

Bootcamp-Project-2
-----Project Proposal-----
The effect of alcohol on happiness, GDP and healthy life expectancy
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Project Outline

One might argue that people are momentarily happier when drinking alcohol -- but that over more extended periods, drinking more does not make them more satisfied with life. As such, the industry we have focused on is healthcare.

This project attempts to extract, transform and load a final dataset that can address questions behind how the use of alcohol impacts the happiness of nations around the globe.

Our Datasets

1. [Alcohol, total per capita \(15+\) consumption \(in litres of pure alcohol\) \(SDG Indicator 3.5.2\)](#) - World Health Organization

The Global Health Observatory provides this dataset. Drinking alcohol can be associated with developing alcohol use disorder or dependence and a higher risk of mental and behavioural disorders. In addition, it is a significant risk for liver cirrhosis, some cancers and cardiovascular diseases, and injuries resulting from violence and accidents. Beyond health consequences, the harmful use of alcohol brings significant social and economic losses to individuals, their families, and society.

The total alcohol per capita consumption (APC) comprises both the recorded and the unrecorded APC. Together provide a more accurate estimate of the level of alcohol consumption in a country, and as a result, portray trends of alcohol consumption in the adult population (15 years of age and older) in a more precise way.

The total alcohol per capita consumption (APC) is defined as the total (sum of three-year average recorded and three-year average unrecorded APC, adjusted for three-year average tourist consumption) amount of alcohol consumed per adult (15+ years) over a calendar year, in litres of pure alcohol. Recorded alcohol consumption refers to official statistics (production, import, export, and sales or taxation data). In contrast, unrecorded alcohol consumption refers to alcohol that is not taxed and outside the usual governmental control system. Tourist consumption considers tourists visiting the country and inhabitants visiting other countries. Positive figures denote alcohol consumption by outbound tourists being greater than alcohol consumption by inbound tourists, negative numbers the opposite. Tourist consumption is based on UN tourist statistics.

Disaggregation: Sex, Age

Method of estimation: Sum of recorded and unrecorded APC, adjusted for tourist consumption.

Method of estimation of global and regional aggregates: Regional estimates are derived from population-weighted averages of countries.

Unit of Measure: Litres of pure alcohol per person per year.

Credits: [Global Information System on Alcohol and Health \(GISAH\)](#)

2. [World Happiness Report](#) – Kaggle

The World Happiness Report is a landmark survey of the state of global happiness that ranks 156 countries by how happy their citizens perceive themselves to be.

The report proceeds to pick up worldwide acknowledgement as governments, organisations, and respectful society progressively utilises joy pointers to educate their policy-making choices. Driving specialists over areas – financial matters, brain research, overview investigation, national insights, wellbeing, open approach and more – depict how estimations of wellbeing can be used effectively to evaluate the advance of countries. Finally, the reports survey the state of bliss within the world nowadays and appear how the modern science of bliss clarifies individual and national varieties in bliss.

The Happiness Score is a national average of the responses to the main life evaluation question in the Gallup World Poll (GWP), which uses the Cantril Ladder.

The Happiness Score is explained by the following factors: GDP per capita, Healthy Life Expectancy, Social support, Freedom to make life choices, Generosity, Corruption Perception and Residual error.

The credit goes to the original authors:

Editors: John Helliwell, Richard Layard, Jeffrey D. Sachs, and Jan Emmanuel De Neve, Co-Editors; Lara Aknin, Haifang Huang and Shun Wang, Associate Editors; and Sharon Paculor, Production Editor

Citation: Helliwell, John F., Richard Layard, Jeffrey Sachs, and Jan-Emmanuel De Neve, eds. 2020. World Happiness Report 2020. New York: Sustainable Development Solutions Network

Final production database

The sources are obtained from Kaggle <https://www.kaggle.com/mathurinache/world-happiness-report> and World Health Organization (WHO) [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/alcohol-recorded-per-capita-\(15-\)-consumption-\(in-litres-of-pure-alcohol\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/alcohol-recorded-per-capita-(15-)-consumption-(in-litres-of-pure-alcohol)).

The data is pulled from CSV files (WHO-alcohol-data.csv and joined 2015.csv and 2019.csv), and we used Pandas and PostgreSQL to extract the datasets, transform them and load them back into data frames.

The datasets provided by WHO recorded the average alcohol consumption from 2000, 2005, 2010, 2015 and 2019. Also, The Happiness Report recorded data for each year between 2015 and 2020. Therefore, we have extracted data from **2015** and **2019** and merged the two datasets by country, attempting to match the data from WHO. We have also agreed to drop specific columns that were not relevant to our project objective.

All the data that we extracted and transformed was loaded into a PostgreSQL database.

Description of findings

The World Happiness Report contains information concerning specific countries and regions, with corresponding happiness ranks and scores, GDP per capita, family, healthy life expectancy, freedom, trust (government corruption), generosity and dystopia residual. Out of these, we have extracted the happiness scores, GDP per capita and healthy life expectancy matching each country.

Respectively, the alcohol consumption dataset contained information related to Location, alcohol consumption for males, females and both genders (average), country, regions, and the average, maximum and minimum amount of alcohol consumed. We have only considered the consumption values recorded for both genders and the only values available per country (if the information was limited)

Although we found that the remaining columns were not directly related to alcohol consumption, examining the remaining columns could pose the set-up for further potential analysis and data visualisations.

To better understand the relationship between alcohol consumption and happiness within various countries, we looked at the combined datasets reflecting two different years – 2015 and 2019. The resulting dataset can be used for future analysis to determine if alcohol consumption can predict happiness score, GDP per capita or healthy life expectancy.