

Quantitative Study to Assess Perceptions of and Likelihood of Use of ZYN® with Modified Risk Claims Among US Adults

REPORT SMNA 5240072

Product Name:	ZYN® Nicotine Pouches
First Respondent Enrolled:	February 6, 2024
Last Respondent Completed:	March 3, 2024
Principal Investigator:	(b) (4) (b) (6)
Sponsor:	Swedish Match North America (b) (6)
Sponsor Agent Signatory:	(b) (6)
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2 SYNOPSIS

Sponsor:

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Name of Finished Product: ZYN® Nicotine Pouches**Name of Active Ingredient:** Not applicable**Study Title:** Quantitative Study to Assess Perceptions of and Likelihood of Use of ZYN® with Modified Risk Claims Among US Adults**Investigators:** (b) (6)

(b) (6)

(b) (4)

Publication (reference): Not applicable**Studied Period:**

Start of data collection: February 6, 2024

End of data collection: March 3, 2024

Objective: The overarching research question within the ZYN® Nicotine Pouches Likelihood of Use Study can be stated as follows: *(i) How does the exposure to ZYN® Nicotine Pouches product concept with modified risk claims affect intentions, behaviors, and perceptions of TNP users and non-users, based on comparison of pre- to post-exposure?* This was evaluated by way of an observational study with a pre-/post-exposure design.

Primary Objectives:

1. Among all respondents, assess whether being exposed to a ZYN® Nicotine Pouches shelf set and product concept with modified risk claims impacts perceptions and intentions related to the use of TNP.
 - i. Among never-users of TNP evaluate:
 - Current likelihood to initiate TNP based on intention to use TNP.
 - Future likelihood to initiate TNP based on intention to use ZYN® Nicotine Pouches after being exposed to a ZYN® Nicotine Pouches product concept with modified risk claims (versus control group being exposed to product concept without modified risk claims).
 - ii. Among former smokers/other TNP users evaluate:
 - Current likelihood to reinitiate TNP based on intention to use TNP.
 - Future likelihood to initiate TNP based on intention to use ZYN® Nicotine Pouches after being exposed to a ZYN® Nicotine Pouches product concept with modified risk claims (versus control group being exposed to product concept without modified risk claims).
 - iii. Among current users of Cigarettes evaluate:
 - Current use of TNP.
 - Current intention to quit smoking.
 - Post- intention to quit smoking after exposure to ZYN® Nicotine Pouches.
 - Comparison by stimuli (test or control) in terms change in self-reported intention to quit smoking.
 - iv. Among current users of Smokeless TNP evaluate:
 - Current use of TNP.
 - Current intention to quit TNP.
 - Future intention to use ZYN® Nicotine Pouches after being exposed to ZYN® Nicotine Pouches product concept with modified risk claims (versus control group being exposed to product concept without modified risk claims).
2. Among all respondents, measure the understanding that ZYN® Nicotine Pouches:
 - i. Contains nicotine, which is addictive
 - ii. Comes in both 3mg and 6mg strengths and multiple flavors
 - iii. Is for adult (21+) use only

Secondary Objectives:

1. Among all respondent cohorts, explore differences in perceptions of absolute risk associated with use of cigarettes, ENDS, smokeless tobacco/nicotine products and NRTs plus cigarette cessation and cessation of all TNP use.
 - i. Measurement of perceived absolute risk prior to showing respondents the ZYN® Nicotine Pouches concept.
 - ii. Measurement of perceived absolute risk of ZYN® Nicotine Pouches to occur after showing respondents the ZYN® Nicotine Pouches concept.
 - iii. The seven critical health conditions under consideration when evaluating absolute risk are:
 - Lung cancer
 - Mouth cancer
 - Throat cancer
 - Emphysema
 - Heart disease
 - Stroke
 - Chronic bronchitis
2. Among all respondent cohorts, explore differences in perceptions of relative risk of using ZYN® Nicotine Pouches as opposed to:
 - i. Smoking cigarettes;
 - ii. Using ENDS;
 - iii. Using smokeless tobacco products;
 - iv. Using nicotine pouches;
 - v. Using NRTs;
 - vi. Cigarette cessation;
 - vii. Cessation of all tobacco/nicotine products.

All measurements of relative risk were collected after respondents were exposed to the ZYN® Nicotine Pouches shelf set and product concept.

The health conditions under consideration when considering relative risk are:

- Lung cancer
- Mouth cancer
- Throat cancer

- Emphysema
- Heart disease
- Stroke
- Chronic Bronchitis

Methodology: The Likelihood of Use study consisted of a cohort study assessing intended behavior regarding TNP use and perceptions of health risks before and after exposure to ZYN® Nicotine Pouches shelf set and product concept. The impact of the ZYN® Nicotine Pouches concept was assessed via repeated measures analysis within TNP user groups and independent measures across TNP user groups. Study participants were evenly split into two cells. Cell 1 (test) was exposed to a shelf set and a ZYN® Nicotine Pouches product concept that included modified risk claims. Cell 2 (control) was exposed to the same shelf set and the ZYN® Nicotine Pouches product concept that excluded the modified risk claims. The ZYN® Nicotine Pouches product concept was presented in the form of a one-page marketing piece, akin to a counter mat/point-of-sale display. It provided a picture of the product, details about the product and different varieties available, strengths, number of pouches in canister, and flavors, as well as the required warning that nicotine is an addictive chemical and the modified risk claims (test cell only).

Data were obtained using responses from a customized web-based survey of invited consumers who met inclusion and exclusion criteria and who agreed to participate. (b) (4)

Additionally, the final dataset was weighted to ensure alignment with target proportions.

After recruitment, participants accessed a 20-25-minute survey where were asked to self-report current TNP use. Cognitive interviews prior to launch of the study informed the survey design to ensure that the survey materials were appropriate and sufficiently clear to respondents.

Number of Respondents (Planned and Analyzed)

Planned: The study sample consisted of a U.S. adult population of legal age for TNP use. The study was planned to have a total sample of 3,400 respondents for four cohorts, with oversampling of young adult population (21-24 years).

Analyzed: There were (b) (4) respondents who met the study eligibility criteria, completed the survey, and were retained for study analysis after data management. Of these respondents, the following were observed cohorts:

- (b) (4) were never TNP users (b) (4)
- (b) (4) were never TNP users (b) (4)
- (b) (4) were former smokers/other TNP users (except smokeless and cigarettes)

- (b) (4) were smokeless TNP users
- (b) (4) were current cigarette smokers

Inclusion Criteria:

- Nicotine Pouches minimum legal age for TNP use (age 21+)
- Currently a resident of the United States
- Able and willing to comply with all study requirements
- Agree to electronic statement of informed consent

Exclusion Criteria:

- Under legal age of purchase (21 years of age)
- Have taken part in a consumer research study on tobacco in the past 3 months
- Employees of or household member employed in manufacturing, sales or distribution of tobacco or nicotine products, advertising/marketing, market research, healthcare, legal field, or news and media, to minimize bias and to protect any proprietary product information that will be disclosed in the survey
- Unwilling or unable to provide electronic informed consent
- Have started smoking within the last 30 days or started using a smokeless tobacco/nicotine product within the last 30 days
- Willing/ able to complete survey in English language

Statistical Methods: Descriptive statistics provided summary statistics for all variables and were used to understand the distribution of outcomes, and (b) (4)

(b) (4) Descriptive statistics included the number of non-missing observations, frequencies, percentages, and 95% CIs for the percentage of respondents falling within each category for categorical variables. For numeric variables, number of non-missing observations, means, and standard deviations were reported.

Differences in outcomes (means for numeric variables and percentages for categorical variables) were reported qualitatively pre- and post-exposure to the ZYN® Nicotine Pouches product concept without testing for statistical significance.

The study team formatted and properly labelled the data sets (including all responses from respondents and the date that the survey was completed) using Statistical Analysis System (SAS, version 9.4) so were suitable for analysis. The data sets contained a subject ID number and excludes any information that could be used to identify individual respondents.

RESULTS AND DISCUSSION:

Primary Objective 1

Among all respondents, assess whether being exposed to a ZYN® Nicotine Pouches with modified risk claims impacts perceptions and intentions related to the use of TNP.

Among TNP never-users and former smokers/other TNP users:

Current likelihood to initiate or reinstate TNP based on intention to use TNP: Prior to being exposed to the ZYN® Nicotine Pouch stimuli without the modified risk claims (control group), all never TNP users and former CCs/other TNP users were unlikely to initiate or reinstate TNP use. Prior to being exposed to the ZYN® Nicotine Pouches stimuli, the likelihood that never and former CCs/other TNP users would use each TNP ranged between (b) (4) points on the 11-point Juster scale (from 0 = “no chance, almost none” to 10 = “certain, practically certain”), indicating low intention to use TNPs across these cohorts in the control group (Table 8).

Prior to being exposed to the ZYN® Nicotine Pouch stimuli with the modified risk claims (test group), all never TNP users and former CCs/other TNP users were unlikely to initiate or reinstate TNP use. Prior to being exposed to the ZYN® Nicotine Pouches stimuli, the likelihood that never and former CCs/other TNP users would use each TNP ranged between (b) (4) points on the 11-point Juster scale (from 0 = “no chance, almost none” to 10 = “certain, practically certain”), indicating low intention to use TNPs across these cohorts in the test group (Table 7).

Future likelihood to initiate TNP based on intention to use ZYN® Nicotine Pouches after being exposed to a ZYN® Nicotine Pouches product concept with modified risk claims (versus control group exposed to the same product concept without the modified risk claims): Regardless of exposure group, all never TNP users and former CCs/other TNP users were unlikely to use ZYN® Nicotine Pouches in the future after being exposed to the stimuli (ranging from (b) (4) to on the 11-point Juster scale, Table 7). Furthermore, likelihood to use any of the flavors presented ranged from (b) (4) on the 11-point Juster scale which was as low as the likelihood to use ZYN® Nicotine Pouches (Table 20).

Among current users of TNP (cigarette smokers and smokeless TNP users):

Current use of TNP: All current smokers were daily smokers and (b) (4) reported using nicotine pouches at least some days. The majority of current smokeless TNP users reported using nicotine pouches (b) (4) every day or on some days (b) (4) and (b) (4) smoke on at least some days (Table 9).

Current intention to quit smoking among current smokers: Prior to exposure to the ZYN® Nicotine Pouches stimuli, intention to quit among current smokers was (b) (4) on the 7-point MTSS scale (Table 12).

Scores on MTSS range from 1 (“I don’t want to stop [PRODUCT]”) to 7 (“I really want to stop [PRODUCT] and intend to next month.”).

Future intention to use ZYN® Nicotine Pouches after being exposed to a ZYN® Nicotine Pouches product concept with modified risk claims (versus control group exposed to the same product concept without the

modified risk claims): After exposure to the ZYN® Nicotine Pouches stimuli the likelihood that TNP users would use ZYN® Nicotine Pouches in the future ranged between (b) (4) points on the 11-point Juster scale (from 0 = “no chance, almost none” – to 10 = “certain, practically certain”). Current smokeless TNP users were more likely to use ZYN® Nicotine Pouches in the future compared to current cigarette smokers.

In general, current TNP users in both exposure groups reported comparable future likelihood of using ZYN® Nicotine Pouches indicating that being exposed to ZYN® Nicotine Pouches stimuli had limited impact on current TNP users’ future likelihood to use ZYN® Nicotine Pouches (ranging from (b) (4); and (b) (4), Table 15).

Future intention to quit current TNP after being exposed to ZYN® Nicotine Pouches product concept: Among current cigarette smokers the reported MTSS scores, following exposure to ZYN® Nicotine Pouches stimuli, indicates a moderate desire to quit smoking. Pre- exposure, the likelihood to quit smoking was (b) (4) (Table 12) on the MTSS and a (b) (4) (Table 16). Future intention to quit was similar for both exposure groups (b) (4), Tables 17-18).

Scores on MTSS range from 1 (“I don’t want to stop [PRODUCT]”) to 7 (“I really want to stop [PRODUCT] and intend to next month”).

Primary Objective 2

Among all respondents, measure the understanding of the ZYN® Nicotine Pouches product label elements included: contains nicotine (which is addictive), comes in both 3mg and 6mg strengths, and is for adult use only:

Across all cohorts and between both exposure groups, there was a clear understanding of the label.

Respondents were able to identify which information was on the label:

- (b) (4) correctly recalled the label stated, ‘contains nicotine, which is addictive’ (Figure 4)
- (b) (4) correctly recalled the label stated, ‘available in 3 MG and 6 MG’ (Figure 5)
- (b) (4) aware that ZYN Nicotine Pouches can only be purchased by adults 21+ (Figure 6)

Secondary Objective 1

Across all respondent cohorts, explore variation in perceptions of absolute risk associated with never having used any TNP, quitting use of any TNP, smoking cigarettes, and using only nicotine pouches. Measurement of perceived absolute risk of non-usage, quitting, smoking, and nicotine pouches to occur prior to showing respondents the ZYN® Nicotine Pouches product concept. Measurement of perceived absolute risk of using ZYN® Nicotine Pouches to occur after showing respondents the ZYN® Nicotine Pouches product concept.

Across all critical health conditions (lung cancer, heart disease, mouth cancer, throat cancer, emphysema, stroke, and chronic bronchitis), most respondents (regardless of exposure group) perceived lowest absolute risks for NRTs and highest risks for daily cigarettes use. Usage of ZYN® Nicotine Pouches was perceived as low to moderate risk for most of these conditions (Lung Cancer: (b) (4); Heart Disease: (b) (4) (b) (4); Emphysema: (b) (4); Stroke: (b) (4); Chronic Bronchitis: (b) (4)).

(b) (4) with the exemption of mouth cancer ((b) (4)) or throat cancer ((b) (4)) where risk is perceived as moderate, closer to high (Figure 7 to Figure 13; Table 27 to Table 28).

The ZYN® Nicotine Pouches packaging with the modified risk claims, led to marginally lower levels of perceived risk for these seven critical health conditions compared to the packaging without the modified risk claims.

The majority of respondents across cohorts and between exposure groups perceived the daily use of ZYN® Nicotine Pouches to have a marginally lower chance of developing any of the seven critical health conditions compared to the smokeless TNP category. Additionally, more smokeless TNP users perceived lower absolute risks of developing any of the seven health conditions across the TNP categories.

Secondary Objective 2

Among all respondent cohorts, explore variation in perceptions of relative risk of using ZYN® Nicotine Pouches as opposed to smoking cigarettes.

Exposure to the ZYN® Nicotine Pouches with the modified risk claims raised awareness of the lower risk of each of the seven critical health risks compared to smoking cigarettes (Figure 14 to Figure 27). More respondents in the test group (label with modified risk claims) perceived a lower health risk from using ZYN® Nicotine Pouches compared to cigarettes for each of the seven health conditions (Test - lung cancer: (b) (4) indicated lower risk relative to CCs; heart disease: (b) (4) mouth cancer: (b) (4) throat cancer: (b) (4) emphysema: (b) (4) stroke: (b) (4) chronic bronchitis: (b) (4)

Specific to the control stimuli, (Lung cancer: (b) (4) lower risk relative to CCs; heart disease: (b) (4) (b) (4); mouth cancer: (b) (4) throat cancer: (b) (4) emphysema: (b) (4) stroke: (b) (4) chronic bronchitis: (b) (4)).

