## SUPPORTING STATEMENT

ICARIS-2 Phase-2
(SECOND INJURY CONTROL and RISK SURVEY, Phase-2)

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2. Survey Instrument
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## Supporting Statement The Second Injury Control and Risk Survey (ICARIS-2, Phase-2)

## B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

B1. Respondent Universe and Sampling Methods
The surveyed population for this study is the population of English- and Spanish-speaking adults in the United States (including all 50 states and the District of Columbia) who live in households with working landline telephones.

Table B1: Number of Households in Potential Respondent Universe and ICARIS-2 Phase-2 Sample, by Race/Ethnicity

| Race/Ethnicity | US Population 2004 * | Sample Population |
| :--- | :---: | :---: |
| Total | $293,655,404$ | 4,000 |
| Non-Hispanic White | $197,840,821(67.4 \%)$ | 2,696 |
| Non-Hispanic Black | $35,963,702(12.2 \%)$ | 488 |
| Hispanic | $41,322,070(14.1 \%)$ | 564 |
| Other, Multiple Races | $18,528,811(6.3 \%)$ | 252 |

*Source: Population Division, U.S. Census Bureau Table NA-EST2002-ASRO-02.

The response rate for ICARIS in 1994 was 59\%. While the response rate was lower than desired, analysis showed that the 1994 ICARIS sample was nationally representative with respect to income, education, age, race and sex ${ }^{7}$. Results from the original 1994 ICARIS survey were published in 17 reports $^{4-20}$ in 9 scientific journals between 1994 and 2000 and have been used to identify injury prevention priorities and to focus development of injury prevention programs. The response rate for ICARIS-2 Phase-1 was $48 \%$ for completed surveys. With the Phase-2 survey being shorter than Phase-1, and additional measures adopted to secure participation (for example, a modified approach to enumerating household members and a revised calling protocol), we anticipate a response rate of around $50 \%$.

The sample size was chosen to permit sufficient precision for point estimates in most subgroup analyses (Table B2).

A random digit dialing (RDD) telephone survey will be conducted with 4,000 adults (persons 18 years of age and older).

The survey will sample households from telephone exchanges within the 50 states and the District of Columbia. A household, for purposes of the survey, includes all of the people who
occupy a housing unit. A housing unit, in turn, is a house, apartment, mobile home, group of rooms, or single room occupied as separate living quarters (Bureau of the Census, 1999). Nationally, some 95\% of households have telephones. Household telephone coverage varies from $87 \%$ in New Mexico to more than $98 \%$ in North Dakota. American Indian/Alaska Native households have the lowest telephone coverage, and the percentage of Hispanic households with telephones is also substantially below the national average for all race/ethnic groups combined.

## B2. Procedures for the Collection of Information

## Data Collection

## Stratification and Sample Selection

The sampling frame for the telephone survey will be a list-assisted random-digit dialing (RDD) design maintained by and purchased from Marketing Systems Group (MSG) under the name GENESYS. Telephone numbers will be drawn from the BELLCORE V\&H Coordinate database using GENESYS. The GENESYS system provides a single-stage sample of telephone numbers using an equal probability of selection method (epsem). All residential telephone numbers selected by using this approach have an equal and known probability of selection. The frame will be comprised of numbers in banks of 100 numbers defined by area code/exchange (NPA-NXX-) and the first two digits of the four-digit suffix (NNxx, where xx is a random number taking values 00-99) with at least 1 residential directory listing (termed $1+$-listed banks). About 49\% of numbers in the purchased frame will be pre-screened out as business, cell phone and non-working numbers, and an additional $16 \%$ of these numbers (only a subset for which contact with a respondent will be made) will be screened out via interviewer dialing for the same reasons, leaving approximately $35 \%$ of possible numbers in the purchased frame as primary working residential numbers.

