

TIME SENSITIVE

**Evaluation of the CDC National Tobacco Prevention and Control Public Education Campaign
(OMB No. 0920-0923, exp. 4/30/2014)**

Revision

Supporting Statement: Part B

Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention and Health Promotion
Office of Smoking and Health
Health Communications Branch

January 31, 2014

Project Officer: Robert Alexander, Ph.D.
Health Communications Specialist
Phone: (770) 488-1212
Fax: (770) 488-5939
Email address: RAlexander@cdc.gov
Centers for Disease Control and Prevention
4770 Buford Highway, Mailstop K-79
Atlanta GA 30341

HHS/ASPE HAS APPROVED SUBMISSION OF THIS ICR TO OMB

Contents

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

- B.1. Respondent Universe and Sampling Methods
- B.2. Procedures for the Collection of Information
- B.3. Methods to Maximize Response Rates and Deal with Non-response
- B.4. Tests of Procedures or Methods to be Undertaken
- B.5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

List of Exhibits

- Exhibit 1. Evaluation Sample Plan

List of Attachments

- A-1. Public Health Service Act
- A-2. Family Smoking Prevention and Tobacco Control Act
- A-3. PPHF
- B-1. Federal Register Notice
- B-2. Summary of Public Comments
- C-1. Screening Questionnaire
- C-2. Smoker Wave 1 Survey
- C-3. Smoker Follow-up Surveys (Waves 2 – 5)
- C-4. Nonsmoker Wave 1 Survey
- C-5. Nonsmoker Follow-up Surveys (Waves 2 – 4)
- C-6. Summary of Key Changes in Evaluation Constructs
- D-1. KnowledgePanel Recruitment Procedures
- E-1. RTI IRB Approval Notice
- F-1. GfK Privacy and Security Procedures
- G-1. ABS Sample Invitation Letter
- G-2. KnowledgePanel Email Invitation and Reminders
- G-3. ABS Sample Postcard Reminders

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

B.1. Respondent Universe and Sampling Methods

In 2014, CDC will initiate Phase 3 of a national tobacco prevention and control public education campaign, commonly known as the “Tips from Former Smokers” campaign. The target audience is adults in the U.S. ages 18-54. To evaluate the campaign, we will conduct a longitudinal study designed to facilitate repeated measures on key outcomes that are targeted by the campaign. This design will allow us to calculate changes in campaign-targeted outcomes over time for each study participant. Five surveys will be conducted with participants who are smokers, and four surveys will be conducted with participants who are non-smokers.

Respondents will be recruited from two sources: (1) a new online longitudinal cohort of smokers and nonsmokers, sampled randomly from the U.S. Postal Services Delivery Sequence File (address-based sample, or ABS); and (2) the existing GfK KnowledgePanel (KP), an established long-term online panel of U.S. adults.

The new ABS-sourced longitudinal cohort will consist of smokers and nonsmokers who have not previously participated in any established online panels. This will serve as the core sample upon which estimates of key outcomes will be made. Only one individual per sampled household will be allowed to participate. The use of a newly-recruited ABS-sourced sample will strengthen the representativeness of the core sample and will alleviate possible concerns over ‘panel conditioning’ and other limitations of existing online panels. This new cohort will be recruited by GfK, utilizing similar recruitment methods that are used in the recruitment of KnowledgePanel. However, because the new ABS-sourced respondents are likely to have no history of participating in an online panel, we recognize that panel attrition rates may be higher for these respondents than for the respondents who have a longstanding relationship with the GfK KnowledgePanel.

While the new ABS-sourced smoker and nonsmoker cohorts provide sufficient power to examine The Campaign’s effects on key smoker outcomes (e.g., quit attempts) at the national level, an additional KnowledgePanel sample will be combined with the ABS sample to boost sample sizes and enable more robust analysis of subgroups of interest. The GfK KnowledgePanel sample will be used in combination with the new ABS-sourced cohort to support larger sample sizes that will allow for more in-depth subgroup analysis, which is a key objective of the CDC. In addition, KP smokers will be used in combination with the new ABS-sourced smokers to analyze long-term smoking cessation in subsequent follow-up surveys.