Heart disease (b) (4)) and stroke (b) (4) were considered at the similar level of risk between ZYN® Nicotine Pouches and cigarettes regardless of exposure group.

STRENGTHS AND LIMITATIONS OF THE STUDY:

The study strengths included, the extensive number of individuals included in the survey audience, which ensured robustness of findings. Cognitive interviews ensured the materials were appropriate and sufficiently clear to respondents. Additionally, the administration of the web-based survey allowed for improved survey designs and accurate data capture.

There were limitations to the current study, none of which should draw concern regarding data integrity. The data collected were based on post-exposure responses to stimuli for ZYN® Nicotine Pouches. The perceived health risk assessments were intended to simulate real-world perceptions after exposure to real-world information on ZYN® Nicotine Pouches, but obviously did not have the same contextual, social, and emotional consequences of actual decisions. Similarly, one could only expect a limited degree of accuracy and extrapolation while capturing behavioral intentions, as unforeseen market factors can impact actual behaviors. Thus, differences may arise between stated and actual choices, and stated and actual behaviors. Potential hypothetical bias may be limited by constructing questions that mimic realistic perceptions and

behaviors as closely as possible. In addition, since data from this study were dependent on respondent self-reporting, subsequently reported variables may also be subjected to recall bias and the inability to confirm actual TNP use behavior. Self-reported data collection is a standard approach and any potential problems with recall bias were anticipated to be constant across time points.

(b) (4)

CONCLUSION: Study findings support the conclusion that overall, ZYN® Nicotine Pouches with the addition of modified risk claims on the label does not appear to compromise public health in any way, based on likelihood of use and perceptions of risk as assessed in the current study. Specifically, results demonstrated that:

- The modified risk claims communicated on the label raised awareness of the lower health risks, compared to smoking cigarettes for the seven critical health conditions.
- Even with an increased awareness of the lower health risks of ZYN® Nicotine Pouches compared to cigarettes, it did not generate any more or less likelihood to initiate or reinstate TNP use among vulnerable populations compared to the product packaged without the modified risk claims.
- For current smokers, there was no difference in the change in intention to quit smoking pre- post exposure to the ZYN® Nicotine Pouches regardless of exposure group.
- Across all critical health conditions (lung cancer, heart disease, mouth cancer, throat cancer, emphysema, stroke, and chronic bronchitis), most respondents (regardless of exposure group) perceived highest absolute risks for daily use of cigarettes and lowest absolute risks for NRTs and cessation. Usage of smokeless TNP and ZYN® Nicotine Pouches were perceived as moderate to low risk for most of these conditions with exception of mouth or throat cancer, where moderate to high.
- The ZYN® Nicotine Pouches packaging with the modified risk claims, led to marginally lower levels of perceived risk for these seven critical health conditions compared to the packaging without the modified risk claims.

FINAL DATE:

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4 LIST OF ABBREVIATIONS

Abbreviation	Definition
APPH	Appropriate for the Protection of Public Health
CC	Conventional Cigarettes
CI	Confidence Interval
EDC	Electronic Data Capture
ENDS	Electronic Nicotine Delivery Systems
FDA	Food and Drug Administration
Gen Pop	General Population
HH	Household
HINTS	Health Information National Trends Survey
ICF	Informed Consent Form
IPF	Iterative Proportional Fitting
LA	Legal-Age
mg	Milligrams
N12M	Next 12 Months
NHIS	National Health Interview Survey
NRT	Nicotine Replacement Therapy
PMTA	Premarket Tobacco Product Application
PMT	Premarket Tobacco Product
PI	Principal Investigator
STP	Smokeless Tobacco Products
TNP	Tobacco/Nicotine Products
US	United States

5 RESPONSIBLE PARTIES

5.1 INVESTIGATOR AND CONTRIBUTORS

Principal Investigator:	(b) (6), (b) (4)
(b) (4)	(b) (6)

5.2 SPONSOR

Sponsor:	Swedish Match North America
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6 ETHICS

6.1 INSTITUTIONAL REVIEW BOARD (IRB)

Documented review by an appropriate IRB in the U.S. was obtained prior to study initiation. (b) (4)
(b) (4) approved this study.

6.2 ETHICAL CONDUCT OF THE STUDY

This study is conducted in full conformity with Regulations for the Protection of Human Subjects of Research codified in 21 CFR Part 50 and any additional human subject protections as determined necessary.

6.3 RESPONDENT INFORMATION AND CONSENT

Participant confidentiality is strictly held in trust by the participating investigators, the staff, the Sponsor, and its agents. Therefore, the data and all other information generated will be held in strict confidence. No information concerning the study, or the data, will be released to any unauthorized third party without prior written approval of the Sponsor.

Description of risks and benefits of participation were provided to the respondents in the informed consent. Respondents were asked to review the informed consent information carefully and, at the end of the form, asked if agree to participate in the survey. The respondent electronically indicated consent. A selection of "No" immediately terminated the respondent and saw a "Thank you" page with a redirect designated by the individual panel company. The participants could withdraw consent at any time throughout the course of the study.

Respondents were informed that he or she may voluntarily suspend or withdraw from the survey at any time during the interview by closing his or her browser button or app.

7 INTRODUCTION

7.1 BACKGROUND AND RATIONALE

The Family Smoking Prevention and Tobacco Control Act, signed into law in 2009, gave the FDA the power to regulate the tobacco industry and established the Center for Tobacco Products (CTP) within the FDA. The law gives the CTP authority to regulate marketing/advertising content and sale of TNPs. The FDA requires that the marketing of a new tobacco product is appropriate for the protection of the public health as determined “on the basis of well-controlled investigations” (section 910)¹.

The CTP has provided draft guidance on data for human studies designed to evaluate the risks and benefits to the population, including users and non-users of TNPs. CTP requires research-based evidence that: (1) Existing TNP users do not increase consumption; (2) Non-TNP users do not start using; (3) Former cigarette smokers users do not re-start using. Products marketed in the US after February 15, 2007, must obtain a marketing authorization through a Premarket Tobacco Product Application (PMTA) or a Modified Risk Tobacco Product Application (MRPTA) inclusive of modified risk claims. A product cannot be sold in the US without a marketing authorization.

Swedish Match North America, LLC (SMNA) officially began selling ZYN® in 2014. ZYN® delivers tobacco-derived nicotine (does not contain tobacco leaves) via a small pouch, containing flavoring elements and food-grade ingredients for shelf-stability. SMNA markets ZYN® as a nicotine delivery product which is smoke-free, is spitless, tobacco-leaf free, and comes in multiple varieties and nicotine strengths. SMNA filed a PMTA for ZYN® on March 4, 2020, and is awaiting approval.

Additionally, Swedish Match is exploring including modified risk claims for ZYN®, specific to the product as currently in-market.

This *Quantitative Study to Assess Perceptions of and Likelihood of Use of ZYN® with Modified Risk Claims Among US Adults* focuses on currently marketed candidate PMTA product, ZYN® (nicotine pouches), as available in market across the 10 varieties and 2 strengths.

¹ US Department of Health and Human Services, Food and Drug Administration, Center for Tobacco Products. Applications for Premarket Review of New Tobacco Products: Draft Guidance Sept-2011.

8 STUDY OBJECTIVES AND HYPOTHESES

The overall purpose of the *Quantitative Study to Assess Perceptions of and Likelihood of Use of ZYN® with Modified Risk Claims Among US Adults* is to evaluate how exposure to the ZYN® product concept, inclusive of modified risk claims of lower risks compared to cigarettes regarding mouth cancer, heart disease, lung cancer, stroke, emphysema, and chronic bronchitis, compares to other in market TNP categories.

The impact of the ZYN® product profile will be assessed via repeated measures analysis and independent measures across defined TNP user groups.

This study is planned to include randomized assignment to one of two product exposure cells. In the study, each cell represents a distinct product concept where participants are assigned to evaluate the ZYN® test (specific to current varieties inclusive of modified risk claims) or control (specific to current varieties exclusive of modified risk claims).

The hypotheses of this study, which correspond with the research objectives (described in Section 3.2), are:

(b) (4)

8.1 PRIMARY OBJECTIVES

The primary objectives of this study are:

1. Assess whether being exposed to the ZYN® product concept with and without modified risk claims impacts perceptions and likelihood to use ZYN® among all respondents:
 - a. Current likelihood to initiate on in-market TNPs including the branded ZYN® product.
 - b. Future likelihood to initiate based on exposure to the ZYN® product concept without the modified risk claims compared to the ZYN® product concept inclusive of the modified risk claims.
 - c. Comparison by age, (b) (4) in self-reported likelihood to start using TNPs.
2. Assess current use of TNPs across all respondents, categorizing use status specific to never use, former use, and current use.

- a. Establish current use status in the context of CCs, Smokeless, and other types of products.
- b. Current intention to quit current TNPs used
 - i. Impact of exposure to ZYN® self-reported intention to quit current TNP used (quit intention before/after exposure to ZYN®).
3. Measure the understanding that ZYN® as presented during concept exposure, specific to:
 - a. Containing nicotine
 - b. Available in both 3mg and 6mg nicotine strengths
 - c. For adult use only

8.2 SECONDARY OBJECTIVES

The secondary objectives of this study are:

1. Explore variation in perceptions of absolute risk associated with ZYN® and other types of TNPs (including categories of CCs, ENDS, Smokeless, Nicotine Pouches), across the specific health conditions of (including 7 critical health conditions of lung cancer, mouth cancer, throat cancer, emphysema, and heart disease, stroke, chronic bronchitis):

(b) (4)

2. Explore variation in perceptions of relative risk of using ZYN® as opposed to:
 - a. Smoking cigarettes
 - b. Using other smokeless/nicotine products
 - c. Never using any TNP
 - d. Quitting all TNPs and using nothing

9 INVESTIGATIONAL PLAN

9.1 QUANTITATIVE STUDY DESIGN

The ZYN® Flagship MRTP Claims Perceptions of and Likelihood of Use Study was administered to participants aged 21 years and older (legal age for tobacco use) consisted of a cohort study on tobacco/nicotine use behavior, perceptions, and intentions, and was conducted using a web-based survey. The impact of the ZYN® Nicotine Pouches concept was assessed via repeated measures analysis within TNP user groups and independent measures across TNP user groups. Study participants were evenly split into two cells. Cell 1 (test) was exposed to a shelf set and a product concept with modified risk claims. Cell 2 (control) was exposed to the same shelf set and product concept exclusive of the modified risk claims. The ZYN® Nicotine Pouches concept was presented in the form of a one-page marketing piece, akin to a counter mat/point-of-sale display. It provided a picture of the product, details about the product and different varieties available, strengths and flavors, as well as the required warning that nicotine is an addictive chemical (Figure 1, Figure 2, Figure 3).

FIGURE 1. SHELF SET INCLUDING VARIOUS TOBACCO AND NICOTINE PRODUCTS (TEST AND CONTROL)

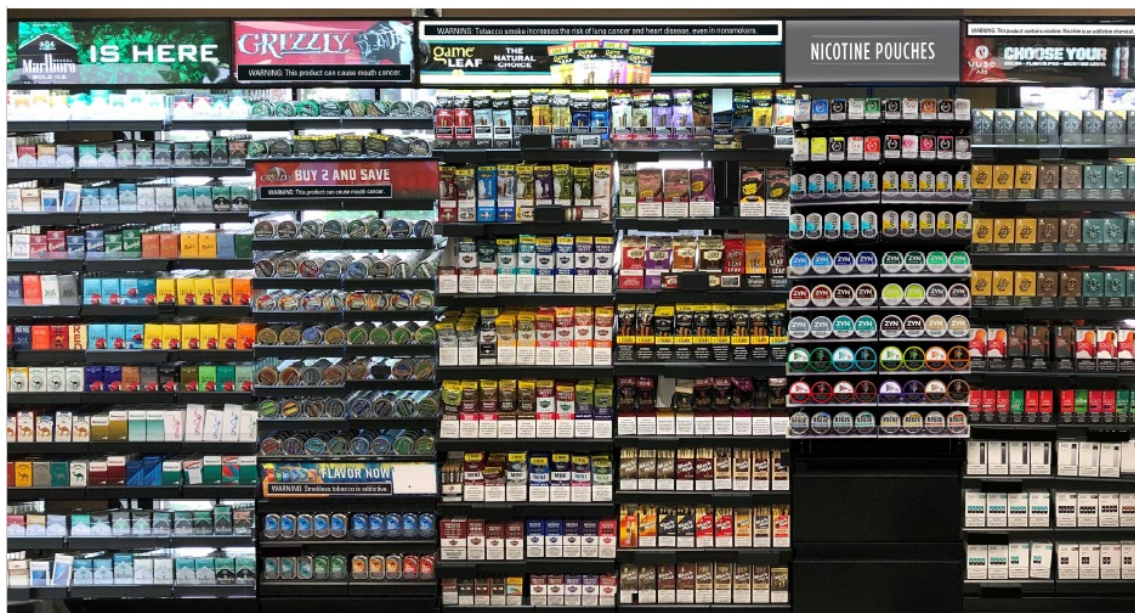


FIGURE 2. ZYN® NICOTINE POUCHES DESCRIPTION (TEST CELL)

WARNING: This product contains nicotine.
Nicotine is an addictive chemical.

ZYN
NICOTINE POUCHES

AVAILABLE IN
10 VARIETIES &
2 STRENGTHS

3 mg | **6 mg**

**USING ZYN INSTEAD
OF CIGARETTES PUTS
YOU AT A LOWER RISK
OF MOUTH CANCER,
HEART DISEASE, LUNG
CANCER, STROKE,
EMPHYSEMA, AND
CHRONIC BRONCHITIS.**

FIND YOUR ZYN at ZYN.com

SMOKE-FREE
SPIT-FREE
HANDS-FREE

POPM 000000 000000 Swedish Match North America LLC

FIGURE 3. ZYN® NICOTINE POUCHES DESCRIPTION (CONTROL CELL)



9.2 STUDY COHORTS

The sampling frame included adults (age 21+) living in the US. A total sample of (b) (4) US adults (age 21+) were interviewed, split between a Test (ZYN® Nicotine Pouches concept exposure with modified risk claims, (b) (4)) and Control (ZYN® Nicotine Pouches concept exposure without modified risk claims, (b) (4)) cell.

Respondents were categorized into five primary respondent cohorts based on self-reported tobacco/nicotine product use:

- Group 1 – Current Smokers (smoked 100+ cigarettes in lifetime and currently smoke every day or some days)
 - Cigarette smokers may also use other TNP, including smokeless, as this cohort has the highest priority
- Group 2 – Former CC Users/Other TNP Users (not CC or smokeless) which include:
 - Former smokers who use other TNP
 - Former smokers who do not currently use any TNP
 - Other TNP users (not CC or smokeless products)
- Group 3 – Current Smokeless Users (currently use any type of smokeless tobacco/nicotine product and are not established smokers – have not smoked 100+ cigarettes in his/her lifetime)
- Group 4 – Non-Established Users 21+ (b) (4) (have not smoked 100+ cigarettes in his/her lifetime. Not a current user of any TNP or STP (b) (4))
- Group 5 – Non-Established Users (b) (4) (have not smoked 100+ cigarettes in his/her lifetime. Not a current user of any TNP or STP (b) (4))

These groups were analyzed individually and as part of the overall respondent pool to assess study outcomes.

