

# Trends and Disparities of Outcomes among US Patients Hospitalized with Bleeding Esophageal Varices: A Nationwide Inpatient Retrospective Study

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## BACKGROUND

Bleeding esophageal varices are life-threatening and associated with a mortality rate of 30-50%. Recent data on the current 10-year trends of sociodemographic patterns in patients hospitalized for BEV among adults in the U.S. is lacking.

## AIM

Our retrospective study aims to evaluate the recent 10-year trends in sociodemographic differences in adult patients hospitalized for bleeding esophageal varices in the U.S.

## METHODS

Our retrospective longitudinal study involved BEV hospitalizations in the U.S. using the National Inpatient Sample collected from 2010 to 2019.

Outcomes evaluated in this study were sociodemographic differences in inpatient mortality rate, mean length of hospital stay (LOS), and mean total hospital charges (THC).

We used Stata® Version 17 software (StataCorp, Texas, USA) and Joinpoint Regression Program, Version 4.9.1.0, for data analysis.

We set a p-value of <0.05 for statistical significance throughout the study.

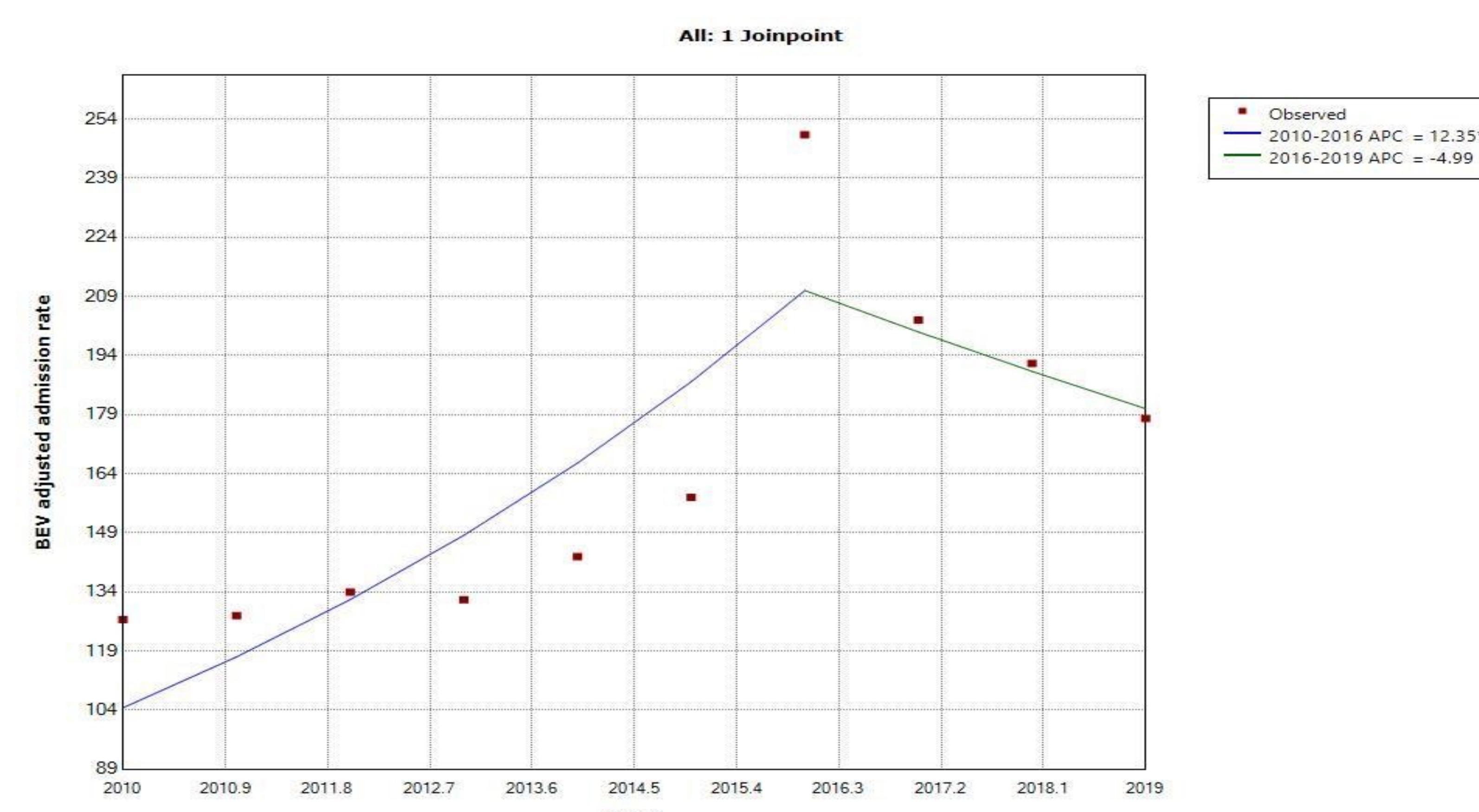
## RESULTS

There were 50,017 hospitalizations with a primary diagnosis of BEV from 2010 to 2019.

From 2010 to 2019, the BEV admission rate increased from 127 to 178 per million adult hospitalizations. The BEV admission rate was highest in middle-aged, white people, and those with Medicare insurance and large urban teaching centers.

