%20status%20was,0.6%25%20among%20never%2Dsmokers.>
2. Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. JAMA. 2004;291(10):1238–1245.
<https://u.demog.berkeley.edu/~jrw/Biblio/Eprints/%20M-O/mokdad.etal.2004.pdf>
3. Centers for Disease Control and Prevention. National Health and Nutrition Examination Survey.
<https://wwwn.cdc.gov/nchs/nhanes/continuousnhanes/default.aspx?BeginYear=2019>
4. Centers for Disease Control and Prevention. QuickStats: Number of Deaths from 10 Leading Causes—National Vital Statistics System, United States, 2010. Morbidity and Mortality Weekly Report 2013
<https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6208a8.htm>