

E-CIGARETTE AND CIGARETTE USE AMONG U.S. ADULT IBD PATIENTS: POPULATION-LEVEL SURVEY

Ryan Suk, MS¹; Heetae Suk, LLM, PhD²; Kalyani B. Sonawane, PhD¹; Ashish A. Deshmukh, MPH, PhD¹

¹ The University of Texas Health Science Center at Houston; ² Yonsei University

Background

Cigarette smoking can negatively affect treatment response in inflammatory bowel disease (IBD) patients, and e-cigarette has been considered a safer alternative for IBD patients who smoke. However, given the recent large number of reported e-cigarette-related lung injury cases, CDC released an interim guidance update on those EVALI (e-cigarette, or vaping use associated lung injury) emphasizing the possible harms in e-cigarette smoking.

Methods

- Data: 2015-2016 National Health Information Survey (NHIS) data.
- Study population: Who reportedly were told by a doctor or healthcare professional that they have IBD.
- Outcome: The prevalence of current e-cigarette or cigarette use among IBD patients; The frequency of use (every day or some days) among the current users; Four smoking types (e-cigarette only, cigarette only, using both, and neither); Cigarette use status among e-cigarette users.
- Weighted counts and percentages were estimated using survey design for the population-level results.

Results

	Population Estimate	Weighted % (95% CI)
Current e-cigarette smoker		
Total	152,020/ 3,036,608	5.0% (3.1-6.9)
Every-day use	71,768/ 3,036,608	2.4% (1.0-3.7)
Some-day use	80,252/ 3,036,608	2.6% (1.2-4.1)
Current cigarette smoker		
Total	557,387/ 3,114,942	17.9% (14.8-21.0)
Every-day use	475,649/ 3,114,942	15.3% (12.3-18.2)
Some-day use	81,738/ 3,114,942	2.6% (1.3-3.9)
Smoking characteristics		
Only e-cigarette	55,339/ 3,035,538	1.8% (0.7-2.9)
Only cigarette	453,366/ 3,035,538	14.9% (12.2-17.7)
Both	96,681/ 3,035,538	3.2% (1.6-4.8)
Neither	2,430,152/ 3,035,538	80.1% (76.7-83.4)

- We identified 951 participants (population estimate: 3.1 million) who have IBD.
- Among those, 5.0% were current e-cigarette smokers while 17.9% were current cigarette smokers.
- 63.6% of e-cigarette users were also currently using cigarette, while 32.7% of e-cigarette users were former cigarette smokers.

Conclusion

We found that 5% of IBD patients are currently using e-cigarette. Almost two-thirds of them were also currently smoking cigarette and one-third of them were former smokers. It is possible that most of the e-cigarette users are still in the process of transitioning from cigarette smoking and thus using both types. We lack information on effects of using e-cigarette or both e-cigarette and cigarette in IBD treatment outcomes, as well as how e-cigarette use will complicate other health risks in IBD patients. We need further research on these effects to properly guide IBD patients who need smoking cessation.