The prevalence of E-cigarettes is increasing rapidly in the United States. This study is to report the prevalence of E-cigarettes and the associated propensity for risk behavior among the United States adults from 2016 to 2018.

Data from 2016 to 2018 Behavioral Risk Factor Surveillance System (BRFSS) were pooled and the weights were adjusted proportionally.

Subjects from all states in the United States participated in the 2016-2018 survey. The current e-cigarettes user was defined by the two questions: 1) “Ever used an e-cigarette,” then 2) “Do you now use e-cigarettes, every day, some days, or not at all?”

Subjects “having risk behaviors” had at least one of the following: 1) heavy drink, 2) been tested for HIV, 3) do not have flu shot in the past year, 4) do not always use a seat belt, 5) any high-risk situations apply, including injected any drug other than those prescribed, been treated for a sexually transmitted disease or STD, or been given or received money or drugs in exchange for sex in the past year.

Chi-square tests were applied to determine whether the prevalence of the e-cigarettes user in these variable groups was significantly different at the 0.05 level.

Multiple logistic regression was used to estimate the association between the e-cigarettes use and behavioral risk factors adjusting for demographic factors and smoking status.

In Table 2, current e-cigarette use was associated with 1.38 times the probability of people who had risk behaviors compared to those who do not have risk behaviors (p<.0001).

Fig 2 indicated the increasing trend in the percentage of e-cigarette users from 2016 to 2018.

There are significantly higher odds of E-cigarette using in people with risk behaviors as compared with those without risk behaviors. Besides, former or current tobacco users are more likely to use E-cigarettes.