2014 High-Risk Driver Analysis

Minnesota Department of Public Safety, Office of Traffic Safety

CONTENTS

INTRODUCTION

BACKGROUND AND LAYOUT

In 2014, the Minnesota Department of Public Safety's Office of Traffic Safety retained Corona Insights to conduct a random telephone survey of Minnesotans for the purpose of examining the behaviors of Minnesotans with regard to a variety of risky driving behaviors. The results of this survey will help to better understand the characteristics of high-risk drivers in the state in order to inform efforts to improve driver safety.

REPORT LAYOUT

This report is divided into a number of major sections, which include the following:

- **Background and Methodology –** This section provides a detailed description of the approach used for this project in terms of goals and methodologies used.

- **Communications and Outreach Implications –** This section provides a high-level discussion of the implications of the research.

- **Key Research Conclusions –** This section contains a brief overview of the key findings and themes of the research.

- **Detailed Findings –** This section is divided into numerous subsections and focuses on the results of the research in each of the major question topic categories addressed in the survey.

- **Appendix A: Survey Instrument –** This appendix contains the actual survey instrument used for this study.

- **Appendix B: Detailed Analysis Tables *(available separately)* –** This appendix contains tables of responses from all questions in the survey cross-tabulated by 1) risk groups, 2) high-level risky behaviors, and 3) detailed combinations of risky behaviors.

- **Appendix C: Open Ended Responses *(available separately)* –** This appendix contains the unedited responses that survey respondents gave in response to the open ended questions.

METHODOLOGY

RISKY BEHAVIOR DEFINITIONS

As described previously, the study was designed to examine the attitudes and behaviors of the state's population as a whole and, in particular, drivers who exhibit certain risky driving behaviors during the previous 30 days, including:

- ☐ **Drinking and driving:** Driving at least once after drinking two or more drinks.

- ☐ **Driving without a seat belt:** Driving at least once without wearing a seat belt.

- ☐ **Speeding:** Driving 10 miles per hour or faster than the posted speed limit more than half the time.

- ☐ **Texting/Internet use:** Texting or accessing the Internet while driving at least once.

  Note: For the sake of brevity, the above behaviors are sometimes shortened as "drinking," "texting," etc. in the report. In all cases, the above definitions apply.

Using these definitions, survey respondents were grouped into levels of risk based on their behaviors in the past 30 days, and quotas were set to ensure that a sufficient number of responses were collected for each group. These groups were defined as follows:

- ☐ **High risk:** Drinking and driving OR two or more risky behaviors (of any type).

- ☐ **Moderate risk:** One (and only one) of the following: driving without a seat belt, speeding, or texting/using the Internet and driving.

- ☐ **Low risk:** No risky behaviors.

SURVEY INSTRUMENT DESIGN

The survey instrument for this study was developed through a collaborative process between Corona Insights and the Office of Traffic Safety. Initial ideas for the survey were developed in preliminary discussions about the project. Using these ideas, Corona prepared an initial draft of the survey instrument, which was then revised collaboratively until a final version was agreed upon.

SURVEY IMPLEMENTATION

All surveys were conducted via telephone between mid-April and the end of May, 2014, through a randomly generated sample of telephone numbers. The telephone sample included both landlines and cell phones (with 60 percent of responses gathered from the cell phone sample). The proportion of cell phone to landline surveys was determined based on NHIS (National Health Interview Survey) data for "cell only" and "cell mostly" households. Dual users (i.e., households who have both cell phones and landlines) were not excluded from the cell sample, nor were they excluded from the landline sample.