The sampling approach involved, (1) group sample stratification and over-sampling where necessary and (2) post-stratification weighting was applied to compensate for the stratification and ensure that the overall results mirror the populations specific to each group.

Within each of the five (5) respondent cohorts, and for each cell, there was a representative number of respondents for gender/age, race/ethnicity and geography based on the National Health Interview Survey (NHIS) 2022 survey:

1. Gender/Age

For each cell there was a representative number of respondents from each of the following age categories, within gender, based on the NHIS 2022 survey:

(b) (4)

(b) (4)

2. Ethnicity/Race

There was a representative distribution by Ethnicity and Race based on the NHIS 2022 survey.

3. Geography

There was a representative distribution by Census Region based on the NHIS 2022 survey.

Potential respondents for this study were recruited into the study from an online non-probability-based opt-in panel aggregator. Each contact received an invitation to participate in a research study or self-selected a new survey opportunity from the panel website or an external referring partner via a panel-specific application. After screening for eligibility and establishment of TNP use status, respondents provided consent prior to moving on to the remainder of the survey. Respondents were then assigned to one of the two cells following a least-filled method to ensure representative distribution of the full (b) (4) respondents per cell across tobacco usage and demographic criteria.

9.2.1 Inclusion Criteria

In addition to the cohorts included in this study, respondents had to meet all of the following criteria to be included:

1. Currently residing in the US
2. Legal-Age (21 years of age and above)
3. Able and willing to comply with all study requirements
4. Provided informed consent

9.2.2 Exclusion Criteria

Respondents were excluded if any of the following criteria were met:

1. Under legal age of purchase (21 years of age)
2. Participated in a market research survey about tobacco products in the past 3 months
3. Employees of or household member employed in manufacturing, sales or distribution of tobacco or ENDS products, advertising/marketing, market research, healthcare, legal field, or news and media, to minimize bias and to protect any proprietary product information that will be disclosed in the survey
4. Have started smoking within the last 30 days or started using a smokeless tobacco/nicotine product within the last 30 days

9.3 SAMPLE SIZE

In total, the planned study sample was (b) (4) and the actual sample size is outlined in Table 1 below.

TABLE 1: SAMPLE SIZE OF EACH COHORT

(b) (4)

9.4 VARIABLES OF RELEVANCE TO THE STUDY

This was an observational study; there was no assignment of a respondent to any TNP, or vice versa. No additional diagnostic or monitoring processes were required for participation during the study. This study tested the effect of exposure to the product concept with or without the modified risk claims on respondents’ intention to change TNP behavior, health risk perceptions, and the appeal of the product.

9.4.1 Pre-Exposure to ZYN® Nicotine Pouches Product Concept

Pre-exposure outcomes that were used to evaluate the primary objectives are as follows:

- **Current use of TNP** was assessed by measuring present frequency of use for each TNP, utilizing one survey item per TNP type. Response options for frequency of use included “Every day,” “Some days,” “Not at all.” Pictures providing examples of each product type were included.
- **Current intention to use TNP** was assessed with the 11-point Juster Scale, one survey item per TNP type. The Juster Scale is a probability scale that can be used to produce estimates of the average probability that a population will perform a certain behavior by a future time (from 0 = “no chance, almost none” to 10 = “certain, practically certain”). As the Juster Scale measures probability, the mean response predicts the proportion of the population that will perform the behavior.
- **Intention to use nicotine pouches** was assessed with the 11-point Juster Scale. The Juster Scale is explained in more detail under “Current intention to use TNP” above.

- **Current intention to quit smoking cigarettes** was measured by the one-item validated instrument, the MTSS. The MTSS consists of one item with seven response options ranging from 1 (lowest) to 7 (highest level of motivation to stop smoking), also including “Don’t know.” Scale developers found that probability of quit attempts increased linearly with increasing levels of motivation. In the current study, we used the MTSS both for assessing intention to quit cigarettes and for other TNPs.

Pre-exposure outcomes that were used to evaluate the secondary objectives are as follows:

Pre-exposure perceptions of absolute health risk of comparator TNP categories and cessation were assessed using one item (5-point Likert scale; from 1= No risk to 5= Very high risk, also including “Don’t know”) for each of five (5) critical health conditions (lung cancer, heart disease, mouth cancer, throat cancer, and lung disease (e.g., COPD, emphysema)) and 10 non-critical health concerns.

9.4.2 Post-Exposure to TNP Shelf Set and ZYN® Nicotine Pouches Product Description

Study participants were evenly split into two cells. Cell 1 (test) was exposed to a shelf set and product concept with modified risk claims. Cell 2 (control) was exposed to the same shelf set and product concept but without the modified risk claims. The ZYN® Nicotine Pouches product concept provided a picture of the product and packaging, and product information, including strengths, flavors, the required warning that nicotine is an addictive chemical as well as the modified risk claims (test cell only).

Outcomes captured post-exposure to ZYN® Nicotine Pouches that were used to evaluate the primary objectives are as follows:

- **Understanding of ZYN® Nicotine Pouches product** was assessed where participants indicated understanding by selecting True/False to each statement provided.
- **Future intention to use ZYN® Nicotine Pouches** was assessed post-exposure to the ZYN® Nicotine Pouches product concept description via the 11-point Juster Scale. The Juster Scale is explained in more detail under “Current intention to use TNP” above.
- **Future intention to use TNP** was assessed post-exposure to the TNP shelf set and ZYN® Nicotine Pouches product concept using the same one-item validation instrument (MTSS) used prior to being exposed to the product. This question was based on current usage of all TNP.

Post-exposure outcomes that were used to evaluate the secondary objectives are as follows:

- **Perceptions of absolute health risk of the daily use of ZYN® Nicotine Pouches** were assessed using one item (5-point Likert scale; from 1= “No risk” to 5= “Very high risk”, also including “Don’t know”) for each of fourteen (14) health conditions.
- **Perceptions of relative health risk** were assessed using one item (4-point scale; 1= “No risk compared to [PRODUCT]”, 2= “Lower risk compared to [PRODUCT]”, 3= “Same amount of risk compared to [PRODUCT]” to 4= “Higher risk compared to [PRODUCT]”, also including “Don’t know” for each of the five (5) health conditions (lung cancer, mouth cancer, throat cancer, emphysema, and heart disease). In this battery, respondents evaluated ZYN® Nicotine Pouches use against several other risk exposures. The risk exposures assessed for each health condition included use of ZYN® Nicotine Pouches versus cigarettes, smokeless TNP, nicotine pouches, ENDS and NRTs.

9.5 ADDITIONAL VARIABLES OF INTEREST

State of residence, used to derive U.S. census region, was assessed using a single item asking the respondent state of residence. State of residence was categorized into the four U.S. census geographic regions to summarize data collection results: Northeast, South, Midwest, and West.

Age of the respondent was assessed using two items asking the respondent age in years and data of birth to confirm age in years. Age of respondent was categorized for reporting using the following age groups: 21-24, 25-44, 45-64, 45, and 65+ years old. Decline to answer was presented as an option.

Gender was assessed using a single item asking the respondent in terms of male or female. Decline to answer was presented as an option.

Racial or ethnic background was assessed using a single item asking the respondent which best describes racial/ethnic background. Response options included Caucasian/White, Black/African American, Hispanic (e.g., Latin American, Mexican, Puerto Rican, Cuban), Asian or Pacific Islander, Native American or Alaskan native, mixed racial background, other, don't know, and decline to answer.

Highest grade or level of school completed was assessed using a single item asking the respondent which response corresponds to the highest level of education attained. Response options include: Some high school or less, high school graduate, some college/technical trade school, college graduate, post-graduate school and decline to answer.

Marital Status was assessed using a single item asking the respondent marital status. Response options include Married or living with partner, single, never married, separated, or divorced, widowed, and decline to answer.

Number of individuals who live in the household was assessed using a multiple items asking the respondent for the number of individuals living in the household who are: Younger than 6 years old, between 6 and 12 years old, between 13 and 17 years old, between 18 and 20 years old, between 21 and 24 years old, between 25 and 44 years old, 65 years old or older. Number of individuals in the household was reported as a mean for each age grouping.

Household income before taxes was assessed using a single item asking respondents which category best describes total household income before taxes. Response options include Less than \$25,000, \$25,000 to less than \$35,000, \$35,000 to less than \$50,000, \$50,000 to less than \$75,000, \$75,000 to less than \$100,000, \$100,000 to less than \$150,000, \$150,000 or more and decline to answer.

Health literacy was assessed using the Multiple Item Literacy Screening, one question asking respondents how often he or she need to have someone help with reading medical-related materials. The second question asked respondents how often he or she have problems learning about personal medical condition because of difficult understanding written information. Response options included: None of the time, a little of the time, some of the time, most of the time, and all the time. The second question asked confidence filling out forms individually. Response options included: extremely, quite, somewhat, a little, and not at all. Health literacy score was the sum of the responses to all three questions (maximum was 15, minimum was 3). Scores of 12-15 were designated as "inadequate", 7-11 as "marginal" and 3-6 as "adequate".

10 STATISTICAL ANALYSIS

The analysis focused on the impact of a single description and packaging label for ZYN® Nicotine Pouches within study cohorts. Statistical analyses are described below.

10.1 STUDY ANALYSIS

Descriptive statistics provided summary statistics for all variables and were used to understand the distribution of outcomes, and socio-demographic variables were calculated prior to any recoding or aggregation that was utilized for the presentation of results. Respondents with values for variables that were illogical or deemed unreliable, as determined by the underlying distribution and individual examination, were considered for removal prior to performing the main analyses.

Summary statistics included counts and proportions for categorical variables and means, standard deviations (SD), medians, minimums, and maximums for ordinal and continuous variables. Continuous data, if reported as such, were displayed to 2 decimal places. Otherwise, continuous data were grouped into ranges and summarized by frequencies and percentages. Descriptive statistics were used to describe the sample as well as verify the quality of the data.

Descriptive statistics included the number of non-missing observations, frequencies, percentages, and 95% confidence interval for the percentage of respondents falling within each category for categorical variables. For numeric variables, number of non-missing observations, means, and standard deviations were reported.

Differences in outcomes (means for numeric variables and percentages for categorical variables) were reported qualitatively without testing for statistical significance.

The study team formatted and properly labelled the data sets (including all responses from respondents and the date that the survey was completed) using Statistical Analysis System (SAS, version 9.4) and Decipher version 153.24 (a single system for survey building, data collection, analysis and reporting) to ensure each was suitable for analysis. (b) (4)

11 STUDY RESULTS

11.1 DEMOGRAPHIC AND RESPONDENT CHARACTERISTICS

Demographics are summarized by cohort in Table 2 and Table 3 presents demographics for the test group within each study cohort and Table 4 and Table 5 presents demographics for the control group within each study cohort.

By study design, the test and control groups mirror each other on key demographics (gender/age, ethnicity, race, census region) within each study cohort.

TABLE 2. DEMOGRAPHICS AND RESPONDENT CHARACTERISTICS – TEST GROUP

(b) (4)

(b) (4)

(b) (4)

(b) (4)

*(b) (4)

TABLE 3. HOUSEHOLD CENSUS – TEST GROUP

(b) (4)

(b) (4)

*(b) (4)

TABLE 4. DEMOGRAPHICS AND RESPONDENT CHARACTERISTICS – CONTROL GROUP

(b) (4)

(b) (4)

(b) (4)

(b) (4)

*(b) (4)

TABLE 5. HOUSEHOLD CENSUS – CONTROL GROUP

(b) (4)

(b) (4)

11.2 PRIMARY OBJECTIVE 1

Descriptive statistical analyses by cohort are presented in [Tables 6 – 8](#).

11.2.1 Descriptive Statistics

Among the former CC users/other TNP users and never users, who were exposed to the ZYN® Nicotine Pouches stimuli with MRTTP claims (test group), there was no change in mean Juster scores for the future likelihood to use ZYN® Nicotine Pouches compared to pre-exposure for nicotine pouches. The likelihood of using ZYN® Nicotine Pouches among the never TNP users remained low (b) (4). Within the former CC users/other TNP users, future likelihood to use ZYN® Nicotine Pouches (b) (4) there was no increase in mean score from pre- to post-exposure to ZYN® Nicotine Pouches stimuli ([Table 7](#)).

Exposure to the ZYN® Nicotine Pouches without MRTTP claims did not generate interest in using the product among any of these three groups. The likelihood of using ZYN® Nicotine Pouches among the never TNP users remained low (b) (4). Within the former CC users/other TNP users, future likelihood to use ZYN® Nicotine Pouches (b) (4) ([Table 8](#)).

11.2.1.1 Likelihood to Initiate or Reinitiate TNP

The current use of TNP (both TNP type and frequency [every day, some days, not at all]) among current cigarette smokers and current smokeless TNP users was evaluated ([Table 6](#) total sample). Additionally, this outcome was evaluated by exposure group ([Table 7](#) test group, [table 8](#) control group).

Prior to being exposed to the ZYN® Nicotine Pouches stimuli, never TNP users (b) (4) (b) (4) and former CC users/other TNP users were unlikely to initiate or reinitiate use of TNP. Never and former CC users/other TNP users were also unlikely to use ZYN® Nicotine Pouches in the future. Prior to being exposed to the stimuli, the average Juster scores for current likelihood to use nicotine pouches ranged from (b) (4) ([Table 6](#)).

After exposure to the ZYN® Nicotine Pouches stimuli, there was no change in mean Juster scores for the future likelihood to use ZYN® Nicotine Pouches compared to pre-exposure for nicotine pouches. The likelihood to use ZYN® Nicotine Pouches among the never TNP users remained low (b) (4). Within the former CC users/other TNP users cohort, future likelihood to use ZYN® Nicotine Pouches (b) (4), there was no increase in mean score from pre- to post-exposure to ZYN® Nicotine Pouches stimuli ([Table 6](#)).

Among the former CC users/other TNP users and never users, who were exposed to the ZYN® Nicotine Pouches stimuli with MRTTP claims (test group), there was no change in mean Juster scores for the future likelihood to use ZYN® Nicotine Pouches compared to pre-exposure to nicotine pouches. The likelihood of using ZYN® Nicotine Pouches among the never TNP users remained low (b) (4). Within the former CC users/other TNP users, future likelihood to use ZYN® Nicotine Pouches (b) (4) there was no increase in mean score from pre- to post-exposure to ZYN® Nicotine Pouches stimuli ([Table 7](#)).

Exposure to the ZYN® Nicotine Pouches without MRTTP claims did not generate interest in using the product among any of these three groups. The likelihood of using ZYN® Nicotine Pouches among the never TNP users remained low (b) (4). Within the former CC users/other TNP users, future likelihood to use ZYN® Nicotine Pouches (b) (4) (Table 8).

TABLE 6. LIKELIHOOD TO INITIATE OR REINITIATE USE OF TNP – TOTAL SAMPLE

(b) (4)

*(b) (4)

(b) (4)

(b) (4)

TABLE 8. LIKELIHOOD TO INITIATE OR REINITIATE USE OF TNP – CONTROL GROUP

(b) (4)

(b) (4)

11.2.1.2 Current Use of TNP Among Cigarette Smokers and Smokeless Users

The current use of TNP (both TNP type and frequency [every day, some days, not at all]) among current cigarette smokers and current smokeless TNP users was evaluated (Table 9). Additionally, this outcome was evaluated by exposure group (Table 10 (b) (4) Table 11 (b) (4)).

