## **B.** Collections of Information Employing Statistical Methods

### **B.1. Respondent Universe and Sampling Methods:**

## **Focus Groups**

Focus Group data collection is considered a qualitative survey, and therefore not conducive to statistical methods.

Participants will be recruited from databases of individuals who expressed willingness to participate in focus groups. The focus group field service organization to be used (Field Service Network) maintains these databases in each of the target cities (Chicago, IL and Atlanta, GA). Among the six focus groups, four groups will include parents of 15 to 18 year olds and two groups will include the teens themselves. Parents, the primary-audience target, will be the most important audience to understand; thus, they will be the subject of four of the six focus groups. During parent focus groups, the moderator will explore subjects' knowledge, attitudes and opinions on issues related to teen driving.

## **Pre- and Post-Intervention Survey**

The data collection instrument is a quantitative survey and therefore it will require employing statistical methods. It is CDC's goal to achieve 1,600 completed surveys, i.e. 800 from each pilot market (400 pre-intervention surveys and 400 post-intervention surveys in both markets). The universe of Little Rock, Arkansas and Columbus, Ohio to be surveyed is parents with at least one child between the ages of 15 and 18 who has a learner's permit or driver's license. The pre- and post-intervention survey will be administered by International Communications Research (ICR) Survey.

The universe of potential qualifying households in Little Rock, Arkansas and Columbus, Ohio is 77,352 and 301,534, respectively. Within this universe, CDC expects ICR Survey to make contact with 3,600 potential survey participants. Based on this assumption, we expect ICR Survey to complete 1,600 surveys (800 within each pilot market) among parents with at least one child between the ages of 15 and 18 who has a learner's permit or driver's license.

The sample formula to determine the number of screened parents necessary to complete 800 surveys in each pilot market is as follows:

n=800 participants is 44% of screened parents (1,800) and assumes that one out or every 2.25 calls we make will yield a completed interview.  $1,800 \div 2.25 = 800$ 

The sample plan for this project is as follows:

	Pre-intervention	Post-intervention	Total
	Survey	Survey	
Pilot Market #1	n=400	N=400	n=800
Pilot Market #2	n=400	N=400	n=800
Total	N=800	N=800	n=1,600

In each pilot market an identical survey will be administered, however the groups of respondents will not be the same. The random samples of 400 interviews (400 unique respondents per pilot city) will be conducted with parents with at lease one child between the ages of 15 to 18 who has a learner's permit or driver's license. The margin of error for a sample size of 400 is +/- 4.9 percentage points at a 95% confidence level. The sample of 400 is recommended in order to achieve the +/- 4.9 percentage points.

Note: The precision (+/- 4.9 percentage points) is (and can be) calculated absent the reference to the size of the target population. The sample size of 400 is recommended in order to achieve a margin of error of +/- 4.9 percentage points, regardless of the size of the population. Moreover, the sample of 400 interviews is a statistically sufficient sample size to weight to the qualifying population (i.e. 77,352 and 301,534).

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

#### **Focus Groups**

The Focus Group Moderator will guide a discussion with the participants following the protocols presented in the Moderator's Guide. Participants will choose whether to respond to a question and how to respond.

# **Pre- and Post-Intervention Surveys**

ICR will collect the Pre-Post Intervention survey data by telephone. Telephone interviewing gives us the ability to use a probability sample in that all consumers have an equal probability of being included in the sample plan. This also gives us the ability to weight the Pre-Post Intervention data to a known population and report a margin of error. Potential respondents will not receive advanced notice of the research. A random selection of households will be contacted by trained interviewers. If it is determined that a household qualifies for the survey, each respondent will be interviewed at that time. If that time is not convenient or if the appropriate respondent is unavailable, an appointment will be scheduled. Respondents are interviewed one-time; they will not be re-contacted.

Interviewers will be thoroughly briefed on the project background and purpose and then trained on the administration of the survey instrument question-by-question. The project director would conduct the initial project-specific training for the study. The project director would also be responsible for providing hard copy questionnaires to the interviewers with question-by-question instructions for reference during the project.

At least 10% of each interviewer's work is listened to by an Interviewing Supervisor to ensure adherence to the appropriate procedures and handling. Interviewing Supervisors actually

view the computer-assisted telephone interview as well as hear it. In this way, the Supervisor not only hears that given questions are being asked correctly, but also sees that the answers are being recorded correctly.

Upon completion of interviewing, we will complete data coding and entry and take final steps to ensure data accuracy. Codes will be developed during the data collection period for all responses given by a minimum of 3% or respondents asked a given question. Once 20% of the interviews are completed, the suggested codes will be submitted to the project director for review against all responses. After these codes have been reviewed by the project director, the codes will be submitted to the CDC for approval if so desired. Open-ended and other-specify responses will be edited for completeness and clarity.

Throughout the remainder of the interviewing process, open-ended and other-specify responses will be edited and new codes developed as necessary. Upon completion of interviewing, the final set of codes will be submitted to the client. Upon receiving final code approval, all codes are consolidated with the closed-ended responses.

