**BACKGROUND**

- Substance use disorders (SUD) are major public health problems with a high healthcare burden for both adults and children in the US.
- The medical encounters and related costs involving SUD have been increasing for over a decade.
- However, limited information exists on national-level healthcare expenditures for the SUD.

**OBJECTIVE**

To examine healthcare expenditures for SUD using the Medical Expenditure Panel Survey (MEPS) data from 2011 to 2020.

**METHODS**

**Study design/Inclusion**
- A retrospective cross-sectional study.
- Study included all individuals with SUD and those without SUD based on the 2011-2020 MEPS data.
- SUD cohort defined as:
  - Patients of all ages diagnosed with SUD were identified using Clinical Classification Codes (categorized ICD-9 codes clinically): alcohol-related disorders (code 660) and substance-related disorders (code 661), and ICD-10 (codes F10-F19).

**Data Collection**
- Health care expenditures including total all-cause expenditures in all medical encounters, and all covariates were derived from the MEPS household component (HC) and Medical Provider Component (MPC).

**Statistical analysis**
- Weighted descriptive analyses were conducted to compare characteristics and healthcare expenditures for patients with and without SUD.
- Comparative analyses of characteristics involved ANOVA for continuous variables, and chi-square for categorical variables.
- A two-part model involving probit and generalized linear models (GLM) with Poisson family distribution and log link function was used to estimate the marginal healthcare expenditures for SUD.
- The probit model was utilized to determine the probability of having zero healthcare expenditures in the first part, while the GLM was implemented in the second part of the model for estimating the marginal healthcare expenditures that differed between the two groups.
- Software: SAS 9.4 and STATA 17.0

**RESULTS**

- According to the MEPS, there were 1.47 million patients (95% CI: 1.32-1.62) diagnosed with SUD between 2011 and 2020, with a prevalence of 0.13%.

**DISCUSSION**

- Most patients with SUD were aged between 25 and 64, in the South and enrolled in private insurance.
- A significantly higher marginal total healthcare expenditures [$4,687.19 (95% CI: $1,610.88-$7,763.50)] were found for SUD than the non-SUD.
- This estimates were less than the national report and a previous study assessing the hospital cost of SUD in recent years, potentially due to differences in data source, definition, and covariate adjustment in the current study.
- The majority of the health burden in SUD is attributable to hospital inpatient expenditures, followed by expenditures in prescription and emergency room visits.

**CONCLUSIONS**

- The economic burden for SUD hospital care remains high.
- The total healthcare expenditures were higher for SUD, mainly due to inpatient and prescription expenditures, than those without SUD.
- Intervention efforts should focus on effective prevention and treatment to reduce the healthcare burden of SUD.

**REFERENCES**