All cigarette smokers reported smoking daily or some days (b) (4) respectively). Reported use of ENDS every day or some days ranged from (b) (4)). Among smokeless TNP products, more smokers reported using nicotine pouches every day or some days (b) (4)) than any other STP.

Among current smokeless users, (b) (4) use cigarettes at least some days, (b) (4) reported use of nicotine pouches ((b) (4)

There were no differences in reported use of cigarettes, ENDS, smokeless TNP or nicotine pouch use between the exposure groups among cigarette smokers and smokeless TNP users (Table 10, Table 11).

TABLE 9. CURRENT USE OF TNP AMONG CIGARETTE SMOKERS AND SMOKELESS USERS – TOTAL SAMPLE

(b) (4)

(b) (4)

(b) (4)

(b) (4)

*(b) (4)

TABLE 10. CURRENT USE OF TNP AMONG CIGARETTE SMOKERS AND SMOKELESS USERS – TEST GROUP

(b) (4)

(b) (4)

(b) (4)

(b) (4)

*(b) (4)

TABLE 11. CURRENT USE OF TNP AMONG CIGARETTE SMOKERS AND SMOKELESS USERS – CONTROL GROUP

(b) (4)

(b) (4)

(b) (4)

(b) (4)

*(b) (4)

11.2.1.3 Current Intention to Quit TNP Among Cigarette Smokers and Smokeless TNP Users

Cigarette smokers and smokeless TNP users' intention to quit TNP pre-exposure to the ZYN® Nicotine Pouches description and packaging label was assessed using the MTSS. Scores on MTSS range from 1= "I don't want to stop [PRODUCT]" to 7= "I really want to stop [PRODUCT] and intend to next month." This outcome was evaluated by total sample and by exposure group (Table 12 (b) (4), Table 13 (b) (4), Table 14 (b) (4) (b) (4)).

Current intention to quit smoking among current smokers was a (b) (4) on the MTSS and a (b) (4) for quitting use of ENDS. Among smokers who also use smokeless TNP, average motivation to quit was (b) (4) on the MTSS. Smokers had only a moderate motivation to quit use of cigarettes or smokeless TNP pre-exposure. Among smokeless users, the motivation to quit the use of smokeless TNP was (b) (4) on the 7-point MTSS. For those who also smoke, the desire to quit smoking was (b) (4) (Table 12).

Current intention to quit smoking among current smokers in the test group was a (b) (4) on the MTSS and a (b) (4) for quitting use of ENDS. Among smokers who also use smokeless TNP, the average motivation to quit was (b) (4) on the MTSS. Among smokeless users in the test group, the motivation to quit the use of smokeless TNP was (b) (4) on the 7-point MTSS. Among smokeless users who also smoke, the desire to quit smoking was a (b) (4) on the MTSS and for those who also use ENDS the average score was a (b) (4) (Table 13).

Smokers in the control group had a (b) (4) on the MTSS for quitting use of cigarettes and a (b) (4) for quitting use of ENDS. Smokers who also use smokeless TNP, the motivation to quit using those products was a (b) (4) on the MTSS. Smokeless users in the control group had an average score of (b) (4) on the MTSS for quitting the use of smokeless TNPs. Among smokeless users who also smoke, the desire to quit smoking was a (b) (4) on the MTSS and for those who also use ENDS the average score was a (b) (4) (Table 14).

Smokeless TNP users had a slightly stronger desire to quit TNP use compared to current smokers at pre-exposure (Table 12, Table 13, Table 14).

TABLE 12. CURRENT LIKELIHOOD TO QUIT AMONG CURRENT SMOKERS AND SMOKELESS USERS – TOTAL SAMPLE

(b) (4)

*(b) (4)

TABLE 13. CURRENT LIKELIHOOD TO QUIT AMONG CURRENT SMOKERS AND SMOKELESS USERS – TEST GROUP

(b) (4)

*Number of non-missing responses

TABLE 14. CURRENT LIKELIHOOD TO QUIT AMONG CURRENT SMOKERS AND SMOKELESS USERS – CONTROL GROUP

(b) (4)

*(b) (4)

11.2.1.4 Future Intention to Use Nicotine Pouches/ZYN® Nicotine Pouches (Pre vs. Post Exposure)

The future likelihood to use nicotine pouches among all cohorts was measured pre-exposure to the ZYN® Nicotine Pouches product description and packaging label and was assessed using an 11-point Juster scale (from 0=“No chance, almost none” to 10=“Certain, practically certain”) (Table 15).

Pre-exposure to the ZYN® Nicotine Pouches stimuli with the MRTP claims, current smokeless TNP users were more likely to use nicotine pouches than cigarette smokers ((b) (4)). Interest in using nicotine pouches was negligible among former CC users/other TNP users and never users, ranging from a mean Juster score of (b) (4) (Table 15).

After exposure to the ZYN® Nicotine Pouch stimuli with the MRTP claims, the likelihood to use ZYN® Nicotine Pouches was unchanged among the never users (b) (4) and never users (b) (4) (b) (4). Exposure to the ZYN® Nicotine Pouches did not impact interest in using the product among former CC users/other TNP users (b) (4)). Interest in ZYN® Nicotine Pouches among cigarette smokers did increase marginally pre to post (b) (4) (Table 15).

Among the control group, smokeless users were most likely to use nicotine pouches (b) (4) and ZYN® Nicotine pouches (b) (4). Never users were not likely to use nicotine pouches (b) (4) or use ZYN® Nicotine Pouches with no MRTP claims (b) (4). Cigarettes smokers were as likely to use ZYN® Nicotine Pouches without the MRTP claims (b) (4) as those exposed to the packaging with MRTP claims (b) (4) (Table 15).

TABLE 15. CURRENT INTENTION TO USE NICOTINE POUCHES/FUTURE INTENTION TO USE ZYN® NICOTINE POUCHES

(b) (4)

(b) (4)

*(b) (4)

11.2.1.5 Future Intention to Quit Current TNP Among Cigarette Smokers

Cigarette smokers’ intention to quit TNP post -exposure to the ZYN® Nicotine Pouches description and packaging label was assessed using the MTSS. Scores on MTSS range from 1= “I don’t want to stop [PRODUCT]” to 7= “I really want to stop [PRODUCT] and intend to next month.” This outcome was evaluated by total sample and by exposure group (Table 16 (b) (4) , Table 17 (b) (4) , Table 18 (b) (4)).

Future intention to quit smoking among current smokers was a (b) (4) on the MTSS and a (b) (4) for quitting use of ENDS. Among smokers who also use smokeless TNP, future motivation to quit was (b) (4) on the MTSS (Table 16).

Among smokers in the test group (ZYN® Nicotine Pouches with MRTP claims) future intent to quit smoking was (b) (4) and (b) (4) for quitting use of ENDS. Quitting use of smokeless tobacco products was a (b) (4) on the MTSS (Table 17).

Smokers in the control group (ZYN® Nicotine Pouches no MRTP claims) the future intent to quit smoking was (b) (4) and (b) (4) for quitting use of ENDS. Quitting use of smokeless tobacco products was a (b) (4) on the MTSS (Table 18).

Smokers indicated an increased motivation to quit use of cigarettes, ENDS and smokeless TNP post- exposure (Table 12) compared to pre- exposure (Table 16).

TABLE 16. FUTURE INTENTION TO QUIT CURRENT TNP AMONG CIGARETTE SMOKERS – TOTAL SAMPLE

(b) (4)

*(b) (4)

(b) (4)

(b) (4)

Confidentiality Statement: This document contains confidential, proprietary and/or trade secret property (b) (4) and may not be published without the prior written consent of (b) (4) which consent may be withheld in its sole and absolute discretion. (b) (4)

11.3 PRIMARY OBJECTIVE 2

11.3.1 Understanding of the ZYN® Nicotine Pouches Labeling

Most respondents understood from the packaging label's warning that ZYN® Nicotine Pouches contain nicotine, which is addictive (range: (b) (4) (Figure 4, Table 19).

Additionally, most respondents understood that ZYN® Nicotine Pouches are for adult use only (range: (b) (4) (b) (4) (Figure 5, Table 19) and are available in both 3 mg and 6 mg strengths (range: (b) (4) (Figure 6, Table 19).

Overall, these measures demonstrated that most respondents comprehended the ZYN® Nicotine Pouches package labeling.

FIGURE 4. UNDERSTANDING OF ZYN® NICOTINE POUCHES LABELING – CONTAINS NICOTINE WHICH IS ADDICTIVE

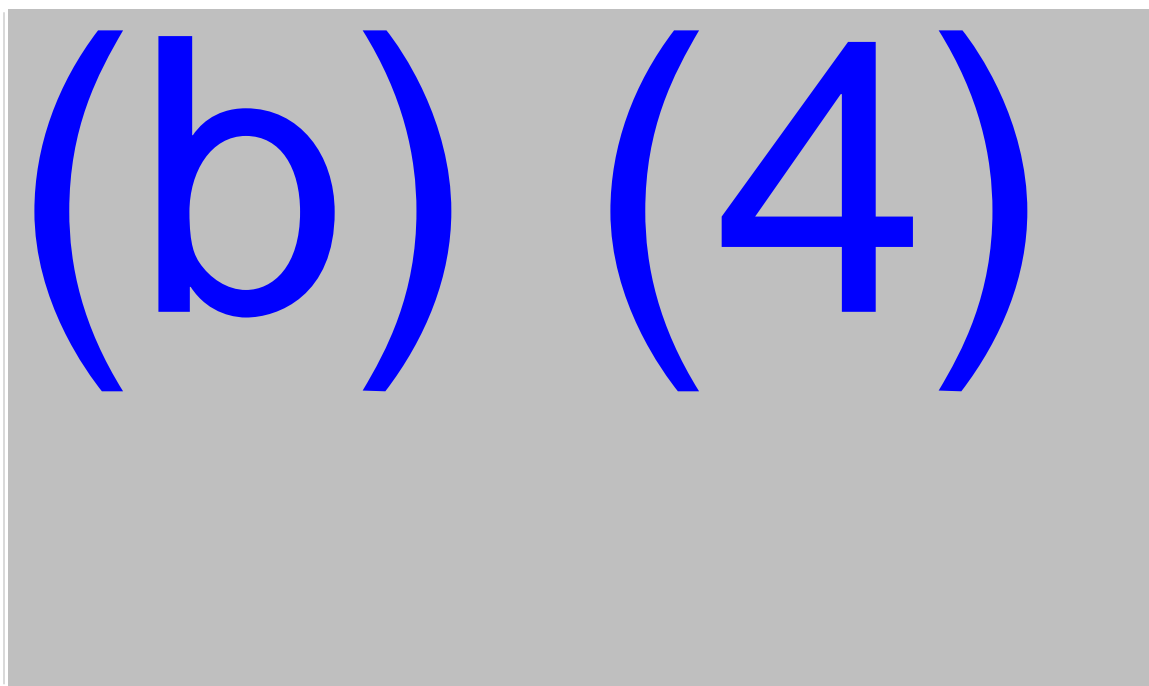


FIGURE 5. UNDERSTANDING OF ZYN® NICOTINE POUCHES LABELING – COMES IN BOTH 3 MG AND 6 MG IN MULTIPLE FLAVORS

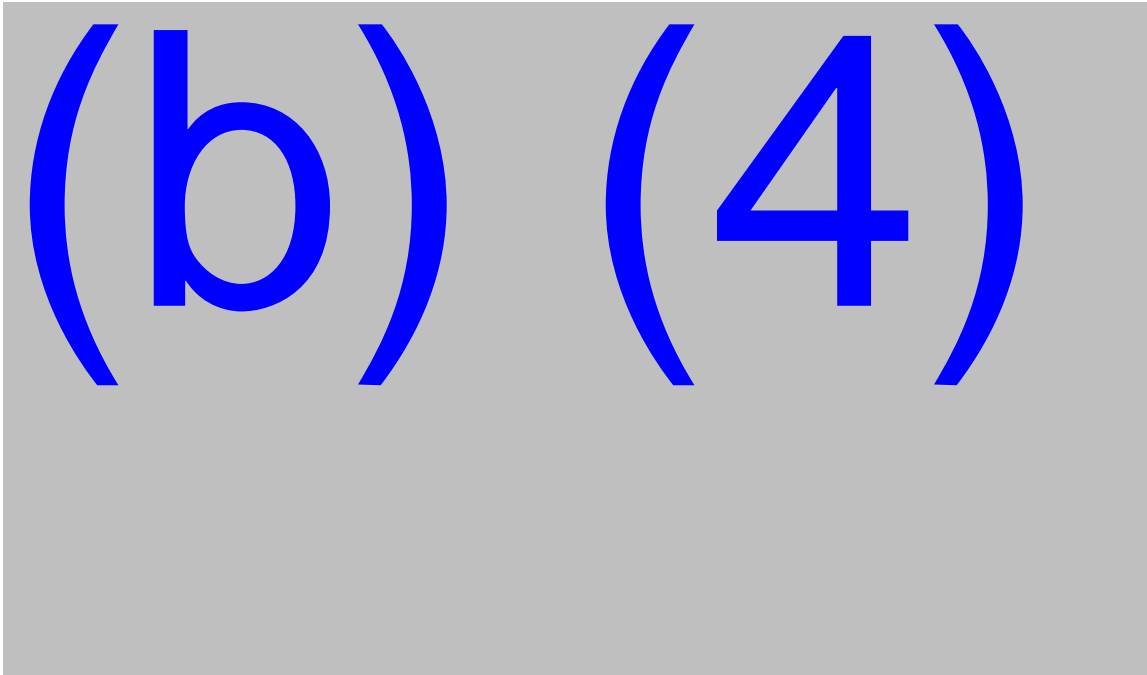


FIGURE 6. UNDERSTANDING OF ZYN® NICOTINE POUCHES LABELING – THOSE 21 YEARS AND OLDER CAN PURCHASE

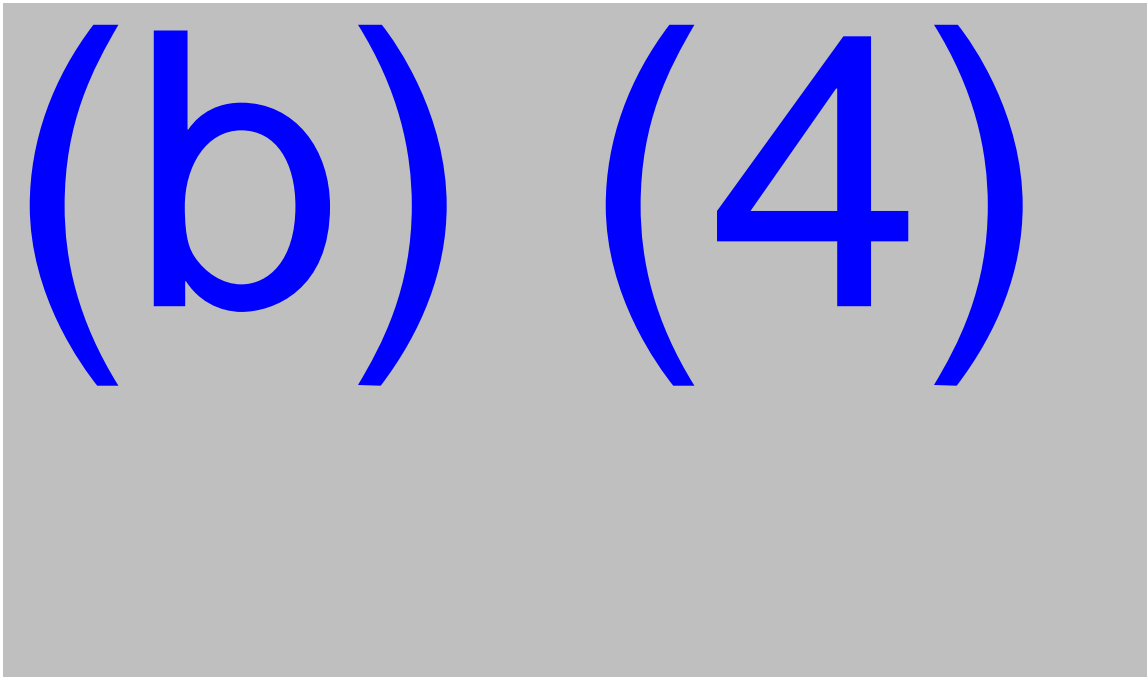


TABLE 19. UNDERSTANDING TO THE ZYN® NICOTINE POUCHES PACKAGE LABELING

(b) (4)

(b) (4)

*(b) (4)

11.4 SECONDARY OBJECTIVE – ABSOLUTE PERCEPTIONS OF DEVELOPING CRITICAL HEALTH RISKS

11.4.1 Descriptive Statistics

Descriptive statistical analysis by cohort are presented in [Table 21 – 28](#) (Appendix A 14.1-14.2).