Information from directory listings will be used in sampling from the $1+$ listed banks with the aim of over sampling households in exchange areas (i.e., combinations of telephone area code and exchange-NPA-NXX-) that serve geographic areas with a relatively high concentration ( $\geq 10 \%$ ) of racial/ethnic minority telephone households. Non-Hispanic African Americans comprised $12.2 \%$ and Hispanics comprised $14.1 \%$ of the non-institutionalized adult U.S. population in 2004 (Table B1). The target percentages of the final sample for ICARIS-2 are $\geq 12 \%$ African American and $\geq 14 \%$ Hispanic.
In the current GENESYS database (January 2006) the 1+-listed frame comprised a total of 66,804 exchanges with 2,823,956 working banks. Data provided by Marketing Systems Group (MSG) indicate that in 20,835 or $31.2 \%$ of these exchanges, $10 \%$ or more of the telephone households are African American. Similarly, Hispanic households constitute at least $10 \%$ of the residential numbers in 22,099 exchanges (33.1\%). The percentage of Hispanic or African American households is $10 \%$ or greater in 39,600 (59.3\%) exchanges. To achieve the target distribution, $70 \%$ of telephone numbers in the sampling frame will be drawn from the "high minority density" stratum (exchanges with $\geq 10 \%$ African American or Hispanic households) and 30\% from the "low minority density" stratum (all other exchange areas). The
sampling fraction in the high minority density stratum will be about 2.5 -fold greater than the sampling fraction in the low minority density stratum.

To complete the targeted 4,000 interviews, about 23,570 telephone numbers will be purchased from MSG. The sampling universe for the study is dynamic because new residential telephone numbers are assigned and others go out of service almost continuously. Entire new area codes and exchange areas will come into service during the time period the data are being collected. If the entire sample were drawn at the beginning of the survey period, it could differ substantially from the dynamic population it is intended to represent by the end of the data collection period. To minimize the possible effect of such database aging, the sample will be selected as five or more independent replicates, whose purchase will be evenly spaced over the data collection period.

MSG will "clean" each sample replicate (i.e., eliminate listed business numbers, cell phones, and nonworking numbers) using its CSS proprietary technology. In the 1+-listed frame, this system typically eliminates as clearly ineligible nearly one-half of the purchased numbers in the sample.

## Respondent Selection Procedures

Once the interviewer determines that an eligible household has been reached, the number of adults (persons $\geq 18$ years of age) who reside in the household will be determined.

To ensure that the gender distribution of respondents in eligible households is not systematically biased, the study will randomly select respondents in households with multiple eligible adults. This method was used in ICARIS-2 Phase-1 and achieved an approximately even distribution of male and female respondents ( 4,811 males and 4,873 females).

The method proceeds as follows:

1. Upon contacting an adult respondent in an eligible household containing one or more adults, the interviewer will ask the respondent for the total number of adult household members and the total number of these who are male.
2. If the household contains only one person 18 years of age or older, that person will be selected for the survey. For households with adult residents of both sexes, the CATI tracking program will randomly select the gender of the respondent based upon the number of adult males verses females (using a random number generator) and pre-specified sampling probabilities for males versus females. CATI will begin with a selection probability for males of 0.50 in the modified survey instrument for replicate 1 . Because the ICARIS-2 Phase-1 experience suggested that males may be less likely to respond than females, the gender distribution will be tracked throughout the study and the probability modified in later replicates as needed to obtain an approximately equal number of males and female respondents in the final sample.
3. If more than one eligible person of the selected gender resides in the household, the CATI program will randomly select an adult of that gender to interview. The interviewer will ask to speak to the sampled person identifying them by gender and age (example: the oldest adult male, the second youngest adult female, etc.).

To determine how often multiple adults occur within a household, we examined data from the March 2004 Current Population Survey. About 32.5 percent of households have only one adult resident (i.e., a person $\geq 18$ years of age), $14.2 \%$ of households have more than 2 adults, and $53.3 \%$ have exactly 2 adults. Married couples constitute about $77.2 \%$ of households with exactly two adult residents, with another $14.2 \%$ composed of one male and one female in an unmarried relationship, $5.5 \%$ with two female adults, and $3.1 \%$ with two male adults. Of the single adult households, $62.9 \%$ will contain a female adult and $37.1 \%$ will contain a male adult. For the remaining 21.6 percent, the gender mix cannot be determined from CPS tables. From these data we estimate that an adult will need to be randomly selected for about 67.5\% of sampled telephone numbers. We estimate that $91.9 \%$ of these households with multiple adults contain adults of both genders where males may be sampled with a higher probability than females.

