

# The CBHSQ Report

Short Report

December 27, 2016

## DRIVING UNDER THE INFLUENCE OF ALCOHOL AND ILLICIT DRUGS

### AUTHORS

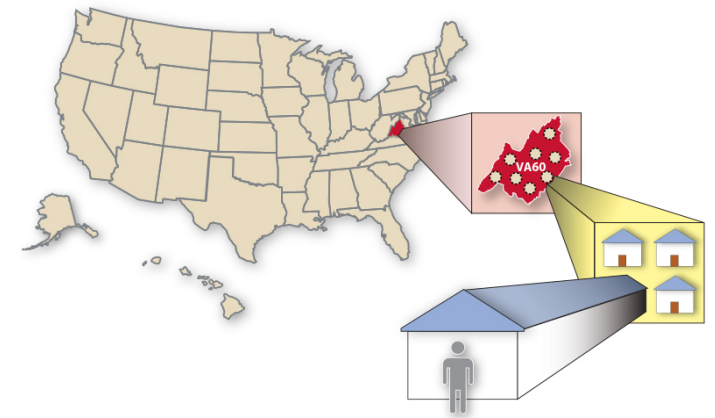
Rachel N. Lipari, Ph.D., Arthur Hughes, M.S., and Jonaki Bose, M.S.

### INTRODUCTION

Driving while impaired by alcohol or illicit drugs (e.g., marijuana, cocaine, hallucinogens, heroin) poses a significant threat to public safety.<sup>1,2</sup> Substance use can impair perception, cognition, attention, balance, coordination, and other brain functions necessary for safe driving.<sup>1,2</sup> Driving while impaired by drugs or alcohol has been linked to reckless driving, car crashes, and fatal accidents. For example, alcohol-related fatalities represented 31 percent of all traffic-related deaths in 2014.<sup>3</sup> This translated to an average of 1 alcohol-impaired driving fatality occurring every 53 minutes in the United States in 2014.<sup>3</sup> Approximately 1.1 million people are arrested each year for driving under the influence or driving while intoxicated.<sup>4</sup>

Reducing the number of people driving under the influence of alcohol has been a long-term goal in the United States. There has also been an increased emphasis on reducing driving while under the influence of drugs. For example, in its National Drug Control Strategy, the White House's Office of National Drug Control Policy stated an overarching principle that "preventing drugged driving must become a national priority on par with preventing drunk driving."<sup>5</sup> Although driving under the influence of alcohol on weekends has declined since 1971, the National Highway Traffic Safety Administration found that an increasing number of weekend drivers had drugs in their system in 2013 and 2014 compared with 2007.<sup>2,6</sup> Access to self-reported information from the National Survey on Drug Use and Health (NSDUH) on driving under the influence of alcohol or illicit drugs may help policymakers and prevention specialists in their efforts to reduce impaired driving.

NSDUH is the primary source for statistical information on illicit drug use, alcohol use, substance use disorders, and mental health issues for the U.S. civilian, noninstitutionalized population aged 12 or older. One of NSDUH's strengths is the stability in the sample and survey design that allows comparisons across multiple years of data. NSDUH asks people aged 12 or older if they had driven a vehicle while under the influence of alcohol or illicit drugs in the past year. Specifically, NSDUH asks respondents if during the past 12 months they had driven a vehicle while under the influence of (a) alcohol only, (b) illicit drugs only, or (c) a combination of alcohol and illicit drugs used together.



### In Brief

- In 2014, 27.7 million people aged 16 or older (11.1 percent) drove under the influence of alcohol in the past year, and 10.1 million (4.1 percent) drove under the influence of illicit drugs in the past year. About 7.0 million (2.8 percent) drove under the influence of alcohol *and* illicit drugs in the past year, including 5.9 million (2.4 percent) who drove under the simultaneous influence of alcohol and illicit drugs in the past year.
- The percentage of people driving under the influence generally increased with age through the young adult years and then declined with age thereafter; percentages were higher among males than females.
- The percentage of people aged 16 or older who drove under the influence of alcohol in 2014 (11.1 percent) was lower than the percentages in 2002 through 2012 (ranging from 11.8 to 15.3 percent).
- The percentage of people aged 16 or older who drove under the influence of illicit drugs was lower in 2014 (4.1 percent) than in 2002 through 2006 and in 2009 through 2010.
- The percentage of people aged 16 or older who drove under the simultaneous influence of alcohol and illicit drugs was lower in 2014 (2.4 percent) than in 2002 through 2010 (ranging from 2.9 to 3.4 percent).

Responses to these questions are recoded to determine the prevalence of (a) driving under the influence of alcohol in the past year, (b) driving under the influence of illicit drugs in the past year, (c) driving under the influence of alcohol and driving under the influence of illicit drugs in the past year (based on "yes" responses to [a] and [b]), and (d) driving under the simultaneous influence of alcohol and illicit drugs in the past year. Although everyone aged 12 or older is asked about driving under the influence, this issue of *The CBHSQ Report* focuses on the prevalence of these driving behaviors among people aged 16 or older in 2014 and then examines trends in driving behaviors in this age group since 2002.

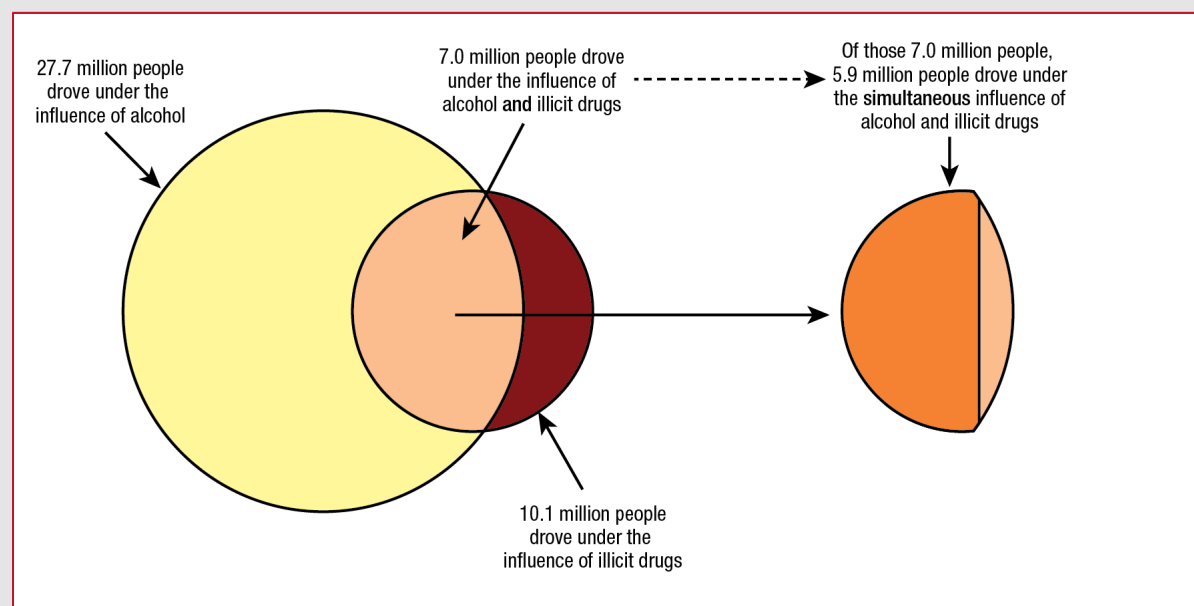
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## DRIVING UNDER THE INFLUENCE: 2014

