

RESEARCH ANALYSIS REPORT
ESTIMATION OF AWARENESS AND USE OF IQOS AMONG
UNDERAGE INDIVIDUALS 13-20 YEARS OF AGE

Analysis of Relevant Data from the ALCS Underage Tobacco Use Survey

(Short Title: Analysis of UTUS)

Lead Analyst:

(b)(4)

Sponsor:

Altria Client Services LLC (ALCS)
P.O. Box 26583
Richmond, VA 23261-6583

Sponsor Contact:

(b)(4)

Signature page

Version: Final 1.0 (08 March 2022)

Hui Cheng

13 April 2022

Hui Cheng, Ph.D.
Principal Investigator

Date (day month year)

Andrea R Vansickel

13 April 2022

Andrea R. Vansickel
Senior Principal Scientist
Sponsor Contact

Date (day month year)

TABLE OF CONTENTS

1	INTRODUCTION	5
1.1	Background	5
1.2	Rationale	5
2	PURPOSE AND OBJECTIVES	5
2.1	Purpose	6
2.2	Objectives	6
3	OVERVIEW OF THE UNDERAGE TOBACCO USE SURVEY	6
3.1	UTUS Sample Design	6
3.2	UTUS IQOS Module	7
3.3	UTUS Study Duration	7
3.4	UTUS Recruitment	7
3.5	UTUS Inclusion Criteria	8
3.6	Protection of Human Subjects in UTUS	8
3.7	Survey Weighting	9
4	ANALYSIS PROCEDURES	9
5	OUTCOME MEASURES	10
6	DATA ANALYSIS	11
7	RESULTS	12
8	APPENDIX 1 – SELECTED UTUS QUESTIONS RELATED TO IQOS AND RELEVANT TO THIS ANALYSIS PLAN	15

LIST OF TABLES

Table 1: 95% Confidence Intervals at Various Proportion Points.....**Error! Bookmark not defined.**

Table 2: Examples of the width of 95% confidence intervals for continuous variables given a sample size of 50 and 100..... **Error! Bookmark not defined.**

LIST OF FIGURES

Figure 1: Estimated Sample Sizes for Various Confidence Interval Widths by Expected Proportions **Error! Bookmark not defined.**

1 INTRODUCTION

1.1 Background

Philip Morris Products S.A. (PMP S.A.) developed the IQOS Tobacco Heating System and Marlboro HeatSticks (hereinafter referred to as IQOS) as novel tobacco and nicotine- containing products with the potential to reduce harm or the risk of tobacco-related disease associated with smoking cigarettes. PMP S.A. submitted Modified Risk Tobacco Product Applications for IQOS to the U.S. Food and Drug Administration (FDA) seeking authorization to market the products as modified risk tobacco products. On July 7, 2020, FDA issued “Modified Risk Granted Orders – Exposure Modification” authorizing IQOS to be marketed with a reduced exposure claim. The Orders are conditioned upon agreement to conduct postmarket surveillance and studies (PMSS) in accordance with protocols approved by FDA. This document is prepared as part of the PMSS program for IQOS pursuant to the Orders.

1.2 Rationale

The Federal Food, Drug and Cosmetic Act (FDCA) directs the Food and Drug Administration (FDA) to condition an exposure modification order received under FDCA § 911(g)(2) on the MRTP applicants’ agreement to conduct PMSS (FDCA §§ 911(g)(2)(C)(ii)). “The outcomes evaluated in postmarket surveillance and studies should focus on the effect of the MRTP on consumer perception, behavior and health under real world conditions of use” (Food and Drug Administration, 2012). For this reason, ALCS¹ on behalf of the applicant, PMP S.A., plans to conduct certain components of PMSS to assess the effect of the MRTP among U.S. consumers. The program consists of a collection of data over time that supports an assessment of IQOS in the postmarket setting.

This analysis is one component of the PMSS program. Specifically, it uses data relevant to IQOS from ALCS’s ongoing Underage Tobacco Use Survey (UTUS) to address FDA’s requirement for IQOS PMSS regarding assessing awareness and usage of IQOS among individuals who are 13-20 years of age².