In order to ensure that a sufficient number of responses were available for analysis, quotas were set for high-risk, moderate-risk (non-text/Internet), text/Internet use only, and low-risk drivers. In total, 7,359 individuals were contacted and screened for the survey, and 1,570 successfully completed the survey. The specific number of respondents in each of the various subpopulations examined is shown in the following table:

Audience	Total Completed Surveys
Total Population	**1,570**
High risk	862
Moderate risk (driving without a seat belt or speeding)	100
Moderate risk (texting/Internet use)	108
Low risk	500

WEIGHTING

Telephone surveys, like any other type of survey, do not precisely reflect the entire population when merely summed and totaled. Older residents, for example, are more likely to respond to telephone surveys than are younger residents. In addition, the quotas used to ensure sufficient quantities of responses were available for analysis artificially altered the balance of respondents with various risky behaviors. Because of this, the study team developed a final unique weighting factor for every single respondent that adjusted that person's representation in the survey data. Weights are based on three variables: gender, age, and risk category.

Population estimates for gender and age were obtained from the 2012 American Community Survey conducted by the U.S. Census. Population estimates for risky behaviors were calculated by looking at the profile of all individuals who were contacted to participate – regardless of whether or not they were actually chosen to participate based on their behaviors.

The responses of those respondents who have traits that were underrepresented in the group of survey participants were therefore weighted more heavily than those whose traits were overrepresented among the survey participants. For this reason, the survey findings represent a much more complex, but also more accurate analysis than would a mere tabulation of the raw data.

MARGIN OF ERROR

A total of 1,570 surveys were completed during the survey period, resulting in an overall adjusted margin of error of ±3.5 percent with a 95 percent confidence level. This margin of error takes into account the weighting factors. In addition to this overall margin of error, many analyses focus on a specific segment of the population. The margins of error of these findings vary depending on the sample size for each segment. However, readers can generally consider findings based on sample sizes greater than 400 to be robust (±5 percent or less), those with sample sizes between 100-399 to be moderately strong (±5-10 percent), and those with sample sizes smaller than 100 to be directional in nature.

REPORT STRUCTURE

The research process involves first understanding the details of the research, then congealing them into broad research findings, and finally examining the implications of those findings on outreach efforts and strategies. To keep the big picture in mind, these are presented in the opposite order in this report, so the most actionable information is presented first. Readers should keep in mind that conclusions are based on the more detailed information that is progressively introduced later in the report. The detailed research findings and data tables are therefore more of a resource that the reader can use as additional information and can be considered optional reading.
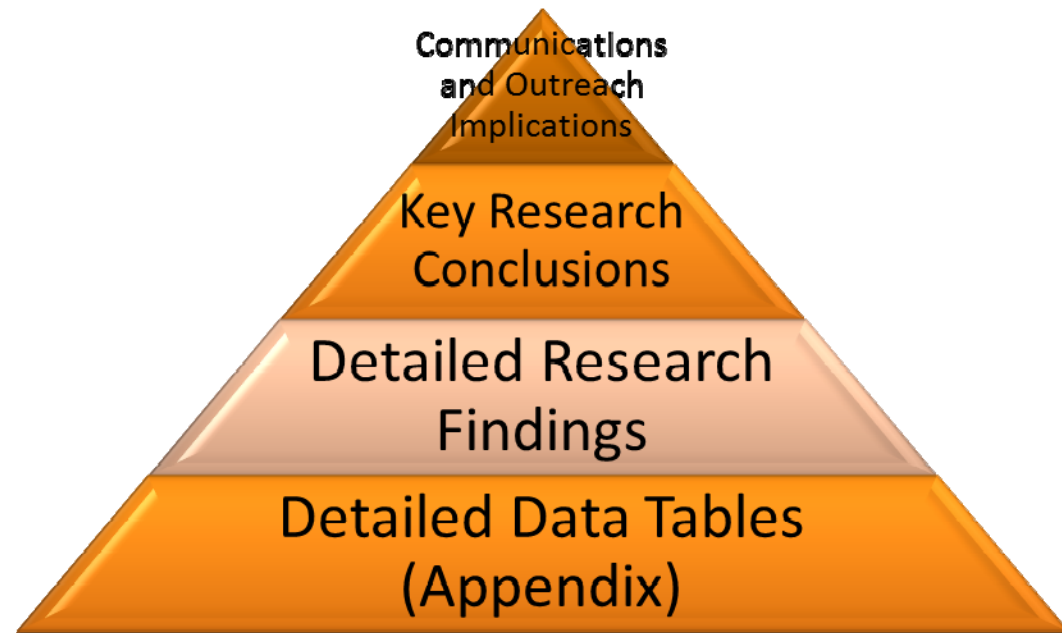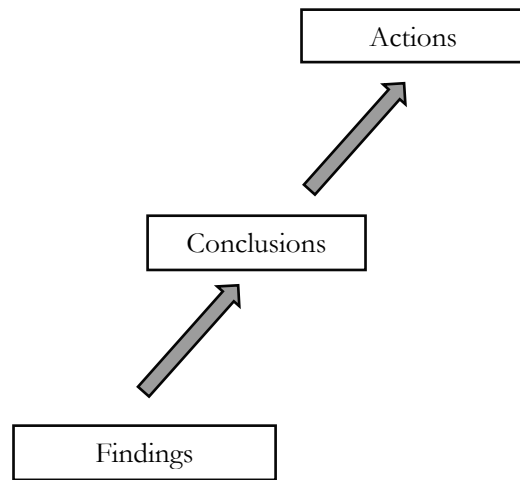
COMMUNICATIONS AND OUTREACH IMPLICATIONS

