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Activities and Situations When Young Adults Drive Drunk in Rural Montana

Matthew E. Rossheim, PhD, MPH, CPH [Assistant Professor],

Department of Global and Community Health, George Mason University, Fairfax, VA

Kaylin M. Greene, PhD, MS [Assistant Professor], and

Department of Sociology and Anthropology, Montana State University, Bozeman, MT

Caroline J. Stephenson, MS [Graduate Research Assistant]

Department of Global and Community Health, George Mason University, Fairfax, VA

Abstract

Objectives—This qualitative study explored activities and situations that often result in young adults driving while under the influence of alcohol in rural Montana.

Methods—Eleven focus groups were conducted in 8 rural counties across Montana. Seventy-two participants (50.7% female, 63.4% college students) aged 18 to 25 years old participated. Focus groups were audio recorded, transcribed, and narrative text segments were coded independently by two researchers.

Results—Participants noted a variety of situations specific to rural settings that promoted drunk driving by young adults. Drinking at several types of outdoor activities, including branding events and festivals, facilitated alcohol consumption among underage youth and often preceded drunk driving. Underage youth frequently drank while driving along back roads to avoid detection. Drinking *while* driving, i.e., booze cruising, was thought of as a fun activity and sometimes involved firearms, i.e., spotlighting. Driving *after* drinking was seen as necessary to get home or other locations.

Conclusions—Findings from the current study should be used to inform multifaceted community-wide programs aimed at reducing underage alcohol consumption as well as deterring driving after/while drinking. Interventions could include media campaigns, improving enforcement of DUI and underage drinking laws, providing alternative transportation, and passing additional alcohol control laws.

Keywords

alcohol; drinking and driving; heavy drinking; adolescents; qualitative research methods

Correspondence Dr Rossheim; mrosshei@gmu.edu.

Human Subjects Statement

The research protocol was approved by the IRB at Montana State University.

Conflict of Interest Statement

All authors declare that they have no conflicts of interest.

In the United States, motor vehicle crashes involving alcohol are a leading cause of preventable death among young adults.¹ Importantly, these alcohol-related traffic fatalities are unequally distributed across geographic areas, with some states disproportionately affected. For instance, in 2012, the rate of young adults (aged 21–34) killed in Montana from crashes involving alcohol-intoxicated drivers was highest among all states: more than three times the national average.²

Roughly half of all traffic crash fatalities—including those involving alcohol—occur in rural areas, although only one-fifth (19%) of the U.S. population lives in rural areas.³ This elevated rural fatality rate may be the result of various factors including more total miles being driven, higher driving speeds, less consistent traffic safety behaviors, and the additional time required to detect crashes and provide medical services.^{4,5} In Montana, roughly 90% of traffic crash fatalities occur in rural areas.³

Previous research demonstrates that context-specific factors, such as drinking location, may shape the decision to drink and drive. In the United States, adults are more likely to drive after drinking alcohol at on-premise establishments such as bars and restaurants.^{6,7} However, underage young adults access alcohol more often from social sources and at parties than at bars.^{8–10} Research indicates that impaired driving among college students typically occurs after drinking at friends' houses or at bars,¹¹ and underage youth who consume alcohol outdoors, in cars, or in restaurants are more likely to drink and drive than those who consume alcohol at other locations.^{12,13} The decision to drink and drive may be determined by myriad reasons including convenience, excitement seeking, and consequence avoidance.¹⁴ Situation-specific factors, such as the availability of a designated driver and the ease of alternative transportation, may influence the decision.¹⁵ Nonetheless, there is a dearth of research exploring where young people in rural areas drink prior to driving,^{16,17} and what situations specific to these locations promote underage drink-driving.

Research suggests that social and cultural factors may help explain observed differences in alcohol use and related disorders between those living in more or less rural areas.¹⁸ For instance, levels of religiosity and social capital as well as economic conditions may differ for residents in these areas, with implications for alcohol consumption and driving after drinking.¹⁸ Notably, the daily lives of individuals in more or less rural areas may be distinct as well, with rural settings potentially giving rise to particular activities and situations that encourage driving after drinking. Prior research demonstrates the utility of focusing on specific drinking activities (e.g., 21st birthdays, game days, tailgating, or New Year's Eve) that may be experienced relatively infrequently by young adults but pose extreme risks to their health and well-being.^{19–23} Overall, little is known about the contextual factors that facilitate drinking and driving in rural areas. Given the high rates of alcohol-related motor vehicle fatalities among rural young adults, there is a need to examine the locations, activities, and situations that lead to heavy drinking as well as drink-driving among this population.