2 PURPOSE AND OBJECTIVES

¹ Altria Client Services (ALCS) and the parent of PMP S.A., Philip Morris International Management S.A., have entered into a distribution agreement by which ALCS and its affiliates have exclusive rights to distribute and sell IQOS in the U.S. after FDA authorization. ALCS affiliate PM USA markets IQOS in the U.S. Therefore, PMSS that involves the study of consumers and consumption in the U.S. will be conducted by ALCS to be submitted as part of PMSS reporting by PMP S.A.

² In the “Modified Risk Granted Orders-Exposure Modification” (July 7, 2020), FDA indicated that “..., given the novelty of these products and the uncertainty related to the impact of modified risk information on youth, your studies must be designed to monitor individuals under the age of 18 to assess: (a) youth awareness of IQOS, to evaluate how effectively your marketing is limiting unintended exposure to youth, and (b) youth use of the IQOS system, to help ensure that marketing of the MRTPs does not have unintended consequences for youth use. Your surveys must also monitor young adults below the legal age to purchase tobacco products (i.e., ages 18-20).

2.1 Purpose

The purpose of this analysis is to estimate the awareness and use of IQOS among underage individuals based on relevant data from a nationwide population-based survey.

2.2 Objectives

The objectives of this analysis are to:

- 1) Estimate awareness of IQOS among underage individuals
- 2) Estimate ever and past 30-day IQOS use among underage individuals
- 3) Estimate lifetime use behavior among underage ever users of IQOS
- 4) Estimate past 30-day use behavior among underage past 30-day IQOS users

Use behaviors include exclusive, dual and poly tobacco use with IQOS and frequency of use.

3 OVERVIEW OF THE UNDERAGE TOBACCO USE SURVEY

We analyzed data from the ALCS Underage Tobacco Use Survey, an on-going national cross-sectional survey of non-institutionalized household dwelling underage individuals (age 13-20) living in the United States (US).

ALCS developed the UTUS to support its underage tobacco prevention and regulatory research and engagement efforts. The UTUS was designed to provide a timely assessment of use behaviors among underage individuals across a range of tobacco product categories. ALCS communicated with FDA on November 15, 2019 its plan to launch the UTUS and shared relevant study materials, including the study protocol, questionnaire, and consent/assent forms.³ The FDA acknowledged the communication and receipt of materials on Dec. 30, 2019.

ALCS conducted a pilot study during the first quarter of 2020. ALCS launched the full study in May 2020 (Q2 administration) and plans to carry out regular, quarterly survey administrations into the future.

The UTUS is designed to draw nationally representative samples of underage individuals 13-20 years of age using a probability-based sampling method. To better support surveillance of IQOS following the MRTTP authorization, ALCS started to incorporate oversamples of underage individuals 13-20 living in US geographies where IQOS was available for sale. Thus, analysis of UTUS data provide information on IQOS at both the national and targeted geography levels.

3.1 UTUS Sample Design

The UTUS sample design is a multi-stage stratified list-assisted address-based sampling (ABS) design, which utilizes housing unit addresses from the United States Postal Service (USPS) computerized delivery sequence file (CDS) and housing unit addresses flagged as being likely to have a person age 13 to 20 living at the address by the ABS vendor. Group quarters are not included

³ There have been some modifications to the study materials since then.

on the sampling frame (e.g., military barracks, group homes, and correctional facilities). To sample housing units, addresses on the sampling frame are stratified by three age groups (13-15, 16-18, 19-20), four Census regions, and urban/rural classification, resulting in a total of 24 strata. Within each stratum, addresses are randomly selected. Within a sampled housing unit, a maximum of two individuals 13-20 years of age are randomly selected. The allowance of two persons per household is used in both US National Survey on Drug Use and Health, as well as the Population Assessment of Tobacco and Health survey.

Starting from quarter 4 of 2020, an oversampling of participants in geographies where IQOS was sold was implemented to better support surveillance of IQOS. IQOS was first launched into a single market, Atlanta, GA, in September 2019 and into a second market, Richmond, VA, in November 2019. IQOS launched into a third market, Charlotte, NC, in July 2020. These three geographic areas were oversampled. In quarter 2 of 2021, we added an IQOS module to the UTUS questionnaire upon FDA's approval.

