

Risk perceptions and misperceptions of NJOY ACE® 2.0 BLE ENDS products among adults 21+ who smoke combustible cigarettes

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Abstract

A recent analysis of PATH data has shown that adults (18+) who currently smoke combustible cigarettes (CC) and that perceived electronic nicotine delivery systems (ENDS) as "less harmful" than CC were two-fold more likely to switch from CC to ENDS (OR 2.24; CI 1.89-2.65). We assessed risk perceptions of- and intentions to use NJOY ACE 2.0 products with age-gated access restrictions as a component of our NJOY ACE 2.0 BLE (NJOY ACE 2.0) premarket tobacco product application submission.

The vast majority of AS (n=521) perceived the absolute harm of NJOY Products as harmful [97.73%; CI (96.41-99.03)]. The majority of AS perceived the relative harm of NJOY Products to be "about the same" or "more harmful" than Nicotine Patch, Gum, or Lozenges [93.65%; CI (84.83-100)] as well as "more harmful" than Quitting All Tobacco Use [53.95%; CI (49.43-58.48)]. Furthermore, AS perceived the relative harm of NJOY Products "about the same" as other ENDS [86.20%; CI (82.99-89.40)].

Notably, the majority of AS perceived the relative harm of NJOY to be "about the same" or "more harmful" than CC [81.05%; CI (73.54-88.56)]. Indeed, only 18.95% (CI 15.45-22.45) of AS perceived NJOY Products as "less harmful" than CC. Our results demonstrate that AS do not perceive NJOY Products as risk-free, although they misperceive the harm of these products relative to CC. Given the scientific consensus that CCs are the most harmful type of tobacco product, there is a clear opportunity to address misperceptions which may promote a greater likelihood of complete switching.

Introduction

- Tobacco products exist on a continuum of risk, with cigarettes as the most harmful and ENDS having generally lower health risks (Figure 1).
- Relative risk perceptions of AS have become more inaccurate over time; 88% of AS believed ENDS carried the same risk or were riskier than cigarettes in 2021 compared to 45% of AS in 2014 (Figure 2).
- Analysis of longitudinal PATH data reveals that those AS with accurate relative risk perceptions of ENDS are much more likely to switch from cigarettes to less harmful ENDS alternatives (Figure 3).

Methods

As a component of our NJOY ACE 2.0 BLE (NJOY ACE 2.0) premarket tobacco product application submission, we utilized a cross-sectional online survey among Adult 18+ Current, Former, and Never smokers recruited from a probabilistic research panel to assess risk perceptions of- and intentions to use NJOY ACE 2.0 products with age-gated access restrictions. After exposure to product packaging and a brief description of the product concept, intentions to try NJOY ACE 2.0 products as well as risk perceptions of these products and comparators were assessed. Research questions were sourced from the Population Assessment of Tobacco and Health (PATH) Study or sourced from prior NJOY perception studies of NJOY ACE. This presentation focuses on relative risk perception data pertaining to AS (21+) (n=523) to inform factors that may impact their likelihood to switch. However, findings for former smokers (FS) (21+) (n=541) and never smokers (NS) (21+) (n=500) are also included.

Conclusion

Results from this study demonstrate that the vast majority of AS, FS, and NS accurately perceive that NJOY ACE 2.0 is not without harm, is about the same or more harmful than nicotine replacement therapy use and quitting all tobacco, and about the same harm as other ENDS. However, the majority of AS (81%) have incorrect relative risk perceptions of NJOY ACE 2.0 relative to combustible cigarettes. These data corroborate findings from PATH, illustrating the prevalence of incorrect perceptions of relative risk despite the scientific consensus that cigarettes carry a greater health risk than using ENDS products. Indeed, only 19% of AS in this study had accurate perceptions of harm for NJOY ACE 2.0. Given that AS with accurate perceptions of relative risk are significantly more likely to switch to ENDS from cigarettes (Kim et al., 2022), there is a clear opportunity to address risk misperceptions to promote switching to less harmful products.

