Larimer County Drunk & Impaired Driving Community Needs Assessment *for the Persistent Drunk Driving-Law Enforcement Assistance Fund Grant*
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For the Persistent Drunk Driving-Law Enforcement Assistance Funds Grant

TEAM Wellness & Prevention

October 2018 – Larimer County, Colorado

Persistent Drunk Driving/Law Enforcement Assistance Fund Grant

Community Prevention Programs

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No change happens in isolation and here in Larimer County we are lucky to have a community that shares our vision for wellness and progress.

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Health District of Northern Larimer County
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Larimer County Medical Examiner’s Office
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Thank you all for your inspiring dedication and hard work!
Introduction

Who We Are

TEAM Wellness & Prevention (TEAM) is a community-based, 501(c)3 non-profit organization that is committed to promoting health and wellness through the prevention of substance abuse in Larimer County communities. We have been providing alcohol and drug prevention services to our community since 1989. We favor a developmental approach to addressing youth substance use and, in doing so, we promote a formula of prevention that provides opportunities for youth to satisfy their desires to take risks without compromising their future. It is TEAM’s philosophy that solid data is needed in order to determine the best way to serve the youth in our community and collaborate with local partners.

Purpose and Benefits to the Community

When addressing issues of driving under the influence (DUI) and driving while ability impaired (DWAI), community organizations must have a thorough and comprehensive understanding of the risk factors and at-risk populations in their community so they can select the most effective strategies. Local organizations, law enforcement agencies, healthcare professionals, school systems, and other agencies perform frequent community needs assessments to avoid duplication of efforts, accurately analyze the complicated social, economic, and structural issues within their communities, and ultimately provide the best collaborative care for their constituents.

DUI/DWAI issues are particularly important to regularly review within the context of Larimer County, a county that includes a major university, a large number of alcohol and marijuana retailers, and frequent tourism. Given the young age of our population and the continual proliferation of bars and dispensaries Larimer County has seen over the last decade; DUI/DWAI offense are a chief concern of many local agencies and community members whose safety is at risk. As our community continues to grow, we will remain dedicated to reviewing the needs of those we serve as an organization to ensure our services remain effective and relevant and to find the clearest paths for inter-agency collaboration.

Assessment Logistics

The community needs assessment was completed by TEAM Wellness & Prevention with support from a number of other local agencies (see ‘Acknowledgements’ for a complete list of partners). A data workgroup was formed to help with the identification of data sources and compilation of information and a larger steering committee for the project provided perspective and leading direction for the final assessment.

The assessment is an analysis of multiple local and state-level data sources aimed at determining the greatest risk factors within Larimer County contributing to DUI/DWAI. The report contains information about the community as a whole, specific DUI/DWAI trend information, and concluding recommendations for areas of need.
We view this assessment as a preliminary collection of information and will continue to collect data as our strategies are fully developed as a part of the project’s monitoring and evaluation structure.

**Stakeholder Inclusion**

This is a “community” needs assessment and we believe it should be informed and owned by our community. As such, stakeholder involvement was a key proponent of our work over the last several months. Stakeholders were contacted to participate in the data workgroup and steering committee for the project as well as contacted regarding possible data contributions, inclusivity, data and demographic gaps, and for general conversations about possible uses for this needs assessment. Stakeholders include local law enforcement, health officials, city officials, community members, other nonprofit organizations, and volunteers.

**Determining Success**

While the needs assessment will continue to be an ongoing process throughout the PDD/LEAF project period, we have found that this assessment has provided enough information to inform strategy formation for the project. Knowing that we have a solid understanding of DUI/DWAI issues gives the steering committee and program staff confidence that the selected strategies are realistic, effective, and needed by the community.

Another measure of our success is the interest of other agencies in the assessment for their own planning needs or to spur further research. Community-level progress does not occur in a silo. The interest in participation and collaboration by other sectors in this assessment process speaks highly to the potential for collaboration with other agencies throughout the program period. Given that the primary goal of the needs assessment was to determine risk factors in Larimer County for the formation of strategies, we consider this assessment a success.
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Executive Summary

Mission and Vision Statements

The mission of this project is to decrease the incidents of drunk and impaired driving across all of Larimer County.

The vision of this project is to reduce DUI/DWAI offenses in Larimer County for the betterment of our constituents through the identification and mitigation of local risk factors within the target population.