3.2 UTUS IQOS Module

The UTUS IQOS module includes questions about awareness, usage, and consumption specific to IQOS. See [Appendix 1](#) for the UTUS questions that are relevant to this analysis, including specification of the questions that will be added for the purpose of IQOS surveillance.

3.3 UTUS Study Duration

UTUS is fielded on a quarterly basis. For this analysis, data from quarter 2 of 2021 to quarter 1 of 2022 are aggregated (i.e., the most recent 12-month period).

3.4 UTUS Recruitment

Once the sampled housing unit addresses are drawn, a series of four mailings are used to contact each sampled address. In addition, phone calls are made after the last mailing to housing units for which telephone numbers are available via the study vendor. In all cases, an adult household member is required to respond to the survey invitation by providing a housing-unit-specific Access Code, which is included in the mailings. Upon successfully entering the unique Access Code, the responding adult household member enumerates household members to determine if there is at least one member of the household (including students away at college) whose age is between 13 and 20 years. Households containing at least one resident aged 13 to 20 are then administered a household roster to establish a list of eligible study participants in each household. Upon completion of the roster, a maximum of two eligible individuals are randomly selected.

If a selected potential participant is between the ages of 13-17, consent from the participant's parent or legal guardian is required. For all selected individuals, assent is required before taking the survey. Participants can either go to a study web-site to complete the questionnaire (online self-administration) or call a toll-free telephone number to speak to an interviewer to complete the questionnaire (computer-assisted phone interview). As a summary, the process includes the following steps to determine eligibility, select study participants, obtain informed consent/assent and proceed to the main questionnaire:

1. Person completing the screener is asked, “Including yourself, how many people, in each of the following age groups, live in your household at least 50% of the time, or are college students living away from home some of the time?”
2. 12 or younger, 13-20, 21-34, 35-54, or 55 or older
3. Continue with the screener questionnaire if they have person age 13 to 20 in the household.”
4. Household roster is established with age, and sex for each member of household that is age 13-20.
5. Up to 2 members of the household that are age 13-20 are randomly selected.
6. If 1 or 2 minors are selected, collect parental consent.
7. After collecting participant assent, complete the survey.

Both household roster and the main survey can be completed in English or Spanish.

Using this method, a total of 5,205 individuals completed the survey between quarter 2 of 2021 and quarter 1 of 2022.

Participants are able to obtain a token of appreciation upon completion of the questionnaire (in the form of Amazon or Target electronic gift cards). For participants aged 13-17 years, their parent/guardian is provided with instructions to obtain the token of appreciation and asked to pass it on to the child.

3.5 UTUS Inclusion Criteria

Participants must satisfy the following criteria to participate in the study:

- a) English or Spanish speaking persons;
- b) Have access to internet and/or telephone;
- c) 13 to 20 years of age;
- d) Sufficient abilities to complete the questionnaire (i.e., reading/responding to online survey instrument or listening/speaking to interviewer over the telephone);
- e) 13-17-year-old individuals with consent from their parent/legal guardian and who assent to participate; and
- f) 18-20-year-old individuals who consent to participate.

3.6 Protection of Human Subjects in UTUS

The UTUS protocol is approved by a designated Institutional Review Board (IRB).

Participation in UTUS is voluntary. For study participants aged 13 to 17, parental/legal guardian consent is required and recorded through the survey instrument prior to administering the assent form to the minors. All study participants, including minors (age 13 to 17) and adults (age 18 to 20), are administered the informed assent form, and by stating that they would like to participate in the survey after being provided complete information about the study, they are providing their

assent to participate. All participants and parents/guardians of 13-17 year-olds are able to obtain a copy of the assent or consent statements if they wish.

3.7 Survey Weighting

Survey weights are derived for the combined four quarters data. Survey weighting is carried out in the following stages:

Address Level

- * Base Weights to reflect the selection probability for sampled addresses
- * Exclusion of Non deliverable Addresses to restrict weighting to deliverable addresses present on sampling frame
- * Adjustment for Screener Nonresponse to account for non-participation due to a screener not being completed

Person within Address Level

- * Adjustment for Selection Within Household to reflect the selection probability for sampled persons within an address
- * Adjustment for Parental Non-consent to account for non-participation due to parent/guardian not providing consent for selected minor to participate in survey
- * Adjustment for Selected Person Nonparticipation to account for non-participation due to selected person not assenting to participate in survey or not providing a usable set of responses to the survey
- * Adjustment to Person-Level Population Totals to control weighted counts of completed interviews to total population counts of persons age 13-20 by characteristics for which estimates are desired and/or which are associated with survey variables of interest (e.g., sex, age category, race/ethnicity, census region, and urban/rural residence)

Weights are trimmed as appropriate, to lessen the impact of extreme weights. Once survey weighting is completed, each participant who completed the survey has a weight which is used to generate survey estimates.