The current study explored the activities and situations where young adults in rural areas drive after drinking. We conducted a series of semi-structured focus groups to glean rich description and diverse perspectives from young people in Montana. We did not have a

priori hypotheses, but instead were interested in understanding how specific drinking and driving episodes occurred within the rural context. Because participants explicitly noted how underage drinking led to particular drinking and driving episodes, we also explored the activities and situations that facilitated underage drinking.

METHODS

Participants

Focus group locations were purposefully selected. All counties were rural (i.e., did not have a core urban area with a population of 50,000 or greater).²⁴ Further, an effort was made to include very rural (i.e., frontier) areas as well as different geographic areas within the state. Location selection also depended partially on the presence of an interested local community member who responded to PI contact and agreed to help organize or advertise the focus group. Nonprobability convenience sampling within each location was used to recruit participants. Specifically, word-of-mouth, fliers, and social media were used to distribute study information.

To be eligible for the study, young adults needed to reside in the state of Montana and be 18–25 years old. Between July 2015 and June 2016, 11 focus groups were conducted in 8 counties across Montana, 4 frontier (i.e., less than 6 people per square mile)²⁵ and 4 non-frontier. Young adults ($N = 72$) participated in groups ranging in size from 3 to 11 participants (median = 7).

Data Collection

Focus groups were held in public meeting rooms in a variety of locations, including libraries, universities, and hospitals. Upon arrival, participants provided informed consent, completed a brief demographic and behavioral survey, and were screened for eligibility. Participants affirmed (in writing and verbally) that they were between 18 and 25 years old and lived in Montana. Only two individuals did not meet the eligibility criteria; these were both teenagers who were below the age cut-off and thus they did not participate in the focus group. Discussion rules were established (e.g., diverse opinions are welcome and one person talks at a time), and the principal investigator served as the moderator. Discussions took an average of 1 hour and 18 minutes ($SD = 11.7$ min) and were audio recorded. Discussions were semi-structured and focused on the following topics: (1) the quantity of alcohol consumed constituting unsafe driving, (2) activities and situations when young people drink and drive, (3) reasons for drinking and driving, and (4) protective strategies to stay safe. For the present study, most codes came from participants' responses to topics 2 and 3; however, because of the free-flowing nature of the conversations, relevant details emerged at other times as well. The major questions that were used to guide the focus group discussions are listed in Table 1. Similar to prior focus group research on sensitive topics,^{26,27} the moderator instructed participants to respond about "young people their age" (e.g., "After which situations or activities do young people drink and drive?"). Probes were used (e.g., "Can you give an example?" and "Tell me more about what you mean") to elicit detail and promote conversation. Young adults received \$20 for their participation and food was provided. The ethics board at Montana State University approved all study protocols (IRB KG061715).

Data Management and Analysis

The framework method was used for data management and analyses: transcription, familiarization, coding, developing a working analytical framework, applying the analytical framework, charting data, and interpreting data.²⁸ Audio recordings were professionally transcribed. To promote dependability of the findings, three researchers were involved in an iterative, inductive coding process. First, the three authors read each transcript and discussed emerging themes. These themes were used to develop initial codes that were used in open coding. As transcripts were read again, the list was continuously modified independently by the researchers and then combined to create a consensus codebook. At this point, some codes were grouped into categories. During the third reading, the two coders independently coded narrative text. Because participants noted several reasons for drinking and driving that were related to avoiding detection for underage drinking, researchers also coded whether activities and situations were mentioned as facilitating underage drinking. Coders came to agreement on any initial discrepancies, which were often slight and only a difference of how much of the original text was retained for analysis for contextual purposes. Coders resolved to retain large sections of text to ensure that the context of text excerpts was maintained. Coded data were stored in a Microsoft Excel document that enabled sorting by sub-codes when drafting results. In-text narrative excerpts in the present manuscript were edited very slightly to remove filler words (e.g., “um,” “like,” “you know”), but all substantive content was maintained.