11.4.2 Perceptions of Absolute Risk of Developing or Having Lung Cancer

Regardless of user cohort, cigarettes were perceived to have the greatest risk for lung cancer followed by ENDS and smokeless TNP. ZYN® Nicotine Pouches were consistently perceived as a lower risk for lung cancer compared to the smokeless TNP category. NRTs were thought to be less of a risk for lung cancer than cessation across all user groups. Smokeless TNP users generally perceived a lower level of risk across products and cessation compared to the other cohorts ([Figure 7, Table 21 – 28 Appendix A 14.1-14.2](#)).

Never TNP users perceived using ZYN® Nicotine Pouches with the MRTP claim as an even lower risk for [developing lung cancer compared to cigarettes than the ZYN® Nicotine Pouches without the MRTP claim](#) ([Figure 7, Table 21 – 28 Appendix A 14.1-14.2](#)).

FIGURE 7. PERCEPTIONS OF ABSOLUTE RISK OF DEVELOPING OR HAVING LUNG CANCER – TOTAL SAMPLE

(b) (4)

11.4.3 Perceptions of Absolute Risk of Developing or Having Mouth Cancer

Cigarettes and ENDS were perceived to have the greatest risk for mouth cancer followed by smokeless TNPs across all user groups. All user groups perceived the risk of developing mouth cancer from using smokeless TNP as comparable to using ZYN® Nicotine Pouches without the MRTP claim. NRTs were thought to be less of a risk for mouth cancer than cessation across all user groups (Figure 8, Tables 21-38 Appendix A 14.1-14.2).

Never TNP users and former CC users/other TNP users perceived using ZYN® Nicotine Pouches with the MRTP claim as an even lower risk for developing mouth cancer compared to cigarettes and compared to the ZYN® Nicotine Pouches without the MRTP claim (Figure 8, Table 21 – 28 Appendix A 14.1-14.2).

FIGURE 8. PERCEPTIONS OF ABSOLUTE RISK OF DEVELOPING OR HAVING MOUTH CANCER – TOTAL SAMPLE

(b) (4)

11.4.4 Perceptions of Absolute Risk of Developing Throat Cancer

Cigarettes and ENDS were perceived to have the greatest risk for developing or having throat cancer followed by smokeless TNPs. ZYN® Nicotine Pouches were consistently perceived as a slightly lower risk for throat cancer compared to the smokeless TNP category among never TNP users. NRTs were thought to be less of a risk for throat cancer than cessation across all user groups. Smokeless TNP users generally perceived a lower level of risk for throat cancer across TNP product categories compared to the other cohorts. Additionally, smokeless TNP users believed the risk of developing throat cancer from using ZYN® Nicotine Pouches was equivalent to cessation (Figure 9, Tables 21 - 28 Appendix A 14.1-14.2).

Never TNP users perceived using ZYN® Nicotine Pouches with the MRTP claim as an even lower risk for developing throat cancer compared to cigarettes and compared to the ZYN® Nicotine Pouches without the MRTP claim (Figure 9, Table 21 – 28 Appendix A 14.1-14.2).

FIGURE 9. PERCEPTIONS OF ABSOLUTE RISK OF DEVELOPING OR HAVING THROAT CANCER – TOTAL SAMPLE

(b) (4)

11.4.5 Perceptions of Absolute Risk of Developing or Having Emphysema

Cigarettes were perceived to have the greatest risk for developing emphysema followed by ENDS, smokeless TNPs and ZYN® Nicotine Pouches. NRTs were thought to be less of a risk for emphysema than cessation across all user groups. Smokeless TNP users generally perceived a lower level of risk across TNP product categories (with the exception of ENDS) and cessation compared to the other cohorts (Figure 10, Table 21 – 28 Appendix A 14.1-14.2).

Never TNP users general population perceived using ZYN® Nicotine Pouches with the MRTP claim as an even lower risk for developing emphysema compared to cigarettes and compared to ZYN® Nicotine Pouches without the MRTP claim (Figure 10, Table 21 – 28 Appendix A 14.1-14.2).

FIGURE 10. PERCEPTIONS OF ABSOLUTE RISK OF DEVELOPING OR HAVING EMPHYSEMA – TOTAL SAMPLE

(b) (4)

11.4.6 Perceptions of Absolute Risk of Developing or Having Heart Disease

Cigarettes were perceived to have the greatest risk for developing or having heart disease followed by smokeless TNPs and ZYN® Nicotine Pouches. NRTs were thought to be less of a risk for developing heart disease than cigarette cessation across all user groups (Figure 11 Table 21 – 28 Appendix A 14.1-14.2).

Never TNP users perceived using ZYN® Nicotine Pouches with the MRTP claim as an even lower risk for developing heart disease compared to cigarettes and compared to ZYN® Nicotine Pouches without the MRTP claim (Figure 11, Table 21 – 28 Appendix A 14.1-14.2).

FIGURE 11. PERCEPTIONS OF ABSOLUTE RISK OF DEVELOPING OR HAVING HEART DISEASE – TOTAL SAMPLE

(b) (4)

11.4.7 Perceptions of Absolute Risk of Having a Stroke

Cigarettes were perceived to have the greatest risk for having a stroke among all cohorts except current smokers. ZYN® Nicotine Pouches were consistently perceived as a much lower risk for a stroke compared to ENDS and the smokeless TNP category. The risk of having a stroke from the use of NRTs was perceived as a lower risk compared to cessation across all user groups (Figure 12, Table 21 – 28 Appendix A 14.1-14.2).

Never TNP users general population and former CC users/other TNP users perceived using ZYN® Nicotine Pouches with the MRTP claim as an even lower risk for stroke compared to cigarettes and compared to ZYN® Nicotine Pouches without the MRTP claim (Figure 12, Table 21 – 28 Appendix A 14.1-14.2).

FIGURE 12. PERCEPTIONS OF ABSOLUTE RISK OF HAVING A STROKE – TOTAL SAMPLE

(b) (4)

11.4.8 Perceptions of Absolute Risk of Developing or Having Chronic Bronchitis

Cigarettes were perceived to have the greatest risk for chronic bronchitis followed by ENDS, smokeless TNPs and ZYN® Nicotine Pouches. The risk of having chronic bronchitis was lowest for NRTs across all user groups (Figure 13, Table 21 – 28 Appendix A 14.1-14.2).

Never TNP users general population perceived using ZYN® Nicotine Pouches with the MRTP claim as an even lower risk for chronic bronchitis compared to cigarettes and compared to ZYN® Nicotine Pouches without the MRTP claim (Figure 13, Table 21 – 28 Appendix A 14.1-14.2).

FIGURE 13. PERCEPTIONS OF ABSOLUTE RISK OF DEVELOPING OR HAVING CHRONIC BRONCHITIS – TOTAL SAMPLE

(b) (4)

12 PERCEPTIONS OF RELATIVE HEALTH RISKS OF ZYN® NICOTINE POUCHES VERSUS COMPARATORS

12.1 DESCRIPTIVE STATISTICS

Descriptive statistical analysis by test and control group are presented in Tables 29-38 (b) (4)

12.2 PERCEPTIONS OF RELATIVE HEALTH RISKS OF ZYN® NICOTINE POUCHES

The relative health risks from using ZYN® Nicotine Pouches compared to using the comparative product category was measured post-exposure to the ZYN® Nicotine Pouches stimuli and was assessed using an 4-point scale (1=“No risk compared to [PRODUCT]”, 2=“Lower risk compared to [PRODUCT]”, 3=“Same amount of risk compared to [PRODUCT]” to 4=“Higher risk compared to [PRODUCT]”).

12.2.1 Lung Cancer

Among respondents who were exposed to the MRTP claims, more said there is a lower risk of developing lung cancer from using ZYN® Nicotine Pouches versus those not exposed to the MRTP claims. Respondents in the control group perceived ZYN® Nicotine Pouches at the same level of risk for lung cancer as smoking cigarettes (Figure 14, Figure 15, Tables 29-38 (b) (4))

FIGURE 14. RELATIVE RISK OF ZYN® NICOTINE POUCHES COMPARED TO CCS – LUNG CANCER (TEST GROUP)

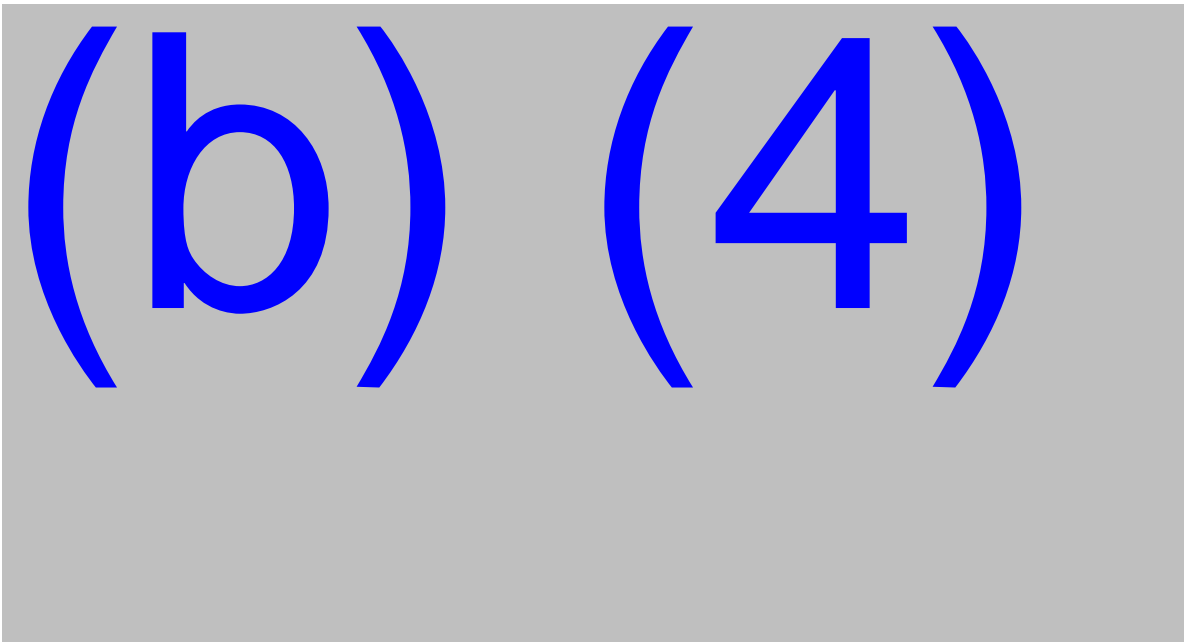
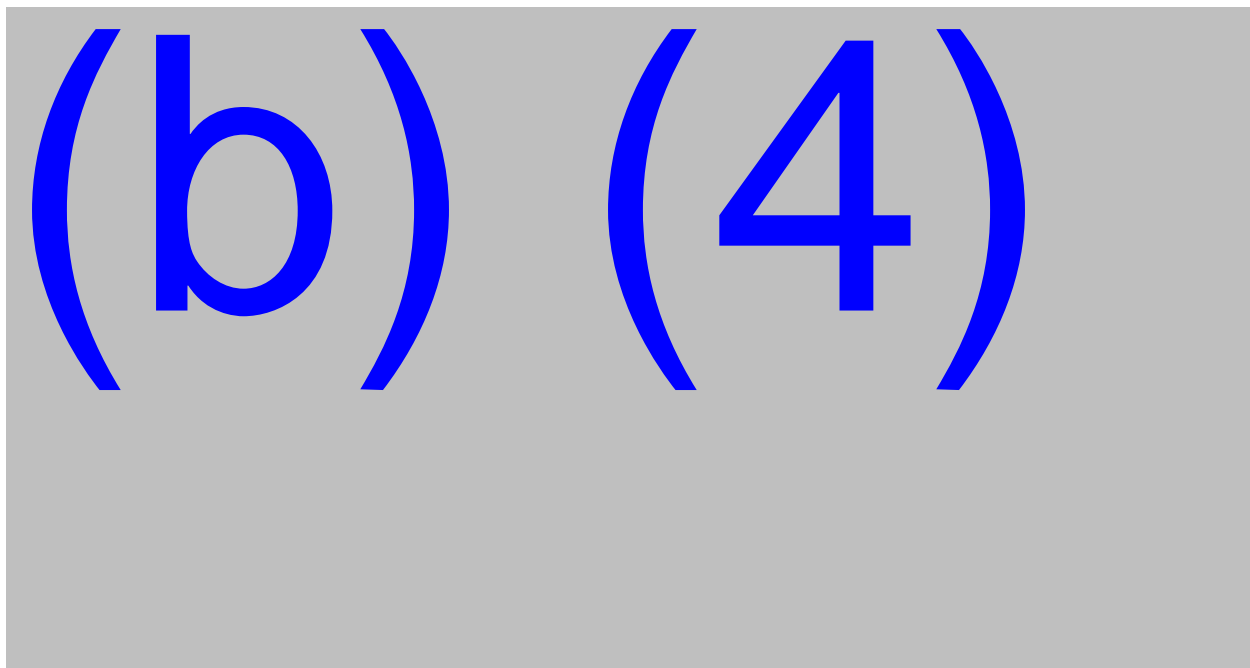


FIGURE 15. RELATIVE RISK OF ZYN® NICOTINE POUCHES COMPARED TO CCS – LUNG CANCER (CONTROL GROUP)

12.2.2 Mouth Cancer

Among respondents who were exposed to the MRTP claims, more said there is a lower risk of developing mouth cancer from using ZYN® Nicotine Pouches versus those not exposed to the MRTP claims. Respondents in the control group, except smokeless TNP users, perceived ZYN® Nicotine Pouches at the same level of risk for mouth cancer as smoking cigarettes. Smokeless TNP users were split between a lower perceived risk of mouth cancer and a higher risk compared to cigarettes (Figure 16, Figure 17, Tables 29-38 (b) (4))

