Depression among youths in Oslo

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Introduction

Background

In 2017, an estimated 264 million people in the world experienced depression [1]. The Nordic countries top the polls as the happiest in the world [2], at the same time these countries also have some of largest numbers of young who do not say that life is good [3].

Problem

Risk factors and determinants for depression are already widely known but in this report we will take a closer look at geographical differences focusing on boroughs in Oslo Norway to explore correlations and test widely held beliefs about causes of depression. We will also explore more creative determinants of depression such as if the number of (Foursquare) venues is correlated with depression among youths.

For a comprehensive analysis we will test correlations with depression for the following aspects:

- Share of borough population with high income.
- Share of borough population with low income.
- Share of borough population with high education level.
- Share of borough population on social security among population age 50-59.
- Number of Foursquare venues in the vicinity.

Interest

The target audience of this report is public health services in Norway, Oslo city government as well as others interested in the topic of depression and mental health.

Data

Data sources

We will be using three sources of data.

1. Foursquare API to get number of venues in each borough [4].
2. Oslo municipality statistics database [5] with access to aggregated datasets on population income, education, social security and depression by borough.
3. An array of manually coded borough locations to be able to connect Foursquare venues to boroughs.

Using these sources we will merge and construct a dataframe to be used for further analysis.

Data wrangling

The municipality statistics datasets are available as auto generated Excel files containing several lines of introduction text etc. so several lines will have to be skipped. Some of the datasets does not have a percentage number so we will have to pull other datasets on population numbers and summarize columns and merge datasets. A report wizard [5] provided by the municipality website will be used to setup datasets with only the data we need such as the most recent years, combining both men and women etc.

Bibliography

[1] Our World In Data, Global Change Data Lab https://ourworldindata.org/mental-health

[2] The World Happiness Report https://worldhappiness.report/ed/2019/

[3] Andreasson, U., Birkjær, M. (2018). In the Shadow of Happiness. Copenhagen https://doi.org/10.6027/ANP2018-799

[4] Foursquare API https://developer.foursquare.com/docs/api

[5] Oslo municipality statistics database http://statistikkbanken.oslo.kommune.no/webview