Among smokers, the target number of completed wave 1 surveys is 9,440 (4,626 from ABS-sourced smokers and 4,814 from KnowledgePanel smokers). We anticipate retaining 3,964 of these smokers at the first follow-up survey (2,500 from ABS-sourced smokers and 1,464 from KnowledgePanel smokers). We will again follow up smokers in 3 subsequent quarterly surveys consisting of 3,964 total smokers in each wave. Each of these surveys will contain 500 newly-recruited ABS-sourced smokers to maintain follow-up ABS-sourced sample sizes of at least

2,500 smokers.

Among nonsmokers, the target number of completed wave 1 surveys is 2,800 (1,000 from ABS-sourced nonsmokers and 1,800 from KnowledgePanel nonsmokers). We anticipate retaining 882 of these nonsmokers at wave 2 (650 from ABS-sourced nonsmokers and 232 from KnowledgePanel nonsmokers). We will again follow up nonsmokers in 2 subsequent surveys consisting of 650 ABS-sourced nonsmokers each. Each of these 2 follow-up surveys of nonsmokers will consist of newly-recruited ABS-sourced nonsmokers to maintain sample sizes of at least 650 ABS-sourced nonsmokers in each follow-up survey. **Exhibit-1** outlines the planned sample.

Exhibit 1. Tips 2014 Evaluation: Source of Respondents for Each Wave of Data Collection

	Screener	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
General Population						
Adults in U.S.	26,148	---	---	---	---	---
Total Adults	26,148	---	---	---	---	---
Smokers						
ABS (Fresh)	---	4,626	---	500	500	500
ABS (Recontact)	---	---	2,500	2,000	2,000	2,000
ABS Total	---	4,626	2,500	2,500	2,500	2,500
KP (Fresh)	---	4,814	---	366	640	846
KP (Recontact)	---	---	1,464	1,098	824	618
KP Total	---	4,814	1,464	1,464	1,464	1,464
Total Smokers*	---	9,440	3,964	3,964	3,964	3,964
Nonsmokers						
ABS (Fresh)	---	1,000	---	130	130	---
ABS (Recontact)	---	---	650	520	520	---
ABS Total	---	1,000	650	650	650	
KP (Fresh)	---	1,800	---	---	---	---
KP (Recontact)	---	---	232	232	232	---
KP Total	---	1,800	232	232	232	---
Total Nonsmokers*	---	2,800	882	884	884	---

*Exhibit 1 presents total N. For each wave of data collection, annualized N = ½ total N.

Study sample sizes were determined through power analyses that were conducted to determine the necessary number of interviews to detect anticipated changes in outcomes as a function of campaign exposure. These analyses were informed by previous studies of earlier phases of The Campaign. In addition, we examined existing evaluation literature and research to determine the expected effect sizes on the outcome of making a quit attempt. Based on these analyses, we have powered the study to detect an underlying odds ratio of 1.18 between campaign exposure and the likelihood of a quit attempt. This power analysis is based solely on the ABS-sourced longitudinal sample size. Previous media evaluations of earlier phases of The Campaign have demonstrated similar impact on the likelihood of a quit attempt. We have conservatively powered the sample to detect this effect at 80% power among ABS-sourced smokers in the sample. For non-smokers we have reserved sufficient sample to detect this same effect on other outcomes relevant to non-smokers at the standard 80% power level.

Survey Weighting

All data collected for this study will be weighted for analysis. GfK will weight all data to facilitate separate analysis of the ABS-sourced and KP-sourced samples as well as analysis of the combined samples. Weights for the sample will be calculated using a standard post-stratification weighting procedure that adjusts for survey non-response as well as non-coverage. This weighting procedure also applies a standard post-stratification adjustment based on demographic distributions from the most recent October 2010 data from the Current Population Survey (CPS). Benchmark distributions for Internet access used in this weight are obtained from the most recent (October 2009) special CPS supplemental survey measuring Internet access.

