

## PURPOSE OF STUDY

The purpose of this study is to address the relationship of eating disorder prevalence in adolescents, aged 12-22, relative to their county and food insecure status.

## INTRODUCTION

- **Food insecurity:** "The limited or uncertain availability of nutritionally adequate and safe foods, or limited and uncertain ability to acquire foods in acceptable ways".<sup>12</sup>
- Food insecure adolescents are a vulnerable population for eating disorders. Studies have shown children who grew up in low socioeconomic homes were more likely to identify as food insecure.<sup>5</sup> Further, studies illustrate college aged individuals are at risk for eating disorders and could be at an increased risk given their socioeconomic status.
- **Data proposes as food insecurity rises so does the pathology of eating disorders.**<sup>7</sup> A study found that those who were food insecure demonstrated a higher prevalence of binge-eating disorders, compensatory fasting and eating disorder impairment.<sup>6</sup>
- Seeking out a relationship between eating disorder prevalence relative to county and food insecure status can pioneer prevention and treatment of a radically growing pandemic.

## METHODS

### Study Design

A retrospective cross-sectional study was conducted using data obtained from the University of Kentucky Center for Clinical and Translational Science (CCTS) database.

- Through collaboration with the CCTS, the following patient data was collected: age, race, ethnicity, gender, zip codes and ICD-10 codes for eating disorders
- Food insecurity rates were obtained by cross referencing information from Feeding America

### Population Sample

The study population consisted of people ages 12-22 with diagnosed eating disorders through the University of Kentucky Healthcare who reside in Kentucky. The total sample size is 1,793 people.

- ICD-10 codes included: F50.9 (eating disorder, unspecified), F50.02 (anorexia nervosa, binge eating/purging type), F50.82 (avoidant/restrictive food intake disorder), F50.01 (anorexia nervosa, restricting type), F50.81 (binge eating disorder), F50.89 (other specified eating disorder), F50.00 (anorexia nervosa, unspecified), F50.2 (bulimia nervosa)

### Procedure

Due to a lack of food insecurity ICD-10 codes utilized, food insecurity data was cross referenced with the Kentucky map for food insecurity provided by Feeding America.

- The Feeding America map features food insecurity rates by Kentucky counties for children <18 years old

## RESULTS

Eating Disorder Prevalence by County

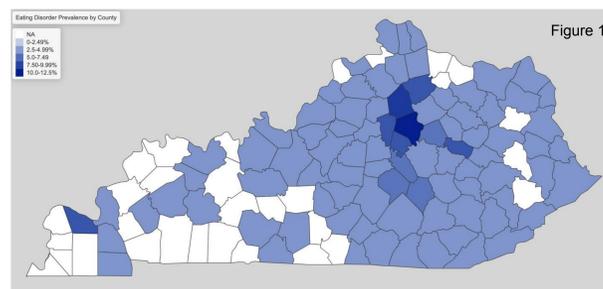


Figure 1

Top 5 Counties by Eating Disorder Rates

County	Eating Disorder Rates	Child Food Insecurity Rates
Fayette	11.41%	14%
Scott	7.89%	13.2%
Madison	7.4%	16.1%
Jessamine	7.32%	16.8%
Harrison	6.42%	17.1%

Chart 1 shows the top 5 counties with the highest diagnosed eating disorder prevalence alongside the top 5 counties with the highest rates of food insecurity in chart 2. The analysis suggest no correlation between high levels of diagnosed eating disorders to increased rates of food insecurity. However, to note the counties experiencing the highest food insecurity may be further from using UK healthcare services, potentially leading to unreported or undiagnosed eating disorders.

