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| The Battle of Neighborhoods |
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| October 19  CAPSTONE PROJECT  Authored by: Liliya |

# Introduction

## **Business Problem**

A Health Care Insurance company is concerned with an increasing number of people with alcohol and drug dependencies year over year. They would like to understand if in addition to socioeconomic factors (education, income and occupation) – proximity to places that sell alcohol is a contributing factor as well.

Data

One way of solving the problem is to look at Inpatient Charge Data provided by Centers of Medicare and Medicaid Services.

<https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Inpatient2011.html>

The data provided here include hospital-specific charges for the more than 3,000 U.S. hospitals that receive Medicare Inpatient Prospective Payment System (IPPS) payments for the top 100 most frequently billed discharges, paid under Medicare based on a rate per discharge using the Medicare Severity Diagnosis Related Group (MS-DRG) for Fiscal Year (FY) 2011.

For our problem we will only include data with DRG 897 – ALCOHOL/DRUG ABUSE OR DEPENDENCE W/O REHABILITATION THERAPY W/O MCC and Provider State MN - Minnesota. Then, in combination with the Foursquare location data we will compare the neighborhoods of two analogous cities with the highest and lowest discharge rate for DRG 897, and determine how similar or dissimilar their neighborhoods are. We will learn if one city has more venues (e.g. bars, stores, restaurants) that sell alcohol then the other.