



Institute for Global Tobacco Control

Tobacco-Free Nicotine: Knowledge, Awareness, Use, and Perceptions of Relative Addictiveness and Harm Among People Who Use E-cigarettes

Jeffrey J Hardesty
Assistant Scientist / Co-Pl

Research reported in this presentation was part of a Rapid Response Project supported by NIDA and FDA Center for Tobacco Products (CTP) under Award Number U54DA036105.

The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH or the Food and Drug Administration.

No tobacco interests to disclose.



Background

Context

Tobacco-free nicotine (TFN): Nicotine synthesized from non-tobacco sources like chemicals in a lab. AKA synthetic nicotine

Tobacco-derived nicotine (TDN): Nicotine obtained from the tobacco plant

Manufacturers must submit a PMTA and receive authorization from FDA before marketing products

Little is known about consumer knowledge, awareness, use, and perceptions of addiction and harm for TFN liquids



Context

Tobacco-free nicotine (TFN): Nicotine synthesized from non-tobacco sources like chemicals in a lab. AKA synthetic nicotine

Tobacco-derived nicotine (TDN): Nicotine obtained from the tobacco plant

Manufacturers must submit a PMTA and receive authorization from FDA before marketing products

Little is known about consumer knowledge, awareness, use, and perceptions of addiction and harm for TFN liquids



Context

Tobacco-free nicotine (TFN): Nicotine synthesized from non-tobacco sources like chemicals in a lab. AKA synthetic nicotine

Tobacco-derived nicotine (TDN): Nicotine obtained from the tobacco plant

Manufacturers must submit a PMTA and receive authorization from FDA before marketing products

Little is known about consumer knowledge, awareness, use, and perceptions of addiction and harm for TFN liquids



Objective:

To describe knowledge, awareness, use, and perceptions of tobacco free nicotine (TFN)/synthetic nicotine liquids, among a sample of adults who use e-cigarettes





Study design

Cross-sectional web-based survey

Participant identities were verified

Participants submitted a valid photo of their most used e-cigarette device









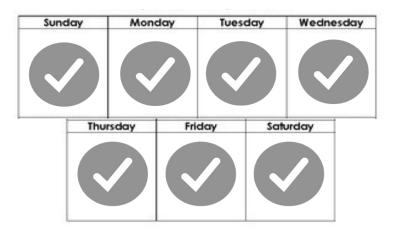


Sample

US adults (21+) who used an e-cigarette in the past 30 days (N=1163), with most (92%) being daily users

The questionnaire was completed from February to April 2023

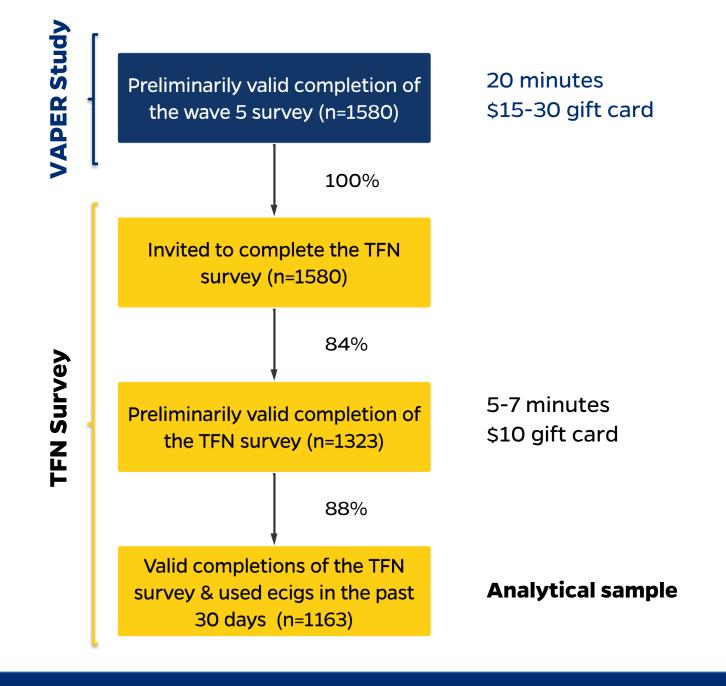
92%





Recruitment

Invited Vaping and Patterns of E-cigarette use Research (VAPER) Study participants immediately following their wave 5 questionnaire





Questionnaire and analyses

First, we assessed knowledge of the presence of nicotine and tobacco and the source of nicotine in TFN products

A TFN definition was provided: "For the questions that follow, "tobacco-free nicotine" refers to e-liquids that contain synthetic/artificial nicotine that does not come from tobacco plants"