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In 2014, 27.7 million people aged 16 or older (11.1 percent) drove under the influence of alcohol in the past year, and 10.1 million (4.1 percent) drove under the influence of illicit drugs (Figure 1). About 7.0 million people aged 16 or older (2.8 percent) drove under the influence of alcohol *and* illicit drugs in the past year, including 5.9 million (2.4 percent) who drove under the simultaneous influence of alcohol and illicit drugs in the past year. In Figure 1 below, light orange represents driving under the influence of alcohol *and* illicit drugs though not necessarily at the same time, while the darker orange represents driving under the influence of alcohol and illicit drugs at the same time in the past year.

**Figure 1. Driving under the influence of alcohol or illicit drugs in the past year among people aged 16 or older: 2014**



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health (NSDUH), 2014.

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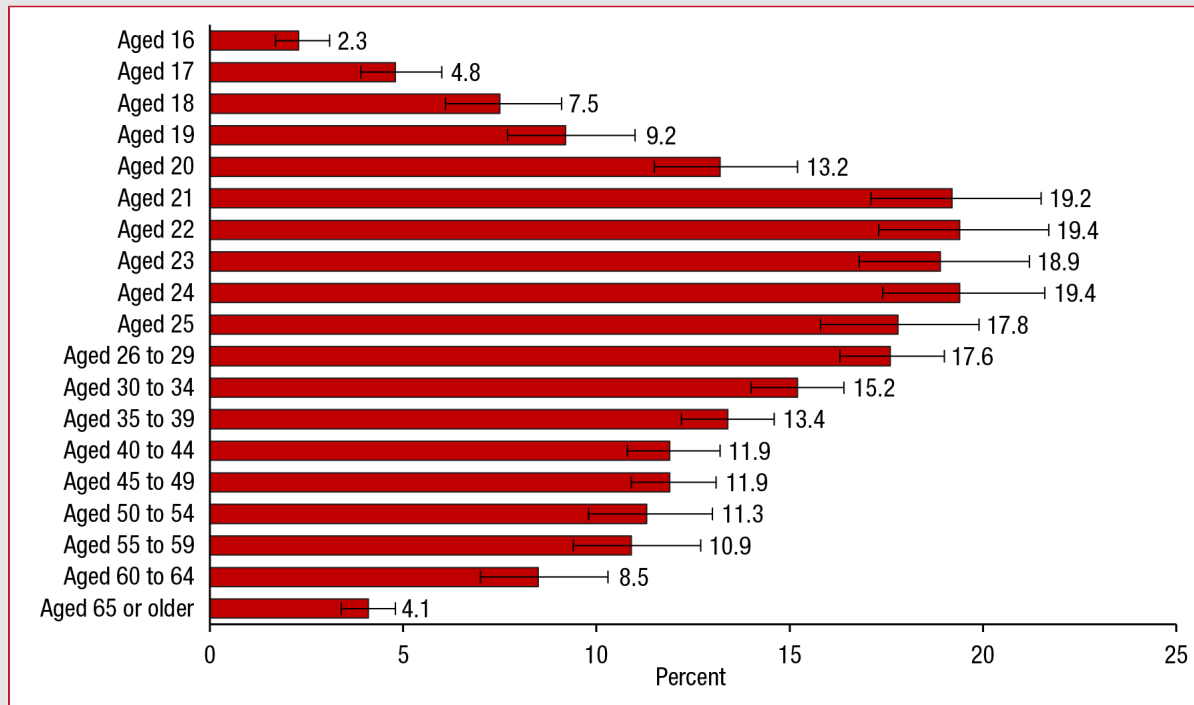
## DRIVING UNDER THE INFLUENCE, BY AGE AND GENDER

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Driving under the influence in the past year generally increased with age through the young adult years and then declined thereafter. Driving under the influence of alcohol was highest among people aged 21 to 29 (from 17.6 to 19.4 percent; Figure 2), and driving under the influence of illicit drugs peaked between the ages of 20 and 23 (from 11.0 to 12.7 percent; Figure 3). The percentages of people who drove under the simultaneous influence of alcohol and illicit drugs also peaked between the ages of 20 and 23 (from 6.5 to 7.9 percent; Figure 4).

