

**IOWA DEPARTMENT OF PUBLIC HEALTH  
TOBACCO CONTROL PROGRAM  
DIVISION OF TOBACCO USE  
PREVENTION AND CONTROL**

***ADULT TELEPHONE SURVEY (ATS) OF TOBACCO USE,  
OPINIONS, AND RELATED BEHAVIORS FOR IOWA  
ADULT RESIDENTS***

**ADULT SURVEY REPORT**

**June 30, 2002**

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## **1. Background**

The Iowa Department of Public Health's Tobacco Control Program (TCP) is sponsoring statewide and local program activities to reduce the use of tobacco and diminish environmental tobacco smoke (ETS) exposure in Iowa. In the start-up of this tobacco control campaign, the TCP recognized the need to obtain baseline information on opinions, attitudes, and behaviors related to the use of tobacco. In the summer of 2001, a statewide survey covering 10 geographic regions of the state, and representing the state's adult (18 years of age or older) population, was completed. The 2001 adult telephone survey provided the TCP with a baseline assessment of tobacco use and tobacco-related behaviors from adults across the state. In 2002, a follow-up of that survey was conducted in Iowa, in a very tight field period during the month of June. The survey instrument was trimmed, but retained all of the most important questions while reducing the survey administration time. A total of 1,006 surveys were completed in this follow-up survey ending in June. This report provides a summary of important findings based on the 2002 survey data.

Survey instrument and methods followed in the 2002 survey were very similar to those used in 2001. The 2002 questionnaire was revised; some questions were dropped, but the basic structure and focus of the questionnaire did not undergo significant change.

In 2002, a total of 1,006 adult interviews were obtained statewide. This report concentrates on major findings of the 2002 survey. A report to be written in the fall of 2002 will focus on analyzing changes in tobacco use, opinions and related behaviors of Iowa adults comparing 2001 and 2002 data. The findings of these reports will help Iowa's tobacco control efforts to be more effectively targeted. The following sections provide descriptions of the 2002 Iowa adult tobacco survey design, data collection procedures, and major findings. Frequency distributions (weighted) of survey questions for all respondents, smokers and non-smokers separately are available upon request.

## **2. Survey Design and Methodology**

In 2002, Gallup followed the same survey design that was used in the 2001 baseline survey. In 2001, Gallup adapted proven methods that made Iowa's approach in conducting the ATS efficient because it reaped the benefits of expensive survey and questionnaire experimentation gained in other state tobacco control programs. Borrowing, where appropriate, methods and designs used by other successful states saved dollars normally spent on research development and design activities. Following evaluation methods used by other states also provides Iowa researchers and program staff with the opportunity to make valid periodic cross-state comparisons to assess how findings for Iowa compares with other locations across the country. It will also be possible to compare the 2001 and 2002 ATS data because of the consistency of the survey design over time.

Gallup completed a total of 1,006 telephone interviews with adults who were Iowa residents randomly selected from across the state. Gallup completed a minimum of 100 surveys in each of 10 geographic regions in Iowa. The data collection was carried out during the month of June 2002. The survey was conducted using a Random Digit Dial household telephone method using Computer Assisted Telephone Interviewing (CATI) technology. This approach is consistent with that used by other leading tobacco control programs for evaluating the reach and impact of their programs and, consequently, will facilitate comparisons with other statewide data.

## **2.1 Sample Selection and Implementation**

For the purpose of sampling, the state of Iowa was separated into 10 geographic regions and defined in terms of counties. Sampling was done independently within each of the 10 regions based on the list-assisted Casady and Lepkowski (1993) telephone sampling method in the following way.