4 ANALYSIS PROCEDURES

Our analysis and reporting of IQOS-relevant information from UTUS for postmarket surveillance purposes will follow a step-wise process based on the number of IQOS users identified in the UTUS dataset.

The process will unfold as follows:

- The awareness of IQOS and use of IQOS (ever use and past 30-day use) among underage individuals are reported following IQOS MTRP authorization for a time period specified in the Modified Risk Order (e.g., annual). The estimates will be based on data from the most recent four moving quarters.
- Outcomes based on subgroups of underage individuals (e.g., outcomes based only among those aware of IQOS, ever used IQOS or used IQOS in the past 30 days) are reported when there are at least 50 respondents in that subgroup.

5 OUTCOME MEASURES

In this section, we provide detailed definitions of outcome measures to be reported for IQOS PMSS. Outcomes will be reported separately for the national sample and the oversample where IQOS is distributed.

Objective 1: Estimate awareness and source of awareness of IQOS among underage individuals

- Awareness of IQOS: percentage of respondents who have seen or heard of IQOS (i.e., those who answered “yes” to the question “Have you ever seen or heard of IQOS® before this study?”; [Table 1](#)).
- Source of awareness of IQOS: percentages of respondents who indicated each option as the source of first awareness of IQOS among individuals who are aware of IQOS ([Table 2](#)).

Objective 2: Estimate ever and past 30-day IQOS use among underage individuals

- Prevalence of *past 30-day use* of IQOS: Percentage of respondents who used IQOS in the past 30 days. Past 30-day use of IQOS is operationalized as having ever used IQOS and used IQOS during the past 30 days (i.e., those who selected “IQOS” in question “During the past 30 days, what brand or brands of heated tobacco products did you use?” or selected “yes” to the question “During the past 30 days, did you use IQOS?”; [Table 3](#)).
- Lifetime *ever use*⁴ of IQOS: Percentage of respondents who have ever used IQOS in their lifetime (i.e, those who selected “yes” to the question “Have you ever used IQOS before this study, even just one time?”; [Table 3](#)).

Objective 3: Estimate lifetime use behavior among underage ever users of IQOS

- Lifetime consumption of heated tobacco: percentages of respondents who used 1, 2- 10, 11-99, and 100+ of HeatSticks with IQOS in their lifetime among ever users of IQOS
History of other tobacco use among ever IQOS users: percentages of respondents who have ever used
 - IQOS only
 - IQOS and at least one combusted tobacco product
 - IQOS and at least one non-combusted tobacco product
 - IQOS and both combusted and non-combusted tobacco products

⁴ We do not consider lifetime ever use a prevalence measure because it deviates from the traditional definition of prevalence in significant ways and is better described as cumulative incidence among survivors (Streiner et al., 2009).

Estimates for outcomes listed in objective 3 will be stratified by whether the HeatStick first used was menthol or non-menthol when sample size allows.

Objective 4: Estimate past 30-day use behavior among underage past 30-day IQOS users

- Use frequency: median (with interquartile range) and mean (with standard deviation) for the number of days of IQOS use during the past 30 days among past 30-day IQOS users
- Amount consumed on days used: percentages of respondents who consumed the following number of HeatSticks with IQOS on the days they used IQOS:
 - ≤ 1 per day
 - 2-5 per day
 - 6-10 per day
 - >10 per day
- Exclusive, dual, and poly tobacco users among past 30-day IQOS users: percentages of respondents who used the following in the past 30 days:
 - IQOS only
 - IQOS and at least one combusted tobacco product
 - IQOS and at least one non-combusted tobacco product
 - IQOS and both combusted and non-combusted tobacco products

Outcome measures are reported for the total study population, and by population subgroups with respect to sex, age, and race/ethnicity when there are at least 50 individuals in a given subgroup (e.g., 13-17-year-olds or 18-20-year-olds).