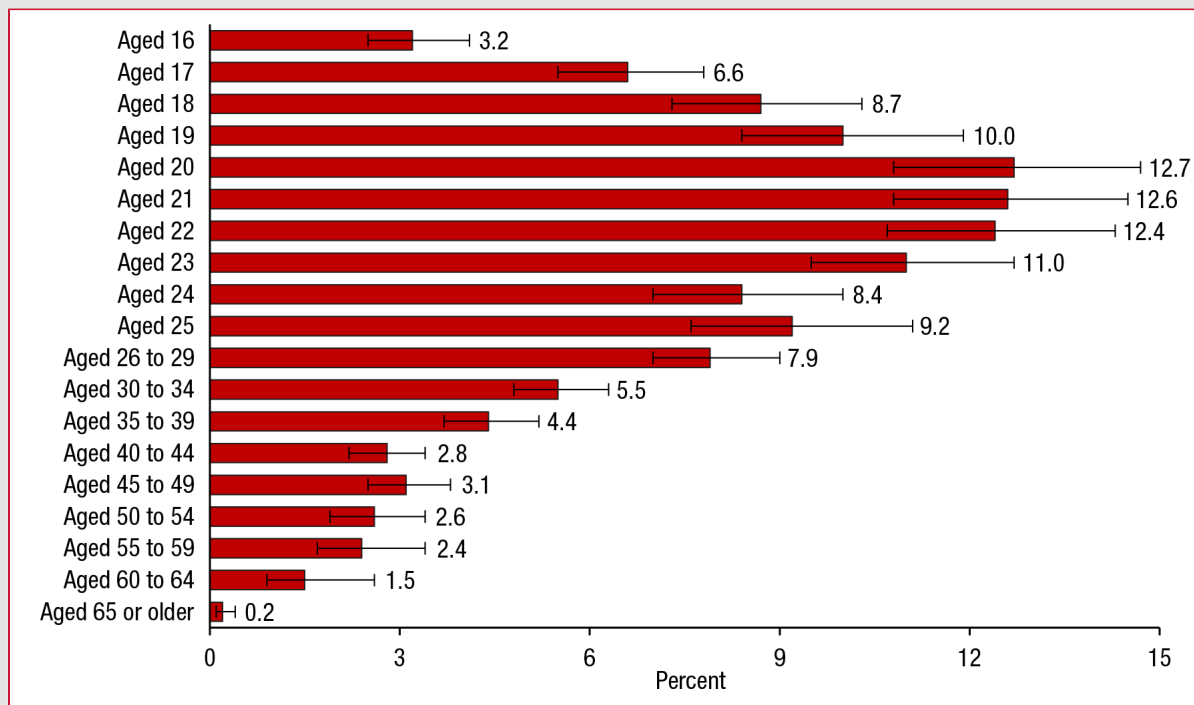
Among people aged 16 or older, males were more likely than females to have driven under the influence of alcohol in the past year (14.7 vs. 7.8 percent), to have driven under the influence of illicit drugs in the past year (5.8 vs. 2.5 percent), and to have driven under the simultaneous influence of alcohol and illicit drugs in the past year (3.6 vs. 1.3 percent; Figure 5).

**Figure 2. Driving under the influence of alcohol in the past year among people aged 16 or older, by age: 2014**



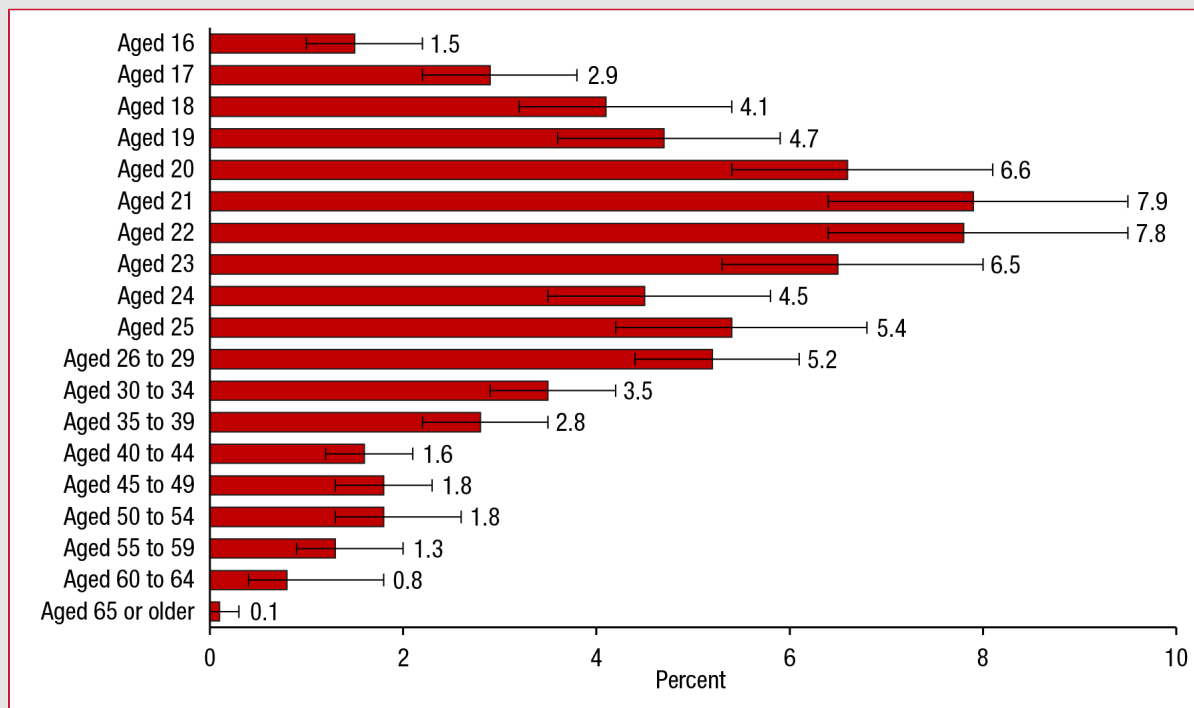
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health (NSDUH), 2014.