Purpose and Scope

This community needs assessment is designed to determine local risk factors and high-risk populations for DUI/DWAI within Larimer County in order to then strategically plan the most effective interventions to address these issues.

The project is funded through the Persistent Drunk Driving and Law Enforcement Assistance Fund grant managed by the Office of Behavioral Health. All funds must be used to support primary prevention efforts to address DUI/DWAI and/or the local conditions that facilitate this behavior at all levels of the community, especially among young drivers.

The major goals of the grant are to:

- Identify and prioritize risk factors related to impaired driving within Larimer County.
- Create a comprehensive and collaborative community strategy to change local conditions related to the identified risk factors.
- Mitigate the effects of local conditions related to the identified risk factors within target populations.

Data Collection and Analysis

The data collected ranged from community dashboard resources, to annual reports, to raw data from law enforcement agencies (see Appendix A for a full list of references made throughout the report). Data collection was completed through outreach to collecting agencies, including:

- Colorado Department of Transportation
- Colorado State University Health Network
- Larimer County Department of Engineering
- Larimer County Sheriff’s Office
- Fort Collins Police Department
- Loveland Police Department
- Estes Park Police Department
- Colorado State University Police Department
- Colorado Department of Public Health and Environment
- Health District of Northern Larimer County
- Larimer County Medical Examiner’s Office
- Center for Disease Control
- Healthy Kids Colorado Survey
- Colorado Department of Motor Vehicles
Data analysis focused heavily on identifying relevant trends within the identified community level indicators. These indicators included:

- DUI/DWAI offense and arrests
- Fatal/Non-Fatal DUI/DWAI crashes
- Fatal/Non-fatal crashes involving a BAC > .08g/ml
- Fatal/Non-fatal crashes involving cannabis
- Demographics of offenders
- Rates of youth impaired driving (alcohol or marijuana)
- Rates of youth as passengers of impaired drivers (alcohol or marijuana)

Trends were identified through comparison to data from past years to determine change over time. Data were also compared to state-level averages to determine the overall standing of Larimer County as a whole.

**Major Findings**

Through this assessment we have found that DUI/DWAI offense are a significant issue in Larimer County with the following data points:

- Fatalities where at least one driver impaired by alcohol or drugs was involved are steadily increasing over time.
- While local data remains elusive, due to ongoing advancements in research and enforcement tactics, state level data shows an increase in cannabis-involved traffic fatalities in Colorado.
- Fatalities specifically involving a driver with a BAC > .08g/ml are shown to have recent spikes in Larimer County, while remaining fairly steady at the state-level.

Additionally, we have identified a few key risk areas and target populations which need addressing in Larimer County.

**Targeted Populations:**

- **White males who are aged 18-34** are at a higher risk for DUI/DWAI.
- A significant percentage of Larimer County high school students engage in driving while under the influence of marijuana.
- The return of college students to Colorado State University may be a trigger for increased DUI/DWAI offenses as Larimer County sees spikes in DUI offenses from September through October annually.

**Risk Factors:**

- Larimer County has an extremely high density of alcohol retailers and marijuana dispensaries in its most populated areas, especially in Fort Collins.
- **Binge drinking** occurs at a higher rate in Larimer County than the state average and these individuals are more likely to drive under the influence.
- There is a high level of difficulty for law enforcement to spot drugged drivers, specialized training is needed.
• Increased enforcement leads to increases in DUI/DWAI arrests, suggesting that there are offenders slipping through the cracks when law enforcement capacity or funding declines.
• **Interlock devices are not a deterrent for marijuana** and other drug offense.
• Public information does not take into account the **high alcohol content in craft beer** and novelty drinks.
Purpose and Scope of the Assessment

Purpose and scope

This community needs assessment is designed to determine local risk factors and high-risk populations for DUI/DWAI within Larimer County in order to then strategically plan the most effective interventions to address these issues. The needs assessment took place from March to September 2018 and includes data from across Larimer County and the state of Colorado. Data collection about the state of our community through the lens of DUI/DWAI offense will continue throughout the strategic planning, implementation, and evaluation portions of this multi-year project as a part of the monitoring and evaluation plan for the project.

Vision Statement

The overarching vision of TEAM Wellness & Prevention is for all Larimer County youth to thrive at peak mental and physical wellness through the prevention of substance abuse. Impaired driving can have devastating physical, mental, and developmental impacts on both the youth in our community and the public at-large. As a result, the vision of this grant funded project is to reduce DUI/DWAI offense in Larimer County for the betterment of our constituents through the identification of assessment-informed strategies.