An answer of “don’t know” was coded as missing for all above variables.

6 DATA ANALYSIS

Descriptive statistics were calculated, including medians and means for continuous or count variables (e.g., amount of tobacco use), as well as percentages and frequencies for categorical variables (e.g., yes/no ever used a tobacco product). Ninety-five percent (95%) confidence intervals were calculated when applicable.

Awareness and Use Measures. Estimates were reported with 95% confidence intervals for the total sample and by major demographic categories (sex, age, and race/ethnicity).

Demographic Characteristics. In this reporting period, there were less than 50 IQOS users, so demographic characteristics were not reported.

7 RESULTS

Weighted proportions were produced and Tylor series approximation was used for variance estimation. Stata 16.0 was used for analysis with the following setup for complex survey data,

```
svyset access_code [pweight=weight_q221_q122], str(str) single(center)
```

7.1 Awareness of IQOS

As shown in [Table 1](#), 4% of underage individuals had ever seen or heard of IQOS by the time of the assessment. Underage young adults (18-20 years) were more likely to be aware of IQOS compared to youth (13-17 years; 5.9% vs. 3.1%). Those from the three lead market regions were more likely to be aware of IQOS compared to underage individuals from the rest of the US (7.7% vs. 3.9%).

Table 1: Estimated awareness of IQOS among 13-20 year olds

Group	n	% (95% CI)
Overall	5205	4.0 (3.4, 4.6)
Sex		
Males	2480	4.1 (3.3, 5.1)
Females	2725	3.9 (3.1, 4.8)
Age		
13-17 Years	3054	3.1 (2.4, 3.8)
18-20 Years	2151	5.9 (4.8, 7.1)
Race/ethnicity*		
Non-Hispanic White	2829	4.0 (3.3, 5.0)
Non-Hispanic Black	590	4.9 (3.2, 7.6)
Hispanic	1128	4.1 (2.9, 5.7)
Others	437	3.1 (1.8, 5.1)
Region		
Lead market regions	929	7.7 (5.9, 9.9)
Rest of US	4267	3.9 (3.3, 4.5)

n is unweighted frequency; % is weighted percentage.

*Hispanics included those who answered “yes” to the first question.

Non-Hispanic white included those who answered “no” to the first question and selected “White” only to the second question. Non-Hispanic black included those who answered “no” to the first question and selected “Black” only to the second question. Others included those who selected other options in the second question other than “refused”.

Among those who had ever heard or seen of IQOS, the most common source of awareness was from friends, peers, or classmates, followed by seeing advertisement at gas stations, convenience stores, or other retail stores ([Table 2](#)).

Table 2: Estimated source of awareness of IQOS % (95% CI) among 13-20 year olds who are aware of IQOS (n=255)

	Overall n=255	13-17 n=114	18-20 n=141
Saw IQOS in person in a store, mall, convenience store	6.6 (3.7, 11.4)	5.3 (2.1, 12.6)	7.9 (3.8, 15.7)
Saw someone else using IQOS	3.4 (1.5, 7.2)	3.2 (0.9, 11.1)	3.5 (1.4, 8.4)
Saw it on social media (e.g., YouTube or Instagram)	7.5 (4.4, 12.6)	8.7 (4.0, 17.9)	6.3 (2.9, 13.1)
Advertisement at gas stations, convenience stores, or other retail stores	17.6 (12.9, 23.6)	20.5 (13.2, 30.6)	14.5 (9.3, 22.0)
Advertisement on radio or in newspapers or magazines	1.3 (0.5, 3.4)	1.3 (0.3, 5.2)	1.3 (0.3, 4.8)
Advertisement at festivals, nightclubs, and bars	0.1 (0.0, 0.7)	0.2 (0.0, 1.4)	0
Advertisement on websites or social media sites	6.1 (3.3, 11.0)	9.8 (4.9, 18.5)	2.3 (0.7, 7.9)
A friend/peer/classmate told me about it	38.8 (31.5, 46.6)	36.4 (26.0, 48.3)	41.3 (31.8, 51.6)
A family member told me about it	3.2 (1.5, 6.8)	4.2 (1.6, 10.4)	2.2 (0.6, 7.9)
Heard or read a story in the news	3.4 (1.2, 8.9)	2.1 (0.3, 12.1)	4.7 (1.4, 14.5)
Other, specify _____	2.9 (1.0, 7.7)	3.7 (1.0, 13.0)	2.0 (0.4, 8.8)
Don't know/do not recall	9.1 (5.5, 14.8)	4.6 (1.2, 15.7)	13.9 (8.4, 22.1)

n is unweighted frequency; % is weighted percentage.