Typically, in household surveys of the general population, response rates are lower among eligible males than females. To ensure that the female/male ratio achieved in the final study sample is approximately $1: 1$, we will divide each of the replicate samples of telephone numbers into random sub-samples each of which will comprise $5 \%$ of the total sample. In each replicate, we will monitor the gender ratio of respondents selected. If we find that the gender ratio deviates substantially from 1:1 (i.e., by $\geq 10 \%$ ), we will sample households with the "deficient" gender at a higher rate by adjusting the selection probability for that gender.

## Surveying Adult Respondents for Proxy Information on a Sample of Children

The traumatic brain injury incidence module of the questionnaire collects proxy data from the selected adult respondent regarding other adults and children in the household. In addition to the respondent, data will be collected on up to 4 additional persons in the household who experienced a head injury or blow to the head in which they were knocked out or unconscious, suffered a concussion or memory loss, or were left feeling dazed or confused. The only other proxy information collected is in the Child Supervision Module (Module 3). Here we will collect data on the age and sex of each child in the household, for households with children. We will collect this information on up to 10 children. In addition, we will collect information on supervision practices in specific scenarios for the youngest child in the household between the ages of 1 and 10 years (SUPR6 through SUPR9).

## Quality Control and Data Cleaning

## Training

Battelle, the contractor conducting the survey, conducted data collection for Phase-1. In addition to a refresher in interviewing procedures, interviewers will undergo training specifically tailored to Phase 2. Training will include the objectives of the study and procedures to follow in any project-specific interviewing situations. Training will be supported by a manual covering study-specific elements of the survey.

## Language

Interviews will be conducted in English or Spanish. Approximately 14 percent of U.S. resident adults are of Hispanic origin (Table B1). On the basis of experience in Phase-1, we expect somewhat fewer than half of self-identified Hispanic respondents, or about 30 persons will choose to be interviewed in Spanish rather than in English.

## Length of Time in the Field

The survey will be conducted over a 24 month period.

## Monitoring

Supervisory staff will continuously monitor, field-check, and manage the survey throughout the field period. Interviewer performance is monitored by supervisors using an override phone line. Supervisors check that interviewers read questions exactly as they are written and follow study procedures. Supervisors also provide feedback to improve refusal prevention and encourage appropriate interviewer initiative and sensitivity to respondents (e.g., offering to call a mother back at a more convenient time if a child is crying in the background during the interview). Interviewers who fail to meet the high performance standards are terminated.

## Data Cleaning

The computer assisted telephone interviewing (CATI) system automates collection and tabulation of the data, thus reducing potential data entry errors. The CATI system also controls the consistency of responses within each questionnaire, so that only responses within specified ranges and consistent with skip patterns are allowed. Upon completion of data
collection, all data will be cleaned and edited. Additional logic checks to assess and correct invalid codes, and identify key missing data elements will be implemented after data collection is complete.

SAS files for data sets will include:

- Variable and value labels for the data sets;
- The number of calls needed to reach each household;
- The geographic information (e.g., region, state and county FIPS codes, 4-digit MSA code) provided on the GENESYS sampling file; and
- Weighting variables, including each component weight.


## Description of Estimation Procedures

National estimates of means and proportions will be made by weighting the responses of adults by the inverse of their probability of selection as determined by (1) the probability of selecting a particular household type, (2) the probability of selecting a particular gender from within the household type, (3) the probability associated with selecting a particular adult from within a gender group (in households where there are two or more males or two or more females), and (4) the number of non-business/non-data telephone numbers in the household. Household poststratification adjustment factors will be computed for the 4 census regions and metropolitan/nonmetropolitan area residence. Poststratification weights for individuals will be based upon age, gender, and race/ethnicity data from the Current Population Survey (CPS). Final weights will reflect each respondent's probability of selection, as well as independently estimated population (age x gender x race) sizes.