**Figure 3. Driving under the influence of illicit drugs in the past year among people aged 16 or older, by age: 2014**



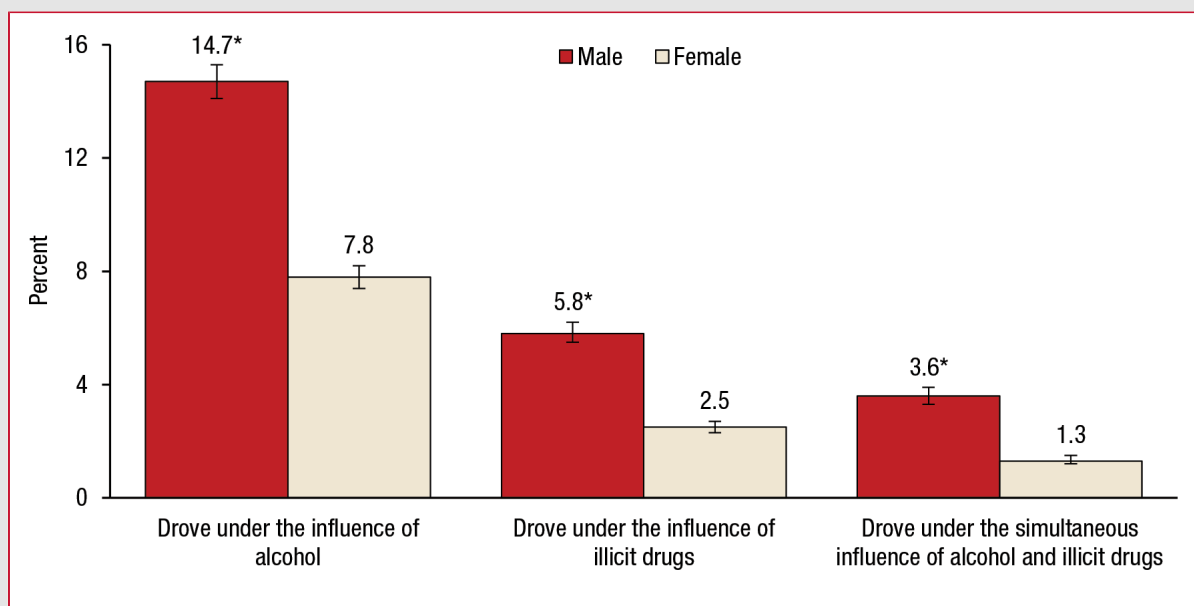
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health (NSDUH), 2014.

**Figure 4. Driving under the simultaneous influence of alcohol and illicit drugs in the past year among people aged 16 or older, by age: 2014**



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health (NSDUH), 2014.

**Figure 5. Driving under the influence of alcohol or illicit drugs in the past year among people aged 16 or older, by gender: 2014**



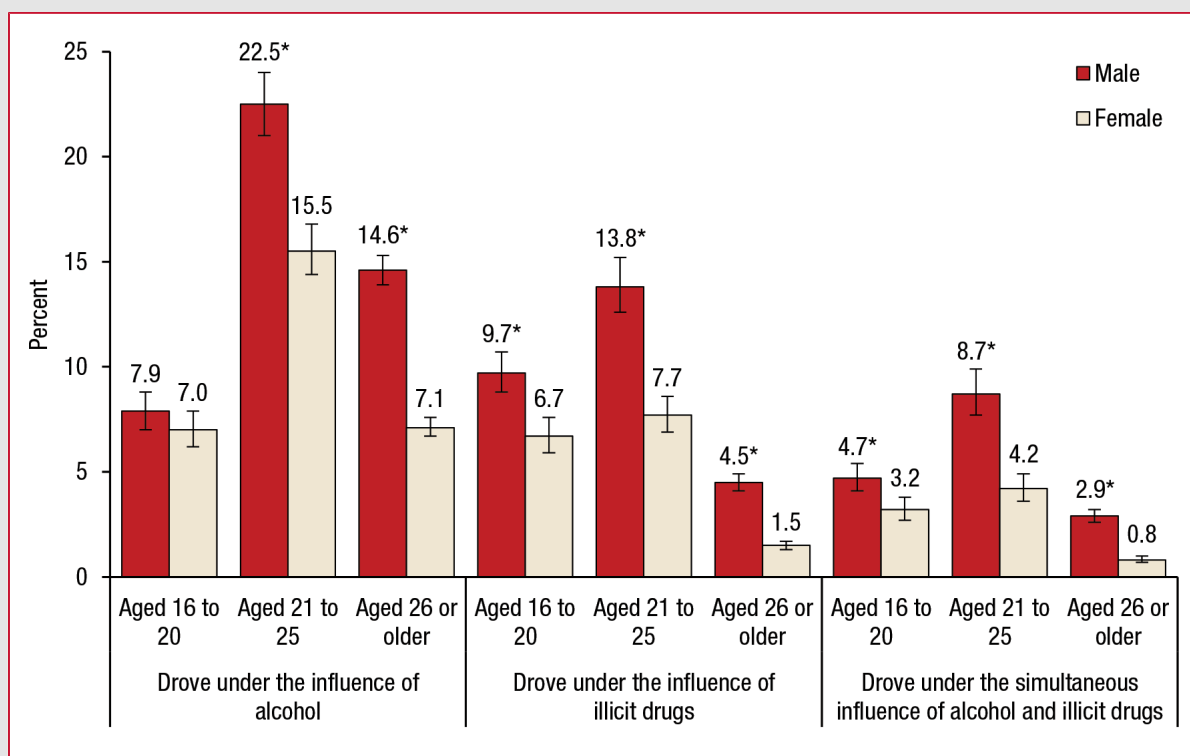
\* Difference between this estimate and the female estimate is statistically significant at the .05 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health (NSDUH), 2014.

As illustrated in Figure 5, there are gender differences in driving under the influence of alcohol or illicit drugs and when driving under the influence of substances was examined by gender across age groups, the gender difference was fairly consistent across age groups (Figure 6). According to the 2014 NSDUH, males were more likely than females to have driven under the influence of alcohol or illicit drugs within most of the age groups. For example, males were more likely than females to have driven under the influence of alcohol in the 21 to 25 age group (22.5 vs. 15.5 percent). Males in the 21 to 25 age group were more likely than females in that age group to have driven under the influence of illicit drugs and to have driven under the simultaneous influence of alcohol and illicit drugs. Males in the 26 or older age group were also more likely than females in that age group to have driven under the influence of alcohol, illicit drugs, and the simultaneous influence of alcohol and illicit drugs. For example, males in the 26 or older age group were more likely than females in that age group to have driven under the influence of alcohol (14.6 vs. 7.1 percent).

The gender differences in driving under the influence of alcohol, driving under the influence of illicit drugs and driving under the influence of simultaneous influence of alcohol and illicit drugs was consistent across the 21 to 25 age group and the 26 or older age group, the pattern was not consistent for all substances in the 16 to 20 age group. Males in the 16 to 20 age group were more likely to drive under the influence of illicit drugs and to drive under the simultaneous influence of alcohol and illicit drugs. However, the percentage driving under the influence of alcohol in the past year was similar between males and females in the 16 to 20 age group where there were no statistically significant differences (7.9 and 7.0 percent, respectively).

**Figure 6. Driving under the influence of alcohol or illicit drugs in the past year among people aged 16 or older, by age group and gender: 2014**



\* Difference between this estimate and the female estimate is statistically significant at the .05 level.

