

# Do Social Determinants of Health Impact Which Patients Are Referred for the Low FODMAP Diet?

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## BACKGROUND

- Social determinants of health (SDOH) can negatively impact access to healthcare and health outcomes.
- Primary predictors of SDOH for healthcare access are socioeconomic status, the highest level of education attainment, and employment status.
- The low fermentable oligosaccharides, disaccharides, monosaccharides, and polyols diet (LFD) is readily prescribed for irritable bowel syndrome (IBS) symptom management.

## AIM OF STUDY

- The aim of this study is to explore if differences in SDOH in IBS patients impact whether they were recommended a trial of the LFD.

## METHODS

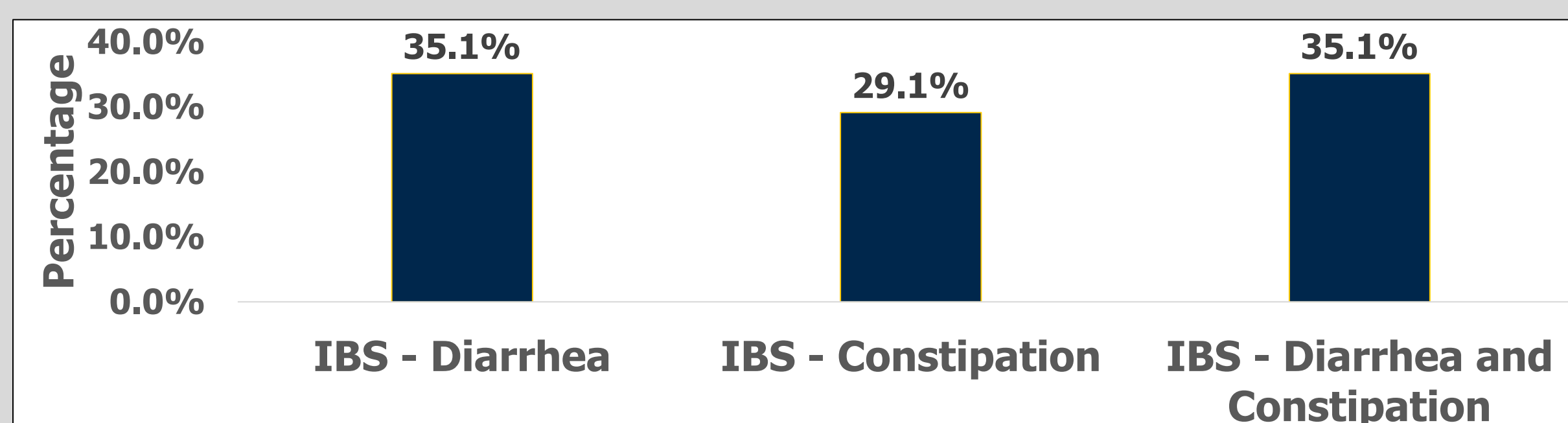
- Prospective cross-sectional survey study, n= 486 adults (≥18 years of age) subjects was conducted between May – June 2022.
- All respondents completed a 31-question survey via Survey Monkey which included questions pertaining to:
  - Demographics, geographical location and other SDOH (within the past 12 months) using validated questions from PRAPARE and Hunger Vital Sign™.
  - Self-report of IBS diagnosis and primary IBS subtype (Diarrhea, Constipation, or Diarrhea and Constipation).
- Groups were divided by the response to **"Has a healthcare provider ever recommended a low-FODMAP diet to help treat gastrointestinal symptoms?"**
  - Binary Response: **Yes (IBS-LFD+)** or **No (IBS-LFD-)**
- The survey was distributed via Twitter, Instagram, blog posts, and the International Foundation for Gastrointestinal Disorders (IFFGD).
- Statistical Analyses:
  - Mann-Whitney *U* Test.
  - Chi-square test for independence.
    - A p-value of ≤ 0.05 was considered statistically significant.
    - A Cramer's V coefficient of ≥ 0.10 depicts a potential relationship between nominal variables.