In reviewing the findings for the different behaviors and segments of drivers, the following are initial recommendations:

1. General efforts to communicate safety messages to high-risk drivers as a group should consider the following themes:

    a. Drivers aren't above average if they exhibit high-risk behaviors. Many high-risk drivers believe that they are above average in terms of driving safety and that they are less likely than average to be in a crash. This simply isn't true. Communicate that these high-risk behaviors increase your odds of a crash, citation, or loss of license no matter how good a driver you think you are.

    b. Risky behaviors are far less common than they are thought to be by those who participate in them. The vast majority of drivers protect their vehicles, their finances, and their health by avoiding risky behaviors. Those who choose to participate in the risky behaviors pay for it with more crashes, more citations, and more suspensions.

    c. The identified high-risk behaviors make drivers more likely than average to be involved in a crash, no matter how good a driver they are (in their own perception). As a communications tool, an online game or app to measure drivers' level of risk increase by participating in these behaviors may have impact.

    d. High-risk drivers are more likely than other drivers to describe themselves as competitive, stubborn, impatient, and in particular, thrillseeking. Messages that use these traits to safety's advantages may be more effective. In general, higher-risk drivers tend to be more emotional in general. This is particularly true of the highest-risk cluster that participates in three or more risky behaviors. Messages that are based on emotion may have more impact than those based on logic.

2. General targeting recommendations for high-risk drivers include:

    a. Messages should particularly target younger populations. Nearly half of high-risk drivers are under 35. Texting and speeding are particularly concentrated in this younger category, with more than half of offenders being under 35. Drinking and seat belt use tilt toward younger drivers, but are notably closer to an even distribution by age. The average age of those who both speed and text is 31, and the average age of those who participate in three or more risky behaviors is 32.

    b. Messages should continue to target males. Males are two times more likely than females to fall among the high risk group, and are three times more likely to be drinking drivers. Men also are three times more likely to fall into the highest-risk group of those who participate in three or more risky behaviors.

    c. As one exception, texting is nearly 50/50 between men and women, and the combination of speeding and texting actually skews slightly toward women, so that message should target both groups equally.

d. In part due to age differences, higher-risk drivers are more likely to go online, and they are also more likely to listen to AM/FM radio. They are much less likely than lower-risk drivers to read newspapers and slightly less likely to watch TV.

e. When asked in general about ways to become a safer driver, a number of changes were suggested. Common ones included decreased phone use, increased seat belt use, decreased texting, and paying more attention. Speed was also mentioned, but changing drinking was cited much less often. While the problem identification process should drive decisions about campaign priorities, those decisions can be informed by understanding these areas that are already identified by drivers as priorities for behavior change. Campaigns reinforcing these ways to become safer will likely resonate more strongly since the respondents are already considering those behavior changes as improvements.