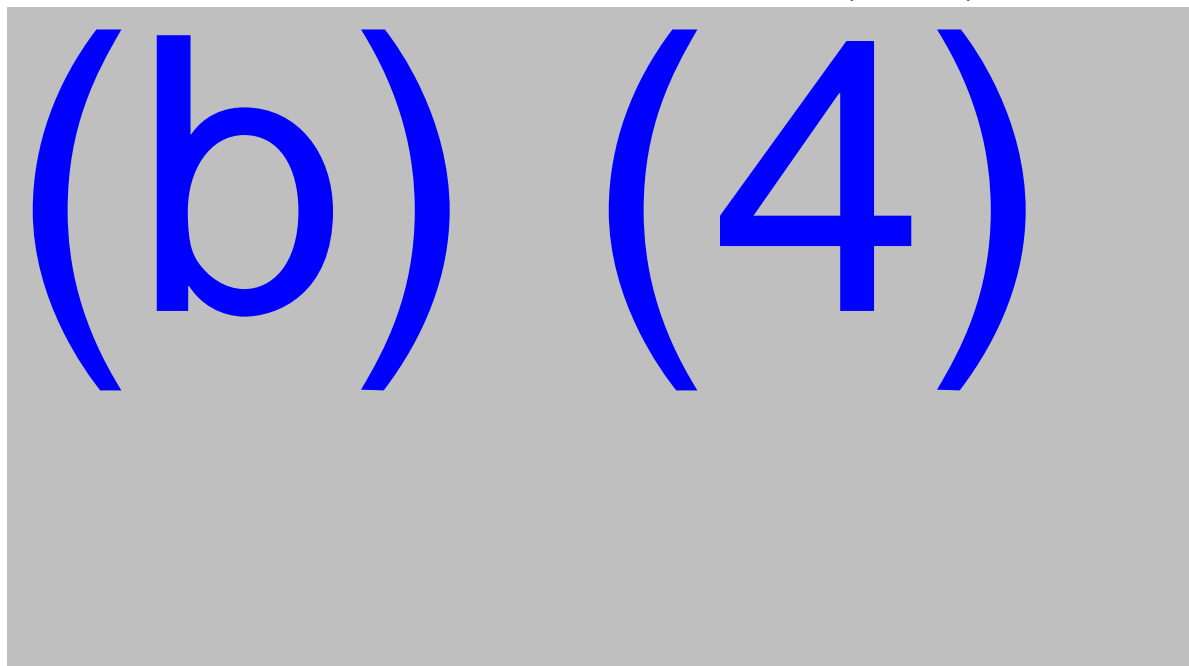
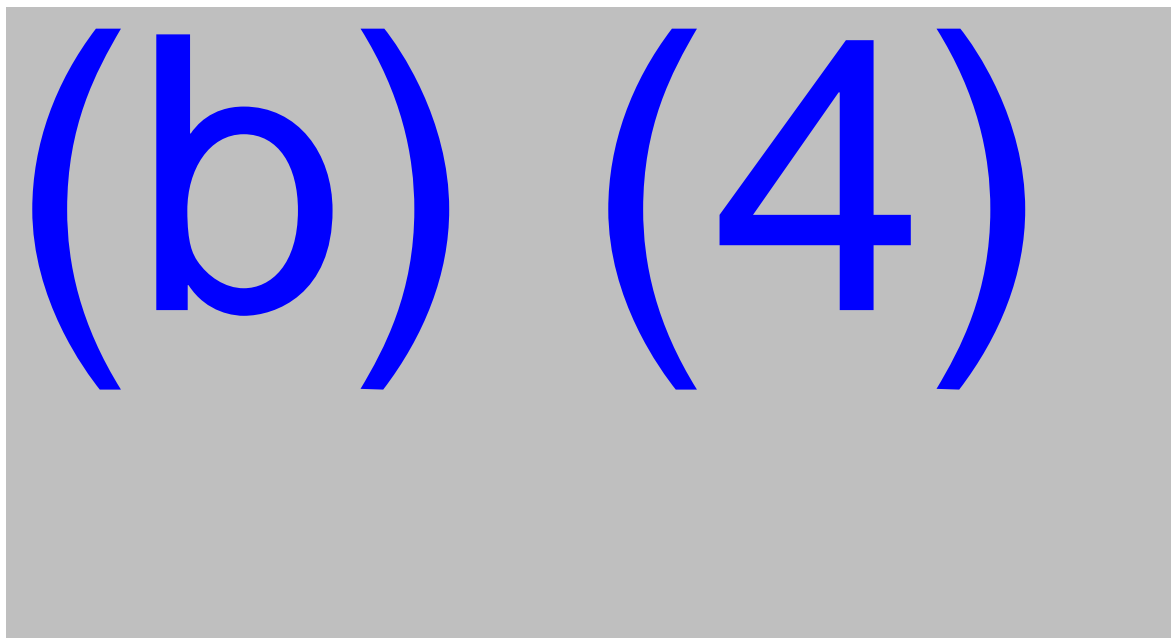
FIGURE 16. RELATIVE RISK OF ZYN® NICOTINE POUCHES COMPARED TO CCS – MOUTH CANCER (TEST GROUP)

FIGURE 17. RELATIVE RISK OF ZYN® NICOTINE POUCHES COMPARED TO CCS – MOUTH CANCER (CONTROL GROUP)

12.2.3 Throat Cancer

Among respondents who were exposed to the MRTP claims, more said there is a lower risk of developing throat cancer from using ZYN® Nicotine Pouches versus those not exposed to the MRTP claims. Respondents in the control group, except smokeless TNP users, perceived ZYN® Nicotine Pouches to have the same level of risk for throat cancer as smoking cigarettes. CC users and smokeless TNP users in the test group perceived a lower risk of throat cancer compared to cigarettes (Figure 18, Figure 19, Tables 29-38 (b) (4)).

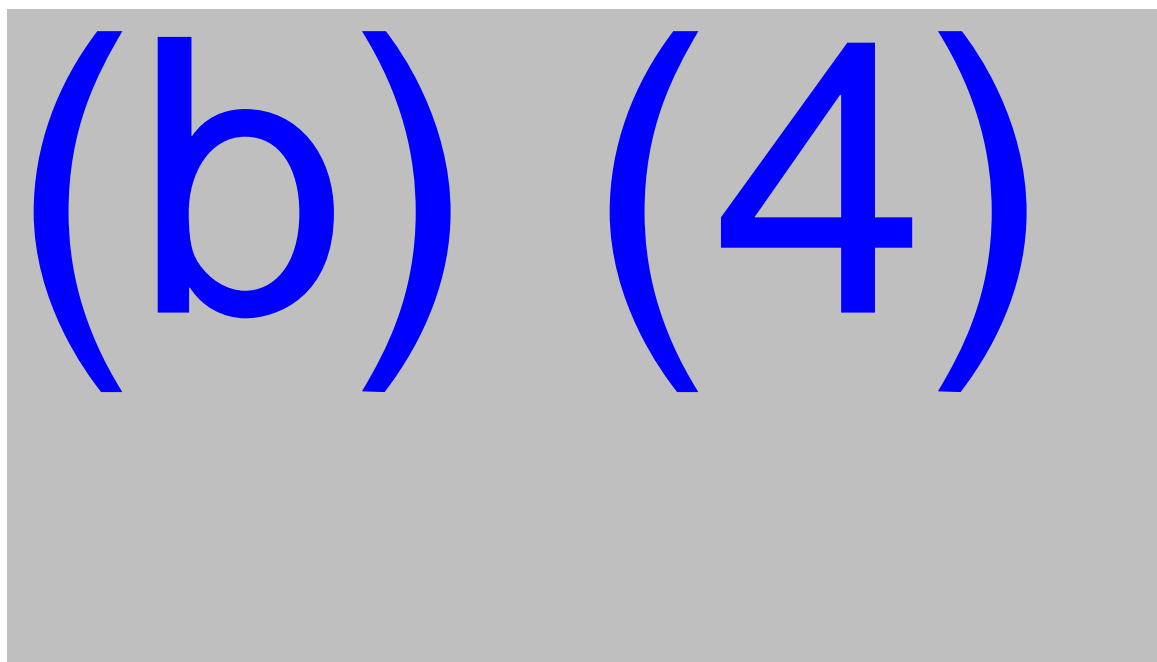
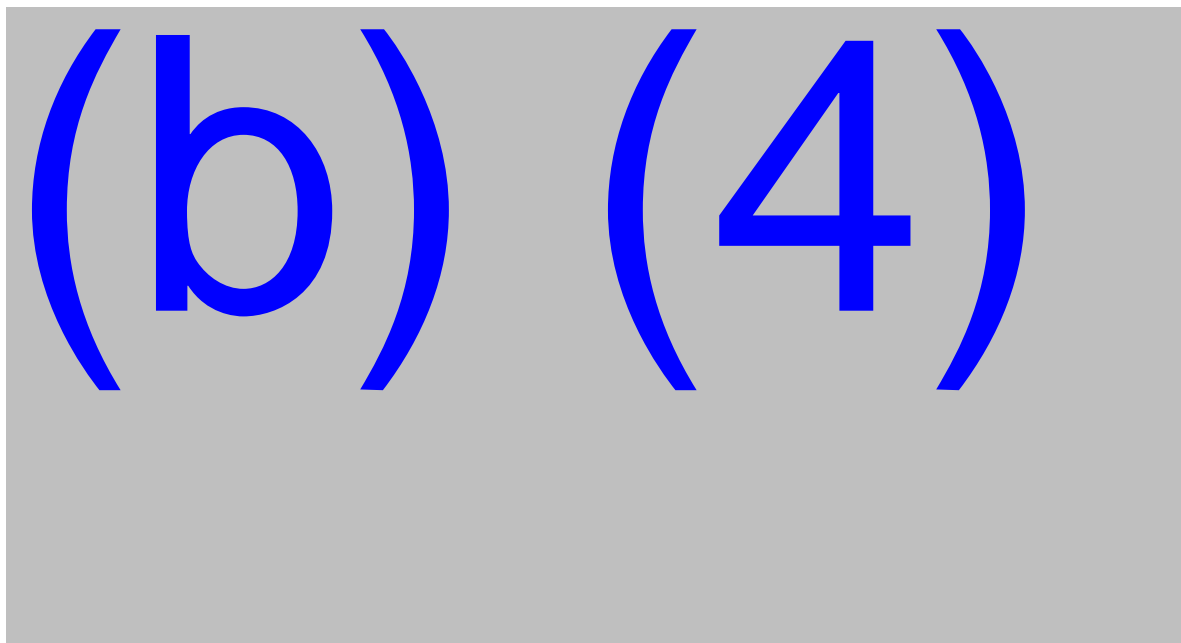
FIGURE 18. RELATIVE RISK OF ZYN® NICOTINE POUCHES COMPARED TO CCS – THROAT CANCER (TEST GROUP)

FIGURE 19. RELATIVE RISK OF ZYN® NICOTINE POUCHES COMPARED TO CCS – THROAT CANCER (CONTROL GROUP)

12.2.4 Emphysema

Among respondents who were exposed to the MRTTP claims, more said there is a lower risk of developing emphysema from using ZYN® Nicotine Pouches versus those not exposed to the MRTTP claims. Never TNP users in the control group perceived ZYN® Nicotine Pouches as the same amount of risk for emphysema compared to cigarettes while more in the test group assigned a lower level of risk (Figure 20, Figure 21, Tables 29-38(b) (4) (b) (4)).

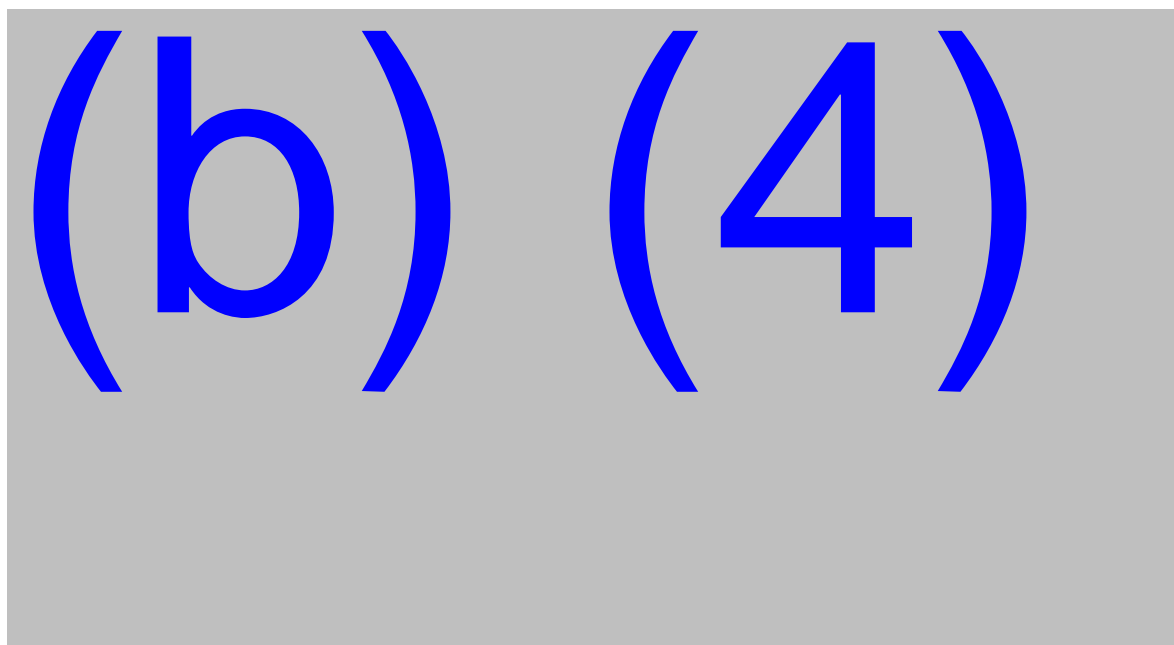
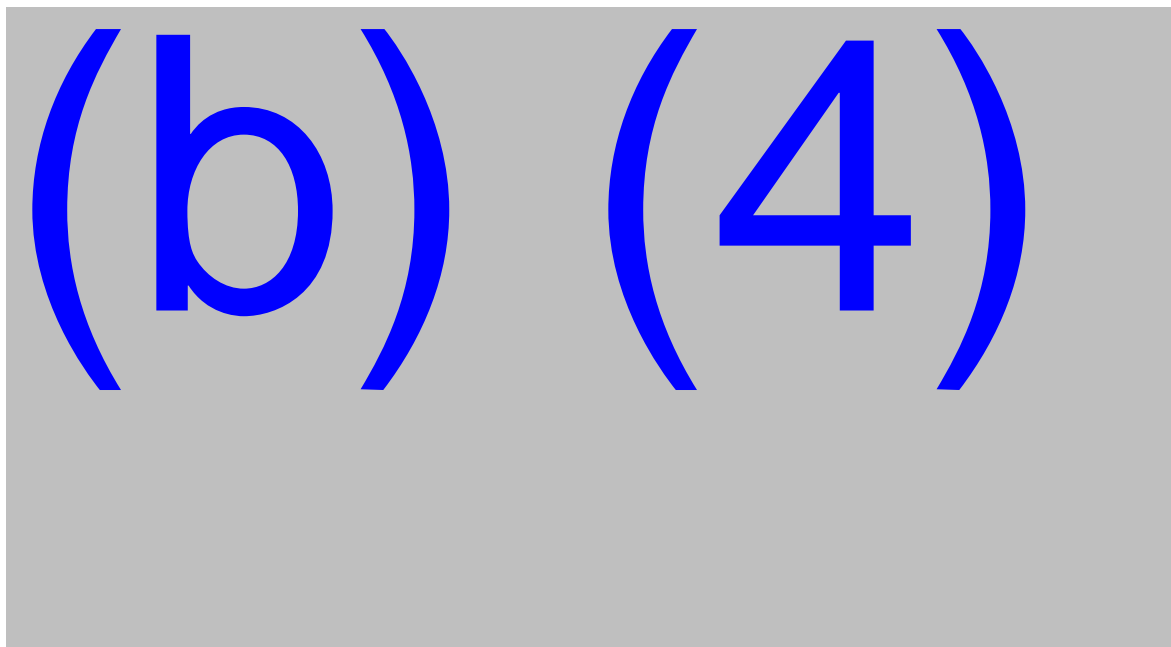
FIGURE 20. RELATIVE RISK OF ZYN® NICOTINE POUCHES COMPARED TO CCS – EMPHYSEMA (TEST GROUP)

FIGURE 21. RELATIVE RISK OF ZYN® NICOTINE POUCHES COMPARED TO CCS –EMPHYSEMA (CONTROL GROUP)

12.2.5 Heart Disease

Among respondents who were exposed to the MRTTP claims, more said there is a lower risk of developing heart disease from using ZYN® Nicotine Pouches, compared to smoking, versus those not exposed to the MRTTP claims. Respondents in the control group perceived ZYN® Nicotine Pouches at the same level of risk for heart disease as smoking cigarettes. Never TNP users though, in both groups, said ZYN® Nicotine Pouches were at the same level of risk for heart disease as cigarettes (Figure 22, Figure 23, Tables 29-38 (b) (4)).