RESULTS

Study Sample

Table 2 summarizes characteristics of the study sample. Roughly half of respondents were female (50.7%). Most were non-Hispanic White (91.6%), currently employed (69.0%), and never married (95.8%). Roughly two-thirds were college students (63.4%). The majority had consumed alcohol during their lifetime (94.4%) and drove an average of 10 or more miles each week (77.5%). More than two-thirds of the sample (69%) were under the legal drinking age (18–20 years old); the rest (31%) were 21–25 years old.

Drinking Activities Followed by Driving

Participants described a variety of social activities conducive to drinking alcohol, after which rural young people often drove motor vehicles. Young people consumed alcohol at holiday celebrations, at restaurants/bars, and while tailgating. However, young people also consumed alcohol within particular contexts that were tied to rural settings. Below, we highlight three unique contexts in which young adults in rural Montana drank and subsequently drove: brandings, festivals, and other outdoor activities. Table 3 lists these activities and includes whether participants identified the activity as facilitating underage drinking and whether the activity was mentioned in focus groups that took place in frontier or non-frontier counties.

Brandings—Branding events were mentioned by participants in frontier counties as frequent occasions for drinking and driving. These large social events consisted of ranchers rounding up calves and branding them to mark them as their property. Neighbors and community members helped each other out during spring brandings that often started early

in the morning (around 6 am). Partway through the branding (around 9 am), the crew helping usually took a break to start drinking. Drinking often continued “*through the rest of the day, and even into night and sometimes, I don’t know, next day for some people.*” Even when the branding was completed, people often headed into town to keep drinking or started playing poker and brought out “*the hard liquor.*” Food was also served at these events. The perception about eating food at these events was “*Oh, that soaked up the alcohol. Well, I can keep going.*”

Alcohol served as the reward for the physical labor required during the branding. As one participant described, “*Say you get a big old calf, or you struggle with it, and it’s ‘Oh, I deserve a beer for that one!’*” This reward was available to anyone, regardless of their age. Indeed, one participant noted, “*It doesn’t really matter necessarily what your age is. If you’re helping, you’re pretty much allowed to be able to drink. They kind of just hand them out.*” Respondents noted that people across a wide range of ages often participated, including children as young as 10 and adults over 70. After the branding, visitors drove home, often having consumed alcohol throughout the event: “*And you always have to drive—unless it’s yours.*”

Festivals—Numerous festivals—including rodeos, county fairs, and music festivals—were characterized by the heavy drinking of attendees. One festival was described as a “*three-day drunk-fest.*” Participants noted that festivals were places where underage drinking was viewed as more acceptable by their communities. Some participants reported that during festivals, bars served alcohol to kids who appeared to be 15 years old without asking them for identification. At other festivals, youth would steal drinks that were not well monitored. According to participants, police who observed kids drinking often did not want to intervene “*as long as they don’t get behind the wheel or start a fight.*” Finally, after becoming heavily intoxicated at the festivals, attendees were thought to have to drive home. “*Everybody just kind of gets in the moment of drinking and when you can’t walk to your house... you have no choice but to drive. You can’t pass out on the lawn.*” Even young people who had planned appropriately and designated a sober driver often found themselves in tough situations because “*when you go out to those little festivals and everything, you can have somebody be your DD, [but] 90 percent of the time they end up drinking, too.*”

Other outdoor activities—Participants mentioned enjoying the following outdoor activities, which frequently involved drinking alcohol, even amongst underage youth: hunting, floating on a body of water, swimming in the river, going to hot springs, boating, fishing, skiing, and bonfires. For example, underage youth would drink while swimming or floating to avoid detection. Most of these outdoor drinking activities occurred at remote locations without any access to public transportation, and thus people often drove afterward. As with festivals, there was a recurrent theme of broken designated-driving agreements. As one participant noted, “*If you go out to a bonfire, even if you have a designated driver planned out, that person almost always gets drunk, too. I mean, you’re at a bonfire, everybody’s having a good time, one beers turns into two beers and then two beers turns into three beers. It just keeps kind of picking up... But you still have to make it home and you’re way back up in the mountains.*” Because young people wanted to have a good time together,

and alcohol facilitated this good time, everyone (including designated drivers) would drink at these outdoor activities.

Types of Drinking *While Driving* Activities

In addition to driving after particular activities involving alcohol, participants also noted that driving *while* drinking alcohol was a fun pastime for some Montanans. Participants believed that drinking *while* driving occurred frequently in rural areas. The nature of these drink-drives varied widely, with some—but not all—involving drinking to intoxication.