## Sample Weighting

The probabilities of selection at each step of the study will be used to calculate the appropriate weighting factors. Then nonresponse and poststratification adjustments will be made to the sampling weights to produce final analysis weights that compensate for nonresponse and undercoverage in the telephone sample. Two different analysis weights will be calculated corresponding to (1) households and (2) adults. Because the traumatic brain injury (TBI) module will enumerate all household members with TBI, the appropriate weight for any household member in this particular module is the household analysis weight. The weighting process will begin with the calculation of a sampling weight for each sampled telephone number, which will be defined as the inverse of the selection probability of that telephone number. Using successive weighting class adjustments, this sampling weight will be adjusted to account for nonresponse that results in loss of information about the number's residential status, household eligibility (i.e., whether it contains any members age 18 or older), and household composition. This process will result in a nonresponse-adjusted sampling weight for all telephone numbers corresponding to households with one or more adult members. Next, this weight will be adjusted by the inverse of the conditional probability of selection of the sampled adult. The resultant weight will reflect adult-telephone number combinations. A weighting class adjustment will be applied to this weight to account for nonresponse by the sampled adult. Then the multiple selection
opportunities associated with multiple telephone lines will be accounted for by multiplying the weight by the inverse of the number of non-business telephone lines the household has to create a nonresponse-adjusted weight for each responding adult.

The final step in weighting will be poststratification adjustments to produce the household-level and adult-level analysis weights. For households to respond, the sampled adult must respond. To create the household-level analysis weight, the nonresponse-adjusted person weights will be adjusted to remove the factor associated with the conditional selection probability of the sampled adult. (Earlier the weight was multiplied by the inverse of the conditional selection probability to convert to a person-level weight. Now the weight will be multiplied by the adult's conditional selection probability.) The resultant weight is a nonresponse-adjusted weight at the household level. This weight will be poststratified to CPS household counts within poststrata defined based upon household type, Census region, and metropolitan status to produce the household-level analysis weight.

The adult-level analysis weight will begin with the household-level analysis weight, which will be adjusted to reflect the selection probability of the sampled adult. The resultant weight will then be post-stratified using a two-step raking process to CPS counts for the cross of age by race/ethnicity by sex and then to counts for the four Census regions.

We will develop SUDAAN input programs to compute variances of national estimates. Variances associated with national estimates will be calculated by taking the weighted sum of (1) the variance among adults within the same gender group, (2) the variance between gender groups within household type, and (3) the variance between household types.

## Estimates of Statistical Precision

The proposed sample size (approximately 4,000 adults) will provide national estimates with precision of approximately $\pm 1.4$ to $\pm-1.8$ percentage points assuming a design effect of 1.3 , as shown in Table B2. The basis for these estimates of statistical precision is described in the notes to the table.

The overall survey size is large enough to allow reasonable precision around national estimates of the injury risk factors for the various subgroups that might have a particular risk factor. For example, about 496 respondents (approximately 12\%) would be expected to be 65 years of age or older. We could generate a prevalence estimate for this subgroup that would be within $\pm 4-$ $5 \%$ with $95 \%$ confidence (Table B2).

Table B2: Expected Statistical Precision (\%) of National Estimates
with Alternative Sample Sizes

| Sample Size | Point Estimate: $\boldsymbol{p = 0 . 2}$ or 0.8 |  | Point Estimate: $\boldsymbol{p = 0 . 5}$ |  |  |  |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |
|  | SRS $^{\mathbf{1}}$ | DE $^{\mathbf{2}} \mathbf{= 1 . 3}$ | DE=1.5 | SRS | DE=1.3 | DE=1.5 |
|  | $\pm 1.24$ | $\pm 1.41$ | $\pm 1.52$ | $\pm 1.55$ | $\pm 1.77$ | $\pm 1.90$ |
| 3000 | $\pm 1.43$ | $\pm 1.63$ | $\pm 1.75$ | $\pm 1.79$ | $\pm 2.04$ | $\pm 2.19$ |
| 2000 | $\pm 1.75$ | $\pm 2.00$ | $\pm 2.15$ | $\pm 2.19$ | $\pm 2.50$ | $\pm 2.68$ |
| 1000 | $\pm 2.48$ | $\pm 2.83$ | $\pm 3.04$ | $\pm 3.10$ | $\pm 3.53$ | $\pm 3.80$ |
| 500 | $\pm 3.51$ | $\pm 4.00$ | $\pm 4.29$ | $\pm 4.38$ | $\pm 5.00$ | $\pm 5.37$ |
| 250 | $\pm 4.96$ | $\pm 5.65$ | $\pm 6.07$ | $\pm 6.20$ | $\pm 7.07$ | $\pm 7.59$ |

${ }^{1}$ SRS: simple random sample
${ }^{2}$ DE: design effect or effect of unequal weighting.
Table B2 shows the anticipated precision of national estimates around given point estimates with various sample sizes. For instance, with 4,000 respondents, an estimate that 50.0 percent of U.S. adults were treated in an emergency room in the past 12 months for an incident that resulted in an injury, the true value would be expected (19 times out of 20) to lie between 48.2 percent and 51.8 percent or 50.0 percent $\pm 1.77$ percent.