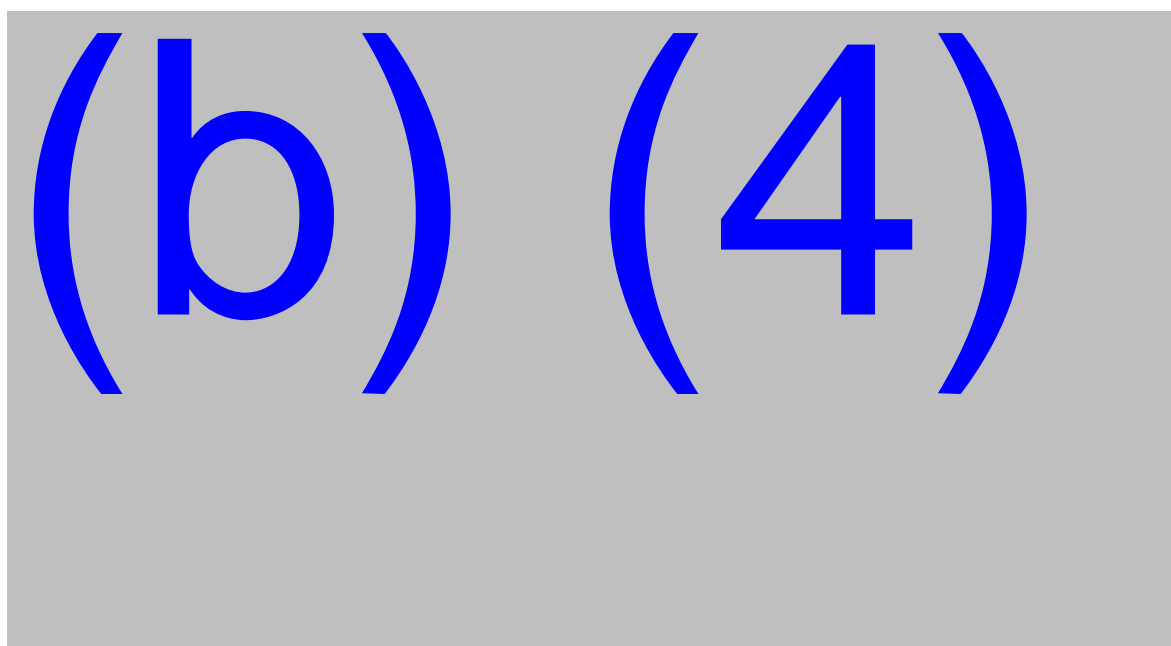
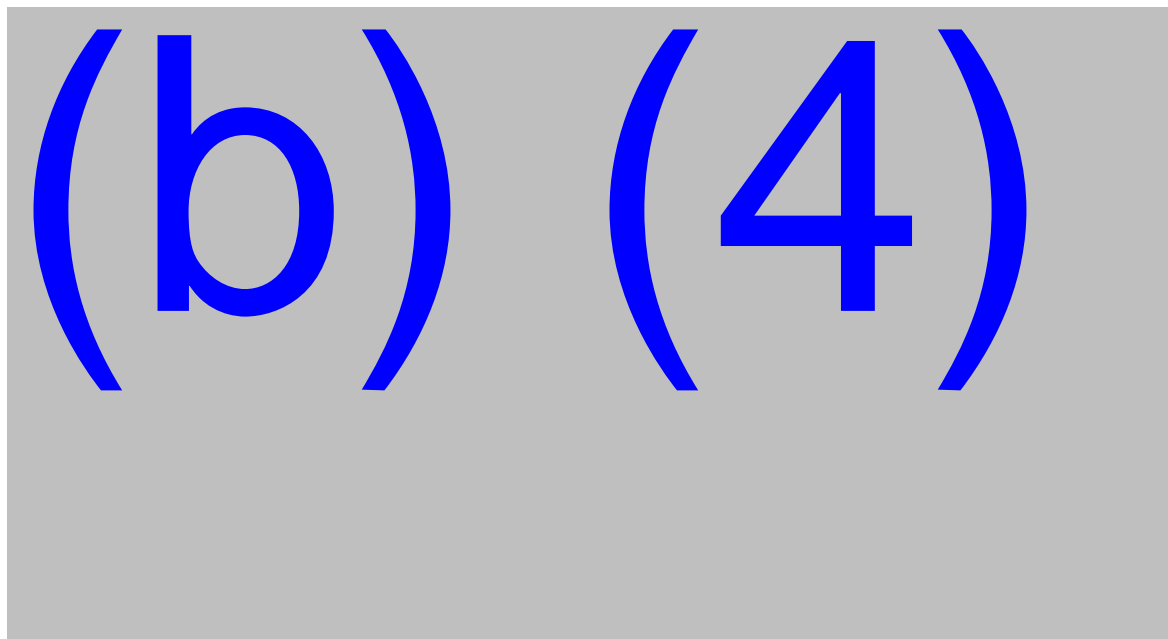
FIGURE 22. RELATIVE RISK OF ZYN® NICOTINE POUCHES COMPARED TO CCS – HEART DISEASE (TEST GROUP)

FIGURE 23. RELATIVE RISK OF ZYN® NICOTINE POUCHES COMPARED TO CCS –HEART DISEASE (CONTROL GROUP)

12.2.6 Stroke

Among respondents who were exposed to the MRTP claims, more said there is a lower risk of having a stroke from using ZYN® Nicotine Pouches, compared to smoking, versus those not exposed to the MRTP claims. However, the prevailing opinion was that ZYN® Nicotine Pouches have the same level of risk for stroke as cigarettes in all groups except current smokers and smokeless TNP users. Current smokers were split between the same risk and a lower risk of stroke while smokeless TNP users said there is a lower risk of stroke (Figure 24, Figure 25, Tables 29-38 (b) (4)).

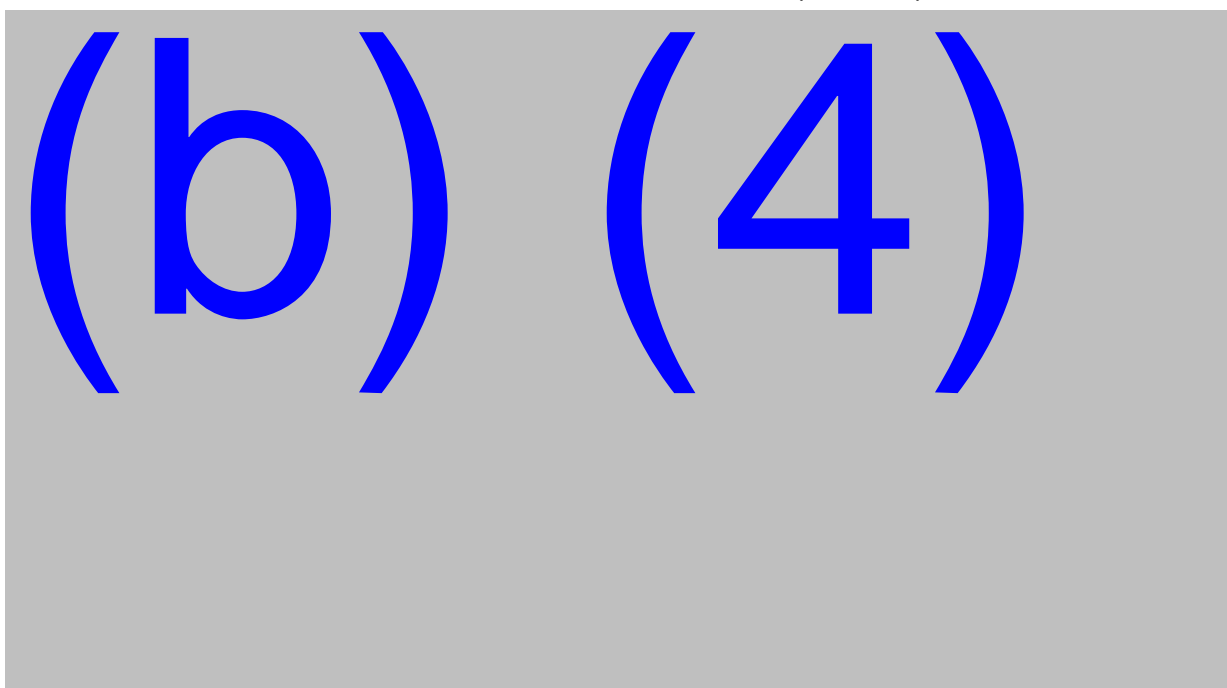
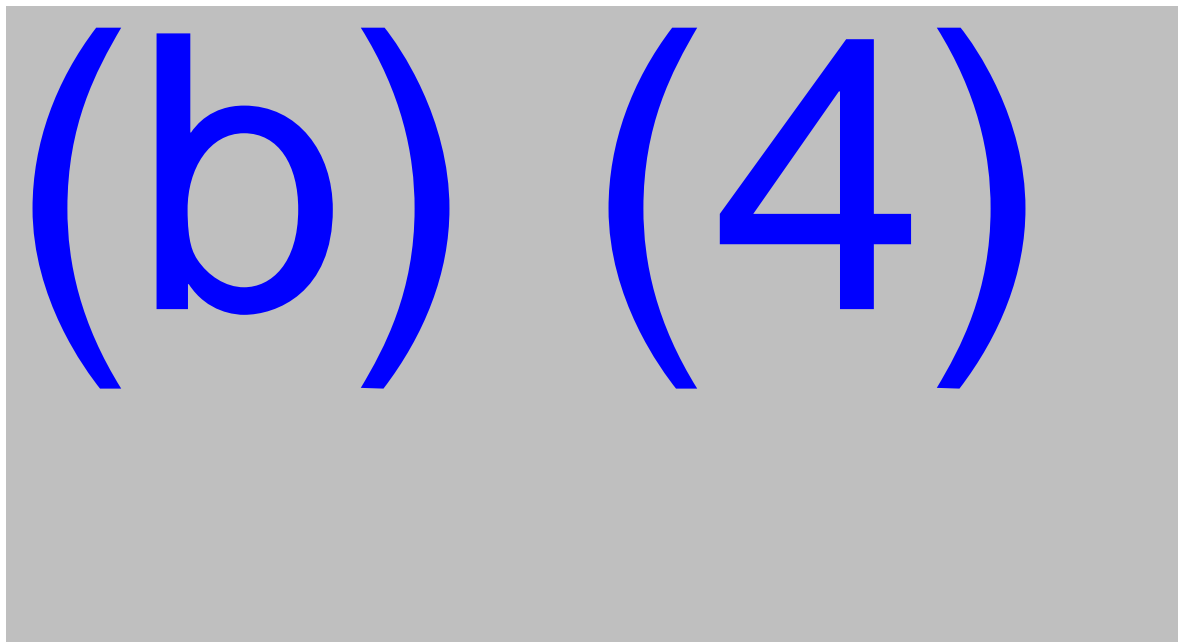
FIGURE 24. RELATIVE RISK OF ZYN® NICOTINE POUCHES COMPARED TO CCS – STROKE (TEST GROUP)

FIGURE 25. RELATIVE RISK OF ZYN® NICOTINE POUCHES COMPARED TO CCS –STROKE (CONTROL GROUP)

12.2.7 Chronic Bronchitis

Among respondents who were exposed to the MRTP claims, more said there is a lower risk of having chronic bronchitis from using ZYN® Nicotine Pouches, compared to smoking, versus those not exposed to the MRTP claims. The most common perception among respondents in the test group was that ZYN® Nicotine Pouches were at a lower risk for chronic bronchitis compared to smoking. Never TNP users in the control group said ZYN® Nicotine pouches are at the same level of risk as cigarettes for chronic bronchitis while those who currently use a TNP and former CC users/other TNP users perceived lower risk for chronic bronchitis compared to smoking (Figure 26, Figure 27, Tables 29-38 (b) (4)).