The BCR (Bell Core Research) frame is generated by appending all 10,000 four digit suffixes (0000 to 9999) to the area code-prefix combinations for the state of Iowa. The telephone numbers in the BCR (or Telcordia) frame are grouped into banks of 100 numbers using the area code, three-digit prefix, and the first two digits of the suffix to specify each bank. An unrestricted RDD of telephone numbers from the BCR frame turns out to be quite inefficient since only about 20 percent of all numbers at the national level are expected to be WRNs (working residential numbers). In order to avoid the problem of low hit-rate and higher cost, the truncated version of Casady-Lepkowski (1993) telephone sampling method uses bank-level information from the BCR frame and achieves a much higher hit-rate. The bank level information was obtained from Survey Sampling Inc. (SSI). The design proposed by Casady and Lepkowski (1993) stratifies the entire BCR frame into two strata: a "high density" stratum consisting of 100-banks with a minimum number (say 'x') of listed residential numbers, and a "low density" stratum consisting of all the remaining 100-banks in the BCR frame. The hit rate in the high-density stratum corresponding to  $x=1$  (i.e. consisting of all 100 banks with at least one listed residential number) turns out to be about 52%, whereas the same in the low-density stratum (0 banks) is only about 2%. In view of cost and operational efficiency, the truncated version of the Casady and Lepkowski method proposes not to sample from the low-density stratum and thereby increases the hit rate significantly (from about 20% to about 52% with  $x=1$ ) without creating any significant coverage bias. For this study, all 100-banks with at least one listed residential number was eligible for sampling. Within each of the 10 geographic regions, random samples of predetermined sample sizes were selected using the procedure described above. The initial sample obtained from SSI was randomly subdivided into smaller sub-samples (replicates) and were released sequentially for interviewing under the supervision of interviewing supervisors.

### **3. Data Collection**

The CATI system was programmed to automate management of the Iowa sample including:

- Call scheduling and management – up to five calls were made to resolve the status of numbers, contact households, list and screen adult residents for eligibility and select one adult as the designated respondent;
- Recording of disposition codes for the outcomes of all screening calls;
- Selection of designated respondent in eligible households; and
- Scheduling and managing interviews with designated respondents in eligible households - up to five additional calls were made to complete an interview with the designated respondent (for a total of up to 10 calls).

The data collection was carried out during the month of June 2002. Interviewers were assigned from 9 a.m. to 11 p.m. (no calls were initiated after 9 p.m. in Iowa). Shift schedules covered evening and weekend hours with adequate daytime calling to eliminate business numbers from the RDD samples. All RDD surveys must cope with the increasing number of household answering machines and voice-mail systems. Gallup made up to five initial call attempts at different times and days of the week to reach a live resident; this was then followed with five additional calls to complete the interview when contact was made with a household. Operations Center managers monitored production rates by shift and adjusted staffing levels appropriately to maximize productivity and work flow. Operations Center supervisors monitored a sample of 10 percent of the interviews completed by each interviewer. Counseling was provided at that time to address any shortfalls in technique and also to provide positive feedback and recognition to interviewers performing at a high level of proficiency. Weekly reports from the CATI system were reviewed and used to fine tune assignments and to coach interviewers for maximum productivity and interviewing success. Each night, all data collected during that day was backed up to tape in duplicate. One copy was maintained on-site to ensure immediate re-start in case of system problems; the second was stored at a secure off-site location.

#### **3.1 Interviewer Training**

CATI interviewing for the 2002 survey was conducted primarily from Gallup's Survey Operations Center in Irvine, California. Adequate number of CATI interviewers were assigned to complete all sampling and interviewing calls in the specified time period of approximately four weeks. In assigning interviewers to this survey, priority was given to selecting those interviewers with experience in other tobacco-related studies, as well as surveys of health risk factors and sensitive subject matter.

Because only experienced interviewers were assigned to the study, no general interviewer training was required. The Gallup interviewing supervisor of the Telephone Interviewing Center provided study specific briefings to the selected interviewers. This training has two components: classroom instruction on the sampling and interviewing methods and on

the questionnaire content followed by a session of mock interviewing and live practice in the Telephone Interviewing Center using the CATI version of the instrument. We thoroughly trained Gallup interviewers on the survey instrument making certain that interviewers had a comprehensive understanding of each of the questions that were included in the survey.

