



Introduction

- There is a significant association between body mass index (BMI) and increased risk for morbidity and disability.^{1,2}
- There has been evidence of decreased efficacy and increased length of stay (LOS) among severely obese patients undergoing acute inpatient rehabilitation (AIR).^{3,4}
- However, these studies are limited in sample size and scope of medical specialties.

Purpose

- To determine whether LOS differed among BMI categories, and whether this difference was dependent on medical diagnosis.

Methods

- Retrospective observational study of 2,765 patients receiving AIR at Shirley Ryan AbilityLab in 2018.
- Participants were divided into six BMI categories and 10 medical services, which were later consolidated to 2 medical services: neurology and medical mixed.
- An analysis examined the effect of BMI, medical service, and their interaction on LOS.

Discussion

- Overall, participants with 50+ BMI and the burn and traumatic spinal cord injury services have greater LOS.
- This study aids in informing treatment plans and allocation of medical equipment for severely obese patients in AIR facilities.
- Future studies including discharge destination and therapy-related functional gains will provide greater insight into potential underlying confounding variable.

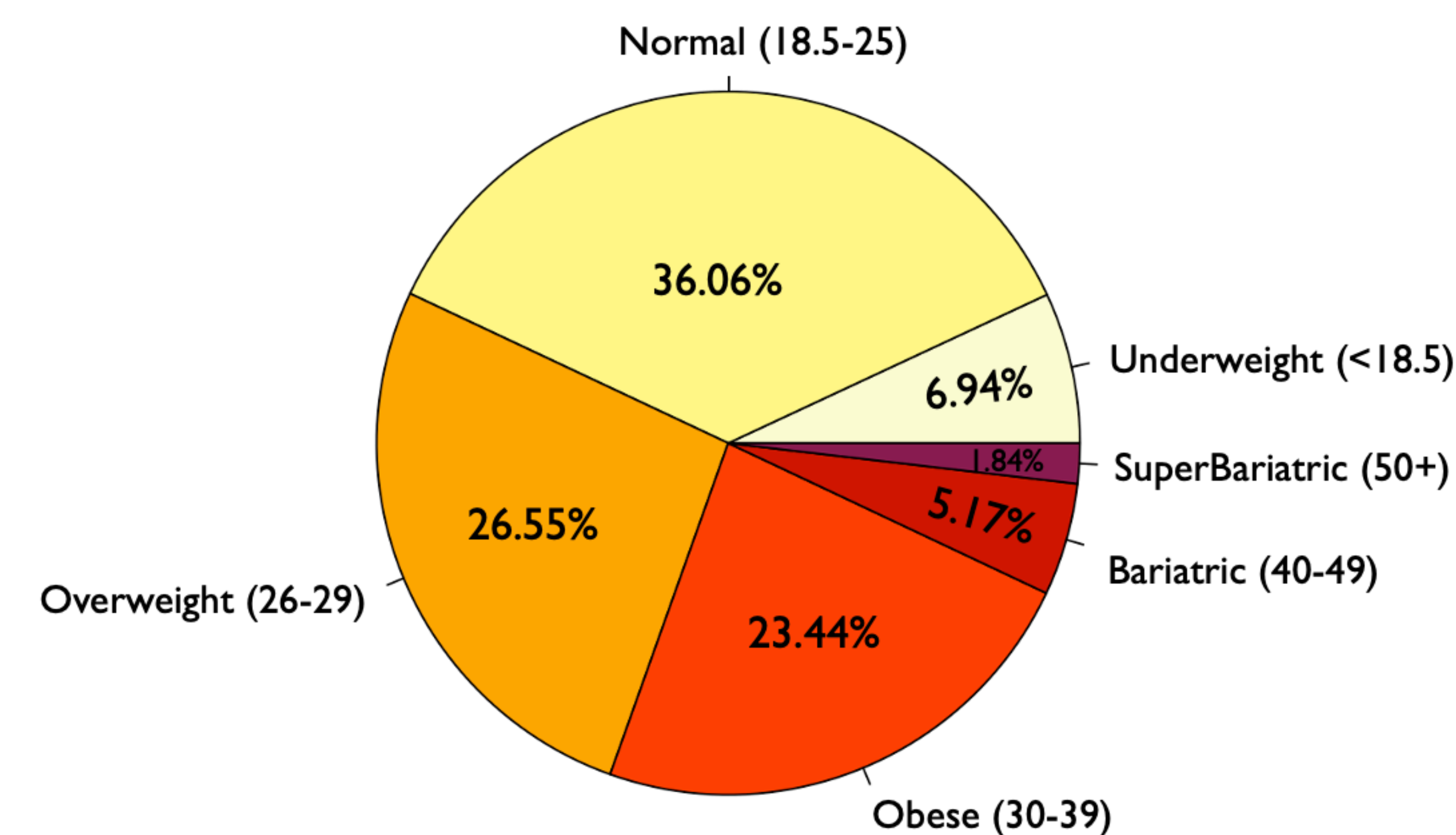
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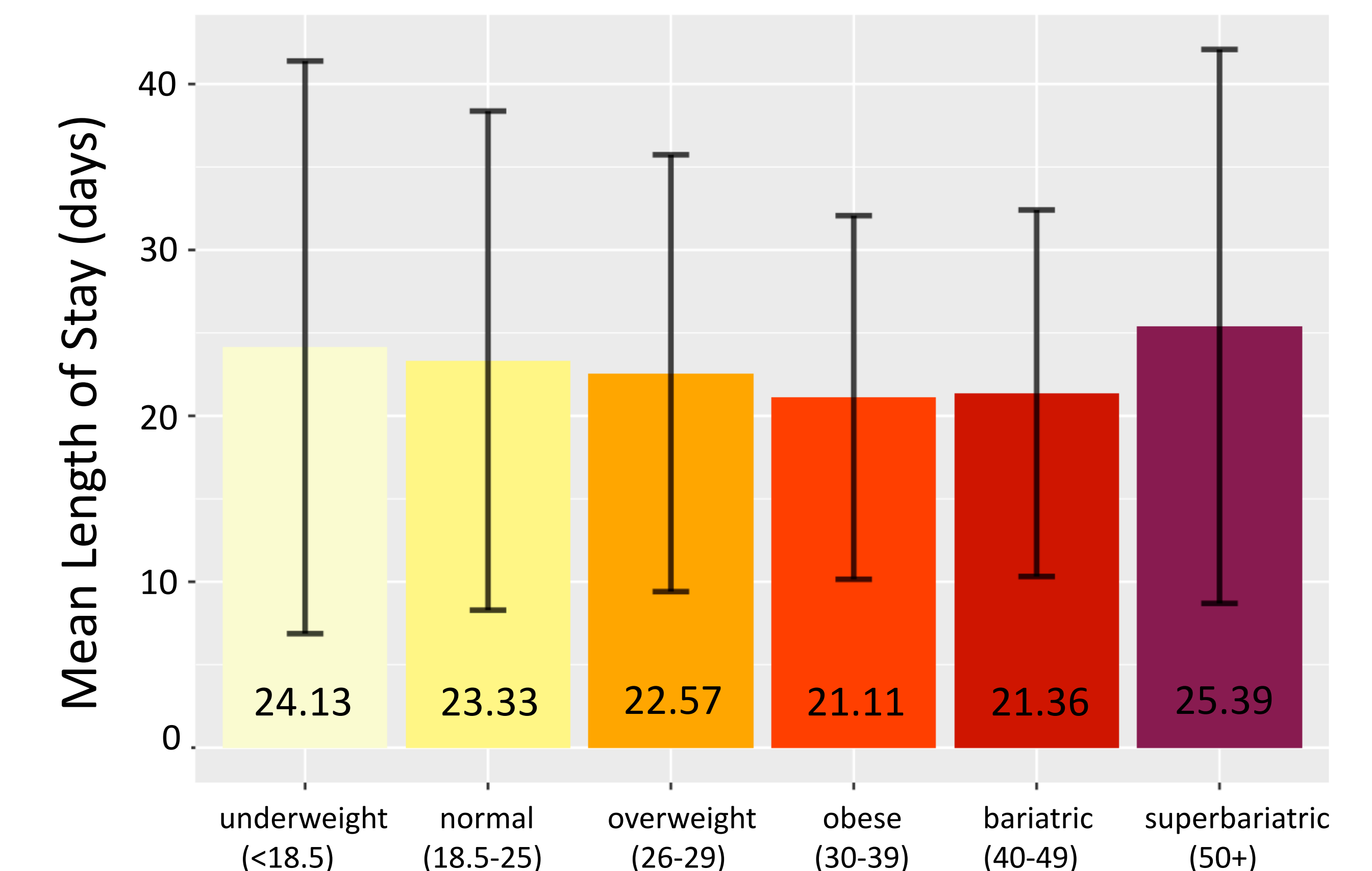
Results

- KEY FINDINGS:**
- There was a significant difference in LOS among BMI categories, with highest estimated mean LOS for the superbariatric group.
 - Patients in a neurology-based medical service had longer LOS compared to other services among underweight, normal, overweight, and obese BMI groups.