Funding Stream and Goals

This needs assessment is funded through a five-year funding cycle by the Persistent Drunk Driving and Law Enforcement Assistance Fund grant managed by the Office of Behavioral Health. All funds must be used to support primary prevention efforts to address DUI/DWAI and/or the local conditions that facilitate this behavior at all levels of the community, especially among young drivers.

TEAM will be utilizing the Strategic Prevention Framework (SPF), a planning process for creating programs to prevent substance use and misuse. The five steps and two guiding principles of the SPF offer prevention professionals a comprehensive process for addressing the substance misuse and related behavioral health problems facing their communities. The steps are: Assessment, Capacity, Planning, Implementation, and Evaluation. The guiding principles are Sustainability and Cultural Competence.¹

The major goals of the grant are to:

- Identify and prioritize risk factors related to impaired driving within Larimer County.
- Create a comprehensive and collaborative community strategy to change local conditions related to the identified risk factors.
- Mitigate the effects of local conditions related to the identified risk factors within target populations.

Community Description

Larimer County shares its northern border with Wyoming and borders Weld County to the east, Jackson and Grand Counties to the west, and Boulder County to the south. The County encompasses 2,640 square miles. The estimated population of Larimer County is 299,630 individuals. The major cities include Fort Collins, Loveland, and Estes Park (see Community Context in the Community Assessment section for more details).
Community Assessment

Data Collection Methods and Analysis

Data collection was completed through outreach to collecting agencies, including:

- Colorado Department of Transportation
- Colorado State University Health Network
- Larimer County Department of Engineering
- Larimer County Sheriff’s Office
- Fort Collins Police Department
- Loveland Police Department
- Estes Park Police Department
- Colorado State University Police Department
- Colorado Department of Public Health and Environment
- Health District of Northern Larimer County
- Larimer County Medical Examiner’s Office
- Center for Disease Control – Behavioral Risk Factor Surveillance System
- Healthy Kids Colorado Survey
- Colorado Department of Motor Vehicles

The data provided ranged from community dashboard resources such as the Colorado Department of Transportation’s Motor Vehicle Problem ID Dashboard, to annual reports, to raw data from law enforcement agencies (see Appendix A for a full list of references made throughout the report).

Once in-hand, data was reviewed by staff at TEAM and then presented to the steering committee for discussion. Law enforcement and other officials on the steering committee would provide qualitative insight and background into the initial results which gave needed context for the final assessment.

Data analysis focused heavily on identifying relevant trends within the identified community level indicators. These indicators included:

- DUI/DWAI offense and arrests
- Fatal/Non-Fatal DUI/DWAI crashes
- Fatal/Non-fatal crashes involving a BAC>.08g/ml
- Fatal/Non-fatal crashes involving cannabis
- Demographics of offenders
- Rates of youth impaired driving (alcohol or marijuana)
- Rates of youth as passengers of impaired drivers (alcohol or marijuana)

Trends were identified through comparison to data from past years to determine change over time. Data were also compared to state-level averages to determine the overall standing of Larimer County as a whole.

Analysis was done using data analysis software including Microsoft Excel, SPSS, and Tableau.
Community Description

Located in north central Colorado, Larimer County encompasses more than 2,600 square miles of plains, foothills, and high mountains in the northern Front Range. The county shares its northern border with Wyoming and borders Weld County to the east, Jackson and Grand Counties to the west, and Boulder County to the south. It is the sixth largest county in Colorado based on population. The county extends to the Continental Divide and includes several mountain communities and Rocky Mountain National Park. The County encompasses 2,640 square miles. Over 50% of Larimer County is publicly owned, most of which is land within Roosevelt National Forest and Rocky Mountain National Park.²

The estimated population of Larimer County is 299,630 individuals with a median age of 35.6 years. 95.7% of residents have a high school degree or above and the median household income is $61,942 annually. 13.2% of individuals live below the federal poverty level. 35,804 individuals are of Hispanic or Latino origin and 2,931 are African American; the vast majority of the county is white/non-Hispanic.³

The major cities within Larimer County include Fort Collins, Loveland, and Estes Park. Fort Collins is home to Colorado State University, which hosts approximately 33,000 young people each year hugely inflating the local population.⁴ Estes Park has a large tourism industry thanks to its abundant natural resources; including Rocky Mountain National Park which hosted 4.44 million visitors in 2017.⁵ Loveland hosts a number of local colleges and universities and a growing art scene.

