

Commentary

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Marijuana Impaired Driving: A Serious Public Safety Problem

While “medical marijuana” and marijuana legalization are common topics in the news, little attention is given to a large and growing body of research showing that marijuana impaired driving is a major cause of crashes, injuries and deaths.

The overall number of traffic fatalities has continued to decrease nationally over the past 40 years,¹ reaching its lowest level in decades of 33,808 deaths in 2009.² While reductions in alcohol-related fatalities have led this favorable trend, over the past five years the number of drug-positive drivers, including those positive for marijuana, has increased.³ Of all drug-positive fatally injured drivers in 2009, 28% were positive for marijuana. This accounts for 9% of all fatally injured drivers who had confirmed drug test results. Because many states do not conduct routine – or in some instances any – drug testing of fatally injured drivers, the prevalence of drugs, and in particular of marijuana, among fatally injured drivers is likely to be higher.

Marijuana is a Schedule I drug of abuse that has serious impairing psychological and physiological effects.⁴ A recent meta-analysis of nine epidemiological studies concluded that drivers who test positive for marijuana or report driving within three hours of marijuana use are more than twice as likely as other drivers to be involved in a crash.⁵ Studies of drivers involved in motor vehicle crashes support this conclusion. A study of seriously injured drivers admitted to a Maryland Level-1 shock trauma center showed that 26.9% of all seriously injured drivers tested positive for marijuana.⁶ A study of fatally injured drivers in Washington State showed 12.7% tested positive for marijuana and that among alcohol-positive drivers, 17.3% also tested positive for marijuana. The combination of marijuana use and alcohol is of great concern as evidence shows that low doses of marijuana combined with low doses of alcohol causes severe impairment.⁷ These data also show that combining alcohol and marijuana is common among seriously injured and dead drivers.

Efforts to reduce drunk driving have included strong legislation, effective enforcement and massive national education campaigns, yielding impressive results. The number of fatally injured drivers with illegal blood alcohol concentrations (BAC) of 0.08 g/dL has decreased 49% from 21,113 deaths in 1982 to 10,839 deaths in 2009.⁸ Similar actions must be taken to reduce drugged driving, including marijuana-specific initiatives since marijuana is by far the leading cause of drugged driving crashes, injuries and deaths.

The problem of drugged driving received national attention for the first time in 2010, when the White House Office of National Drug Control Policy (ONDCP) identified reducing drugged driving a national priority in the *National Drug Control Strategy*.⁹ In 2011, ONDCP renewed its commitment to work to reduce drugged driving by 10% over the next 5 years in the 2011 *Strategy*.¹⁰

The national rate of illicit drug use has increased in recent years after a long-term decline, largely due to increases in marijuana use, particularly among young adults.¹¹ Increased marijuana use poses a heightened risk on the nation's roads and highways. As perceived risk of marijuana use has decreased, particularly among youth, the rate of marijuana use has increased.¹² The emergence of “medical marijuana” in 16 states and the District of Columbia have made national headlines, sending a strong, misleading message to the public that marijuana use is safe and that marijuana is a “medicine”, leading to increases in marijuana use.

Adding to the more permissive state laws and to the changing perceptions of risk of marijuana use, a discussion paper released by the Institute for the Study of Labor recently has received significant international press attention for its conclusions that “medical marijuana” laws cause decreased traffic fatalities and decreased alcohol consumption.¹³ Analyzing three states which permit “medical marijuana” (Vermont, Rhode Island and Montana), the authors conclude that “medical marijuana” increases adult marijuana use and not youth marijuana use; that increased adult marijuana use is associated with decreased alcohol use; and that the decrease in adult alcohol use in these states after their approval of “medical marijuana” led to fewer motor vehicle crashes and fatalities.

As stated by General Arthur Dean, Chairman and CEO of the Community Anti-Drug Coalitions of America (CADCA), there are three significant problems with this non-peer-reviewed discussion paper: “(1) the study methodology is greatly flawed; and, (2) the study’s authors disregard a large body of evidence showing that marijuana and alcohol are compliments; and, (3) The study’s authors disregard mounting evidence that marijuana use is linked with impaired driving.”¹⁴

Former White House Drug Policy Advisor Kevin Sabet, Ph.D. points out that this paper’s authors “clearly dismiss or ignore research about the effects of medical marijuana that happen to be inconsistent with their conclusions.”¹⁵ In particular, a recent peer-reviewed study showed that rates of youth marijuana use are higher in states with “medical marijuana” than in states without “medical marijuana,” noting need for further research.¹⁶

Marijuana is not a substitute for alcohol; rather, the use of marijuana and alcohol is complementary. People use both marijuana and alcohol, though not necessarily at the same time. The larger point is however, how could the introduction of “medical marijuana” laws have resulted in such large reductions on the states’ alcohol consumption and highway deaths when only tiny percentages of the states’ populations are “medical marijuana” users? Vermont has 349 registered “medical marijuana” users, or 0.05% of the state population. Rhode Island has an estimated 3,000 users, less than 1% of the state population. Montana has over 27,000 registered users, accounting for nearly 3% of the state population. These small percentages of the states’ populations could not conceivably account for the large reductions in alcohol use and traffic fatalities reported in this study.

What is most noteworthy about this discussion paper is the media coverage it has received. There is a strong contrast between the widespread media coverage of this non-peer-reviewed, obviously misleading, paper and the virtual absence of media attention to the many scientifically

sophisticated, peer-reviewed studies showing the significant highway safety threat posed by marijuana use. The large and ever-growing evidence that marijuana use is a significant contributor to highway crashes and deaths should be highlighted in any discussion of “medical marijuana” laws which by all accounts, including the proponents of “medical marijuana,” increase this drug’s availability and use.

“Medical marijuana” states are not immune to the consequences of marijuana impaired driving. Montana, which had the second-highest rate of alcohol impaired fatalities in the nation in 2009, is no exception to the problems of marijuana and drugged driving.¹⁷ Like other states, among drivers arrested for Driving Under the Influence (DUI) in Montana, marijuana is the most widely detected drug. From 2007-2010, the presence of marijuana among DUI suspects in Montana increased over 100%.¹⁸ In addition, during this period of time, the number of DUI suspects who tested positive for both marijuana and alcohol increased by over 180%. Among fatally injury crashes in 2010, 38% involved drugs, 33% involved alcohol, and 14% involved drugs and alcohol.

Two important and related national improvements are cause for celebration: a decreased number of fatal crashes and a decreased number of alcohol-related motor vehicle fatalities. Despite these notable public health and public safety achievements, fatal crashes remain a significant problem, with clear evidence that drug use, and in particular marijuana use, is causing a large proportion of these preventable deaths. While nationally alcohol use has remained stable in recent years, marijuana use has increased,¹⁹ particularly among young adults.²⁰ Contrary to the conclusions of the recent discussion paper, increasing marijuana use increases highway fatalities. It does not decrease them.

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