3. Speeding appears to be a notable factor in increasing one's driving risk, either alone or with other high-risk behaviors. Twenty-two percent of speeders aren't concerned about either enforcement or crashes, so strong enforcement is the only way to reach them. For the remainder of speeders, messaging and communications themes that can be used include:

a. Communicating that speeding amplifies the risk of anything else you do that's bad.

b. Most speeders think they're above average drivers, and yet they're 60% more likely to be in a crash than the average driver.

c. Increasing perceptions of the dangers of speeding would be helpful. High-risk drivers in particular don't believe that it's "extremely dangerous", but all populations underestimate the risk of speeding relative to other unsafe behaviors.

d. Speeders are more likely than any other group to describe themselves as "thrillseeking". Suggest to them that there are ways to get your thrills that don't involve undue risks of injury.

e. Speeders are less likely than other groups to worry about injuring or killing others and more likely to worry about their own well-being. Messages regarding speeding that address injury to oneself will resonate more strongly than requests for empathy to other drivers.

f. Speeders disproportionately fear enforcement over a crash, which means that more education about crashes would be effective to increase the power of that motivator.

g. Speeders who fear being in a crash are more remorseful about their behavior than other speeders, which can be leveraged. Messages about the crash risk can help prompt these drivers to behave.

h. Speeders have historically been the risk group that is most likely to change their behavior. More speeders have historically stopped speeding than any other group, with 30 percent of non-speeding drivers saying that they once fit the definition of a speeder.

i. When former speeders who changed their behavior were asked why, common motivations were getting older and getting tickets. Given the younger demographic of speeders, messages to "grow up and be an adult" may be effective, along with continued high-visibility enforcement messages.

4. While high-risk drivers share many common traits, drinking drivers differed from other high-risk drivers in selected key areas:

   a. Particularly concerning is the 15 percent of drinking drivers that are concerned about neither crashes nor enforcement, and the vast majority of those don't feel that their behavior is even risky. Roughly one in seven drinking drivers therefore feels that their behavior is fine and fears neither enforcement nor crashes. Strong enforcement may be the only way to reach this group.

   b. For segments that can be responsive to non-enforcement messaging, the following are recommended:

      i. Drinking drivers have a belief that they are very careful drivers. Deliver the message that if you drive after drinking, you can't offset the alcohol by trying to drive more carefully.

      ii. Continued education on the risks and thresholds of drinking and driving are warranted. On average, drinking drivers believe that they can consume almost three drinks and still be safe to drive. A quarter of all those who have driven after at least two drinks believe that they would be okay to drive after four or more drinks. They believe that they are better able to function with alcohol than the average person.

      iii. Drinking drivers are just as likely to be indifferent about their behavior as to recognize they shouldn't do it. Regardless of their area of higher concern (fear of enforcement versus fear of a crash), they are more likely to believe that their behavior isn't a problem. Messaging needs to reinforce that it is indeed a problem and that driving after drinking is associated with a higher crash risk and a much higher likelihood of getting citations or losing one's license.

      iv. When former drinking drivers who changed their behavior were asked why, the common reasons were getting older and "growing up", along with getting stopped. The "grow up" message resonates with other research that Corona has conducted over the years, and the simple words "Grow Up" may be the core of an effective campaign.

5. Text/Internet users should be targeted in the following manner:

   a. Text/Internet users fear being in a crash as a result of their behavior far more than they fear enforcement, so enforcement should be stressed in messages to increase the power of that tool. Those who fear getting a ticket for texting also predominantly realize that they shouldn't text, so there's an acknowledgement on broad scale that texting is improper. There is likely a need for more emphasis on enforcement for this group.

b. With regard to communications and messaging, text/Internet users are more likely than other groups to identify themselves as stubborn, and so likely react more to messages that let them learn as opposed to messages that force behavior.

c. In an exception to most high-risk behaviors, females are equal offenders with males. Messages particularly targeted to females may resonate well since messaging about other behaviors should be targeted to males.

d. When former text/Internet users who changed their behavior to stop engaging in high-risk behaviors were asked why, the most common reasons were a recognition that the behavior was dangerous and a concern about crashes. This is already a concern of current text/Internet users, and so may be a predictor that a natural decrease may be on its way.

