

**Quantitative Study of Tobacco Facts Designed to Inform Youth Tobacco Prevention Messaging  
0910-0810  
Supporting Statement: Part B**

**B. STATISTICAL METHODS**

**1. Respondent Universe and Sampling Methods**

The one-time actual burden figures are listed in the tables in the Part A Supporting Statement (p. 9–10).

For this study, we plan to obtain approximately 1,600 survey completes among youth ages 13–17. Approximately 800 of the survey completes will be obtained from multicultural youth who have experimented with or are at risk for using cigarettes or have ever used cigars, or hookah. Approximately 400 of the survey completes will be obtained from White, Non-Hispanic males living in rural areas who are experimenting with or at risk for smokeless tobacco use. Approximately 400 of the survey completes will be obtained from American Indian/Alaska Native youth ages 13-17 who have experimented with or are at risk of using cigarettes or e-cigarettes. The survey is a cross-sectional design using a non-probability sample. Approximately 1,400 participants. As this study is considered part of formative research for campaign development and planning, these methods are not intended to generate nationally representative samples or precise estimates of population parameters. The sample is designed primarily to provide information on the perceived effectiveness of tobacco-related facts that may be used in future tobacco prevention campaigns.

*Sampling Methods*

The study sample will be comprised of participants between the ages of 13 and 17 years who (1) identify as multicultural (races and ethnicities such as Hispanic/Latino, African American, Asian/Pacific Islander, or a mix of various races and ethnicities) and have experimented with or are at risk for using cigarettes or have ever used cigars, or hookah; or (2) identify as White males living in rural areas and have experimented with or are at risk for smokeless tobacco use; or (3) identify as American Indian/Alaska Native and have experimented with or are at risk of using cigarettes or e-cigarettes. This study is considered part of formative research for campaign development and planning, and these methods are not intended to generate nationally representative samples or precise estimates of population parameters. The sample is designed primarily to provide information on the perceived effectiveness of tobacco-related facts.

Participants will be recruited through targeted social media advertising on Facebook and Instagram. The contractor, Fors Marsh Group (FMG), is responsible for creating the advertisements to encourage participation (see Attachment C4 for *Fresh Empire*, Attachment D4 for *TRC Smokeless*, and Attachment E4 for *AI/AN*). After clicking on the advertisement, participants will be directed to the screener (See Attachments C3 for *Fresh Empire*, D3 for *TRC Smokeless*, and E3 for *AI/AN*). After completing the screener, participants will be asked to include a personal email address and an email address for their parent/guardian. The parent/guardian of the potential participant will receive a notification/opt-out form via email. The parent/guardian will have 24 hours to notify the project team that the youth is not allowed to

participate (i.e., take the survey). If the 24-hour period passes without notification, the participant will be emailed a link to complete the assent form (see attachments C1 for *Fresh Empire*, D1 for *TRC Smokeless*, and E1 for *AI/AN*) then take the survey (see attachments A5 for *Fresh Empire*, B5 for *TRC Smokeless*, and E5 for *AI/AN*) where they will be shown approximately 15 tobacco-related facts (see Attachments A6 for *Fresh Empire*, B6 for *TRC Smokeless*, and E6 for *AI/AN*) and provide feedback about those facts.

In addition to recruiting participants through social media, approximately 200 of the 400 *AI/AN* participants will be recruited through Lucid, an existing online panel of adults with children ages 13-17 who have been prescreened for their willingness to have their child to participate in online surveys. Adult panelists will receive an initial email invitation from Lucid that indicates their child has been invited to participate in a new survey (see Attachment F1). If the parent determines that they would like their child to participate in this particular survey, they will be asked to provide parental permission and an email address for the child. An introductory email will then be sent to the youth inviting them to participate in the study and requesting their assent (Attachment F2). If the youth gives their assent, they will be redirected to the online screener portion of the survey (Attachment F3). If they qualify to participate in the study, they will begin the survey (Attachment E5).

### *Sample Size*

To obtain a final sample of 800 multicultural youth ages 13–17 that have experimented with or are at risk for using cigarettes or have ever used cigars, or hookah, we will need to screen approximately 3,500 potential participants. This estimate is based on recent data that indicates approximately 23% of multicultural youth were either experimenting with or at risk for cigarette use (Walker et al., 2018). To obtain a final sample of 400 White, Non-Hispanic male youth ages 13–17 that have experimented with or are at risk for using smokeless tobacco, we will need to screen approximately 1,260 participants. This estimate is based on the most recent data from FDA’s Population Assessment of Tobacco and Health (PATH) study that reports 31.8% of rural, White males 12–17 years of age are either experimenting with or at risk for using smokeless tobacco (NIH, FDA, 2016). To obtain a final sample of 400 *AI/AN* youth who have experimented with or are at risk of using cigarettes or e-cigarettes, we expect to screen approximately 1,100 youth. This is based on data from the 2018 National Youth Tobacco survey that suggest approximately 36% of *AI/AN* youth age 13-17 have experimented with or are at risk of using cigarettes.

## **2. Procedures for the Collection of Information**

This section describes the procedures for the survey data collection. The survey will be conducted via a web-based survey disseminated by FMG. To be eligible, the parent must give their permission (for youth recruited through the online panel) or the parent email must not bounce back and the parent must not opt out their youth from the study (for all youth recruited through social media), the youth must give their assent, and the youth (ages 13–17) must be either multicultural, experimenting with or at risk for cigarette or have ever used cigars or hookah, or a White male living in a rural area that has experimented with or is at risk for smokeless tobacco use, or *AI/AN* who has experimented with or at risk of using cigarettes or e-

cigarettes . The screeners are included as C3 for *Fresh Empire*, D3 for *TRC Smokeless*, and E3 for *AI/AN*. Links to the survey instruments (Attachments A5 for *Fresh Empire*, B5 for *TRC Smokeless*, and E5 for *AI/AN*) will only be provided to youth participants after the 24-hour period passes with no opt-out notice from the parent/guardian. All surveys will be conducted using a self-administered, online questionnaire.

