

DOPP Ex II Management Summary - Group 04

1 Key findings

1.1 Regional Dietary Patterns Show Clear North-South Divide

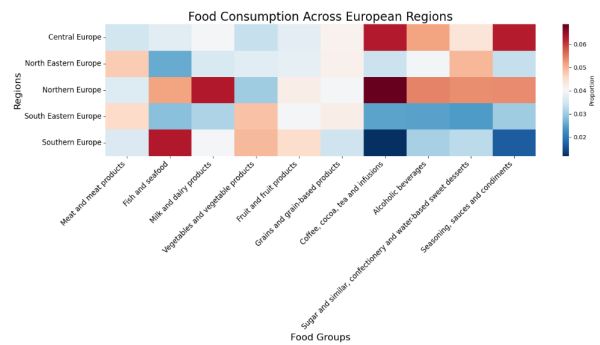


Figure 1: Enter Caption

The analysis reveals distinct dietary patterns across European regions. Southern Europe demonstrates healthier eating habits with high consumption of fruits, vegetables, and fish. This aligns with the well-known Mediterranean diet pattern and explains better health outcomes in these regions.

Northern and Central Europe shows higher consumption of processed foods, sugary products, and alcoholic beverages. This pattern correlates with higher obesity rates in these regions. The overconsumption of alcohol is also a well known factor in some of these regions which explains the patterns on the plot. Interestingly in the northern region all of the categories have a relatively large consumption which is probably correlated to the good economic status, on the contrary the central european countries tend to consume less healthy and mediterranean foods which can be explained by the lack of sea and the worse buying power.

1.2 Machine Learning Insights

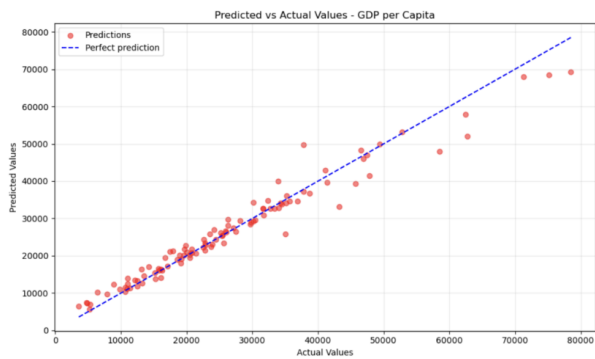


Figure 2: Enter Caption

Obesity Predictors: The most influential factors in predicting obesity rates are: Sugar and Processed Foods had the strongest positive correlation with obesity among all food categories which is in conclusion with our expectations. Vegetable and Fruit Consumption has a significant negative correlation with obesity rates, with a particularly strong effect in mediterranean countries where cultural and geographical factors can both influence the diet choices.

Some unexpected Correlations are that coffee/tea consumption showed surprising positive correlation with obesity. This is probably due to the fact that most people consume these beverages with milk and added sugar which is highly correlated with obesity as we already know.