It should be noted that while the sample recruitment procedures are designed to approximate a nationally representative sample, the limitations associated with online data collection require that all results from this information collection be reported with appropriate caution and interpretation. Specifically, although all participants (ABS-sourced and KnowledgePanel-sourced) must be invited to participate and cannot volunteer on their own, there may be systematic differences between individuals who choose to join internet surveys and the type of individuals who do not wish to participate in these types of studies over an ongoing timeframe. Therefore, evaluation results must be interpreted with appropriate caution regarding our ability to generalize the findings to the national population of smokers and nonsmokers.

B.2. Procedures for the Collection of Information

All surveys, regardless of sample source, will be conducted via the GfK KnowledgePanel Web portal for self-administered surveys. Surveys will be accessible to respondents any time of day for a designed period. Participants can complete each survey only one time.

The first survey will be fielded as soon as possible once OMB approval is received (see **Attachment C-2**, Smoker Wave 1 Survey, and **Attachment C-3**, Nonsmoker Wave 1 Survey).

This timing will promote accurate assessment of variables of interest, particularly for capturing respondents' awareness of and reactions to The Campaign. These include knowledge, attitudes, and beliefs related to smoking as well as intentions to quit and prior quitting behavior. Participants who complete the wave 1 survey will be surveyed again in a follow-up survey approximately 3 months later (see **Attachment C-3**, Smoker Follow-up Survey, Waves 2-5 and **Attachment C-5**, Nonsmoker Follow-up Survey, Waves 2-4). This timeframe for follow-up data collection correlates with the duration of The Campaign itself. This will facilitate analysis of relationships between individuals' exposure to The Campaign and changes in outcomes that are relevant to the evaluation. Subsequent follow-up surveys (3 for smokers, 2 for nonsmokers) will occur on a quarterly basis after the initial wave 1 and wave 2 surveys.

All respondents will be asked to complete an online screening survey (**Attachment C-1**) to verify eligibility and assign the respondent to the appropriate survey instrument (smoker or nonsmoker). However, because respondents will be drawn from two sources, procedures supporting initial recruitment and later follow-up are slightly different, and are described separately below. ABS-sourced participants will be initially contacted by advance letter. GfK KnowledgePanel panel participants will be initially contacted by email.

ABS-Sourced Participants

Recruitment of the ABS-sourced sample will parallel recruitment methods used for the existing KnowledgePanel. Persons residing at randomly sampled addresses will be invited to join the study via a series of mailings. Specifically, the ABS sample will be sent an advance letter (**Attachment G-1**) that describes the study, the length of commitment to the cohort, available incentives, and the overall purposes of the study. CDC will be prominently identified as the sole sponsor of the survey effort in all recruitment materials to encourage study cooperation.

Invited households that receive the advance letter will be able to join the study by going to a designated study Website where the study screener can be accessed and completed. After initially accepting the invitation to join the study, respondents will then complete an online screening survey (**Attachment C-1**) to initiate their cohort tenure. The screening survey will require a PIN that will be supplied to the respondent in the advance letter. Households that do not respond to the advance letter will be mailed up to 2 post card reminders about the study (**Attachment G-3**). Each post card will contain brief information about the study, will remind invitees of the importance of responding, and will provide the aforementioned PIN and Website for accessing the survey online.

KnowledgePanel Participants

Sampled KP participants will receive email notification that the survey is available for completion. Nonrespondents will receive two e-mail reminders requesting their participation in the survey. See **Attachment G-2** for study email notifications for the KnowledgePanel sample. The email notifications contain links to the online survey screening questionnaire that is used to

determine study eligibility (**Attachment C-1**). Informed consent will be sought from participants for participation in the Web survey. Participants will consent by selecting the appropriate link on the Web screen. A detailed description of KnowledgePanel recruitment methodology is provided with this submission (**Attachment D-1**).

B.3. Methods to Maximize Response Rates and Deal with Non-response

One of the primary purposes of the later follow-up surveys will be to track longer-term cigarette abstinence among smokers who initially report quitting as a result of The Campaign. This will be essential to properly estimating the impact of The Campaign on long-term successful quitting. Hence, long-term cohort maintenance will be critical to the success of the evaluation. We have developed a comprehensive recruitment and retention plan.