### **3.2 Survey Instrument**

Most of Iowa's measurable tobacco control objectives refer to attitudes and perceptions that are susceptible to being changed directly by an effective anti-tobacco program (e.g., "increase the proportion of adult and youth who disapprove of smoking and decrease the use of tobacco."). Other program objectives refer to behaviors that are less likely to be directly affected by a tobacco campaign, but rather will result from the indirect effects of program messages that are mediated by more direct effects, such as parental (for youth) and peer influences.

In 2001, we based the Iowa ATS questionnaire in large part on the successful instruments being used by California, Massachusetts, Florida and elsewhere. All of the psychometric properties of the items in the model questionnaires were already well established. In 2002, we started with the 2001 questionnaire and then certain questions were deleted and one additional question was added regarding increasing state tobacco tax that was introduced in 2002. The survey instrument, being developed from the 2001 version, required minimal field testing prior to the beginning of the data collection. A copy of the Final Survey Instrument, which was fielded in Iowa, is available upon request. Survey items included questions on:

- (i) Cigarette Use History
- (ii) Quit Smoking History
- (iii) Other Tobacco Use History
- (iv) Environmental Tobacco Smoke (ETS) Exposure
- (v) Policy Issues and Tobacco
- (vi) Mass Media and Tobacco
- (vii) Demographics

### **3.3 Data Preparation and Processing**

Data from the CATI output file were fully edited by the logic of the CATI program and required no further post-survey machine editing. Gallup analysts and programming staff prepared data file specifications, including variable names and variable labels for all data elements collected for the 2002 survey. Variable definitions for all derived variables were also developed. When interviewing was completed, SURVENT programmers extracted the clean raw questionnaire data from the CATI database into an ASCII file. Application programmers then prepared the control statements to create the analysis system files to run frequencies for all variables in the dataset for them to have performed a final check on data integrity.

## 4. Results

The survey analysis in this report describes the results obtained for the statewide sample of 1,006 adult interviews. Frequency tables for questions in the 2002 survey for all respondents, smokers and non-smokers are available upon request. In this section, we have selected those findings, which are most remarkable in providing information on opinions, attitudes, and behaviors related to the use of tobacco.

### 4.1 Prevalence and Perception of Smoking Rates

The adult prevalence rate of smoking among Iowa adults is 23.5%. The corresponding number based on the 2001 survey was 23% suggesting no significant change in the smoking prevalence rate of Iowa adults in the last year. An adult respondent is defined as a "Current Smoker" if he/she has smoked at least 100 cigarettes in his/her entire life and currently smokes every day or some days. [In terms of responses to the survey questions, the respondent should say YES to question B1 and say Every Day or Some Day in response to question B2.] In 2002, the prevalence rate for males (25.6%) was higher than that for females (21.5%). The rate was highest (31.1%) for the age group 35-44 years followed by 29% for 18-24 years, 27% for 25-34 years, 25.7% for 45-54 years, 20.4% for 55-64 years and 8.4% for adults older than 65 years. The smoking prevalence rate appears to be significantly correlated with education level. The highest smoking rate was observed for adults with less than or equal to a high school education at 29.3% followed by those with some college education at 25.6%. The smoking prevalence rate for college graduates was 16.2%, while for those with postgraduate or professional degrees it was about 12.4%.

### 4.2 Quit Smoking History

Of current smokers, 73.1% report that they would like to quit smoking cigarettes. Just about two-fifths of all smokers (39.4%) report that they had tried to quit smoking within the last twelve months; 27.3% tried to quit within the last six months; 18.3% of current smokers who tried to quit smoking mentioned the nicotine patch as one of the aids they used. Other aids that were mentioned included: other medication (13.4%); nicotine gum (12.4%); professional medical counseling services (3.6%); and smoking cessation classes (3.3%). Of all smokers, 69.3% reported that a doctor or other health professional had advised them to quit smoking.

Among all adults, 4.4% reported using chewing tobacco or snuff within the past 30 days. About one in twenty adults (4.9%) reported that they had smoked a cigar on at least one of the past 30 days. Among all adults, about 1% reported smoking tobacco in a pipe within the last thirty days.

