

Electronic cigarette use and health literacy in the deep south: An examination of 2016 behavioral risk factor surveillance system (BRFSS)

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4.5% of adults in the United States (U.S.) use electronic cigarettes (e-cigs) (CDC et al., 2023), and their use is estimated to cost the U.S. \$15 billion per year in health care expenditures. Healthy People 2030 has an objective to reduce the number of adults using tobacco products (ODPHP, n.d.). This study investigates the association between e-cig use and health literacy understanding among residents in the Deep South, shedding light on implications for health education specialists. Using data from 19,876 adults from Alabama, Georgia, Louisiana, Mississippi, & South Carolina aged 18 or older who participated in the 2016 Behavioral Risk Factor Surveillance System (BRFSS), the proportion of participants self-reporting "e-cig use" and ease or difficulty with 'health literacy' measures (i.e., health information attainment, understanding advice from health professionals, understanding written health information) was assessed. Following, the bivariate independent association between e-cig use and health literacy measures were investigated. Findings indicate 22.3% of respondents ever-used e-cigs. Among respondents reporting ever using e-cigs, a significantly greater proportion indicated difficulty attaining health information (30.4%) ($p = 0.0002$). Additionally, 29.3% of users found it difficult to understand advice from health professionals ($p = .0001$). There was no significant association between understanding written health information and e-cig use ($p = .083$). This research emphasizes a need for qualitative research to examine how attitudes, knowledge, & skills around e-cig use are influenced by health literacy. Use of mass health communication strategies on an individual & community level should consider health literacy understanding to increase likelihood of behavior change & achieve Healthy People 2030 objectives.