The following procedures will be used to maximize cooperation and participation in this study:

1. Incentive Plan:

- Our incentive plan acknowledges that the ABS-sourced participants may need an additional incentive because they may not have access to Internet in their home. The incentives for the KP participants are consistent with their customary bonus points system.
 - Participants recruited to the ABS-sourced longitudinal cohort will be offered \$20 for completion of each survey they participate in. An additional \$30 per survey will be offered to ABS-sourced respondents who do not have internet capability and must seek out public computers or other types of internet access to complete the online surveys. This additional incentive for non-Internet households is meant to encourage their participation and appropriately acknowledge respondents' time and effort.

2. Prompted Reminder System:

- Post card reminders (**Attachment G-3**) will be sent to all individuals sampled via ABS who do not respond to the initial advance letter. In addition, email reminders (**Attachment G-2**) will be sent to all sampled KP participants who do not complete their assigned survey within a given period of time after it is assigned. A second round of email reminders will be sent to KP nonresponders who do not complete the survey once the initial email reminder is delivered.

3. Technical Assistance:

- GfK will provide a toll-free telephone number to all sampled individuals and invite them to call with any questions or concerns about any aspect of the study.

- GfK data collection staff will work with RTI project staff to address concerns that may arise.
- We have ongoing communication with the contractor to identify and resolve barriers to full participation.

B.4. Tests of Procedures or Methods to be Undertaken

Prior to launching the wave 1 survey, we will field an eight-case pretest of the survey instrument. This survey will be identical to the instrument that will be used in this evaluation and approved by OMB with the exception of a few additional alternative question formats and questions to assess overall clarity of instrument questions and respondent's opinions on any aspects of the survey that were not clear. The purpose of the pilot test will be twofold: (1) to assess technical aspects and functionality of the survey instrument, and (2) to identify areas of the survey that were either unclear or difficult to understand. Once this pretest is completed, GfK will create a data file for analysis by RTI International. This data file will contain diagnostic data on average time of survey completion, survey completion patterns (e.g., are there any concentrations of missing data?), and other aspects related to the proper function of the survey. We will also examine data on pilot test measures that will be used to assess the clarity of item wording and ease of understanding. Although this pretest will be conducted, such pretests rarely result in changes to the instruments. Therefore, we do not expect or plan to have any changes made to the instruments.

In addition to the aforementioned eight-case pretest, RTI and CDC will conduct rigorous testing of the online survey instrument prior to its fielding. RTI and CDC researchers will have access to an online test version of the instrument that we will use to verify that instrument skip patterns are functioning properly, delivery of campaign media materials is working properly, and that all survey questions are worded correctly and in specification with instrument approved by OMB.

B.5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

The following individuals inside the agency have been consulted on the design and statistical aspects of this information collection as well as plans for data analysis:

Tim McAfee, MD, MPH
Office on Smoking and Health
Centers for Disease Control and Prevention
4770 Buford Highway NE, Mailstop F79
Atlanta, GA 30341
Phone: (770) 488-5709
Email: mtt4@cdc.gov

Rebecca Bunnell, ScD, MEd
Office on Smoking and Health
Centers for Disease Control and Prevention
4770 Buford Highway NE, Mailstop F79
Atlanta, GA 30341
Phone: (770) 488-5592
Email: rrb7@cdc.gov

Terry Pechacek, PhD
Office on Smoking and Health
Centers for Disease Control and Prevention
4770 Buford Highway NE, Mailstop F79
Atlanta, GA 30341
Phone: (770) 488-5592
Email: txp2@cdc.gov

Diane Beistle
Office on Smoking and Health
Centers for Disease Control and Prevention
4770 Buford Highway NE, Mailstop F79
Atlanta, GA 30341
Phone: (770) 488-5066
Email: DBeistle@cdc.gov