7.2 Objective 2. Lifetime and past 30-day IQOS use

As shown in Table 3, ever use and past 30-day use of IQOS was low among underage individuals and all subgroups (i.e., <1%).

Table 3: Estimated ever and past 30-day use of IQOS by demographic characteristics

Group	Ever IQOS use		Past 30-day IQOS use	
	n	% (95% CI)	n	% (95% CI)
Overall	5195	0.4 (0.3, 0.7)	5196	0.1 (<0.1, 0.3)
Sex				
Male	2475	0.7 (0.4, 1.2)	2476	0.2 (0.1, 0.5)
Female	2720	0.2 (0.1, 0.4)	2720	0
Age				
13-17 Years	3051	0.2 (0.1, 0.4)	3052	0.1 (<0.1, 0.4)
18-20 Years	2144	1.0 (0.6, 1.6)	2144	0.1 (<0.1, 0.5)
Race/ethnicity*				
Non-Hispanic White	2823	0.5 (0.3, 0.9)	2823	0.1 (<0.1, 0.3)
Non-Hispanic Black	590	0.3 (0.1, 0.7)	590	0
Hispanic	1127	0.3 (0.1, 0.9)	1127	0.1 (<0.1, 0.6)
Others	436	0.7 (0.2, 2.3)	436	0.3 (<0.1, 1.8)
Regions				
Lead market region	928	1.0 (0.5, 2.0)	4276	0.2 (<0.1, 1.5)
Rest of US	929	0.4 (0.3, 0.7)	4267	0.1 (<0.1, 0.3)

n is unweighted frequency; % is weighted percentage.

Stratified analysis by menthol and non-menthol HeatSticks was not conducted due to low estimates of overall use.

*Hispanics included those who answered “yes” to the first question. Non-Hispanic white included those who answered “no” to the first question and selected “White” only to the second question. Non-Hispanic black included those who answered “no” to the first question and selected “Black” only to the second question. Others included those who selected other options in the second question other than “refused”.

There was a total of 29 ever IQOS users and five past 30-day IQOS users, which did not meet the n=50 threshold for reporting use behaviors among users for objective 3 (i.e., estimate lifetime use behavior among ever users of IQOS) and 4 (i.e., estimate lifetime use behavior among ever users of IQOS).

Correct identification of IQOS was defined as selecting “This device only uses sticks containing actual tobacco” to the question “Which of the following best describes IQOS?” Among the 255 individuals who were aware of IQOS, 10.9% (95% CI = 7.1% to 16.3%) correctly identified IQOS was a device that “only uses sticks containing actual tobacco”; 50.7% (95% CI = 42.8% to 58.6%) answered “don’t know” to the question. Of the five past 30-day IQOS users, one correctly identified IQOS.

8 APPENDIX 1 – SELECTED UTUS QUESTIONS RELATED TO IQOS AND RELEVANT TO THIS ANALYSIS PLAN

This appendix provides a list of UTUS survey questions relevant to the current analysis. The UTUS questionnaire is organized in two main parts: (1) awareness/ever use of various tobacco products and (2) category-specific modules with questions about tobacco use behaviors. To further support postmarket surveillance requirements, an IQOS-specific module was added to the questionnaire as indicated below.

AWARE / EVER USED

- 3h. And the next question is about heated tobacco products. Some people refer to these products as “heat-not-burn” tobacco products. “Heated tobacco products” heat tobacco sticks or capsules to produce a vapor. They are different from e-cigarettes, which heat a liquid to produce a vapor. Some brands of “heated tobacco products” include IQOS, glo™, and Eclipse®.

Have you ever seen or heard of “heated tobacco products” before this study?

Yes - 1

No - 2

(ASK Q.4h IF ‘YES’ AT Q.3h)

- 4h. Have you **ever used** a “heated tobacco product”, even just one time?