Estimates were calculated for a simple random sample ${ }^{24}$ where:

$$
\text { Precision }=\sqrt{\frac{1.96^{2} p(1-p) D E}{n}}
$$

Note that for a simple random sample, $\mathrm{DE}=1.0$. Because we will be sampling one adult from each household, we will have an unequally weighted sample (an adult in a single person household will be 4 times as likely to be in the sample as an adult in a household with 4 adults). Such samples are less efficient than simple random samples. The impact on efficiency can be measured by the "effect of unequal weighting," or "design effect" which is given by

$$
D E=n \sum_{i=1}^{n} W_{i}^{2} /\left[\sum_{i=1}^{n} W_{i}\right]^{2}
$$

where $n$ is the sample size and $w_{i}$ is the sampling weight for the $\mathrm{i}^{\text {th }}$ respondent (Section 11.7 c in Kish, L., Survey Sampling). ${ }^{23}$ Using data from the original ICARIS we expect DE will be in the neighborhood of 1.3 to 1.5 .

## B3. Methods to Maximize Response Rate and Deal with Non-Response

Changes in communication technology in recent years are affecting telephone survey response rates. Cell phones and call screening are being used increasingly, making it more difficult to contact potential survey respondents. Although the original ICARIS survey had a response rate of $59 \%$, that did not prevent collection, analysis, and dissemination of a substantial body of information that has had an important impact on injury prevention programs and priorities. The overall response rate for the ICARIS-2 Phase-1 data collection effort was $48 \%{ }^{25}$ (AAPOR RR3). Sixty-six percent of eligible respondents completed the interview.

Because the ICARIS-2 Phase-2 survey is a shorter survey than the Phase-1 survey, we anticipate that the response rate for Phase- 2 will be comparable to or will exceed the response rate for Phase-1. In addition to reducing the length of the survey, we will attempt to improve response rates in ICARIS-2 Phase-2 as follows:

Providing a token in-kind payment in recognition of the value of the respondent's time and contribution to the survey's results. Respondents will be offered a long distance calling card with a face value of five dollars. The card entitles the holder to approximately 2 hours and 45 minutes of long-distance calling within the United States. Alternatively, the respondent may elect to have Battelle, the data collection contractor, make a donation of an equivalent amount to the United Way, a tax-exempt charitable/educational organization under the provisions of section 501 (c) (3) of the Internal Revenue Code. Approximately $70 \%$ of the ICARIS-2 Phase-1 participants selected the charitable contribution option.

Collecting data for 24 months. This will increase the likelihood of locating respondents who may be out or traveling.

Making up to 12 calls. We will make an initial call and eleven callbacks, for a total of twelve calls before a number is "closed out." These calls will be made on different days of the week and at different times of day. If we are unsuccessful in obtaining data after a total of twelve calls, these numbers will be coded as "eligibility unknown."

Using a computerized scheduling system. Utilizing a computerized scheduling system for different times of the day and days of the week maximizes the probability of making contact with a respondent.

## Emphasizing that the survey will be anonymous

- The respondent's name will not be recorded.
- The computer data files will contain no names or personal identifiers.


## Using refusal prevention techniques.

- Leaving a message on a residential telephone answering device requesting that a respondent call the interviewing center at (NUMBER) and reference the case id (XXXX, the unique case id assigned to that telephone number).
- $\quad$ Setting an interview appointment at a time that is convenient for the respondent.
- $\quad$ Stressing in introductory remarks the public health importance of findings.
- "Suspending" an interview and calling back at an agreed-upon time if the respondent is interrupted (e.g., by a crying child).


## Using refusal conversion efforts by a specialist in such procedures when we encounter a "soft refusal" from an eligible respondent.

