

# Obesity as a Prognostic Factor for Colonic Resection in Patients with Ulcerative Colitis: Insights from the National Inpatient Sample

Lyles Laine<sup>1</sup>, Laney J<sup>2</sup>, O'Brien M<sup>2</sup>, Farmer R<sup>2</sup>, Sanderford V<sup>2</sup>, Lyles WE<sup>3</sup>

1 - Prisma Health-USC School of Medicine Columbia Internal Medicine Residency, 2 - USC School of Medicine Columbia, 3- Blount Memorial Hospital

## Introduction

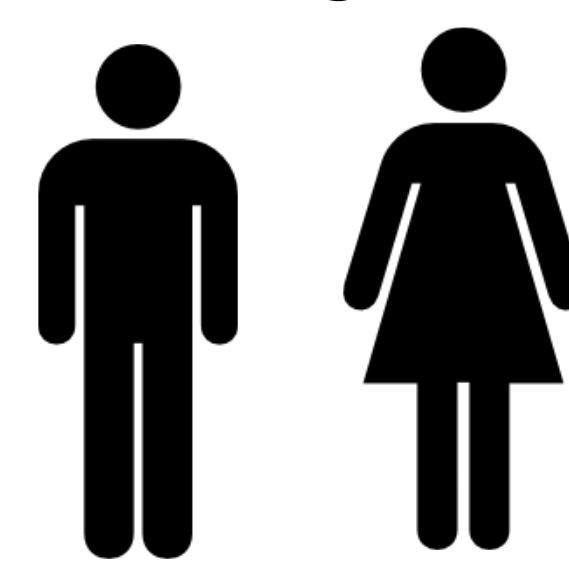
- In ulcerative colitis, there are several biologic and lifestyle factors that are associated with development and progression of disease.
- Poorly controlled UC often results in colectomy, frequently with high rates of postoperative complications.
- Previous research has suggested a relationship between obesity and UC prognosis in certain areas, but a potential relationship between obesity and need for colectomy has not been previously established.

## Method

This is a retrospective cohort study using the 2019 National Inpatient Sample (NIS). Inclusion criteria were a principal diagnosis of UC and age >18. The patients were divided into two groups: obese and nonobese based on a secondary diagnosis of obesity. The primary outcome was the rate of colonic resection. Secondary outcomes were: 1) mortality 2) rate of colonoscopy 3) length of stay 4) total hospital charges. Confounders were adjusted for using multivariate regression analysis with the following confounders: sex, income, race, insurance, Charlson comorbidity index, hospital bedsize, location, teaching status, and region.

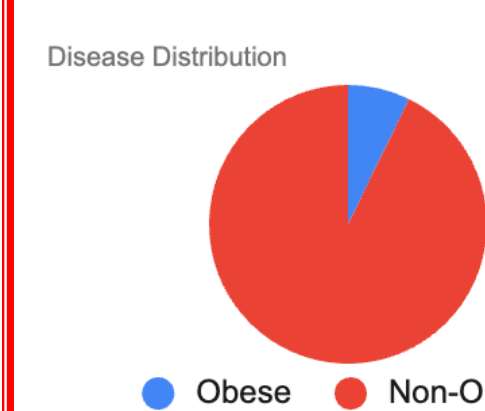
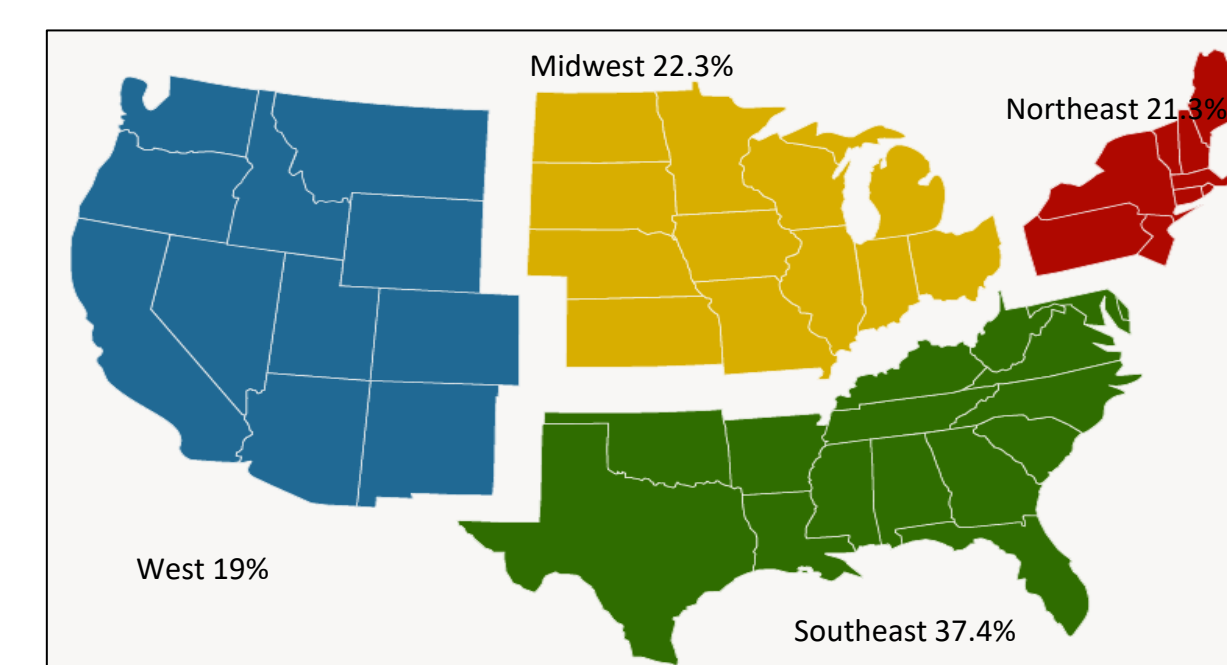
## Population Characteristics