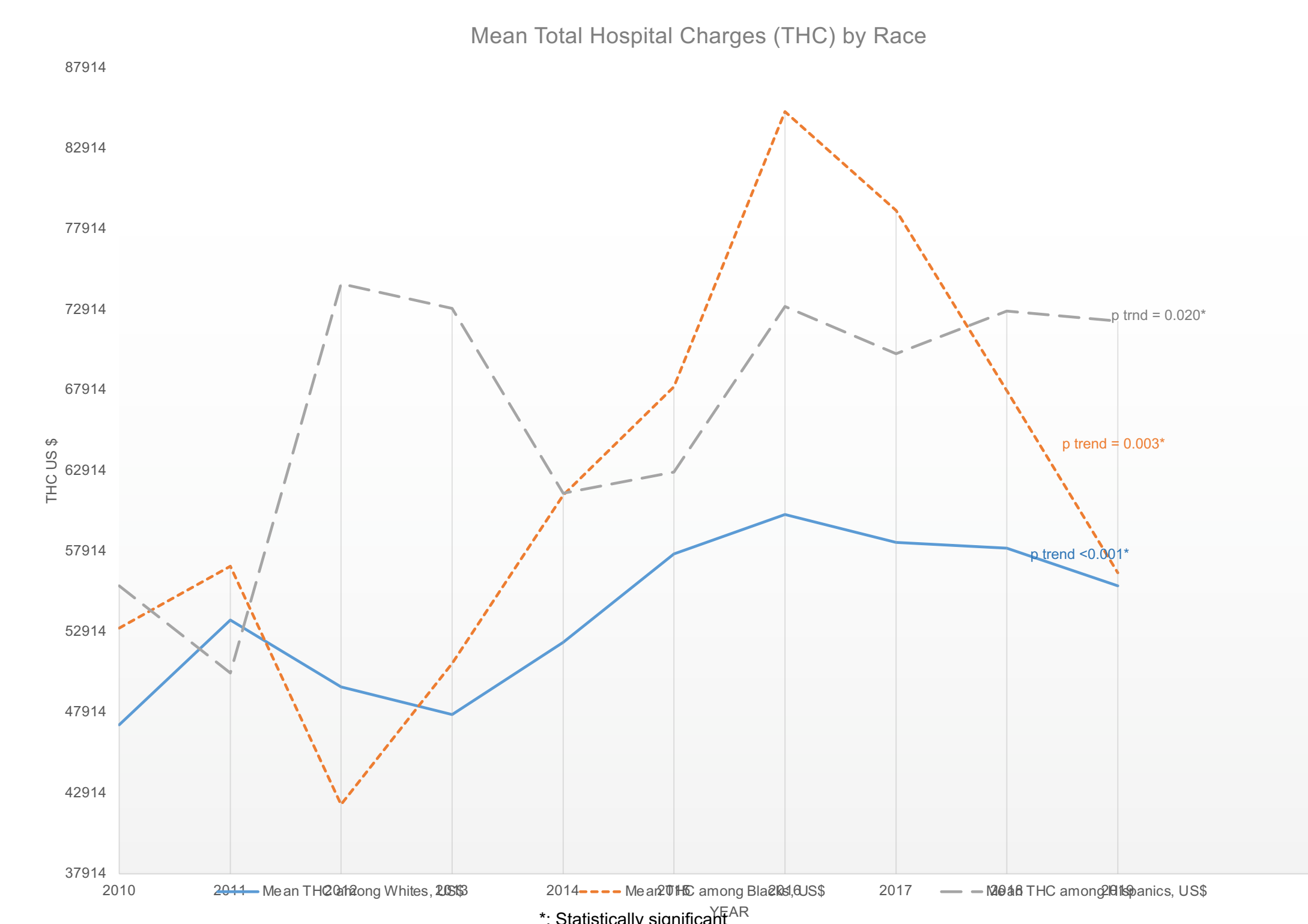
Joinpoint analysis showed an average annual percent change of 6.2% (95% CI 4.4 – 8.2, p trend <0.1). Over the period, the mortality rate was 5.7% in males compared to 4.4% in females, 4.7% in White people, 7.9% in Black people, 5.0% in Hispanic people, 5.8% in the low-income quartile, and 5.3% in the high-income quartile.

Among the racial groups, only Hispanic people had a significant decrease in mortality rate over the study period.



\* Indicates that the Annual Percent Change (APC) is significantly different from zero at the alpha = 0.05 level  
 Final Selected Model: 0 Joinpoints.

Segment	Lower Endpoint	Upper Endpoint	APC	Lower CI	Upper CI	Test Statistic (t)	Prob >  t
1	2010	2016	12.4*	9.7	15.1	12.6	< 0.001
2	2016	2019	-5.0	-8.7	0.0	-2.6	0.050
Range	Lower Endpoint	Upper Endpoint	APC	Lower CI	Upper CI	Test Statistic	P-Value
Full Range	2010	2019	6.2*	4.4	8.2	6.7	< 0.1



## CONCLUSION

The findings of our study suggest that the 10-year trend in mortality rate and LOS for BEV hospitalizations remain unchanged. However, there was a significant increase in total hospital charges. Black people, males, and low-income quartile patients had higher mortality rates from BEV than their comparison groups.

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## DISCLOSURES

The authors declare that they have no conflicts of interest.

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