Verbatim responses can be provided (and not contain the respondents personal information) in electronic format in either a separate text file with interview identification number attached or as part of the data file while maintaining respondent confidentiality in accordance with guidelines provided by the Council of American Research Organizations (CASRO), the national trade association of survey research organizations located in the United States. As a member of CASRO, the contractor must follow their *Code of Standards and Ethics for Survey Research*.

Before any data tabulations or data files are prepared, the study data will be thoroughly cleaned through use of a computer validation program written by the programmer assigned to the

project. This program establishes editing parameters in order to locate any of the following types of errors: illegal punches or ineligible codes, blank columns or missing records, multi-punch data where only single punch is allowed, and improper skip patterns.

The programmer and project director will separately compare the shell data frequencies against the pre-formatted CATI data frequencies to identify and resolve any inconsistencies between the two files. Only then will the data tabulations and data file be prepared.

#### **B.3.** Methods to Maximize Response Rates and Deal with Nonresponse:

## **Focus Groups**

Based on PerformTech's experience once an individual has agreed to participate in a focus group, it can be assumed that they will respond to some or all of the questions asked. The facilitator will monitor who has been participating and ask direct questions of anyone who has not expressed opinions. It is up to the facilitator to make sure that everyone gets a chance to talk.

### **Pre- and Post-Intervention Surveys**

ICR uses a fully-replicated, stratified, single-stage random-digit-dialing (RDD) sample of telephone households within each pilot city population. Sample telephone numbers are then computer generated and loaded into multiple on-line sample files accessed directly by the CRT system.

In order to maximize the response rates and limit non-response, ICR would adhere to the following sample management protocols.

Maintenance of Sample Integrity -Via a random selection process, the computer will divide the sample into representative "mini-samples" or replicates. The routine will thoroughly "work" each replicate before opening a subsequent one. In this way, the integrity of the sample will be maintained by allowing only a representative sample to be available for dialing.

Automatic Retrieval of Unsuccessful Contacts - The routine automatically retrieves previously unanswered or busy telephone numbers and schedules them appropriately. Numbers are scheduled for additional dialing attempts following a differential callback rule in an effort to reduce non-response bias. Records would receive up to five attempts in different day parts. If the fifth attempt is a callback appointment, the appointment will be kept.

Automatic Retrieval of Specific Callbacks - By allowing an interviewer to enter a convenient callback time, the computer automatically retrieves a scheduled callback and makes it available for dialing at the appropriate day and time. This eliminates the need for the often complex task of callback control and "missed" callbacks due to human error.

Sample Disposition Generation - Every dialing attempt is entered and tracked by computer. This enables a comprehensive disposition of the sample at the end of an assignment, or intermittent status reports.

*Quota Control* - Interviewing is automatically terminated whenever the appropriate pre-defined quota groups have been completed. Each unit in the sample receives as many calls as necessary in order to survey qualified respondents and to fulfill the required quotas. Additional callback attempts follow a differential callback schedule (AM/PM, alternate days, weekdays-weekends, etc.) to ensure the highest completion rate possible.

#### **B.4.** Tests of Procedures or Methods to be Undertaken:

**Pre- and Post-Intervention Survey** 

ICR developed the survey instrument to address the objectives of the program. The questionnaires were reviewed by ICR's Questionnaire Quality Quorum (QQQ). This group is comprised of a quality expert in administration, a marketing expert for research objectives and a member of Advanced Analytic Techniques. The review process ensures the highest quality product possible. The questionnaire was reviewed for flow of administration to ensure an unbiased survey administered in the best manner. It was also reviewed from a marketing perspective to ensure the questions are derived to solicit answers that can answer the marketing objectives. The questionnaire was reviewed for advanced analytic techniques that are applied and correctly administered for maximum impact.

Prior to the pilot study, the questionnaire will be pre-tested to ensure that the survey instrument meets the objectives of the study and flows smoothly. Prior to initiating the Pre-Intervention Survey, fewer than 10 telephone interviews will be conducted within the 2 pilot cities. Pre-intervention is a multi-step process designed to validate the questionnaire for clarity, logic and completeness.

Necessary changes resulting from the pre-test will be made to the questionnaire and the pre-test will continue until all parties are satisfied that the questionnaire is achieving its informational objectives.

ICR is responsible for programming the questionnaire into their CATI system. Once the surveys have been programmed, each will be checked for wording, spelling and skip patterns against the hard copy version by the programmer and the project director. Any errors or necessary changes identified by the programmer or project director will be corrected and re-checked.

As a further quality check, after the first day of interviewing, the programmer and project director will again check the question-by-question report, this time with live data, to verify that the skip patterns are functioning properly.

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

#### **Data**

# **Focus Groups**

Since the focus groups are collecting qualitative data only, there will be no statistical analysis conducted. Questions were developed by PerformTech.

# **Pre- and Post-Intervention Surveys**

All aspects of study design, data collection, and data reporting will be handled by ICR, a fullservice market research firm headquartered in suburban Philadelphia. The primary contact at International Communications Research (ICR) Survey is:

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Michele Huitric is responsible for receiving and approving contract deliverables. Michele Huitric, Arlene Greenspan and David Sleet will be involved in aspects of study design, data collection, and data reporting.