## RESULTS

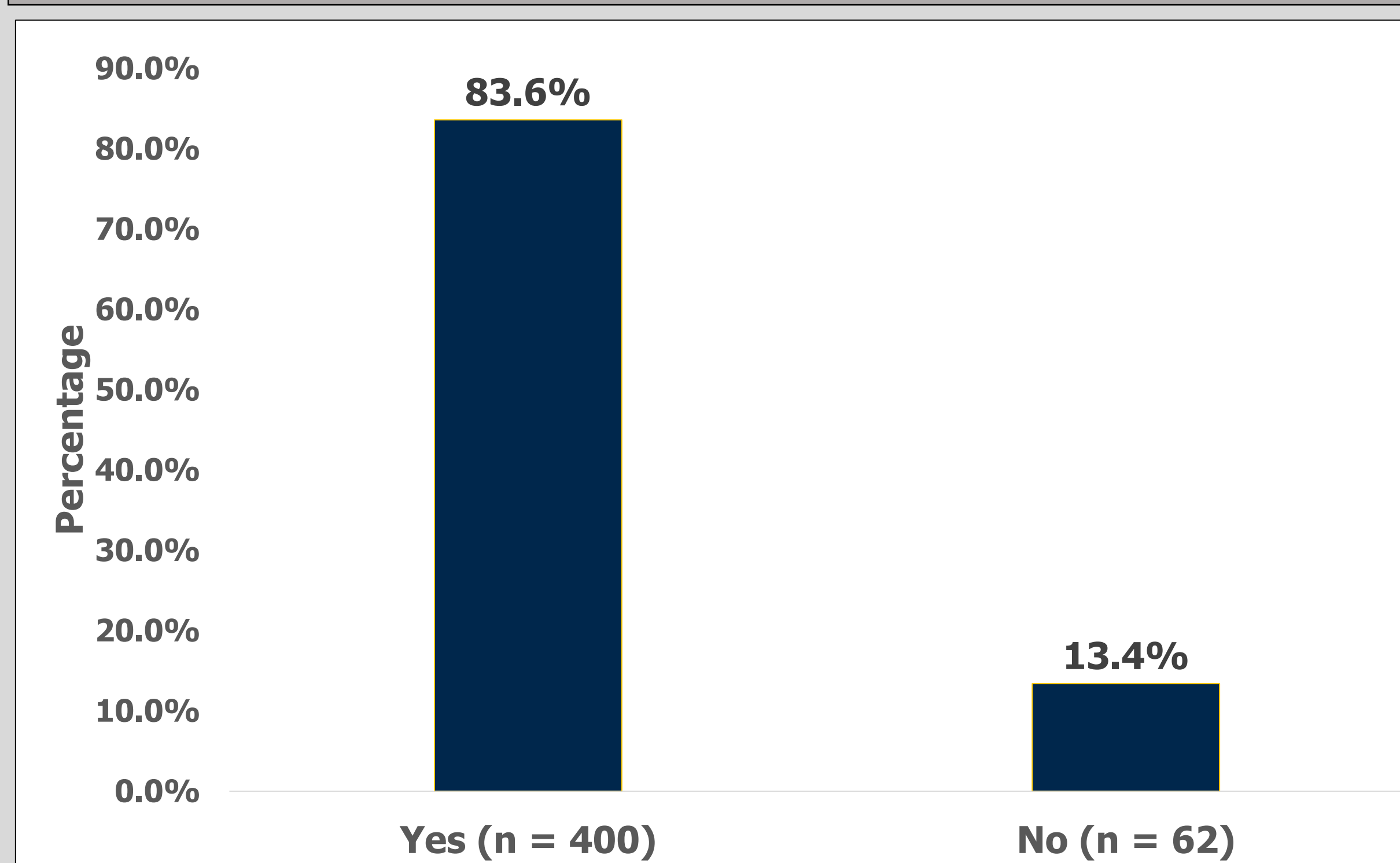
### Demographics

Variable	Percentage
Gender	93.0% Female/7.0% Male
Ethnicity/Race	92.5% Caucasian
Self-Reported Been Diagnosis with IBS	95.1% (462/486)
Geographical Location	92.7% United States/7.3% International