References

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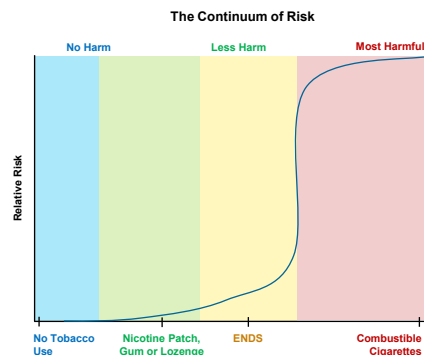
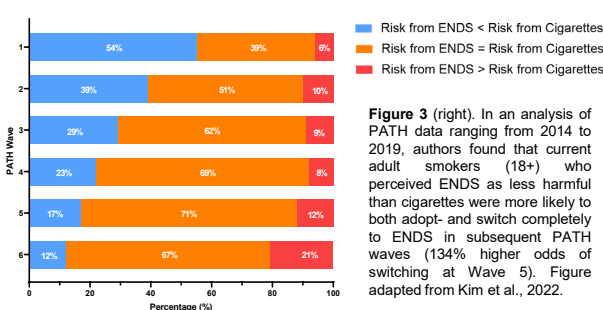


Figure 1 (left). The FDA has acknowledged that the health risks for different tobacco products exist on a continuum of risk. Combusted products, such as cigarettes, are the most harmful type of tobacco products, while non-combustible products, such as ENDS, generally have lower health risks. Figure adapted from Nutt et al., 2014.

Figure 2 (right). The proportion of AS (21+) perceiving ENDS as less harmful than cigarettes has continually decreased over time (55% in 2014 to 12% in 2021). Data from ALCS analysis of PATH Waves 1-6.

Relative Risk Perceptions of ENDS and Cigarettes among AS (18+) Over Time



Percentage of ever-ENDS-using Smokers (18+) who Switched to ENDS by Previous Risk Perceptions

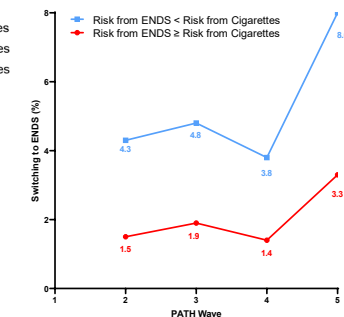


Figure 3 (right). In an analysis of PATH data ranging from 2014 to 2019, authors found that current adult smokers (18+) who perceived ENDS as less harmful than cigarettes were more likely to both adopt- and switch completely to ENDS in subsequent PATH waves (134% higher odds of switching at Wave 5). Figure adapted from Kim et al., 2022.

Results

The Relative Risk of NJOY ACE 2.0 vs Other Tobacco Products among AS (21+)

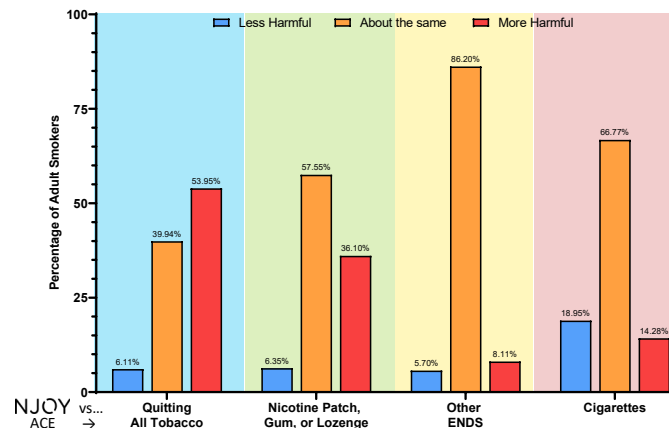


Figure 4. Participants were asked to rate the harm of NJOY ACE 2.0 compared to other tobacco products or quitting all tobacco. Notably, the majority of AS (21+) perceived the harm of NJOY ACE 2.0 to be "about the same" or "more harmful" than cigarettes (81.05%). (not shown) Findings were consistent with FS and NS.

Absolute Harm of NJOY ACE 2.0 Among AS (21+)

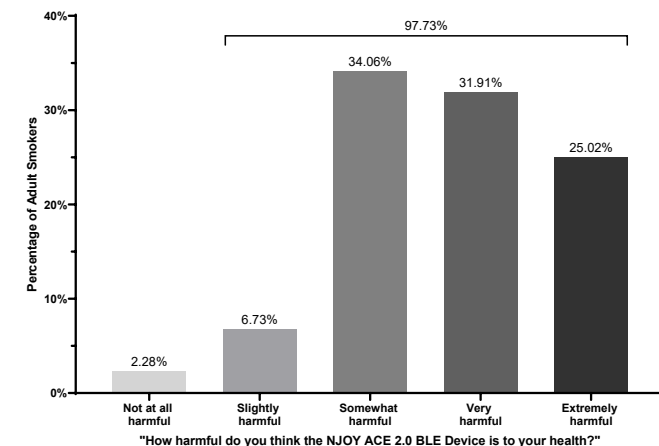


Figure 5. Absolute risk ratings of NJOY ACE 2.0. The vast majority of AS (21+) perceived the NJOY ACE 2.0 as harmful (97.73%). (not shown) 98.71% of FS (21+) and 98.47% of NS (21+) perceived NJOY ACE 2.0 as harmful.