A few roadies—Several focus group participants mentioned family members or friends who drank alcohol while driving around to perform daily activities or errands. These activities included going to work, going to the store, or transporting their children. This practice seemed relatively commonplace and was sometimes referred to as grabbing a “roadie.” One participant noted the contradiction between what their parents told them about the evils of drinking and driving and their parents’ routine behavior of driving with a few roadies.

Booze cruising—Another commonly occurring activity was called “*booze cruising*,” which typically consisted of a large group of friends hanging out in a car while driving around back roads and drinking alcohol. Booze cruising was described by one respondent as “[having] a 30 in the backseat and you don't stop driving. Everybody's drinking, you don't stop. You're driving up and down... You're driving wherever the heck the car takes you but you do not stop drinking while driving.” Focus group participants mentioned that rural Montana lacked sufficient activities to occupy young people and, as a result, they regularly turned to activities involving alcohol, such as booze cruising, to avoid boredom.

Some focus groups saw the involvement of alcohol as an extension of just driving around, a common activity for hanging out with friends in those areas. In some instances, booze cruising was described as a slow activity, taking place on back roads away from town at lower speeds, such as 10 miles per hour. It was not viewed as partying in a car, but rather sitting, chatting, and drinking that gets wilder as time goes on. The amount of alcohol consumed by the driver differed between focus groups. According to some focus groups, the driver may be sober or have a couple of beers but not necessarily intend to get drunk. However, in some groups the driver getting drunk was a part of the activity.

Participants also noted that high school students who obtained alcohol would often drink while driving on back roads that circled around a town to avoid police detection. Backroads, gravel roads, and country roads were discussed by multiple focus groups as being locations away from patrolling police officers. Participants felt less likely to be detected in these areas just outside of town and, as a result, felt that they were a safe place, or the only place available, for underage drinking.

Participants generally saw drinking and driving as “*not good*,” but some focus group participants did not initially recognize booze cruising as a form of drinking and driving. Since drinking occurred *while* driving rather than prior to, and they were driving on country

roads, participants viewed booze cruising as more socially acceptable behavior than drinking and driving activities that occurred on more frequently traveled roads.

Spotlighting—“You got drunk drivers and guns out the window?”

“Yeah. I’m serious!”

In some situations, booze cruising involved carrying guns and hunting animals. Referred to as “*spotlighting*,” individuals recounted that young adults sometimes drive around with a spotlight and guns in search of animals such as gophers, raccoons, coyotes, porcupines, or other small “*varmints*” while concurrently drinking alcohol. Similar to other booze cruising activities, spotlighting was something to do when bored. Participants reported that typically everyone in the car had a gun. In two separate focus groups, participants reported knowing someone who had accidentally shot themselves while spotlighting.

Other fun drinking and driving activities—Spinning one’s car (referred to as spinning “*brodies*”) and racing (referred to as “*drunk NASCAR*”) were mentioned as drinking and driving activities. These were fun activities that drinkers took part in when there was nothing more exciting to do. In addition to cars and trucks, snowmobiles, dirt bikes, and four-wheelers were driven while intoxicated. Similar to booze cruising, young people drove these vehicles on back roads or trails.

Purposes of Driving *After* Drinking

Despite mentioning some exciting aspects to driving *while* drinking, participants perceived most driving *after* drinking instances as having a purpose: to get to a desired location. Typically, participants wanted to go home after drinking alcohol; however, at times they wanted to go to another drinking venue or on a “supply run.” Participants seemed more concerned about the safety of driving in these situations than when driving around while drinking for fun.

Going home—Participants reported that driving home was a common practice after leaving drinking events. If a person drove their vehicle to a drinking location, participants noted that they would, in turn, want to leave by driving their vehicle. There were several common narratives used to justify the decision to drive at the end of a drinking episode. First, those under 21 years of age drove home after drinking to avoid being caught drinking by their parents. Some youth would sneak out and need to be back in their beds by the following morning. More commonly, participants had a curfew that they needed to meet. Staying the night or finding a different way home was viewed as admitting that they got drunk. Second was the convenience of having their car at home with them. Leaving their car and having to find a ride back to it the next day was viewed as an annoyance. Furthermore, young people often had work or class obligations and therefore needed their vehicle in the morning. Third, they desired the comfort of being at their own home, sleeping in their own bed, waking up to their own food, and getting to use their own shower. Fourth, people were hesitant to change their plans if they intended to drive home at the beginning of the night, and some did not feel comfortable letting others drive their car. Finally, some situations prompted people to want to leave immediately. For instance, if a situation became

unenjoyable or uncomfortable (e.g., due to unwanted sexual advances or aggressive confrontations), then the participants wanted to leave. Participants reported that people would sometimes state that they were going straight home to assuage concerns that they might not be fit to drive.