Then, respondents self-reported awareness, ever use, past 30-day use, and perceptions of relative addictiveness and harm (TFN versus TDN)

Descriptive analyses were conducted

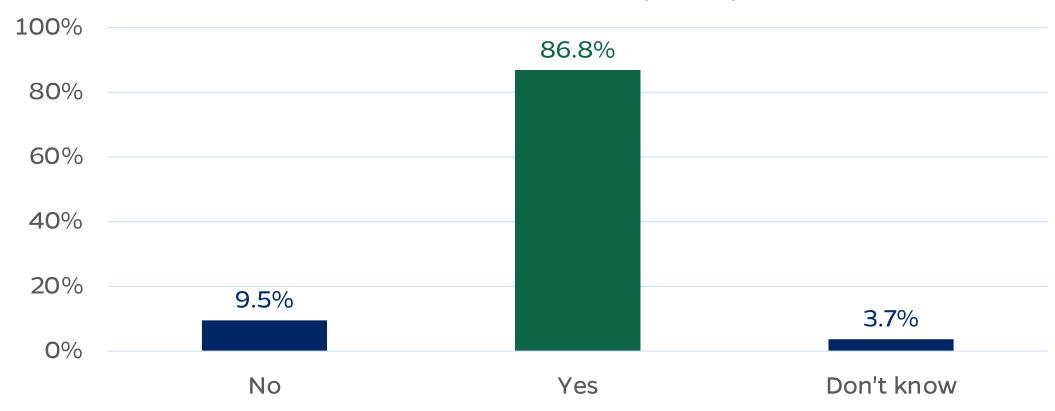




Results

Knowledge

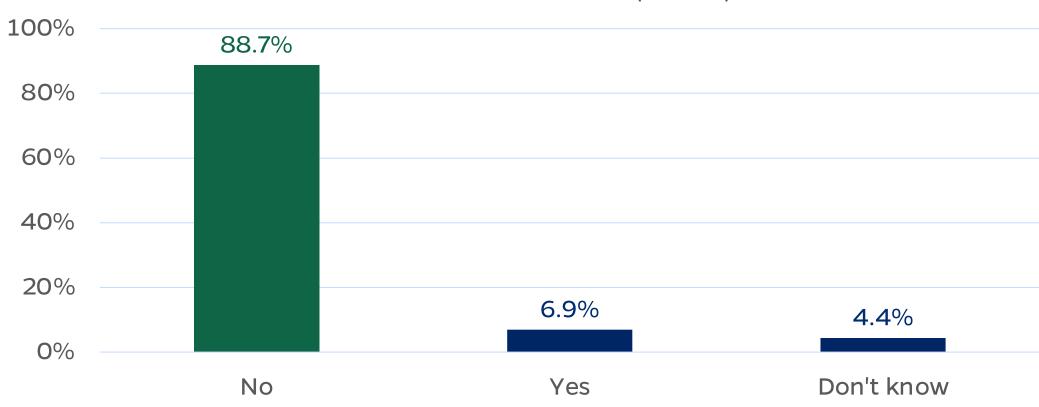
If a product is labeled as containing "tobacco-free nicotine," does it contain NICOTINE? (n=1163)





Knowledge

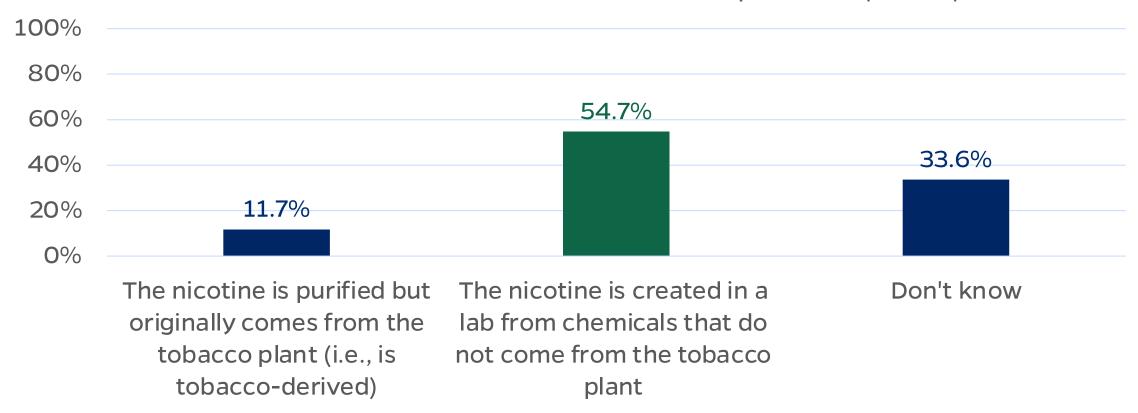
If a product is labeled as containing "tobacco-free nicotine," does it contain TOBACCO? (n=1163)