Child Food Insecurity Rate by County

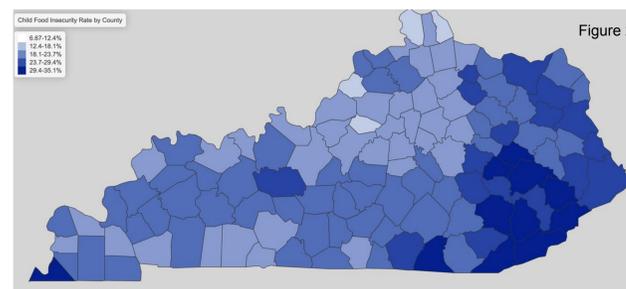


Figure 2

Top 5 Counties by Child Food Insecurity Rates

County	Eating Disorder Rates	Child Food Insecurity Rates
Harlan	0.19%	35.1%
Leslie	0.53%	33.2%
Magoffin	1.39%	32.8%
Breathitt	1.02%	32.7%
Letcher	0.22%	32.2%

\*The age range of the child food insecurity data (<18-years-old) from Feeding America was the most closely representative of the study age range

## Percentage Distribution of Diagnosis Description

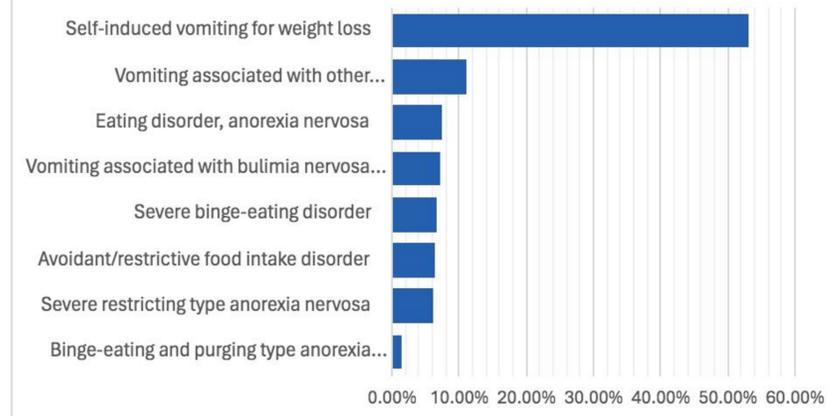


Figure 3 illustrates the prevalence of different eating disorder diagnosis among patients seen at UK healthcare, ranging in age from 12-22 years old.

## SUMMARY OF RESULTS

Comparison of the two maps reveals the association between diagnosed eating disorder prevalence and food insecurity rates across various counties in KY. While some overlap across counties suggest a potential relationship, **overall it does not reveal a consistent correlation** between counties with high diagnosed eating disorder rates and those with high food insecurity rates.

## DISCUSSION

The research findings **revealing a higher incidence of eating disorder diagnosis** in regions of Kentucky characterized by **food security rather than food insecurity** prompt a deeper examination of the intricate dynamics at play within these communities. While previous research suggests that access to food scarcity would be the primary risk factor for developing disordered eating behaviors, **this study challenges such assumptions.** It suggests that factors beyond access to food, **such as socio-cultural pressures, economic stressors, and psychological influences**, significantly contribute to the prevalence of eating disorders. This unexpected correlation underscores the complexity of eating disorders and the need for a holistic understanding of their etiology. It highlights the intricate interplay between socioeconomic disparities and mental health outcomes, **emphasizing the importance of considering broader contextual factors in addressing these issues effectively.**

## CONCLUSION

The research findings indicate a higher prevalence of eating disorder diagnosis in regions of Kentucky without food insecurity as opposed to those facing food insecurity shed light on the **complex interplay** between socioeconomic factors and mental health outcomes. **Further investigation into the underlying mechanisms driving this relationship is crucial for designing targeted interventions and support systems that address the diverse needs of individuals grappling with eating disorders in both food-secure and food-insecure communities.** The primary limitation with this study is that the data varies geographically, specific to UK healthcare locations across KY. **Indications for change of future practice** are to encourage charting for food insecurity and social determinants of health as well as promoting awareness among healthcare providers to code for food insecurity to establish a holistic view of the patient

## REFERENCES