Going to another location—Drunk driving also occurred if young adults wanted to go someplace else, such as to a different drinking venue or on a supply run. Changing drinking venues commonly included transitioning between parties (i.e., “*party jumping*”), bars (i.e., “*bar hopping*”), or from a house to a bar (i.e., “*pre-gaming*”). People reported drinking in residential settings before going out to the bars because drinking at home was less expensive and quieter, allowing them to better socialize with friends before meeting up with another group. One reason for changing venues was the perception that more was going on at a different location, which sometimes meant driving to less rural areas. Some participants noted that there was usually one person in a group who “*just wants to party*” and that “*they’re the one that wants to go from place to place*.” However, even when a residential party was being enjoyed by all, sometimes drunk driving occurred because supplies (e.g., alcohol, tobacco, or food) were needed. The most commonly reported supply run was a “*beer run*.” As one participant explained, “*You’re at a party and you run out of alcohol and everyone’s drunk. Someone has to go get more*.” Even in the event there are sober people at the party, a participant mentioned that “*usually the person that’s not drinking isn’t the one that wants to get the whole party beer*.”

DISCUSSION

This qualitative study provided rich insight about the conditions and situations that bring about drinking and driving among young adults in rural Montana. Previous research conducted among underage youth and young adults has documented that drinking in certain locations—such as outdoors, at parties, or in cars—is associated with greater odds of driving while impaired.^{11–13} The current study suggests that underage drinking and driving in rural settings may result from a lack of alternative transportation options combined with the long travel distances required to reach clandestine locations. Moreover, drinking while driving was viewed as a safer and more socially acceptable activity than driving after drinking. This study also described previously undocumented off-premise drinking locations where rural young adults consumed large quantities of alcohol (e.g., branding events and festivals) as well as a variety of situations that encouraged them to drive after/while drinking (e.g., to get to a desired location or for fun). This information can help guide the development of prevention efforts in rural areas.

Strengths and Limitations

The focus on rural young adults is an important strength, given the high rates of drinking and driving among this population and the little previous research examining the views of individuals from very rural areas. The collection of qualitative data had two main strengths. First, the open-ended nature of the questions allowed respondents to provide details on drinking episodes, including their locations and situations that result in driving, that were previously undocumented in the research literature. These findings help enhance

understanding of what types of interventions are needed. Second, the findings were provided in the language of the target audience, which can be useful in crafting messaging that resonates with this high-risk group.

Although the study sample was demographically similar to the population of Montana (which is 87% non-Hispanic White and 50% female),²⁹ the study relied on a relatively small convenience sample. Moreover, selection bias may have resulted in the overrepresentation of opinions from people who were interested in and available to participate in the study. However, creating representative estimates of the views and behaviors of Montanans was not a primary aim of the study. Rather, the purposive sampling of young adults from a variety of rural and frontier counties was ideal for exploring the activities and situations where a high-risk population drinks and drives in these localities.

Questions may be raised about the validity of self-report. Specifically, two types of response biases may have influenced study findings: social desirability bias and extreme responding bias. Several of these communities were identified by participants as being tightknit. As a result, participants may have withheld information about especially risky drinking and driving events. However, to increase the likelihood of honest responses, participants were not asked about their own drinking and driving behaviors but rather about “young people their age.” It is also possible that extreme drinking situations were more memorable and readily recalled by participants. Therefore, some of the drinking events and situations described in this study may be on the spectrum of more extreme, non-routine behavior. Focus groups were comprised of participants who ranged in age from 18 to 25 years old. Because narratives were not linked at the individual level, it was unclear whether respondents were of legal age to drink. Nevertheless, the main research questions were about driving after drinking, for which this age range is high risk, and participants often specified whether a drinking location or driving situation was specifically related to avoiding detection for underage drinking. These innovative study findings should be used to inform future quantitative studies that utilize systematic sampling.