Knowledge

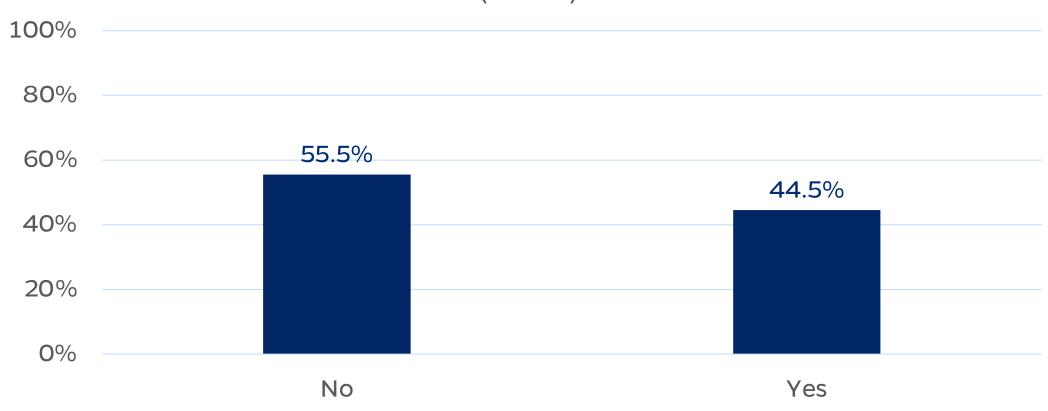
"Tobacco-free nicotine" products <u>DO</u> contain nicotine. Which of the following is true of the nicotine in "tobacco-free nicotine" products? (n=1163)





Awareness

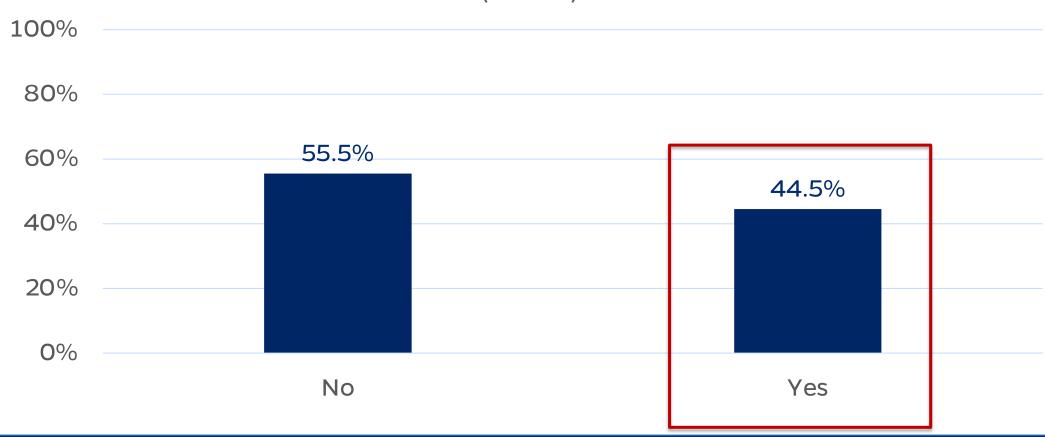
Before today, had you ever heard of TOBACCO-FREE nicotine e-liquids? (n=1163)





Awareness

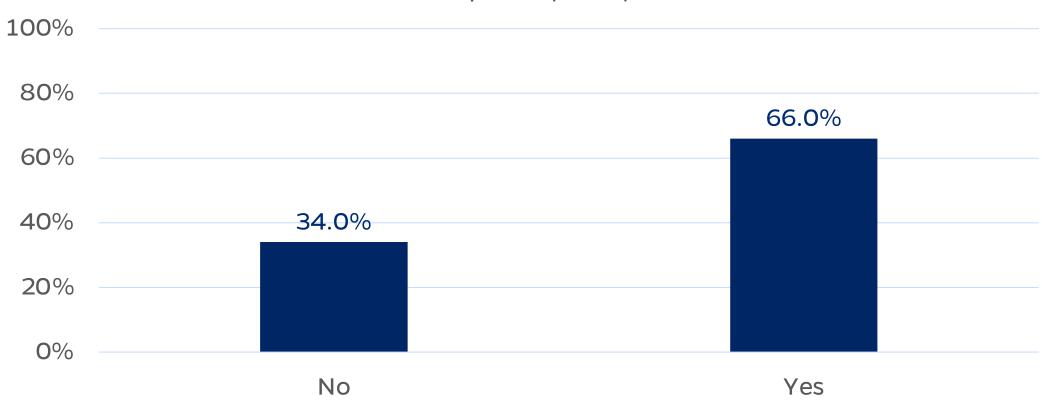
Before today, had you ever heard of TOBACCO-FREE nicotine e-liquids? (n=1163)