34,490 patients  
Mean Age: 66.66

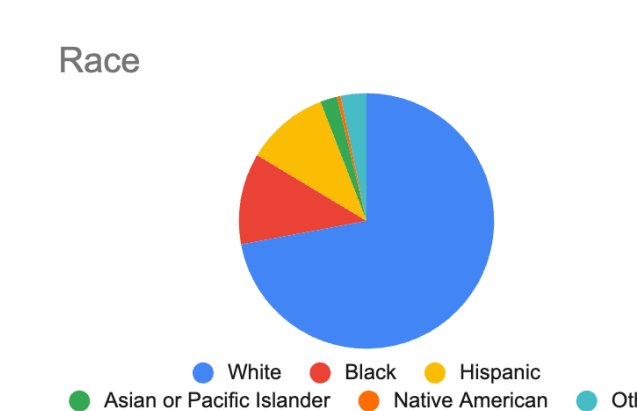


47 %

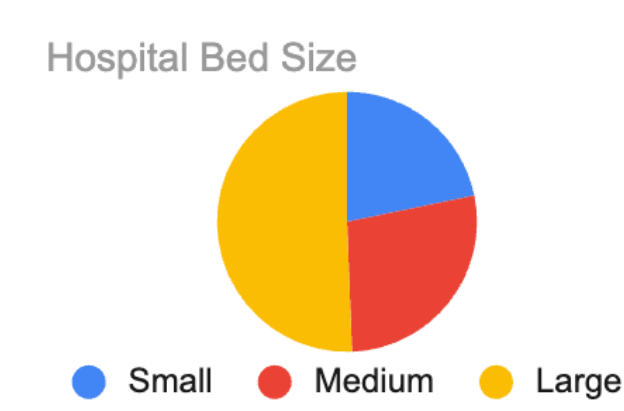
53 %



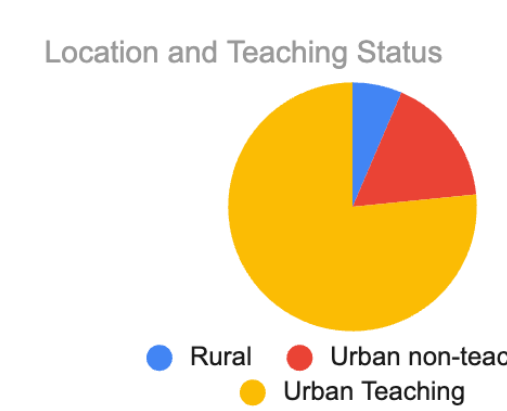
Obese Non-Obese



White Black Hispanic Asian or Pacific Islander Native American Other



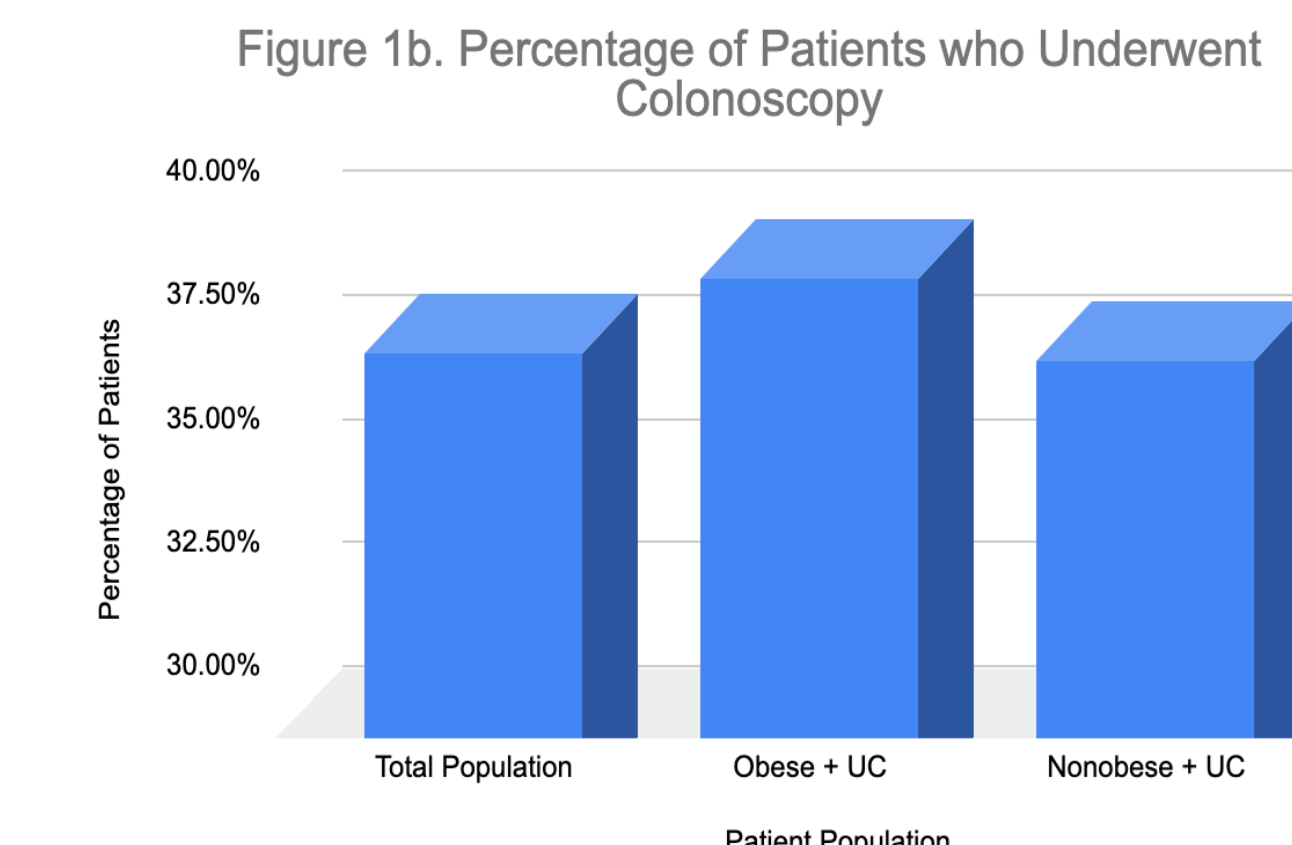
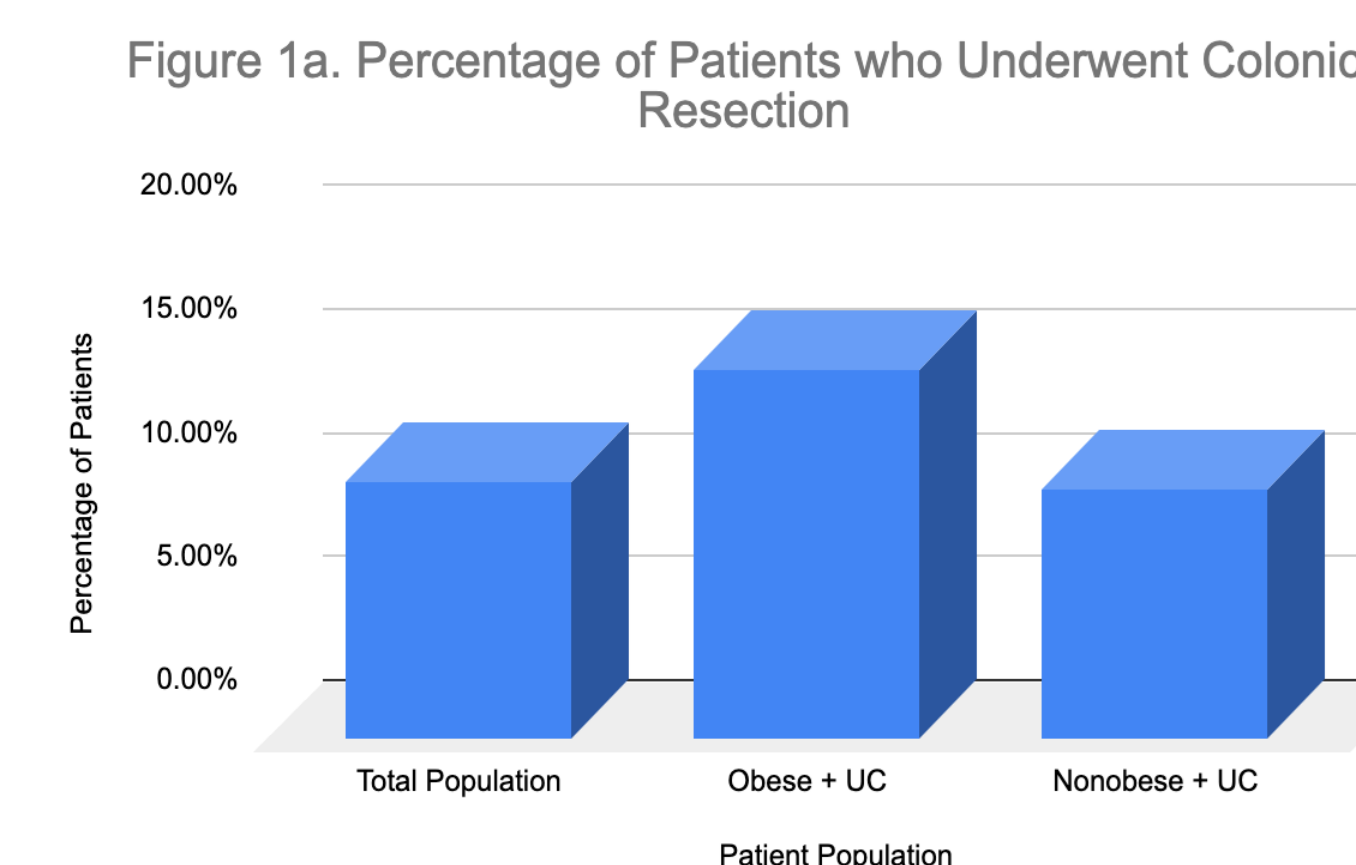
Small Medium Large



Rural Urban non-teaching Urban Teaching

## Results

- 37.51% of the total population studied underwent a colonoscopy and 10.4% required resection
- Compared to the rate of resection in patients without obesity, those with UC and obesity had a 70% increase in odds of colonic resection when compared to non obese patients while adjusting for confounders.
- Secondary outcomes of mortality, length of stay, and hospitalization charges showed no statistically significant.



## Conclusion

Obesity continues to pose a significant challenge to healthcare providers, as it creates strain on hospitals while also increasing likelihood of detrimental sequelae. This study demonstrates that individuals admitted with a primary diagnosis of ulcerative colitis, who are also obese are at increased risk of undergoing colonic resection. Based on these results, obesity acts as a negative prognostic factor in the disease process of UC and should enter into discussion that all physicians have with their patients upon initial diagnosis of UC. Studies have found that rates of obesity are increasing amongst the population diagnosed with UC, making this discussion even more crucial to guiding care.

## Aim/Question

Does obesity increase the likelihood of colonic resection amongst hospitalized patients with ulcerative colitis?

## References

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