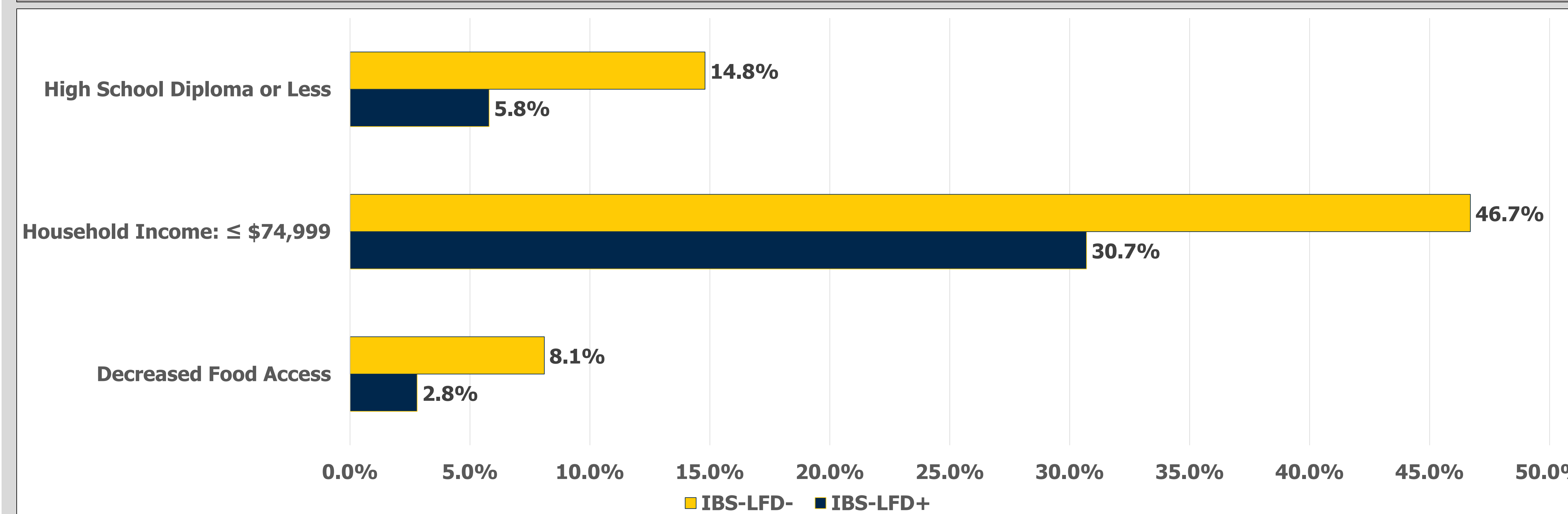
### Irritable Bowel Syndrome Distribution



Binary Response: "Has a Healthcare Provider Ever Recommended a low-FODMAP diet to help treat gastrointestinal symptoms?"



### Social Determinants of Health: Relationship to Access to the Low-FODMAP Diet



### Recommendation for a Low FODMAP DIET (LFD) Based on Significant Social Determinants

Social Determinant Variable	Yes (IBS-LFD+)	No (IBS-LFD-)	P-Value	Cramer V Coefficient	Odds Ratio (OR)	95% Confidence Interval (CI)
<b>Highest Level of Education Attainment</b>						
High school diploma/ GED or less	5.8%	14.8%	0.01	0.12	2.31	1.26, 4.25
≥ High School Diploma/GED	94.2%	85.2%				
<b>Household Income</b>						
\$0.00 - \$74,999	30.7%	46.7%	0.03	0.11	1.81	1.05, 3.11
≥ \$75,000	69.3%	53.3%				
<b>Access to Food When Needed</b>						
Unable to access food when needed	2.8%	8.1%	0.03	0.10	2.45	1.14, 5.26
<b>They are likely to start a low FODMAP diet on their own</b>						
Yes	87.6%	12.4%	<0.001	0.19	0.28	0.16, 0.50
No	56.6%	44.4%				
<b>Visit a registered dietitian about the low FODMAP diet</b>						
Yes	88.2%	11.8%	0.06	0.09	0.64	0.40, 1.03
No	81.6%	18.4%				

## SUMMARY

- 83.6% (n = 400) of IBS respondents (equally distributed between IBS-D, IBS-C and IBS-M) were recommended the LFD to treat their gastrointestinal symptoms by a medical provider.
- Compared to IBS-LFD+, IBS-LFD- respondents had a lower education attainment level (14.8% with a High School Diploma or Less vs. 5.8%, *p* = 0.01), lower household income (46.7% with income ≤\$74,999 vs. 30.7%, *p* = 0.03), and decreased access to food when needed (8.1% vs. 2.8%, *p* = 0.03).
- IBS-LFD- respondents were less likely to start a low-FODMAP diet on their own compared to their IBS-LFD+ counterparts (12.4% vs. 87.6%, *p* = <0.001).

## CONCLUSIONS

- IBS patients with a lower socioeconomic position and education attainment report being less likely to be offered a low FODMAP diet by their provider.
- Further investigation is needed to identify how provider perceptions of IBS patients or other factors may influence dietary treatment recommendations and potential health equity.