Background and purpose: Regional variation has been found across the US in healthcare utilization, delivery, outcomes, and spending. The purpose of this study was to investigate whether regional variation exists in cost and utilization of outpatient rehabilitation services for the Medicare population within the US.

Methods: The current study utilized data from the Medicare State Healthcare Common Procedure Coding System (HCPCS) Aggregate Report, Calendar Year 2015. A repeated measures analysis of variance was performed using NCSS to examine how utilization, cost and type of rehabilitation interventions varied by region. Interventions were classified as active or passive based on common procedural terminology (CPT) codes, and regions were defined by the US Census Bureau.

Results: Statistical analysis of the average Medicare payment amount revealed significant differences in payment based on region, a significant interaction between region and intervention type, and mean payment amount for active interventions that was almost double that of passive.

Upon analysis of the average standardized Medicare payment amount, only the statistically significant difference between active and passive payments remained. The number of services charged per provider significantly differed between regions. The South had a significantly greater number of services when comparing similar codes to the Midwest and Western regions. The South had the largest mean number of services charged per provider, and a significantly greater number of services per provider than the Midwest and West.

Conclusion: Standardization removed differences in cost by region. Utilization varied by region, which is consistent with the existing literature. Further research is necessary to determine the direct cause of this variation. Possible hypotheses include providers seeing multiple patients at the same time, Medicare patient volume per clinic, or rehabilitation therapists working overtime.