### ***Summary of Protocol***

The list of study procedures is as follows:

#### **Fresh Empire, TRC Smokeless, and AI/AN participants recruited through social media**

1. Participants are recruited through targeted social media advertising on Facebook and Instagram.
2. After clicking the link in one of the social media advertisements, participants will be directed to the screener link.
3. Participants will complete the screener and, if they qualify, will provide a personal email address and an email address for their parent/guardian to receive the notification/opt-out form.
4. Parents/guardians will receive a notification/opt-out form via email that provides information about the length of the survey, confidentiality measures, and incentive that the child will receive upon submitting the survey.
5. Parents/guardians will have 24 hours to notify the project team that the youth participant does not have permission to complete the survey.
6. If the parent email doesn't bounce back and 24 hours pass without the parent opting out their youth from the study, the youth will receive a link via email to complete the assent form (see attachments C1 for *Fresh Empire*, D1 for *TRC Smokeless*, and E1 for *AI/AN*) and begin the survey (see attachments A5 for *Fresh Empire*, B5 for *TRC Smokeless*, and E5 for *AI/AN*).

#### **AI/AN participants recruited through online panel**

1. Adult panelists will receive an initial email invitation from Lucid that indicates their child has been invited to participate in a new survey (see Attachment F1).
2. If the parent determines that they would like their child to participate in this particular survey, they will be asked to provide parental permission and an email address for the child. An introductory email will then be sent to the youth inviting them to participate in the study and requesting their assent (Attachment F2).
3. If the youth gives their assent, they will be redirected to the online screener portion of the survey (Attachment F3).
4. If the youth qualify to participate in the study, they will begin the survey (Attachment E5).

#### ***Unusual Problems Requiring Specialized Sampling Procedures***

No specialized sampling procedures are involved.

## ***Use of Periodic Data Collection Cycles to Reduce Burden***

This is a one-time survey data collection effort.

### **3. Methods to Maximize Response Rates**

The ability to obtain the cooperation of potential respondents in the survey will be important to the success of this study. FMG will minimize the non-response rate by employing the following measures:

1. Employ targeted advertising to best reach the desired sample
2. Provide a token of appreciation in the form of a \$10 gift card or ‘points’ equivalent to \$10 to participants who complete and submit the survey

We will use targeted advertising on Facebook and Instagram (see attachments C4 for *Fresh Empire*, D4 for *TRC Smokeless*, and E4 for *AI/AN*) to reach multicultural youth, White male rural youth, and AI/AN youth. The images and messages were selected for the purpose of appealing to the three samples. We estimate that the survey will take 20 minutes to complete. As a token of appreciation, participants recruited through social media who complete and submit the survey will receive a \$10 electronic gift card. AI/AN participants recruited through the online panel who complete and submit the survey will receive non-monetary ‘points’ through the parent’s Lucid account. Points can later be redeemed by the parent on behalf of their child. These points can be redeemed by the parent through Lucid’s system for goods or gift cards. The approximate value of the points is \$10 per survey. We estimate that the survey will take about 20 minutes to complete. In this study, we are using the \$10 gift card and ‘points’ equivalent to \$10 as a token of appreciation to equalize the burden placed on participants with respect to their time, and to reduce overall burden by increasing questionnaire completion rates among youth who qualify on the screener. As participants often have competing demands for their time, a token of appreciation for participation in research is warranted. The use of a token of appreciation treats participants justly and with respect by recognizing and acknowledging the effort participants expend to participate. Numerous empirical studies have also shown that a token of appreciation can significantly increase response rates in cross-sectional studies and reduce attrition in longitudinal studies (e.g., Abreu & Winters, 1999; Castiglioni, Pforr, & Krieger, 2008; Shettle & Mooney, 1999; Singer, 2002). Additionally, evidence indicates that at-risk and multicultural populations may be particularly difficult to recruit and retain in health research (Hooven, Walsh, Willgerodt, & Salazar, 2011; Zand et al., 2006; Post, Gilljam, Bremberg, & Galanti, 2012; Patel, Doku, & Tennakoon, 2003; Siddiqui, Flay, & Hu, 1996; Giuliano et al., 2000; Murthy, Krumholz, & Gross, 2004), but that the use of a token of appreciation can be an effective means of recruiting and retaining participants from these populations (Martinson et al., 2000; Booker, Harding, & Benzeval, 2011; Caldwell, Hamilton, Tan, & Craig, 2010; Walter, Burke, & Davis, 2013).

### **4. Tests of Procedures or Methods**

The contractor, FMG, will conduct rigorous internal testing of the online survey instrument prior to its fielding. Survey testers will review the online test version of the instrument that we will use to verify that instrument skip patterns are functioning properly, delivery of the \$10 gift card or 'points' as a token of appreciation is working properly, and that all survey questions are worded correctly and are in accordance with the instrument approved by OMB.

## **5. Individuals Involved in Statistical Consultation and Information Collection**

The following individuals inside the agency have been consulted on the design of the campaign evaluation plan, audience questionnaire development, or intra-agency coordination of information collection efforts:

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The following individuals outside of the agency have been consulted on questionnaire development.

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