Alcohol consumption is a major identifying factor within the culture of Larimer County. Fort Collins self-identifies as the “Craft Beer Capital of Colorado” and produces 70% of Colorado’s craft beer and seven percent of the United States.⁶ Both Estes Park and Loveland have a high density of alcohol retailers and a growing interest in local dispensaries.

Community History

Founded in 1861 and named after Denver founder William Larimer, Jr., Larimer County, the United States acquired Larimer County’s current area in 1803 as part of the Louisiana Purchase. In 1860 Missourian Joel Estes founded the mountain settlement of Estes Park along the Big Thompson River; the town became one of the busiest tourist destinations in the state after Rocky Mountain National Park was established in 1915. In 1861, the town of Laporte, northwest of Fort Collins near the foothills, was named Larimer County’s first seat. The following year, the US Army established Camp Collins near Laporte to protect settlers on the Overland Trail from Native American raids. A flood in 1864 destroyed the camp, and the army was forced to move it to a site further downstream, where the present city of Fort Collins was plotted.

Fort Collins successfully petitioned to become the county seat in 1868, and the city was incorporated in 1873. In 1877, the Colorado Central Railroad built the first rail line through the county, and the city of Loveland, named after the railroad’s president, was established along the company’s tracks some fifteen miles south of Fort Collins.

The Agricultural College, which later became Colorado State University, was established in Fort Collins in 1870, its research augmenting the county’s main economic driver.

From the late nineteenth century onward, most Larimer County inhabitants, including beet laborers, were whites of European origin. Japanese laborers also worked Colorado beet farms. At the turn of the century, political upheaval in Mexico and demand for agricultural labor in the sugar beet and other farm industries brought hundreds of Mexican and Mexican American families to the fields outside Fort Collins, Loveland, and other areas of the county.

By the 1930s, farmers in Larimer and other agricultural counties in northern Colorado were running short of water, and lobbied the Bureau of Reclamation for a solution. The result was the Colorado–Big Thompson Project. Horsetooth Reservoir, a popular recreational destination in the foothills west of Fort Collins, was created as part of the project, as was Lake Estes in Estes Park.

Today, because of its proximity to the mountains, its favorable weather, and its ability to maintain a small-town atmosphere in spite of rampant growth, Fort Collins has consistently been ranked high in reviews by national media outlets. Livability.com ranked Fort Collins at number nine in its “Top 10 Healthiest Cities” of 2015; in 2014 Time named it “America’s Most Satisfied City,” and in 2010 Money magazine named it the sixth-best place to live in the nation.

The floods of September 2013, however, demonstrated that Larimer County is no utopia. Devastating and record-breaking floods inundated Estes Park and Loveland along the Big Thompson River. On the Cache la Poudre River, Fort Collins was left mostly untouched, but communities near the mouth of Poudre Canyon as well as those farther downstream in Weld County experienced heavy flooding.7

Coalition History

In 2017, TEAM Wellness & Prevention was awarded the Persistent Drunk Driving-Law Enforcement Assistance Funds grant from the Colorado Office of Behavioral Health. The grant funds a 5 year project aimed at reducing the incidents drunk and impaired driving in Larimer County. In compliance and coordination of this grant, TEAM begun assembling a highly qualified and influential coalition of stakeholders to inform this process. TEAM continues expand the coalition to include all of the needed stakeholders necessary to have a full and thorough, county wide impact on drunk and impaired driving.

The coalition is in the early stages of the Strategic Prevention Framework and has been working to concurrently conduct a community needs assessment and build coalition capacity to plan and drive strategies to successfully achieve our project goals. The coalition has formed a steering committee and data work group to support these early stages of the Strategic Prevention Framework.

The Steering Committee of this coalition is assembled to advise and direct the work of the entire coalition. It guides the priorities and administration of the coalition and the various work groups.