Community-Based Interventions

This study’s findings have important implications for prevention and intervention programming. Efforts to curb underage drinking in rural areas could target specific activities documented in the current study—such as brandings and festivals—in which community members of all ages consume alcohol together. Offering fun, alcohol-free activities in the community was frequently suggested by study participants as a way to reduce boredom and the resulting desire to drink alcohol. Although more research is needed on the topic, limited evidence suggests that the availability of alcohol-free social activities may reduce alcohol consumption among young adults, particularly women.³⁰ Further, if young people decide to drink, they could be encouraged to spend the night at a friend’s house rather than driving.

Previous social norms media campaigns in Montana increased the use of designated drivers and decreased drinking and driving among young adults.³¹ Findings from the current study may assist in the development of future campaign messaging. For example, studies could test messaging that challenges rural young adults’ perception that drinking while driving on back roads is safe. This messaging could emphasize that crashes on country roads are more

likely to result in fatalities because they often go undetected for many hours. Furthermore, campaign messaging could address the dangers of firearm use while intoxicated and suggest securely storing firearms prior to drinking. Campaigns could also emphasize the importance of designated drivers abstaining from consuming any alcohol during activities, despite social pressure or a desire to socialize. Alternatively, campaigns could draw attention to the time period before a drinking episode begins. As one participant noted, “*not having a car as an option*” (e.g., walking to a bar or getting a ride with a friend to a party) would remove the possibility of driving drunk. Similar campaign messaging has been used by the Singapore Road Safety Council and Traffic Police: “Don’t drive to drink, and you’ll never drink and drive.”³²

Montana’s relatively weak alcohol policy environment likely contributes to the high rate of drinking and driving.³³ Along with directly reducing drinking and driving, communication campaigns may also help with agenda setting that leads to the passage of improved alcohol control laws.³⁴ For instance, passing social host civil liability laws—that hold liable the owner of a property on which an underage person possessed or consumed alcohol³⁵—could deter provision of alcohol to youth at house parties, including branding events.

Finally, study findings suggest ways that better enforcement of existing laws could reduce drinking and driving. Participants explained how drinking and driving results from the various actions underage youth use to avoid being detected for alcohol consumption. Improved enforcement of DUI and underage drinking laws during high-risk events (including at festivals and on roads outside of town) combined with alternative transportation options could reduce alcohol misuse and associated harms. Findings from the current study should be used to inform multifaceted community-wide programs aimed at reducing underage alcohol consumption as well as deterring driving after/while drinking.

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References

1. National Highway Traffic Safety Administration’s National Center for Statistics and Analysis. [Accessed December 17, 2017] Traffic safety facts: 2012 data (online). 2013. Available at: <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/811870>
2. Centers for Disease Control and Prevention. [Accessed December 17, 2017] Drunk driving state data and maps. Deaths by age (online). 2016. Available at: https://www.cdc.gov/motorvehiclesafety/impaired_driving/states-data-tables.html
3. National Highway Traffic Safety Administration. [Accessed December 17, 2017] DOT HS 812 393. Traffic safety facts, 2015 data. Rural/urban comparison of traffic fatalities (online). 2017. Available at: <https://crashstats.nhtsa.dot.gov/Api/Public/Publication/812393>
4. Clark DE. Effect of population density on mortality after motor vehicle collisions. *Accid Anal Prev*. 2003; 35(6):965–971. [PubMed: 12971931]