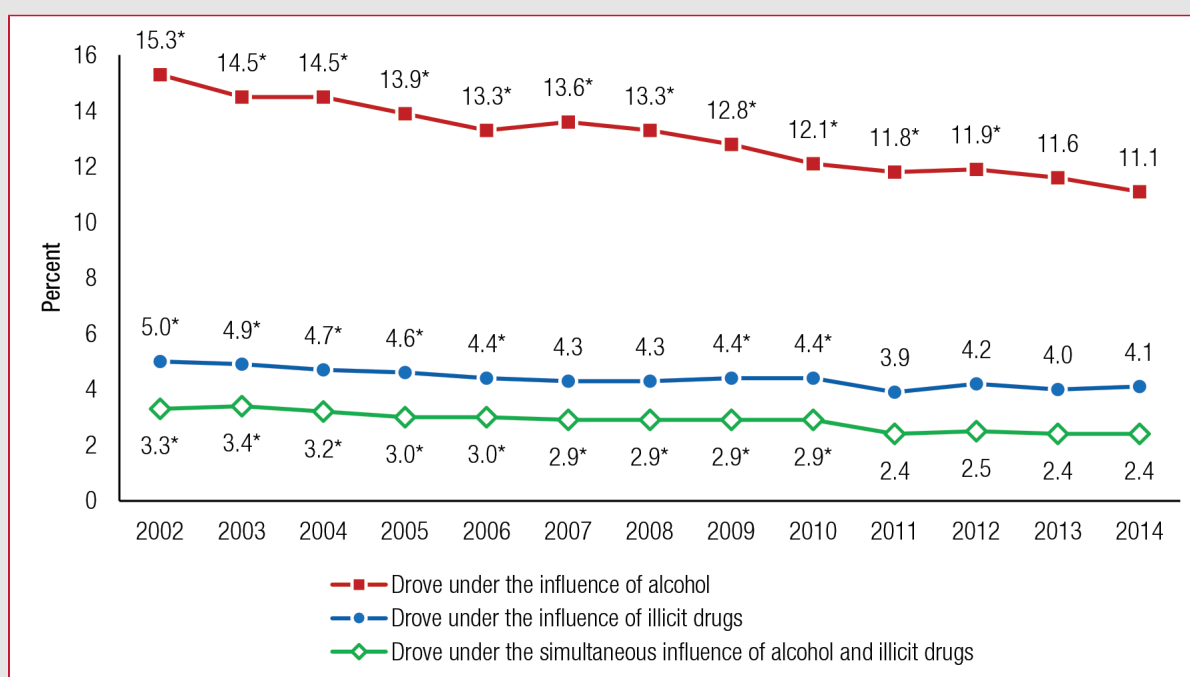
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health (NSDUH), 2014.

## TRENDS IN DRIVING UNDER THE INFLUENCE

The following figures 7, 8, and 9 show trends in the NSDUH data from 2002 to 2014 in driving under the influence of alcohol, driving under the influence of illicit drugs, and driving under the simultaneous influence of alcohol and illicit drugs. Figure 7 presents the trends for the total population aged 16 or older, while Figure 8 presents this information for males and females and Figure 9 presents this information by age group.

Taking Figure 7, 8, and 9 together, it is apparent that there is a pattern over time in driving under the influence of alcohol. As shown in Figure 7, the percentage of people aged 16 or older who drove under the influence of alcohol in 2014 (11.1 percent) was lower than the percentages in 2002 through 2012 (ranging from 11.8 to 15.3 percent) but was similar to the percentage in 2013 (11.6 percent). Figure 8 illustrates that this same general pattern in driving under the influence of alcohol was seen for males. The percentage of females who drove under the influence of alcohol was lower in 2014 than the percentages in 2002 through 2009. Figure 9 illustrates that this same general pattern was also present for people aged 16 to 20, for young adults aged 21 to 25. The percentage of adults aged 26 or older who drove under the influence of alcohol was lower in 2014 than the percentages in 2002 through 2009.

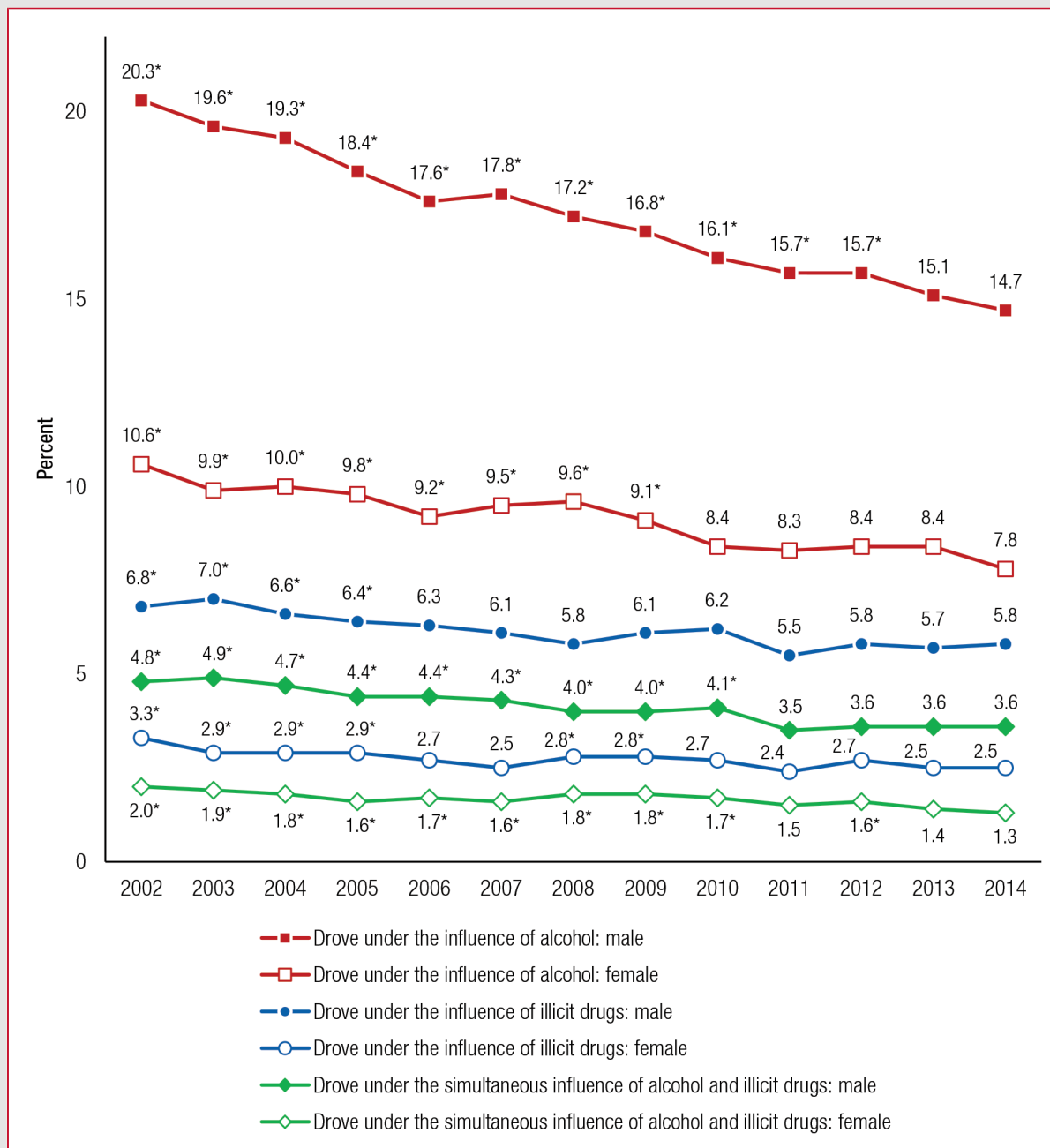
**Figure 7. Driving under the influence of alcohol or illicit drugs in the past year among people aged 16 or older: 2002 to 2014**



