

Abstract

Uncovering racial differences in hookah smoking among US adults: Findings from the Population Assessment of Tobacco and Health Study, Wave 7

Steven Barrientos, MPH, BSN, RN¹, Atia Daqiq, MD¹, Ebbie Kalan, PhD² and Ziyad Ben Taleb, PhD¹
(1)University of Texas at Arlington, Arlington, TX, (2)University of Maryland, College Park, MD

APHA 2026 Annual Meeting and Expo

Background

Hookah smoking remains a common form of combustible tobacco use in the United States. Prior research shows variation by race/ethnicity, but differences by use pattern remain unclear. Examining ever, past 12-month, and past 30-day use distinguishes experimentation from recent use and clarifies how race/ethnicity and behavioral factors shape risk.

Methods

Cross-sectional analyses used Wave 7 (2022-2023) data from the Population Assessment of Tobacco and Health (PATH) Study, including 21,893 adults. Survey-weighted multivariable regression models accounting for complex survey design estimated adjusted odds ratios (AORs) and 95% confidence intervals (CIs) for associations between hookah use (ever, past 12-month, past 30-day) and sociodemographic characteristics, substance use, and harm perceptions.

Results

Race/ethnicity was strongly associated with all hookah smoking patterns, with the largest impact among Black adults. Compared with White adults, Black adults had higher odds of ever use (AOR 1.90, CI 1.63-2.22), substantially higher odds of past 12-month use (AOR 8.36, CI 6.14-11.37), and nearly tenfold higher odds of past 30-day use (AOR 9.83, CI 6.45-14.98). Hispanic adults also had elevated odds compared with non-Hispanic adults (ever: AOR 1.89, CI 1.61-2.22; past 12-month: AOR 3.49, CI 2.59-4.69; past 30-day: AOR 3.84, CI 2.51-5.87).

Adults aged 25–34 had the highest odds across all time frames compared with adults 65+ (past 30-day use: AOR 9.34, CI 2.17-40.20). Electronic nicotine delivery system (ENDS) use was the strongest behavioral correlate. Current ENDS users had higher odds of ever (AOR 4.91, CI 4.14-5.82), past 12-month (AOR 11.84, CI 8.37-16.76), and past 30-day hookah use (AOR 13.70, CI 7.59-24.74). High perceived harm of hookah was consistently associated with lower odds (past 30-day use: AOR 0.36, CI 0.21-0.61).

Conclusions

Hookah smoking varies by race/ethnicity and recency, with Black adults experiencing substantially higher odds of recent/current use. These patterns relate to younger age, ENDS co-use, and lower harm perceptions.

Biostatistics, economics Diversity and culture Epidemiology Public health or related research Social and behavioral sciences