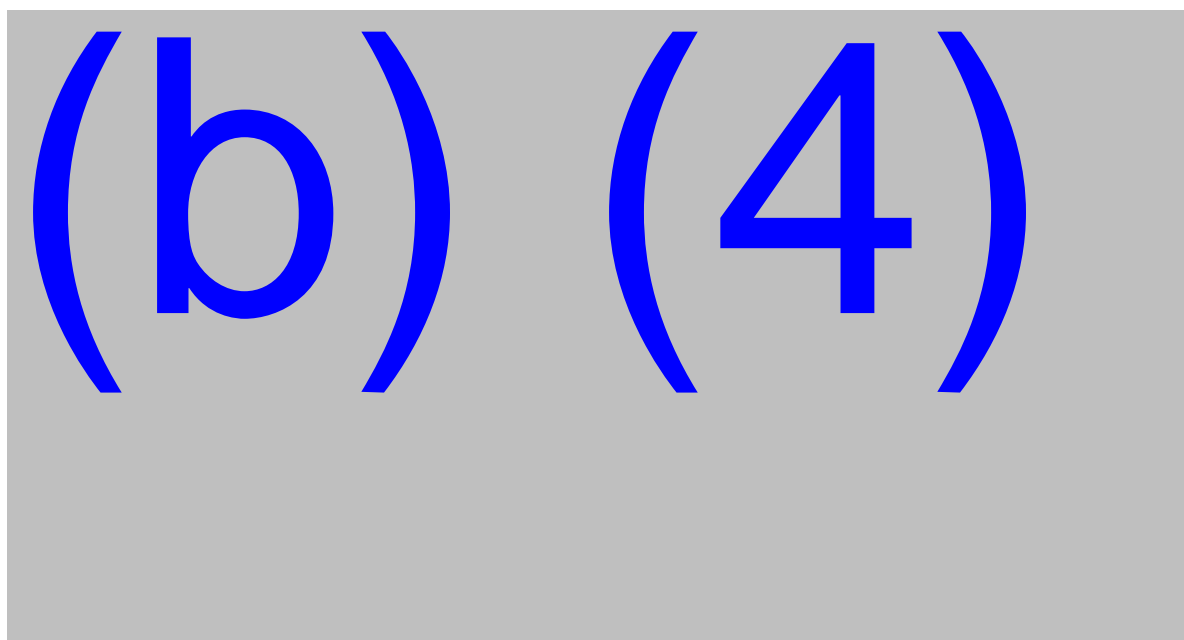
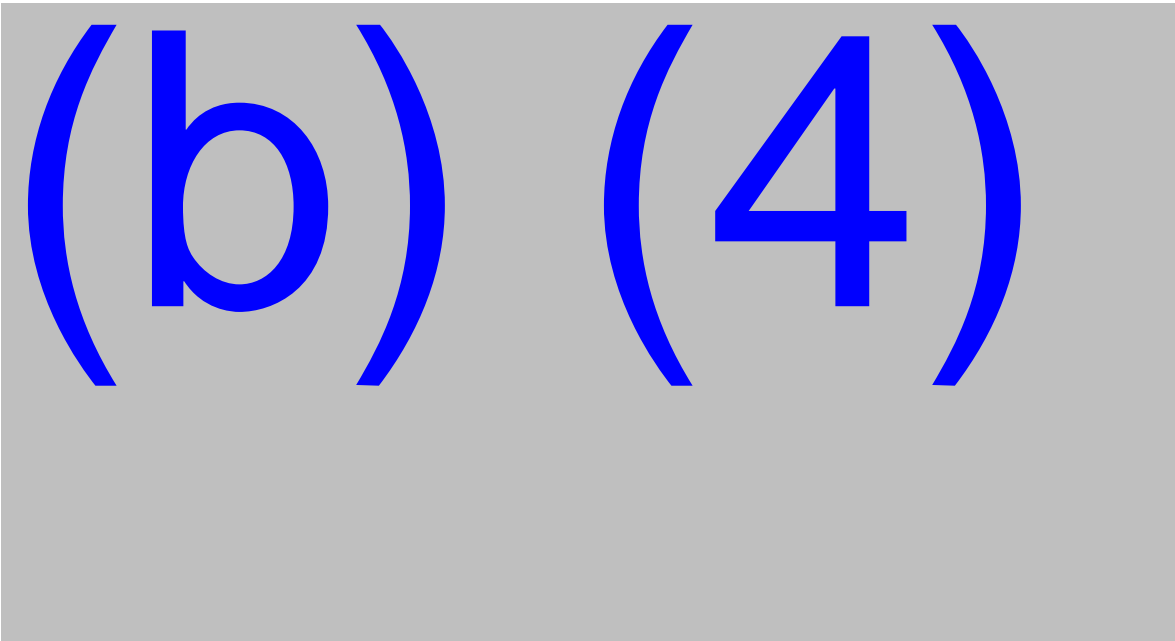
FIGURE 26. RELATIVE RISK OF ZYN® NICOTINE POUCHES COMPARED TO CCS – CHRONIC BRONCHITIS (TEST GROUP)

FIGURE 27. RELATIVE RISK OF ZYN® NICOTINE POUCHES COMPARED TO CCS –CHRONIC BRONCHITIS (CONTROL GROUP)

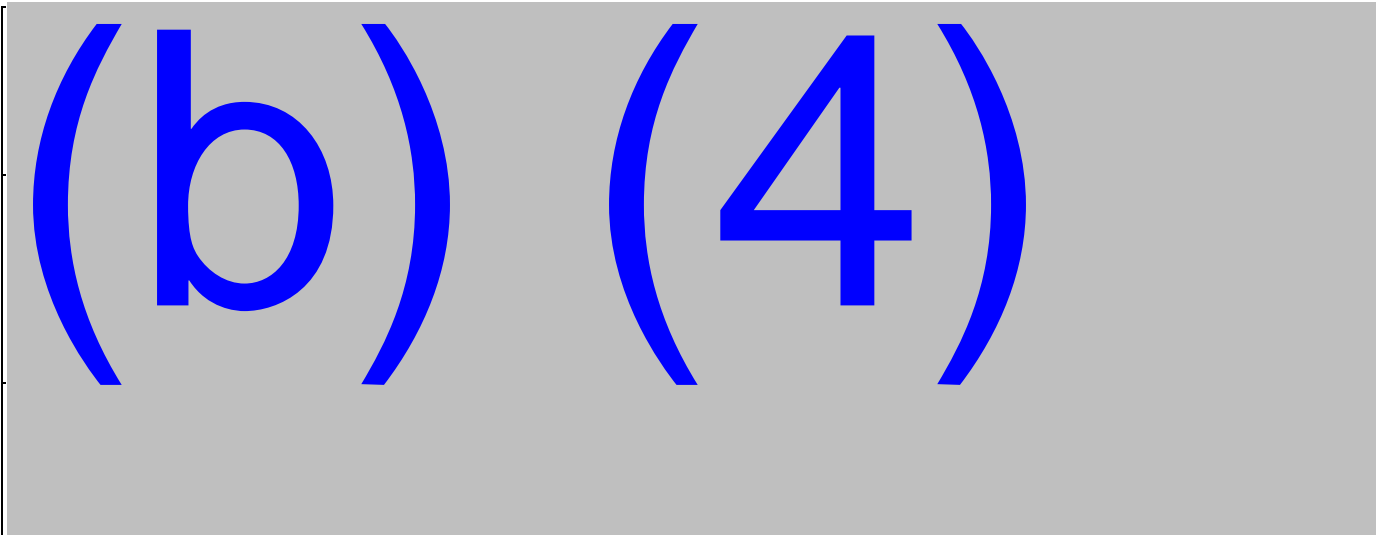


13 LIKELIHOOD TO USE ZYN® NICOTINE POUCH FLAVORS

Among former CC users/other TNP users, interest in using any of the flavors was negligible, ranging from (b) (4) on the Juster scale (b) (4) (Table 20). Never users ((b) (4)) had little interest in using any flavor. The most interest expressed by flavor was (b) (4) on the Juster Scale. Never users (b) (4) were not interested per flavor. The flavor with the highest interest was (b) (4) on the Juster Scale for Cool Mint (Table 20).

Interest in any flavor among current smokers ranged from (b) (4) (Table 20). Smokeless TNP users were most interested in (b) (4) on the Juster Scale) (Table 20).

TABLE 20. LIKELIHOOD TO USE EACH OF THE ZYN® NICOTINE POUCH FLAVORS



(b) (4)

*(b) (4)

Signature Page

This study was conducted in accordance with the specifications noted in the study protocol (PROTOCOL-ZYN® Flagship with Modified Risk Claims Perceptions of and Likelihood of Use Among US Adults) and in accordance with The Insights Association’s Code of Standards and Ethics for Marketing Research and Data Analytics. The study principals have reviewed and approved the report and are presenting it as the “Final Report.”

Principal Investigator: (b) (4)

(b) (6)

03-22-2024

(b) (4)

Date

APPENDIX A – DATA TABLES

14.1 PERCEPTIONS OF ABSOLUTE HEALTH RISKS – TOTAL SAMPLE

TABLE 21. PERCEPTIONS OF ABSOLUTE HEALTH RISKS FROM SMOKING CCS ON A DAILY BASIS

(b) (4)

(b) (4)

(b) (4)

(b) (4)

TABLE 22. PERCEPTIONS OF ABSOLUTE HEALTH RISKS FROM USING SMOKELESS TOBACCO PRODUCTS

(b) (4)

(b) (4)

(b) (4)

TABLE 23. PERCEPTIONS OF ABSOLUTE HEALTH RISKS FROM USING ENDS

(b) (4)

(b) (4)

(b) (4)

TABLE 24. PERCEPTIONS OF ABSOLUTE HEALTH RISKS FROM USING NRTS

(b) (4)

(b) (4)

(b) (4)

TABLE 25. PERCEPTIONS OF ABSOLUTE HEALTH RISKS FROM QUITTING SMOKING CIGARETTES ALTOGETHER

(b) (4)

(b) (4)

(b) (4)

*

TABLE 26. PERCEPTIONS OF ABSOLUTE HEALTH RISKS FROM QUITTING USE OF ANY TYPE OF TNP

(b) (4)

(b) (4)

(b) (4)

*(b) (4)

14.2 PERCEPTIONS OF ABSOLUTE HEALTH RISKS ZYN NICOTINE POUCHES

TABLE 27. PERCEPTIONS OF ABSOLUTE HEALTH RISKS FROM USING ZYN FLAGSHIP (TEST GROUP)

(b) (4)

(b) (4)

(b) (4)

*(b) (4)

TABLE 28. PERCEPTIONS OF ABSOLUTE HEALTH RISKS FROM USING ZYN (CONTROL GROUP)

(b) (4)

(b) (4)

(b) (4)

14.3 PERCEPTIONS OF RELATIVE HEALTH RISKS – TEST GROUP

Table 29. Relative Health Risks of ZYN® Nicotine Pouches Compared to CCs – Test Group

(b) (4)

(b) (4)

(b) (4)

(b) (4)

Table 30. Relative Health Risks of ZYN® Nicotine Pouches Compared to STPs – Test Group

(b) (4)

(b) (4)

(b) (4)

(b) (4)

Table 31. Relative Health Risks of ZYN® Nicotine Pouches Compared to Nicotine Pouches – Test Group

(b) (4)

(b) (4)

(b) (4)

*(b) (4)

Table 32. Relative Health Risks of ZYN® Nicotine Pouches Compared to ENDS – Test Group

(b) (4)

(b) (4)

(b) (4)

*(b) (4)

Table 33. Relative Health Risks of ZYN® Nicotine Pouches Compared to NRTs – Test Group

(b) (4)

(b) (4)

(b) (4)

*(b) (4)

14.4 PERCEPTIONS OF RELATIVE HEALTH RISKS – CONTROL GROUP

Table 34. Relative Health Risks of ZYN® Nicotine Pouches Compared to CCs – Control Group

(b) (4)

(b) (4)

(b) (4)

*(b) (4)

Table 35. Relative Health Risks of ZYN® Nicotine Pouches Compared to STPs – Control Group

(b) (4)

(b) (4)

(b) (4)

(b) (4)

Table 36. Relative Health Risks of ZYN® Nicotine Pouches Compared to Nicotine Pouches – Control Group

(b) (4)

(b) (4)

(b) (4)

*(b) (4)

Table 37. Relative Health Risks of ZYN® Nicotine Pouches Compared to ENDS – Control Group

(b) (4)

(b) (4)

(b) (4)

*(b) (4)

Table 38. Relative Health Risks of ZYN® Nicotine Pouches Compared to NRTs – Control Group

(b) (4)

(b) (4)

(b) (4)

*(b) (4)

APPENDIX B – ZYN SHELF SET AND MRTP CLAIMS CONCEPT (TEST CELL)



**WARNING: This product contains nicotine.
Nicotine is an addictive chemical.**

ZYN
NICOTINE POUCHES

AVAILABLE IN
10 VARIETIES &
2 STRENGTHS

3mg | **6mg**

SMOKE-FREE

SPIT-FREE

HANDS-FREE

FIND YOUR ZYN at ZYN.com

**USING ZYN INSTEAD
OF CIGARETTES PUTS
YOU AT A LOWER RISK
OF MOUTH CANCER,
HEART DISEASE, LUNG
CANCER, STROKE,
EMPHYSEMA, AND
CHRONIC BRONCHITIS.**

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APPENDIX C – ZYN SHELF SET AND CONCEPT WITHOUT MRTP CLAIMS (CONTROL CELL)



WARNING: This product contains nicotine.
Nicotine is an addictive chemical.

APPENDIX D – COGNITIVE TESTING

15 COGNITIVE TESTING

Prior to initiating the quantitative research, cognitive testing of the survey instrument was conducted. This exploratory research phase was developed to ensure that:

- Participants understood all questions and answer choices
- Responses were consistent with the intended meaning of the questions and answer choices
- No critical components of the research were either overlooked or meaningfully altered
- Attributes on the Risk Perception Scale or the Juster Scale would not be misunderstood by participants
- All relevant measures and answer choices were included such that the objectives of the study could be fulfilled

15.1 COGNITIVE TESTING METHODOLOGY

15.2 PARTICIPANTS AND PROCEDURES

All participants in the study:

- Currently resided in the US
- Legal-Age (21 years of age and above)
- Able and willing to comply with all study requirements
- Provided informed consent
- Acknowledged understood all information provided by signing ICF

Participants were grouped into smoking status groups; a mix of age, gender, census regions, and race/ethnicities were recruited.

Participant Exclusions:

1. Under legal age of purchase (21 years of age)
2. Participated in a market research survey about tobacco products in the past 3 months
3. Employees of or household member employed in manufacturing, sales or distribution of tobacco or ENDS products, advertising/marketing, market research, healthcare, legal field, or news and media, to minimize bias and to protect any proprietary product information that will be disclosed in the survey
4. Have started smoking within the last 30 days or started using a smokeless tobacco/nicotine product within the last 30 days
5. Employed in any of the following fields or professions: market research, marketing, advertising, media or journalism, law, or manufacturers or distributors of TNPs

Smoking Status:

Respondents were categorized based on smoking status according to self-report. The categories are defined as follows:

Respondents were categorized into five primary respondent cohorts based on self-reported tobacco/nicotine product use:

- Group 1 – Current Smokers (smoked 100+ cigarettes in lifetime and currently smoke every day or some days)
- Group 2 – Former CC Users/Other TNP Users (not CC or smokeless) which include:
 - Former smokers who use other TNP
 - Former smokers who do not currently use any TNP
 - Other TNP users (not CC or smokeless products)
- Group 3 – Current Smokeless Users (currently use any type of smokeless tobacco/nicotine product and are not established smokers – have not smoked 100+ cigarettes in his/her lifetime)
- Group 4 – Non-Established Users 21+ (b) (4)
- Group 5 – Non-Established Users (b) (4)

15.2.1 Participation by Smoking Status User Group

The cognitive testing included (b) (4) among the following segments:

Table 39. Cognitive Testing IDIs (b) (4)

(b) (4)

15.3 SIMULATED ONLINE EXPERIENCE

Participants reviewed a programmed, online version of the questionnaire to simulate the survey-taking experience. Participants were asked to complete the survey as would if in a normal environment such as home or work. Participants were also asked to share any thoughts about each question, answer options, the survey flow, and if any items were missing or would be helpful in completing the survey, such as instructions, question context, or clarifications.

15.4 COGNITIVE TESTING SUMMARY AND CONCLUSIONS

No issues with the survey instrument itself surfaced during the cognitive interviews. Respondents indicated comprehension of all questions and subject matter, including the ZYN® stimuli.