7 Colorado Encyclopedia, “Larimer County” https://coloradoencyclopedia.org/article/larimer-county
formed to carry out the outcomes prescribed by the grant funded project. The Steering Committee members and the sectors they represent are as follows:

**Adam Musielewicz, Coalition Director**  
TEAM Wellness & Prevention  
Coalition Facilitator

**Troy Badberg, Traffic Safety Sergeant**  
Larimer County Sheriff’s Office  
Law Enforcement

**Dell Rae Ciaravola, Public Safety and Risk Communications Manager**  
Colorado State University Public Relations  
Public Safety Communication

**Doug Coatsworth, Professor of Human Development and Family Studies**  
Colorado State University  
Academia

**Gordon Coombes, Executive Director**  
TEAM Wellness & Prevention  
Prevention & Treatment

**Brian Ferrans, Behavioral Health Strategy & Implementation Manager**  
Health District of Northern Larimer County  
Public Health Sector

**Rob Marone, Captain Troop 3C**  
Colorado State Patrol  
Law Enforcement

**Katie O’Donnell, Public Information Officer**  
Larimer County Department of Health & Environment  
Health Communications

**Samuel Roth, DUI Enforcement Deputy**  
Larimer County Sheriff’s Office  
Law Enforcement

The coalition seeks to solicit participation of representatives from the local alcohol retailer industry and from the local retail cannabis industry to the steering committee.

The Data Workgroup was formed in 2018 to provide advice, expertise, and connections that would aid in the development of this community assessment. The members of the Data Workgroup and the sectors that they represent are as follows:

**Sarah Allison, Evaluation Director**  
TEAM Wellness & Prevention  
Prevention Evaluation

**Katherine Chu, Health Educator**  
Larimer County Department of Health and Environment  
Health Education

**Andrea Coryell, Assistant Director Substance Abuse Prevention**
Community Needs

In this section we will describe the findings of the needs assessment based upon results category. These categories include: alcohol and marijuana laws and retailer density, behavioral risk factors, crash and fatality statistics, youth-focused data, and law enforcement data. Each section will be compared with larger, state-level data when available. For recommendations based on the information contained here, refer to the Conclusion or Executive Summary of the report.

Alcohol and Marijuana Laws and Retailer Density

Larimer County has two levels of driving offense: driving under the influence of alcohol and/or drugs and driving while ability impaired. The legal blood alcohol content (BAC) limit for alcohol for drivers over 21 years of age is .08g/ml while the legal limit for drivers under 21 years of age is .02g/ml for a DUI. DWAI has a legal limit of .05g/ml for drivers over 21 years of age.  

8 Colorado Department of Transportation “FAQs: Cannabis and Driving,” https://bit.ly/1Bn5qFV
Driving under the influence of marijuana in Larimer County is illegal due to its impairment properties. Under Colorado law, drivers with five nanograms of active tetrahydrocannabinol (THC) in their blood can be prosecuted for driving under the influence (DUI). However, because there is no roadside device to detect THC, law enforcement officers—many trained as drug recognition experts (DREs)—base arrests on observed impairment. Even people who use marijuana for medicinal purposes can be arrested for DUI. National Highway Traffic Safety Administration studies have shown marijuana impairs critical abilities needed to drive safely, including: slowed reaction time, difficulties in road tracking and lane-position variability, decreased divided attention, impaired cognitive performance, and impaired executive functions; including route planning, decision-making and risk-taking or a combination of both.⁹

Larimer County has a high density of alcohol retailers and marijuana dispensaries in its most populated areas. Within Fort Collins there are 425 licensed alcohol retailers; in Loveland there are 177 licensed alcohol retailers; and in Estes Park there are 87 licensed alcohol retailers.¹⁰ If these retailers were distributed evenly, there would be one alcohol retailer for every 3.82 sq. mi. within Larimer County. However, these retailers are not evenly distributed. Fort Collins, which has the largest concentration of alcohol retailers and dispensaries within Larimer County, holds all of these accessible locations within the same main stretch from Old Town down College Avenue, convenient to the college

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⁹ Colorado Department of Transportation “Drugged Driving” https://bit.ly/1MFxJDl
This allows for a high density of alcohol and marijuana within one location heightening the likelihood of overconsumption and DUI/DWAI.