6. Seat belt violators are equally split in their concern about being in a crash or getting a ticket, so both messages will add value.

a. However, among the segment that is more worried about a crash, a communications element could be effective. They believe that they should wear a seat belt, but just don't (all the time, anyway). This group represents nearly half of seat belt violators, and is a willing audience to receive cues and reminders to wear their belt. There is likely a need for more emphasis on friendly messaging targeted to this subgroup, particularly with "reminder" themes to wear their seat belt. Be on their side to "remind them about enforcement" and simply to remind them to wear their belt.

b. When former seat belt violators who changed their behavior were asked why, the law was the most commonly mentioned motivator. Continued education of younger drivers about the law may support efforts alongside reminders for those who have good intentions but cannot yet develop the habit.

7. After examining the data in detail, one key conclusion is that the data gathered in this study may yield even more rich insights with further in-depth analysis. Given that the investment in collecting the data has already been made, more value could be realized by further mining and examining the data to identify more nuanced conclusions and insights.

KEY RESEARCH CONCLUSIONS

Readers are encouraged to review the detailed findings in the following pages for a full overview of how respondents answered the various questions included in the survey. However, the following is a brief discussion of some of the key conclusions of the survey's results.

DEFINING HIGH-RISK DRIVERS

1. **Most drivers do not exhibit any unsafe behaviors.** Over half of respondents had not done any of the four key risky behaviors (drinking and driving, texting/using the Internet while driving, speeding, or not wearing a seat belt) in the past 30 days. Among those who did, most only did one of the four behaviors (most commonly, text/Internet use), and almost none exhibited three or more behaviors. This nonetheless means that messages targeting one or more of the four identified unsafe behaviors will be relevant to more than 40 percent of the population. *Exhibits 1a-d*

2. **High-risk drivers are at increased risk of being in more crashes, receiving moving violations, and having their license suspended.** The definitions used for the three risk groups were derived based on the hypothesized likelihood that a person would be involved in a vehicle crash, as well as the expected severity of such crashes. However, it is important to note the real-world implications of these groupings – most notably that high-risk drivers (drivers who exhibited two or more risky behaviors *or* had driven after drinking at all) were more likely than low-risk drivers to be involved in all three types of traffic incidences addressed in the survey. *Exhibit 2a*

3. **Despite their increased risk, high-risk drivers generally believe themselves to be above-average drivers who are less likely than others to be involved in a crash.** Though high-risk drivers were less likely than low-risk drivers to consider themselves to be above-average drivers, a majority of high-risk drivers (53 percent) considered themselves to be above average drivers, and almost none (4 percent) believed they were more likely to be in a crash than others. This seems to indicate that high-risk drivers largely have an inflated estimation of their own driving abilities. *Exhibits 3a and 4a*

PERCEPTIONS OF RISKY BEHAVIORS

4. **High-risk drivers overestimate the prevalence of risky driving behaviors.** Among all respondents (including low-risk drivers), perceptions of how common each of the risky behaviors are among all drivers were dramatically higher than the actual incidence rates of such behaviors. Furthermore, high-risk drivers had even higher perceptions of how common the behaviors were among all drivers and, more specifically, those who themselves exhibited a particular behavior had a higher perception of how common that behavior really is. *Exhibits 5, 6a, and 6b*

5. **High-risk drivers have a much lower perception of the dangers of their behaviors than low-risk drivers.** Similar to perceptions of the prevalence of behaviors, perceptions of the dangers of each of the four behaviors were considerably lower among high-risk drivers than low-

risk drivers. Similarly, those who exhibit a particular behavior generally have a lower perception of the dangers of that behavior. *Exhibits 7a and 7b*

6. **Those who drink and drive generally believe they can drink more than others and still be safe to drive.** Drinking drivers in the survey (on average) estimated that the average person could have 2.6 drinks and still be safe to drive. However, when asked to estimate their own abilities, this average climbed to 2.9 drinks before being unsafe to drive. In other words, drinking drivers believe that they can better handle their alcohol compared to the average person.