5. Zwerling C, Peek-Asa C, Whitten PS, et al. Fatal motor vehicle crashes in rural and urban areas: decomposing rates into contributing factors. *Inj Prev*. 2005; 11(1):24–28. [PubMed: 15691985]
6. Cotti C, Dunn RA, Tefft N. Alcohol-impaired motor vehicle crash risk and the location of alcohol purchase. *Soc Sci Med*. 2014; 108:201–209. [PubMed: 24675388]
7. Naimi TS, Nelson DE, Brewer RD. Driving after binge drinking. *Am J Prev Med*. 2009; 37(4):314–320. [PubMed: 19765503]
8. Wagenaar A, Finnegan J, Wolfson M, et al. Where and how adolescents obtain alcoholic beverage? *Public Health Rep*. 1993; 108(4):459–464. [PubMed: 8341780]
9. Wagenaar AC, Traci L, Murray DM, et al. Sources of alcohol for underage drinkers. *J Stud Alcohol*. 1996; 57(3):325–333. [PubMed: 8709591]
10. Wechsler H, Lee JE, Nelson TF, Meichun K. Underage college students' drinking behavior, access to alcohol, and the influence of deterrence policies: findings from the Harvard School of Public Health College Alcohol Study. *J Am Coll Health*. 2002; 50(5):223–236. [PubMed: 11990980]
11. Usdan SL, Moore CG, Schumacher JE, Talbott LL. Drinking locations prior to impaired driving among college students: Implications for prevention. *J Am Coll Health*. 2005; 54(2):69–75. [PubMed: 16255317]
12. Lee JA, Jones-Webb RJ, Short BJ, Wagenaar AC. Drinking location and risk of alcohol-impaired driving among high school seniors. *Addictive Behaviors*. 1997; 22(3):387–393. [PubMed: 9183508]
13. Walker S, Waiters E, Grube JW, Chen M-J. Young people driving after drinking and riding with drinking drivers: drinking locations—what do they tell us? *Traffic Inj Prev*. 2005; 6(3):212–218. [PubMed: 16087460]
14. McCarthy DM, Pedersen SL, Thompsen DM, Leuty ME. Development of a measure of drinking and driving expectancies for youth. *Psychol Assess*. 2006; 18(2):155–164. [PubMed: 16768591]
15. Nygaard P, Waiters ED, Grube JW, Keefe D. Why do they do it? A qualitative study of adolescent drinking and driving. *Subst Use Misuse*. 2003; 38(7):835–863. [PubMed: 12801145]
16. Stoduto G, Adlaf EM, Mann RE. Adolescents, bush parties and drinking-driving. *J Stud Alcohol*. 1998; 59(5):544–548. [PubMed: 9718106]
17. Trell E-M. 'In summer we go and drink at the lake': young men and the geographies of alcohol and drinking in rural Estonia. *Child Geogr*. 2014; 12(4):447–463.
18. Dixon MA, Cartier KG. Alcohol use patterns among urban and rural residents: demographic and social influences. *Alcohol Res*. 2016; 38(1):69–77. [PubMed: 27159813]
19. Glassman TJ, Dodd VJ, Sheu J-J, et al. Extreme ritualistic alcohol consumption among college students on game day. *J Am Coll Health*. 2010; 58(5):413–423. [PubMed: 20304753]
20. Neighbors C, Atkins DC, Lewis MA, et al. Event-specific drinking among college students. *Psychol Addict Behav*. 2011; 25(4):702–707. [PubMed: 21639597]
21. Neighbors C, Oster-Aaland L, Bergstrom RL, Lewis MA. Event-and context-specific normative misperceptions and high-risk drinking: 21st birthday celebrations and football tailgating. *J Stud Alcohol*. 2006; 67(2):282–289. [PubMed: 16562411]
22. Neighbors C, Walters ST, Lee CM, et al. Event-specific prevention: addressing college student drinking during known windows of risk. *Addict Behav*. 2007; 32(11):2667–2680. [PubMed: 17616260]
23. Rutledge PC, Park A, Sher KJ. 21st birthday drinking: extremely extreme. *J Consult Clin Psychol*. 2008; 76(3):511–516. [PubMed: 18540744]
24. Health Resources and Services Administration. [Accessed January 9, 2018] Defining rural population (on-line). Available at: <https://www.hrsa.gov/rural-health/about-us/definition/index.html>
25. Office of the Legislative Counsel. [Accessed January 9, 2018] Patient Protection and Affordable Care Act (PPACA) Section 5002 Definitions. Available at: <https://www.hhs.gov/sites/default/files/ppacacon.pdf#page=536>
26. Danton K, Misselke L, Bacon R, Done J. Attitudes of young people toward driving after smoking cannabis or after drinking alcohol. *Health Educ J*. 2003; 62(1):50–60.