Several refusal conversion techniques will contribute to maximizing response rates.

## Sampling Approach

Response rates are partially a function of how carefully the sample for a study is generated, administered, and tracked. Battelle uses GENESYS, a computer-based sampling methodology. The survey will capitalize on pre-dialer technology that allows "cleaning" of the sample prior to use, without expending interviewer time. In households with multiple eligible adults, the survey will employ a randomization technique whereby the respondent is asked for the total number of adults and the number of male adults. Then the sample will be identified based upon gender and age (i.e., the youngest male or the oldest female member of the household).

## Number of Callbacks

All numbers will be called at least 12 times to determine whether the number is a residence and to attempt to identify an eligible respondent. Once an eligible respondent is identified at a particular residence, we will make up to 8 additional attempts to reach and enroll the respondent before assigning the number a final disposition. All interviewers are trained to leave an "open door" when they encounter reluctance from an eligible respondent. Unless a respondent has given a flat and unconditional refusal, at least one attempt at refusal conversion will be made by an interviewer especially skilled in obtaining cooperation. Interviewers specially trained in refusal conversion typically succeed in completing interviews with between one-quarter and one-third of the respondents who initially refuse.

Even with the use of all of these procedures, we anticipate a response rate of about $50 \%$. For Phase-2 of the survey, we plan to repeat the comparison of survey estimates from ICARIS to national estimates derived from face-to-face surveys with higher response and coverage rates. This comparison will allow us to evaluate the impact of nonresponse and undercoverage in the Phase-2 telephone survey. For Phase-1 of the survey, we compared the distribution of demographic characteristics (race/ethnicity, age, and sex) and of selected social and economic characteristics of the ICARIS-2 Phase 1 sample with the comparable distributions for the 2002 Current Population Survey and for Census 2000 using 2002 "bridged" estimates obtained from the National Center for Health Statistics. The distributions for the unweighted ICARIS-2 sample, the weighted sample before poststratification, and the poststratified sample were compared to the distributions for the two reference populations by race/ethnicity, age group, and sex. Differences between the unweighted ICARIS-2 distribution, the CPS, and the bridged 2002 estimates were small, generally on the order of one to three percent. Differences between the weighted sample
before poststratification and the 2002 bridged data were, as expected, smaller. The poststratified ICARIS-2 distribution also agreed well with the CPS, generally within one percent.

## B4. Tests of Procedures or Methods to be Undertaken

Sections of the proposed data collection instrument have been used in previous studies, and the question sources are listed in Attachment 2.

Pilot tests with fewer than ten respondents have been conducted. The CATI system programming will be tested during interviewer training and by the technical monitors through a modem connection.

## B5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

The following people were consulted on the statistical aspects of the study:

- Charles Wolters, M.S., a sampling statistician with Battelle (410-372-2732)
- Brenda G. Cox, Ph.D., a survey statistics leader with Battelle (703-875-2983)

CDC staff with subject matter expertise developed the questionnaire with input from many consultants (Section A.8. Consultation Outside the Agency). Data for this study will be collected by Battelle's Centers for Public Health Research and Evaluation (CHPRE) under contract with the Government. Diane R. Burkom, M.A., Senior Project Director, CHPRE, 410-372-2702, will supervise the data collection effort. Battelle will provide preliminary tabulations and counts. The National Center for Injury Prevention and Control of CDC will have primary responsibility for data analysis. Representatives from each of the three Divisions within the Injury Center will have primary responsibility for seeing that data from their Division-specific modules are analyzed. Representatives are Thomas R. Simon, Ph.D., Division of Violence Prevention, 770-488-1654; Ann Dellinger, Ph.D., M.P.H., Division of Unintentional Injury Prevention, 770-488-4811; and Richard W. Sattin, M.D., Division of Injury Response, 770-488-1658. In addition, Jieru Chen, M.S. of the Office of Statistics and Programming, National Center for Injury Prevention and Control, 770-488-1288, has been designated as lead statistical analyst for the study.

The CDC technical monitors responsible for this study are listed below. They will receive and approve contract deliverables.