CHARACTERISTICS OF RISKY DRIVERS

7. **Compared to low-risk drivers, high-risk drivers tend to be:**

   > *Younger* – High-risk drivers had an average age of 38, compared to an average age of 51 among low-risk drivers. *Exhibit 9a*

   > *Male* – Two-thirds of high-risk drivers are men, while low-risk drivers were slightly more likely to be women. *Exhibit 10a*

   > *Employed* – Largely due to the fact that low-risk drivers are generally older (and, thus, more likely to be retired), high-risk drivers are more likely to be employed. *Exhibit 12a*

   > *Thrillseeking and competitive* – High-risk drivers were more likely to associate themselves with those personality treats, as well as impatient and stubborn. *Exhibit 14a*

   > *Less likely to read newspapers and watch TV* – High-risk drivers were more likely to go online, listen to the radio, and go out to bars. *Exhibit 15a*

8. **Low-risk drivers and high-risk drivers do not seem to differ in terms of:**

   > *Geography* – High-risk drivers were equally likely to be from urban/rural areas as low-risk drivers. *Exhibit 11a*

   > *Household income* – High-risk drivers come from all walks of life; no significant differences were observed between the household incomes of various risk groups. *Exhibit 13a*

   > *Optimism* – Both high- and low-risk drivers had similar associations with optimism and social aspects. *Exhibit 14a*

   > *Spending time with family members* – Both high- and low-risk drivers were very likely to spend free time with family members. *Exhibit 15a*

MOTIVATIONS TO CHANGE

9. **Drinking drivers, in particular, are relatively unlikely to believe there is a problem with their actions.** Three in five drinking drivers felt that they can handle drinking and driving, so doing so isn't a problem. Similarly, nearly half of speeders felt that their speeding isn't a problem. On the other hand, most of those who drive without a seat belt and who text/use the Internet while driving knew that they shouldn't do the behavior. This would seem to indicate that changing the habits of drinking drivers and speeders will be more difficult than those of non-seat belt users and text/Internet users since they will need to be convinced they have a problem before they are willing to change. *Exhibit 16*

10. **Concerns about being in a crash are strongly correlated with a belief that behavior change is needed for all except drinking drivers.** Among text/Internet users, seat belt violators, and speeders, a vast majority of those who said their biggest concern was being in a crash (rather than getting a ticket) knew that they shouldn't do the behavior. However, among drinking drivers, those who feared being in a crash were equally likely to believe they could handle drinking and driving. Even concern with being in a crash is not enough to convince many drinking drivers to want to change their behavior. *Exhibits 18a-d*

11. **Speeders, in particular, are unlikely to be concerned about being in a crash due to their speeding.** A majority of speeders were more concerned about getting a ticket than they were about getting in a crash. However, speeders were actually more likely than any other behavior group to have been in a crash in the past three years. Clearly, many speeders are at more risk than they realize. *Exhibits 2b and 17*

12. **Based on past history, speeders are the most likely to change their behavior over time.** Nearly one-third (30 percent) of non-speeders said that they had consistently sped at some point in their lives. Speeding is a relatively easy violation to enforce, so many speeders said that they had stopped speeding after getting tickets, and others simply felt less of a need to speed as they got older. *Exhibits 20 and 21b*

13. **Enforcement is an effective driver of behavior change.** For all four behaviors, many of those who had changed their behavior mentioned enforcement (tickets, arrests, DUIs, etc.) as motivating factors in their decision to stop their behavior. In particular, those who had started wearing a seat belt mentioned the recent change in Minnesota's seat belt law (to a primary violation) as a reason for changing their behavior. *Exhibits 21a-d*