Yes - 1

No - 2

- 3h1. Have you ever seen or heard of IQOS before this study?

Yes - 1

No - 2

Don’t know -99

- 3h8. [Ask if ‘Yes’ at Q.3h1] How did you first see or hear of IQOS?

A friend/peer/classmate told me about it	-1
A family member told me about it	-2
Advertisement at gas stations, convenience stores, or other retail stores	-3
Advertisement in newspapers or magazines	-4
Advertisement at festivals, nightclubs, and bars	-5
Advertisement on websites or social media sites	-6
Heard or read a story in the news	-7
Saw IQOS in person in a store, mall, convenience store	-8
Saw someone else using IQOS	-9
Saw it on social media (e.g., YouTube or Instagram)	-10
Other, specify _____	-90
Don't know/don't recall	-99

3h9. [Ask if 'Yes' at Q.3h1] Which of the following best describes IQOS? [Rotate responses 1-4. Keep 1-3 together, rotating within these 3 responses. Always keep "Don't Know" last.]

This device only uses replaceable pods/cartridges/capsules	-1
This device only uses sticks containing actual tobacco	-2
This device uses both sticks containing actual tobacco <i>and</i> replaceable pods/cartridges/capsules	-3
This device is refilled using bottles of e-liquid	-4
[ALWAYS SHOW LAST] Don't Know	-99

4h1. [Ask if 'Yes' at Q.3h1] Have you ever used IQOS before this study, even just one time?

Yes	- 1
No	- 2
Don't know	-99

HEATED TOBACCO PRODUCT SECTION

These next questions are about the use of “heated tobacco products”. Some people refer to these products as “heat-not-burn” tobacco products.

9h. [If Q4h is ‘Yes’] When was the last time you used a heated tobacco product, even one or two times? *(Please select the first answer that fits.)*

Earlier today	-1
Not today but sometime during the past 7 days	-2
Not during the past 7 days but sometime during the past 30 days	-3
Not during the past 30 days but sometime during the past 6 months	-4
Not during the past 6 months but sometime during the past year	-5
1 to 4 years ago	-6
5 or more years ago	-7

12h. [If Q9h is 1-3] During the past 30 days, what brand or brands of heated tobacco products did you use? *(select all that apply)*

(Display brand list, only shows IQOS if ‘Yes’ at Q.4h1)

Eclipse	-1
Glo	-2
IQOS	-3
PAX	-4

Ploom Tech	-5
Some other brand not listed here	-90 (specify) _____
Not sure	-99

IQOS-SPECIFIC SECTION

21hi. You mentioned earlier that you have used IQOS before this study. The next questions are about IQOS.

[Ask if 'Yes' at Q4h1] How many HeatSticks have you used with IQOS in your **entire life**?

1	-1
2 to 10	-2
11 to 20	-3
21 to 50	-4
51 to 99	-5
100 or more	-6

22hi. [Ask if 'Yes' at Q4h1] Menthol HeatSticks are HeatSticks that taste like mint. Was the first IQOS HeatStick you used menthol or non-menthol (regular)?

Menthol	- 1
Non-Menthol	- 2
Not sure	-99

23hi. [Ask if 'Yes' at Q4h1 AND IQOS is not mentioned in Q12h; if IQOS is mentioned in Q12h, autofill this question with 'Yes' and move to 24hi] During the past 30 days, did you use IQOS?

Yes	- 1
No	- 2
Don't know	-99

24hi. [If 'Yes' at Q23hi OR IQOS is mentioned in Q12h] During the past 30 days, on how many days did you use IQOS?

__ _ Number of days (1-30)

25hi. [If 'Yes' at Q23hi OR IQOS is mentioned in Q12h] During the past 30 days, on the days you used IQOS, about how many HeatSticks did you use with IQOS per day?

Less than 1 per day	-1
1 per day	-2
2 to 5 per day	-3
6 to 10 per day	-4
11 to 20 per day	-5
More than 20 per day	-6

26hi. [If 'Yes' at Q23hi OR IQOS is mentioned in Q12h] During the past 30 days, was the HeatStick you usually used with IQOS menthol or non-menthol?

Menthol	-1
Non-Menthol	-2
I did not have a usual type	-97
Not sure	-99