\* Difference between this estimate and the 2014 estimate is statistically significant at the .05 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2014.

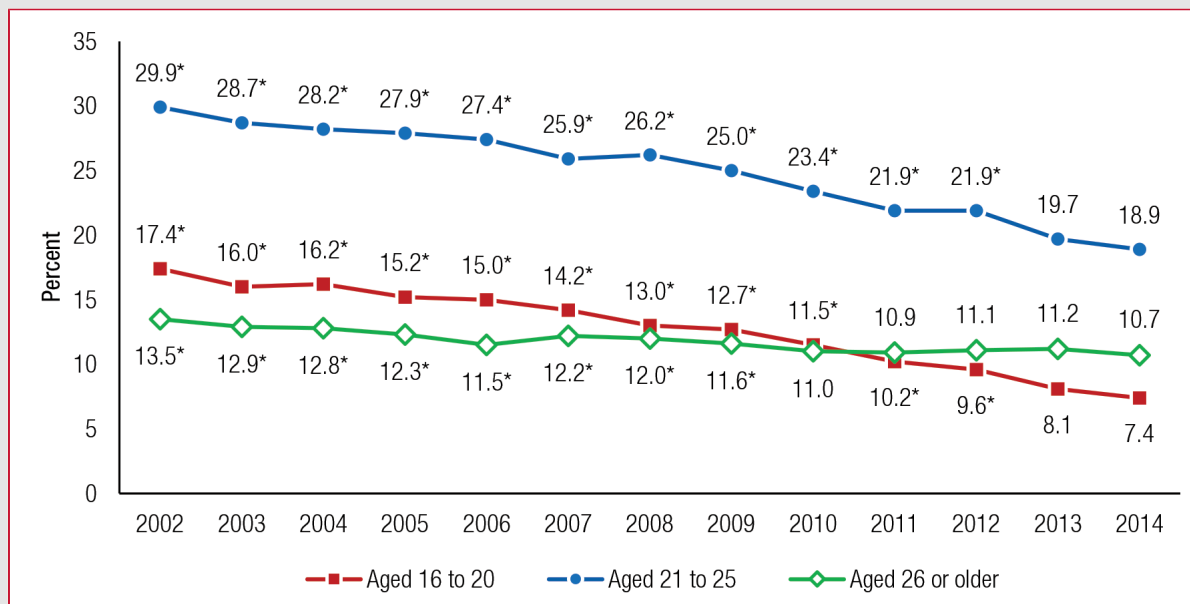
**Figure 8. Driving under the influence of alcohol and illicit drugs in the past year among people aged 16 or older, by gender: 2002 to 2014**



\* Difference between this estimate and the 2014 estimate is statistically significant at the .05 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2014.

**Figure 9. Driving under the influence of alcohol in the past year among people aged 16 or older, by age group: 2002 to 2014**



\* Difference between this estimate and the 2014 estimate is statistically significant at the .05 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2014.

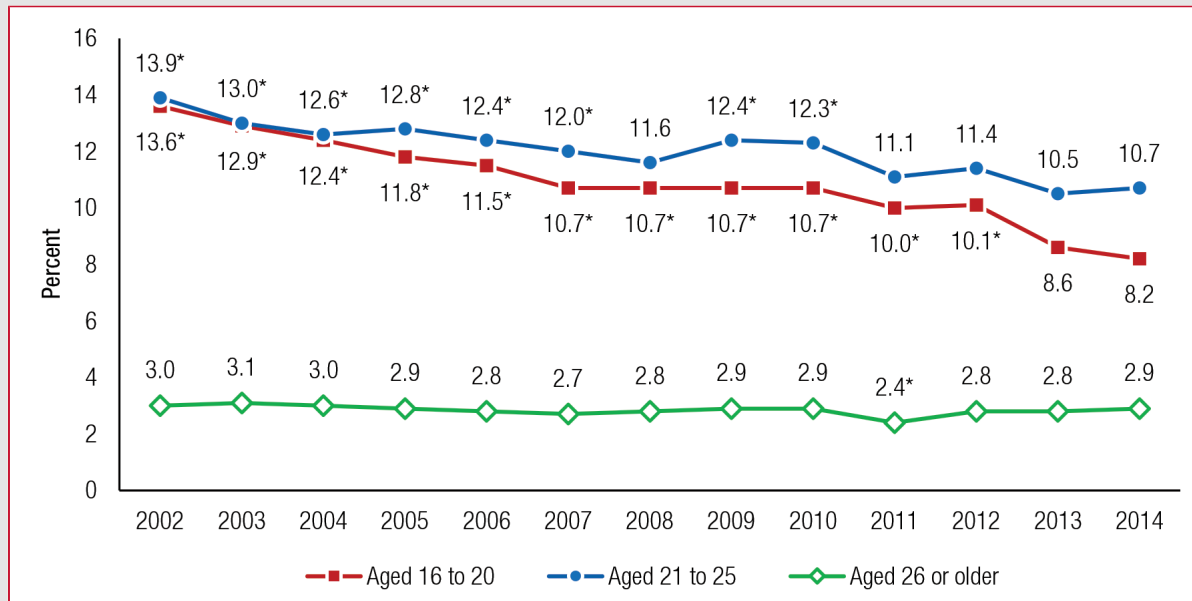
Overall, the percentage of people aged 16 or older who drove under the influence of illicit drugs was lower in 2014 (4.1 percent) than in most years from 2002 to 2010 (ranging from 4.3 to 5.0 percent; Figure 7), but the percentage of people driving under the influence of illicit drugs has been stable from 2011 to 2014. This pattern of the 2014 percentage being lower than percentages in the early 2000s but being stable in recent years was found for males and females. For example, the percentage of males aged 16 or older who drove under the influence of illicit drugs in 2014 (5.8 percent) was lower than the percentages in 2002 through 2005 (ranging from 6.4 to 7.0 percent) but similar to percentages in 2006 through 2013 (Figure 8). The percentage of females driving under the influence of illicit drugs in the past year was lower in 2014 (2.5 percent) than the percentages in most years in 2002 through 2009 (ranging from 2.5 to 3.3 percent) but was similar to the percentages in recent years.