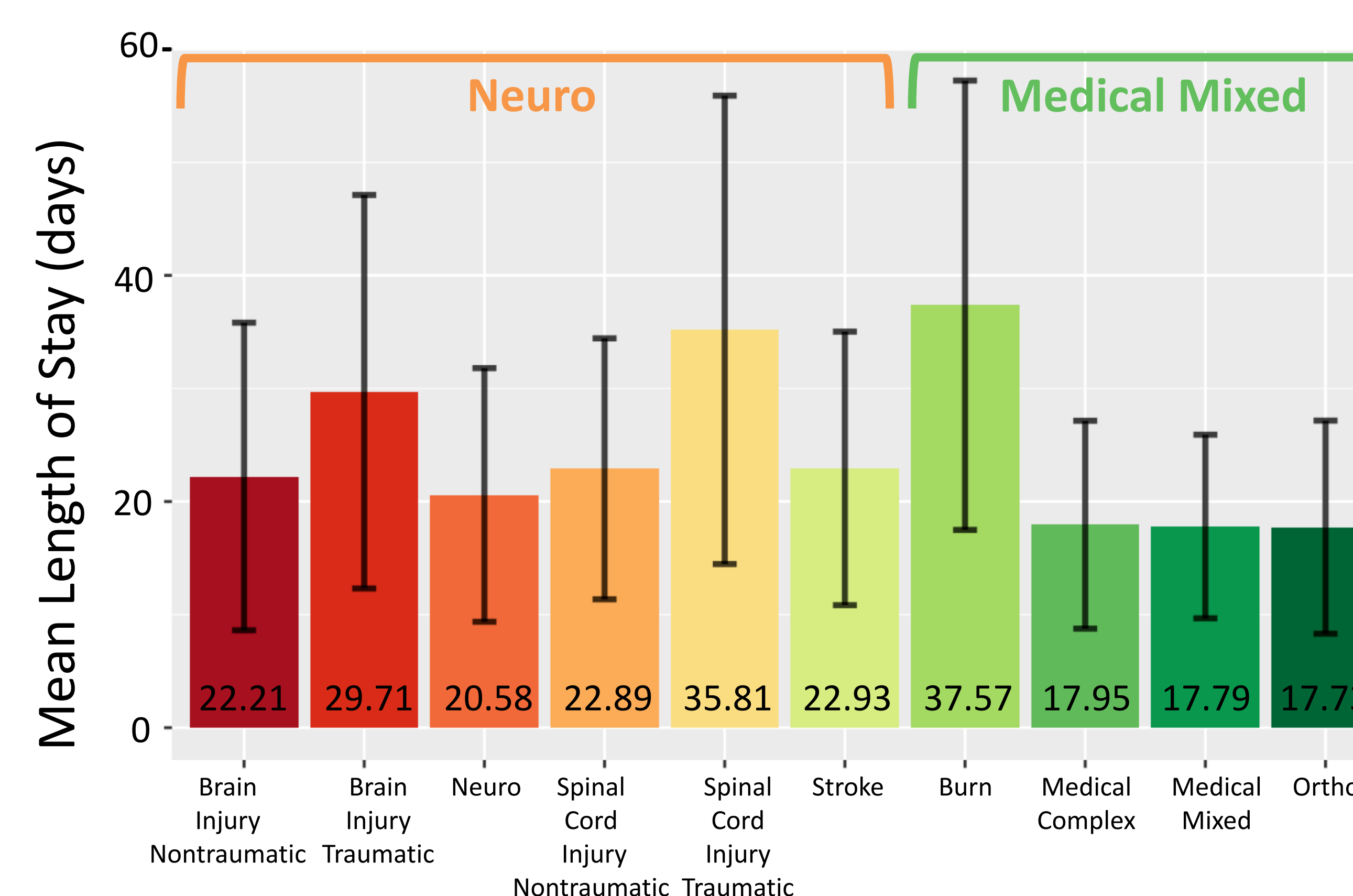
Distribution of BMI Groups Among Participants



Average Length of Stay vs. BMI Group



Average Length of Stay vs. Medical Service



Average Length of Stay vs. BMI Group vs. Consolidated Medical Service