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## REFERENCES

1. Finkelstein E, Corso, P, Miller T, and Associates. The Incidence and Economic Burden of Injuries in the United States. New York: Oxford University Press, 2006.
2. Nelson DE, Holtzman D, Waller M, Leutzinger C, Condon K. Objectives and design of the Behavioral Risk Factor Surveillance System. Dallas, TX: Proceedings of the American Statistical Association Annual Conference, Section on Survey Methods, 1998:214-218.
3. Criminal Victimization 1998: Changes 1997-98 with Trends 1993-98. US Dept of Justice, July 1999, NCJ-176353.
4 Sacks JJ, Kresnow M, Houston B. Dog bites: how big a problem? Injury Prevention 1996;2:52-4.
4. Sacks JJ, Kresnow M, Houston B, et al. Bicycle helmet use among US children. Injury Prevention 1996;2:258-62.
5. Binder S, Matte TD, Kresnow M, et al. Proportions of children and homes tested for lead: results of a national telephone survey. Public Health Rep 1996;111:342-6.
6. Ikeda RM, Dahlberg LL, Sacks JJ, et al. Estimating intruder-related firearm retrievals in the US households, 1994. Violence and Victims 1997;12:363-372.
7. Russell Bolen J, Kresnow M, Sacks JJ. Reported bicycle helmet use among adults in the United States, 1994. Arch Fam Med 1998;7:72-77.
8. Logan P, Branche CM, Sacks JJ, et al. Childhood drowning and pool fencing, United States, 1994. Pediatrics 1998;101(6). URL: http://www.pediatrics.org/cgi/content/full/101/6/e3.
9. Powell KE, Heath GW, Kresnow M, et al. Injury rates from walking, gardening, weightlifting, outdoor bicycling, and aerobics. Med Sci Sports Exerc 1998; 30:1246-59.
10. Harvey P, Sacks JJ, Ryan GW, et al. Residential smoke alarms and fire escape plans. Pub Health Rep 1998;113:459-464.
11. Quinlan KP, Sacks JJ, Kresnow M. Exposure to and compliance with pediatric injury prevention counseling, U.S., 1994. Pediatrics 1998;102(5). URL: http://www.pediatrics.org/cgi/content/full/102/5/e55.
12. Logan P, Sacks JJ, Branche CM, et al. Alcohol-influenced recreational boat operation in the United Sates, 1994. Am J Prev Med 1999;16:278-82.
13. Dellinger AM, Bolen J, Sacks JJ. A comparison of driver- and passenger-based estimates of alcohol-impaired driving. Am J Prev Med 1999;16:283-8.
14. Stennies G, Ikeda R, Houston B, et al. Firearm storage practices and children in the home, U.S., 1994. Arch Pediatr Adolesc Med 1999;153:586-90.
15. Crosby AE, Cheltenham MP, Sacks JJ. Incidence of suicidal ideation and behavior in the United States, 1994. J Suicide Life Threatening Behav 1999;29:131-40.
16. Potter LB, Sacks JJ, Kresnow M, et al. Nonfatal physical violence, United States, 1994. Pub Health Rep 1999;114:343-52.
17. Branche CM, Sacks JJ. Can drowning in swimming pools be prevented? Pediatrics 1999;103:856(letter).
18. Gilchrist J, Sacks JJ, Branche CM. Self reported swimming ability in United States adults, 1994. Pub Health Rep 2000;115:110-1 (letter).

## REFERENCES (Cont'd)

20. Crosby A, Cheltenham M, Sacks JJ. Incidence of suicide. J Suicide Life Threatening Behav 2000;30:178-9 (letter).
21. American Association for Public Opinion Research (AAPOR). Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for RDD Telephone Surveys and In-Person Household Surveys. Ann Arbor, Michigan, 1988. URL:
http://www.aapor.org/ethics/stddef.html\#response.
22. Fleiss, J.L. Statistical Methods for Rates and Proportions, John Wiley and Sons, New York, NY, 1981; pp. 101-103.
23. Kish, Leslie. Survey Sampling, John Wiley and Sons, Inc., New York, NY, 1965; pp. 206210.
24. Cochran, W.G. Sampling Techniques, John Wiley and Sons, New York, NY, 1977.
25. Lynberg MC, Kresnow M, Simon T, Arias I and Shelley G. Telephone Survey Respondent's Reactions to Questions Regarding Interpersonal Violence. Violence and Victims 2005 (in Press).
