

Association Rules for Hispanic with (Income level):

- **Antecedents:** (Income Level, Hispanic)
 - This represents the conditions or factors that are present in the dataset.
- **Consequents:** (Yes)
 - This represents the outcome or result associated with the antecedents.
- **Support**
 - Support is the proportion of transactions in the dataset that contain the antecedents and consequents.
- **Confidence**
 - Confidence is the probability of the consequents given the antecedents.
- **Lift**
 - Lift measures how much more likely the consequents are given the antecedents compared to if they were independent. A lift less than 1 suggests that the antecedents and consequents are negatively correlated.

1. Association Rules for Hispanic with Below Poverty level:

- **Antecedents:** (Below Poverty, Hispanic)
- **Consequents:** (Yes)
- **Support:** 0.113
- **Confidence:** 0.684848
- **Lift:** 1.068406

Interpretation: Approximately 11.3% of the transactions involve individuals who are Hispanic and have Below Poverty poverty level, and they are also obese (Yes). There is a 68.49% likelihood that an individual is obese given that they are Hispanic and have Below Poverty poverty level.

2. Association Rules for Hispanic with Poverty level:

- **Antecedents:** (Poverty, Hispanic)
- **Consequents:** (Yes)
- **Support:** 0.225
- **Confidence:** 0.671642
- **Lift:** 1.047803

Interpretation: Approximately 22.5% of the transactions involve individuals who are Hispanic and have Poverty poverty level, and they are also obese (Yes). There is a 67.16% likelihood that an individual is obese given that they are Hispanic and have Poverty poverty level.

3. Association Rules for Hispanic with Low Income level:

- **Antecedents:** (Low Income, Hispanic)
- **Consequents:** (Yes)
- **Support:** 0.183
- **Confidence:** 0.635417
- **Lift:** 0.99129

Interpretation: Approximately 18.3% of the transactions involve individuals who are Hispanic and have Low Income poverty level, and they are also obese (Yes). There is a 63.54% likelihood that an individual is obese given that they are Hispanic and have Low Income poverty level. In summary, these rules provide insights into the likelihood of obesity based on ethnicity and different poverty levels. Each rule indicates the support, confidence, and lift associated with the specific conditions (antecedents) and the likelihood of obesity (consequents).