Using TFNs, knowingly

Have you ever knowingly used TOBACCO-FREE nicotine, even one or two puffs? (n=517)





Using TFNs, knowingly

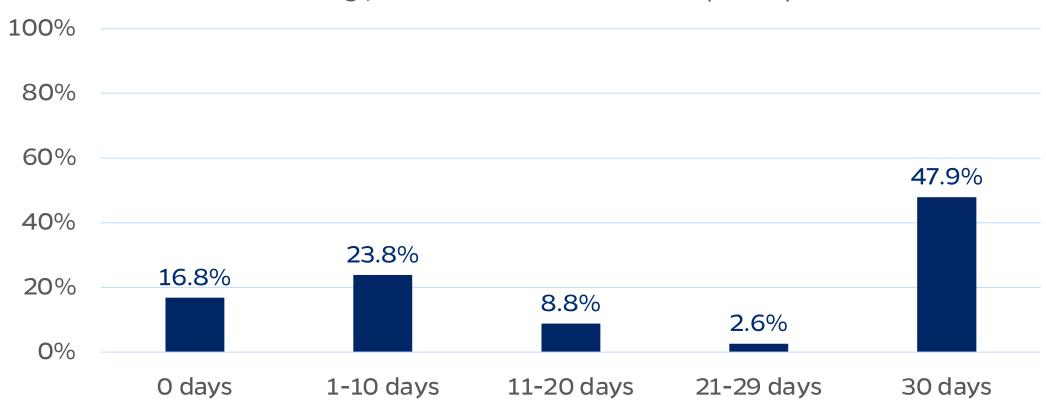
Have you ever knowingly used TOBACCO-FREE nicotine, even one or two puffs? (n=517)





Using TFNs, knowingly

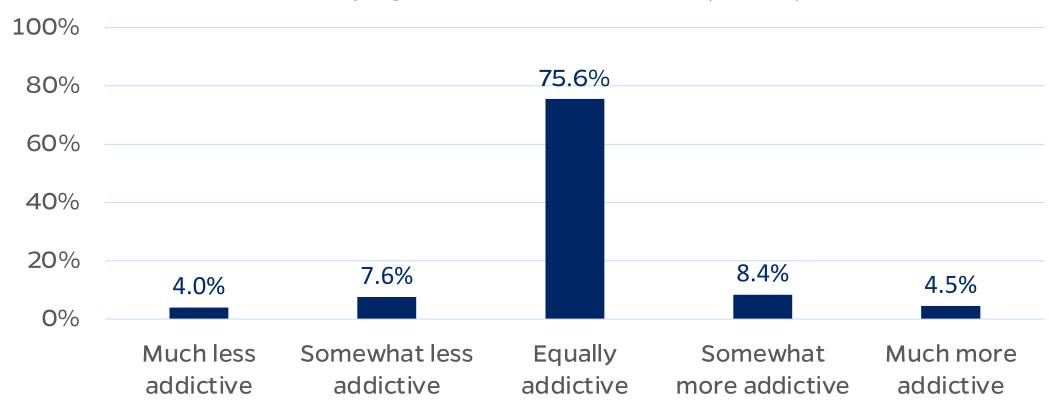
Approximately how many days out of the PAST 30 DAYS did you knowingly use tobacco-free nicotine? (n=340)





Perception of addiction

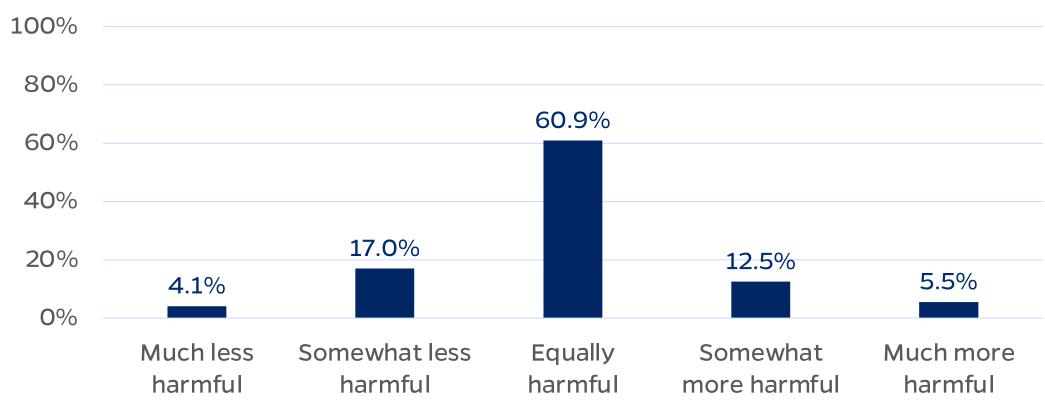
Compared to vaping tobacco-derived nicotine, how addictive do you think vaping tobacco-free nicotine is? (n=1163)