27. Patrick ME, Palen L-A, Caldwell L, et al. A qualitative assessment of South African adolescents' motivations for and against substance use and sexual behavior. *J Res Adolesc.* 2010; 20(2):456–481. [PubMed: 21625403]
28. Gale NK, Heath G, Cameron E, Rashid S, Redwood S. Using the framework method for the analysis of qualitative data in multi-discipline health research. *BMC Med Res Methodol.* 2013; 13(117):1–8. [PubMed: 23297754]
29. United States Census Bureau. [Accessed January 9, 2018] Quick facts Montana (online). Available at: <https://www.census.gov/quickfacts/MT>
30. Patrick ME, Maggs JL, Osgood DW. LateNight Penn State alcohol-free programming: students drink less on days they participate. *Prev Sci.* 2010; 11(2):155–162. [PubMed: 20020210]
31. Perkins HW, Linkenbach JW, Lewis MA, Neighbors C. Effectiveness of social norms media marketing in reducing drinking and driving: a statewide campaign. *Addict Behav.* 2010; 35(10): 866–874. [PubMed: 20619177]
32. Singapore Police Force. [Accessed December 17, 2017] STCars anti drink drive campaign 2012 (online). Available at: <https://www.police.gov.sg/resources/traffic-matters/road-safety-activities/campaigns/anti-drink-driving-campaign/2012#content>
33. Hadland SE, Xuan Z, Sarda V, et al. Alcohol policies and alcohol-related motor vehicle crash fatalities among young people in the US. *Pediatrics.* 2017; 139(3):20163037.
34. Elder RW, Shults RA, Sleet DA, et al. Effectiveness of mass media campaigns for reducing drinking and driving and alcohol-involved crashes: a systematic review. *Am J Prev Med.* 2004; 27(1):57–65. [PubMed: 15212776]
35. National Institute on Alcohol Abuse and Alcoholism. [Accessed December 17, 2017] Alcohol Policy Information System. Underage drinking: prohibitions against hosting underage drinking parties (on-line). Available at: https://alcoholpolicy.niaaa.nih.gov/Prohibitions_Against_Hosting_Underage_Drinking_Parties.html

Table 1

Sample Focus Group Questions

1a. How many alcoholic drinks can a person your age drink in two hours before it would be unsafe to drive?
1b. Do you think that your number would be any different for someone who is in their forties?
2a. What situations or activities might lead to driving after drinking? In other words, in what situations do young people consume alcohol and then maybe drive somewhere?
3a. What are some of the reasons that people drink and drive?
3b. What are some of the reasons that people <i>don't</i> drink and drive?
3c. Think specifically about rural areas. Are the reasons for [for not] drinking and driving different in rural areas?
4. Now I want you to imagine that people decide to drink... what are some strategies that they can use to stay safe?

Table 2Participant Characteristics ($n = 71^a$)

Age (years)	$\mu = 20.2$ (SD = 2.1)
18–20	69.0%
21–25	31.0%
Female	50.7%
White, non-Hispanic	91.6%
Never married	95.8%
College student	63.4%
<i>Highest education achieved</i>	--
No academic degrees or diploma	15.5%
GED or high school equivalency degree	1.4%
High school diploma	70.4%
Associates or AA	2.8%
Bachelor's degree	8.5%
Master's degree	1.4%
<i>Job status</i>	--
No paid job; not looking	23.9%
No paid job; looking	7.0%
Part-time job < 35 hours/week	39.4%
Full-time job > 35 hours/week	29.6%
Consumed alcohol in lifetime	94.4%
<i>Number of days drank during the past 30 days</i>	--
0	33.8%
1–2	16.9%
3–5	14.1%
6–9	21.1%
10–19	11.3%
20–29	1.4%
30	1.4%
<i>Average miles driven/week</i>	--
0	12.7%
1–10	9.9%
11–50	35.2%
51–100	16.9%
100–200	15.5%
> 200 miles	9.9%

^a Although 72 young adults participated, 1 arrived late and did not complete the survey.

Table 3

Drinking Activities in Rural Montana

Type of drinking activity	Mentioned that the activity facilitated <i>underage</i> drinking or drink-driving	Mentioned in frontier and/or non-frontier counties
Drinking activities followed by driving		
• Branding	✓	Frontier only
• Festivals	✓	Both
• Other outdoor activities		
• Floating/swimming	✓	Both
• Bonfires/campfires	✓	Both
• Hunting		Both
• Boating		Non-frontier only
• Fishing		Non-frontier only
• Skiing		Non-frontier only
Drinking <i>while</i> driving activities		
• A few roadies		Both
• Booze cruising	✓	Both
• Spotlighting		Both
• Other fun drinking and driving activities		
• Spinning one's car		Frontier only
• Racing		Both
• Snowmobiles, dirt bikes and four-wheelers		Both