### 4.3 Environmental Tobacco Smoke (ETS) Exposure

Among all adults 27% reported being exposed to cigarette smoke at home one or more days over the last week; 14.4% of this group reported being exposed every day of the

week. A total of 55.1% of all adults reported working at a job for money outside of their home in an indoor setting; of this group 25.8% reported being exposed to cigarette smoke on the job one or more days of an average work week; just about one-ninth of all workers in the state (11.4%) report being exposed to smoke on the job seven days a week.

Of those adults who reported working outside the home in an indoor setting, 16.5% report that their workplace does not have an official policy that restricts smoking. Where there were policies, such policies in most locations (85.6%) did not allow smoking in any work areas.

When asked if they agreed that people should be protected from second hand smoke, 87.8% of all adults agreed or strongly agreed with this statement. Among smokers when asked the same question, 74.8% said they agreed or strongly agreed that people should be protected from ETS.

Regarding their home environment, 59.7% of all adults reported that smoking was not allowed anywhere in their home; 24.6% of smokers reported that they too had a no smoking policy in their home. Smoking was banned from the family car as reported by 55.1% of all adults; for smokers, 10.8% of smokers reported enforcing this ban in their car.

#### **4.4 Policy Issues and Tobacco**

A new question (Question F1-1) about an increase of \$1.00 per pack in state tobacco tax was introduced in the 2002 survey. Of all adults, 64% favored or strongly favored an increase of \$1.00 per pack in state tobacco tax. Of smokers, 22.9% favored or strongly favored that proposal, whereas the corresponding percentage among non-smokers was 76.7%. A series of questions was asked of adults as to their level of support for not allowing cigarette smoking in a variety of specific areas in the state. Among all adults the following were the reported percentages for those who agreed or strongly agreed with not allowing smoking:

- In outdoor public areas – 41.3%
- In all indoor restaurants – 72.4%
- In bars – 45.2%
- On any school property, high school and colleges, at any time – 83.7%

Here are the corresponding percentages among smokers:

- In outdoor public areas – 15.2%
- In all indoor restaurants – 37.3%
- In bars – 4.9%
- On any school property, high school and colleges, at any time – 68.3%

A majority (53.1%) of all adults reported that they had been to a bar within the last six months; among smokers, 59.2% had been to a bar in this time period. One fifth of all

adults (20.0%) reported that in the last year they had avoided going to a bar because smoking was allowed. Just less than one-quarter of all adults (22.8%) reported that they would visit casinos more often if they were smoke-free; 4.6% of smokers also said they would go more often if there were no smoking.

#### **4.5 Mass Media Messages and Tobacco**

Adults were asked about if they had ever seen or heard the slogan "Just eliminate lies" or "JEL" used in any anti-smoking advertising (Question G3). Of all adults, 52% saw or heard the slogan. Among smokers, the corresponding percentage (60.5%) was higher, whereas about half (49.4%) of non-smokers reported having seen or heard this slogan.

#### **4.6 Respondent Demographics**

Based on the weighted 2002 survey data, about one-half (47.8%) of all survey respondents were males. Of adults, 51% were 18-45 years of age; 31% were 46-65 years; the remaining, about 18%, were older than 65. About two-fifths of all households (39.4%) reported that they had children less than 18 years of age living in their household. Regarding education, 6.3% reported having less than a high school education; 34.9% reported having a high school-level education; 25.8% reported having completed college; another 23.8% reported some technical school training or some college courses; 9.1% reported having a postgraduate or professional degree. For ethnicity, 1.9% reported being Hispanic or Latino; for race, more than 96% of all respondents were white. For income, 6.9% were under \$15,000; 20.3% were under \$24,999; 44.7% were between \$24,999 and \$54,999; the remaining 35% had an annual household income of more than \$54,999.

### **References**

Casady, R. J., and Lepkowski, J. M. (1993). *Stratified Telephone Survey Designs*. *Survey Methodology*, June 1993, vol. 19, No. 1, Statistics Canada, pp. 103-113.