Perception of harm

Compared to vaping tobacco-derived nicotine, how harmful to your health do you think vaping tobacco-free nicotine is? (n=1163)







Conclusions

Less than half of participants had previously heard of TFN, but irrespectively, most understood nicotine was present, and tobacco was not

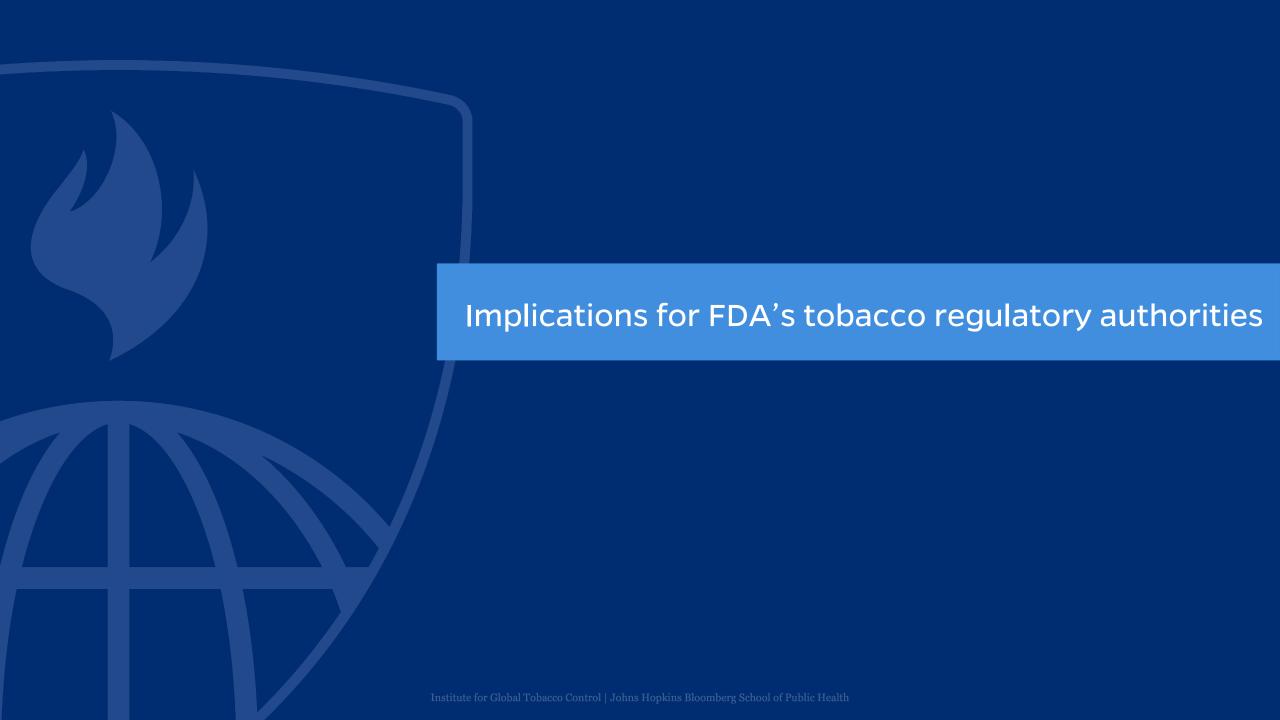
There was less understanding that TFNs are created in a lab from chemicals that did not come from tobacco

Of those who previously heard of TFNs, many reported knowingly using TFN products

The majority perceived TFN and TDN as equally addictive and harmful

These findings are an initial and limited exploration of the survey data. We plan to examine reasons for first and continued use, stratification by smoking status, and estimate unknowing TFN use





Better understanding knowledge, awareness, use, and perceptions of tobacco-free nicotine (TFN) provides important context about the consumer to regulators and should help inform their decisions about how to regulate TFN, including its marketing





Acknowledgements

Co-authors

Qinghua Nian



Ryan Kennedy



Elizabeth Crespi



Kevin Welding



Joshua Sinamo



Joanna Cohen















Thank you!





To learn more about the VAPER Study