The percentage of young adults aged 21 to 25 who drove under the influence of illicit drugs in 2014 (10.7 percent) was lower than the percentages in most years from 2002 to 2010 (ranging from 11.6 to 13.9 percent) but was similar to the percentages in 2011 through 2013 (Figure 10). The percentage of adults aged 26 or older who drove under the influence of illicit drugs remained relatively steady over the 13-year period, and the percentage of people aged 16 to 20 who drove under the influence of illicit drugs in 2014 (8.2 percent) was lower than the percentages in every year from 2002 to 2012 (ranging from 10.0 to 13.6 percent).

Overall, the percentage of people aged 16 or older who drove under the simultaneous influence of alcohol and illicit drugs was lower in 2014 (2.4 percent) than in 2002 through 2012 (ranging from 2.9 to 3.4 percent) but was similar to the percentages in 2011 through 2013 (Figure 7). This pattern of the 2014 percentage being lower than percentages in the early 2000s but being stable in recent years was found for males and females. Among males and females, the percentage driving under the simultaneous influence of alcohol and illicit drugs was lower in 2014 than in 2002 through 2010 but was similar to the percentages in most years since 2011 (Figure 8). However, as shown in Figure 11, there was more variation across years by age group. The percentage of people aged 16 to 20 who drove under the simultaneous influence of alcohol and illicit drugs in 2014 (4.0 percent) was lower than the percentages in 2002 through 2012 (ranging from 5.4 to 8.3 percent) but was similar to the percentage in 2013. The percentage of young adults aged 21 to 25 who drove under the simultaneous influence of alcohol and illicit drugs in 2014 (6.4 percent) was lower than the percentages in 2002 through 2011 (ranging from 7.4 to 10.0 percent) but was similar to the percentages in 2012 and 2013. Among adults aged 26 or older, the percentage who drove under the simultaneous influence of alcohol and illicit drugs was lower in 2014 (1.8 percent) than in 2002 and 2003 (2.1 and 2.2 percent, respectively), and percentages remained relatively steady from 2004 to 2014 with one notably lower percentage in 2011 (1.5 percent).



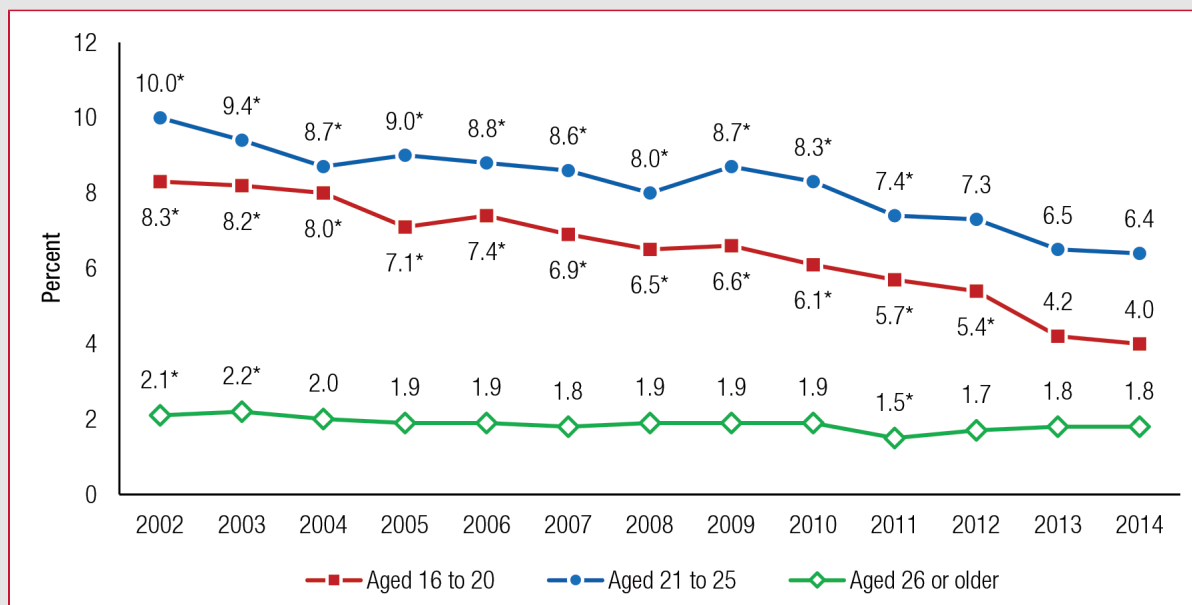
**Figure 10. Driving under the influence of illicit drugs in the past year among people aged 16 or older, by age group: 2002 to 2014**



\* Difference between this estimate and the 2014 estimate is statistically significant at the .05 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2014.

**Figure 11. Driving under the simultaneous influence of alcohol and illicit drugs in the past year, by age group: 2002 to 2014**



\* Difference between this estimate and the 2014 estimate is statistically significant at the .05 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2014.