Ralph S. Caraballo, PhD, MPH
Office on Smoking and Health
National Center for Chronic Disease Prevention & Health Promotion
Centers for Disease Control and Prevention (CDC)
4770 Buford Highway NE, Mailstop F79
Atlanta, GA 30341
Phone: (770) 488-5732
Email: rfa8@cdc.gov

Robert L. Alexander Jr., PhD, MPH, CHES
Office on Smoking and Health
Centers for Disease Control and Prevention
4770 Buford Highway NE, Mailstop F79
Atlanta, GA 30341
Phone: (770) 488-1212
Email: Ria8@cdc.gov

Bob Rodes, MS, MBA, MEd
Office on Smoking and Health
Centers for Disease Control and Prevention

4770 Buford Highway NE, Mailstop F79
Atlanta, GA 30341
Phone: (770) 488-5748
Email: Rur9@cdc.gov

Jami L. Frazee, PhD, MEd, CHES
Office on Smoking and Health
Centers for Disease Control and Prevention
4770 Buford Highway NE, Mailstop F79
Atlanta, GA 30341
Phone: (770) 488-5186
Email: Jnf0@cdc.gov

Karen Debrot, DrPH, MNS, RD
Office on Smoking and Health
Centers for Disease Control and Prevention
4770 Buford Highway NE, Mailstop F79
Atlanta, GA 30341
Phone: (770) 488-1037
Email: Bo16@cdc.gov

The following individuals outside of the agency have been consulted on the questionnaire development, statistical aspects of the design, and plans for data analysis:

Tesfa N. Alexander, PhD
FDA, Center for Tobacco Products
9200 Corporate Boulevard
Rockville, MD 20850
Phone: (301) 796-9335
Email: Tesfa.Alexander@fda.hhs.gov

Conrad J. Choiniere, PhD
FDA, Center for Tobacco Products
9200 Corporate Boulevard
Rockville, MD 20850
Phone: (301) 796-9228
Email: Conrad.Choiniere@fda.hhs.gov

Erica Schlosser
FDA, Center for Tobacco Products
9200 Corporate Boulevard
Rockville, MD 20850

Phone: (301) 796-9352
Email: Erica.Schlosser@fda.hhs.gov

Kevin C. Davis, MA
RTI International
3040 Cornwallis Road
Research Triangle Park, NC 27709
Phone: (919) 541-5801
Email: kcdavis@rti.org

Jennifer Duke, PhD
RTI International
3040 Cornwallis Road
Research Triangle Park, NC 27709
Phone: (919) 485-2269
Email: jduke@rti.org

Donna Vallone, PhD
Legacy Foundation
1724 Massachusetts Avenue, NW
Washington, DC 20036
Phone: (202) 454-5783
Email: dvallone@legacyforhealth.org

The following individuals will conduct data collection and analysis:

Kevin C. Davis, MA
RTI International
3040 Cornwallis Road
Research Triangle Park, NC 27709
Phone: (919) 541-5801
Email: kcdavis@rti.org

Jennifer Duke, PhD
RTI International
3040 Cornwallis Road
Research Triangle Park, NC 27709
Phone: (919) 485-2269
Email: jduke@rti.org

References

- Abreu, D.A., & Winters, F. (1999). *Using monetary incentives to reduce attrition in the survey of income and program participation*. Proceedings of the Survey Research Methods Section of the American Statistical Association.
- Chang L. & Krosnick J.A. (2009). National surveys via RDD telephone interviewing versus the Internet: comparing sample representativeness and response quality. *Public Opinion Quarterly*. 74(4):641-678
- Shettle, C., & Mooney, G. (1999). Monetary incentives in U.S. government surveys. *Journal of Official Statistics*, 15, 231-250.
- Southwell B, Barmada C, Hornik R, et al. (2002). Can we measure encoded exposure? Validation evidence from a national campaign. *J Health Commun*, 7:445-453.
- Yeager D.S., Krosnick J.A., Chang L., et al. (2011). Comparing the accuracy of RDD telephone surveys and Internet surveys conducted with probability and non-probability samples. *Public Opinion Quarterly*. 75(4):709-747.