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## DISCUSSION

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The persistence of impaired driving as a public health hazard underscores the importance of prevention and education initiatives. This study found that in 2014, 27.7 million people aged 16 or older drove under the influence of alcohol and 10.1 million drove under the influence of illicit drugs. Of those who indicated that they had driven under the influence of either alcohol or illicit drugs, 7.0 million drove under the influence of alcohol and illicit drugs in the past year, including 5.9 million who drove under the simultaneous influence of alcohol and illicit drugs. The study also showed that some subgroups are more likely to engage in this type of behavior. For example, males are more likely than females to drive while under the influence of alcohol, drugs, or alcohol and drugs. Young adults are more likely than adolescents or older adults to drive while under the influence of alcohol, drugs, or alcohol and drugs.

Although the results of this study indicate that driving while impaired remains a problem in the United States, the analysis of data across time suggests that prevention messages or other factors may be having an effect. The overall percentage of people aged 16 or older who drove under the influence of alcohol in 2014 was lower than the estimates in 2002 through 2012. Similarly, the percentage of those who drove under the influence of illicit drugs and the percentage who drove under the influence of alcohol and drugs were lower in 2014 than in most years from 2002 to 2010. Importantly, these declines specifically occurred in males and young adults—the gender and age group that have higher rates of driving while impaired.

All of these estimates are based on self-reported illegal behavior. Respondents may not always be aware of the occasions when they have driven under the influence of drugs or alcohol. In addition, comparisons across years assume that there is no notable variation in whether respondents are aware of and willing to report illegal behavior.

Taken together, the findings in this report suggest a continuing need for prevention messages and preventive steps, particularly targeted toward young adults and males. However, this report also highlights that driving under the influence, particularly the influence of alcohol, is not just an issue for adolescents because their rates were lower than those of many older age groups. For more information on the risks associated with driving under the influence, see <http://www.cdc.gov/motorvehiclesafety/index.html>. The Substance Abuse and Mental Health Services Administration (SAMHSA) provides resources for people with substance use issues. For information on substance use treatment facilities and programs around the country, see <https://findtreatment.samhsa.gov/>.

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## ENDNOTES

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1. National Council on Alcoholism and Drug Dependence. (2015). *Driving while impaired - alcohol and drugs*. Retrieved from <https://www.ncadd.org/about-addiction/addiction-update/driving-while-impaired-alcohol-and-drugs>
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4. Federal Bureau of Investigation. (n.d.). *Table 29: Estimated number of arrests, United States, 2014* (Uniform Crime Reports). Retrieved from <https://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2014/crime-in-the-u.s.-2014/tables/table-29>
5. Office of National Drug Control Policy. (2015). *Prevention and the national drug control strategy*. Washington, DC: The White House. Retrieved from <https://www.whitehouse.gov/ondcp/prevention-and-the-national-drug-control-strategy>
6. In the 2013–2014 National Roadside Survey of Alcohol and Drug Use by Drivers, drug presence did not necessarily imply impairment.

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## SUGGESTED CITATION

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Lipari, R.N., Hughes, A. and Bose, J. *Driving under the influence of alcohol and illicit drugs*. The CBHSQ Report: December 27, 2016. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Rockville, MD.

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## SUMMARY

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**Background:** Driving under the influence of alcohol or illicit drugs poses a significant threat to public safety. This report expands on the knowledge of the relationship between drunk and drugged driving and trends in impaired driving. **Method:** This report uses data from the 2002 to 2014 National Surveys on Drug Use and Health to estimate the percentage of people aged 16 or older who drove a vehicle while under the influence during the past year. This report presents estimates of driving while under the influence of (a) alcohol, (b) illicit drugs, (c) alcohol and illicit drugs, and (d) alcohol and illicit drugs simultaneously. The 2014 estimates were compared with estimates from 2002 to 2013 to examine changes in these measures over time. **Results:** Findings in this report indicate that, in 2014, driving under the influence of alcohol is more common than drugged driving for 27.7 million people who drove under the influence of alcohol and that 10.1 million people drove under the influence of illicit drugs, whereas 7.0 million people drove under the influence of alcohol *and* illicit drugs, including 5.9 million who drove under the simultaneous influence of alcohol and illicit drugs. The trend analysis showed that the 2014 estimate of driving under the influence tended to be lower than the estimates in prior years. **Conclusion:** Highlighting driving under the influence of substances, as well as monitoring changes, may help to raise awareness about the consequences of drunk and drugged driving and to improve prevention efforts. Although the results of this study indicate that driving while impaired remains a problem in the United States, the trend analysis suggests that prevention messages may be having an effect because rates have declined, particularly among high-risk groups like young adults and males.

**Keywords:** alcohol, illicit drugs, impaired driving, National Survey on Drug Use and Health, NSDUH

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## KEYWORDS

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Age Group, Gender, Short Report, Population Data, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, Prevention Professionals, Driving While Intoxicated, Drug Use Trends, Research and Methodology, Alcohol, Illegal Drugs, Multi-Year Trend, All US States Only

The Substance Abuse and Mental Health Services Administration (SAMHSA) is the agency within the U.S. Department of Health and Human Services that leads public health efforts to advance the behavioral health of the nation. SAMHSA's mission is to reduce the impact of substance abuse and mental illness on America's communities.

The National Survey on Drug Use and Health (NSDUH) is an annual survey sponsored by SAMHSA. The data used in this report are based on information obtained from adolescents aged 16 and older (692,700 for 2002-2014, and 56,600 in 2014). The NSDUH Survey collects data by administering questionnaires to a representative sample of the population through face-to-face interviews at their place of residence.

The CBHSQ Report is prepared by the Center for Behavioral Health Statistics and Quality (CBHSQ), SAMHSA, and by RTI International in Research Triangle Park, North Carolina. (RTI International is a registered trademark and a trade name of Research Triangle Institute.)

Information on the most recent NSDUH is available in the following publication:

Center for Behavioral Health Statistics and Quality. (2015). Behavioral health trends in the United States: Results from the 2014 National Survey on Drug Use and Health (HHS Publication No. SMA 15-4927, NSDUH Series H-50). Retrieved from <http://samhsa.gov/data/>

Also available online: <http://www.samhsa.gov/data/population-data-nsduh>.



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Substance Abuse & Mental Health Services Administration  
Center for Behavioral Health Statistics and Quality  
[www.samhsa.gov/data](http://www.samhsa.gov/data)