**Behavioral Risk Factors**

**Binge drinking remains an issue in Larimer County with slightly higher binge drinking intensity and frequency rates than the state average.** Binge drinking is defined as 5 or more drinks for men or 4 or more drinks for women. In Larimer County, 1.34% of adults aged 18 or over reported they had engaged in binge drinking in the last 30 days. These individuals reported consuming an average of 7.67 drinks in one day at least 4 days in the past month. For comparison, at the state level, binge drinkers reported consuming an average of 7.1 drinks in one day at least 3.9 days in the past month.\(^\text{12}\)

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\(^{11}\) City of Fort Collins, “Geographic Information Services - Interactive Maps” https://bit.ly/2Nem0Uw

The overall percentage of Larimer County adults who report driving while impaired in the last 30 days is on par with the state average; however, binge drinkers tend to drive under the influence at a higher rate. In aggregated data from 2012, 2014, and 2016, 2.1% of adults aged 18 or over in Larimer County reported that they had driven after drinking in the past 30 days. At the state level, based on data from 2014, we see a similar overall percentage to Larimer County with 3% of adults in Colorado reported having driven after having too much to drink in the past 30 days. However, if we specifically look at Larimer County adults self-reporting as binge drinkers, 5.3% reported they drove under the influence in the last 30 days; a much higher percentage than the county or state overall.

Demographic examinations show that white individuals are the primary group self-reporting drinking and driving in Larimer County. The majority of Larimer County identifies as white and not Hispanic. No African American or Hispanic individuals reported driving under the influence in the past 30 days from 2014-2015 in Larimer County; while 3.1% of white individuals did. However, the observations for African American and Hispanic individuals are based on an n<50 and are statistically unreliable. When breaking these numbers down by gender; 3.4% of females and 2.4% of males reporting driving under the influence in the past 30 days in 2014. These percentages are a direct flip from the state level data which reports 2.3% of females and 3.5% of males driving under the influence within the same year.

15 CDPHE, “County-Level Estimates”.
Young adults in Larimer County have the highest self-reported rates of drinking and driving and are above the state average. Adults aged 18-24 had the highest percentage of reported drinking and driving within the last 30 days in Larimer County from 2013-2014 with 4%. Individuals aged 25-34 and 35-44 were close behind with 3.3% and 3.5% respectively. Following age 44, self-reported driving under the influence drops rapidly to 2.6% for ages 45-54, 2.3% for ages 55-64, and 1.1% for age 65 and over. At the state level, the highest percentage of drinking and driving reported occurs between the ages of 25-34 and even the highest percentage reported remains lower than the 18-24 year old grouping in Larimer County. For the state of Colorado; only 2.7% of drinkers aged 18-24, 3.9% of drinkers aged 25-34, and 3.3% of drinkers aged 35-44 reporting driving under the influence in the past 30 days. The state averages reflect a similar decline in reported drinking and driving over the age of 44.\textsuperscript{17}

\textbf{Crash and Fatality Statistics}

In Larimer County, the total number of crashes involving suspected impaired drivers did not decline from 2013-2015. In 2013 there were 375 vehicle operators suspected of DUI. In 2014, there were 396 vehicle operators suspected of DUI. In 2015, there were 397 vehicle operators suspected of DUI.\textsuperscript{18} Of

\begin{itemize}
  \item \textsuperscript{17} CDPHE, “State-Level Behavioral Risk Factor”
  \item \textsuperscript{18} Colorado Department of Transportation, “Vehicle Operators Suspected of DUI by County Dataset.” (2013-2015)
\end{itemize}
these individuals suspected of DUI; 295 were charged in 2013, 303 were charged in 2014, and 287 were charged in 2015 for a total of 283 uncharged suspected DUI offenders over the course of three years.\(^{19}\)

Fatalities where at least one driver impaired by alcohol or drugs was involved are steadily increasing over time in Larimer County. According to the Larimer County Coroner’s Office; in 2013, there were 10 fatal motor vehicle crashes where a driver tested positive for drugs or alcohol in the medical examiner’s office. In 2014, this number increased to 12; in 2015, there were 14; in 2016, there were 17; and in 2017 there were 22 fatal motor vehicle crashes where a driver tested positive for alcohol or drugs in Larimer County.\(^{20}\) The Colorado Department of Transportation has slightly different calculations as they pull largely from law enforcement data rather than post-mortem testing; however, we continue to see a similar trend overtime. When the organization began measuring impaired accidents rather than alcohol-specific accidents in 2015, there were 6 individual fatalities as a result of impaired driving. In 2016, this number increased to 12 fatalities and continued to grow to 18 fatalities in 2017.\(^{21}\)

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\(^{19}\) Colorado Department of Transportation, “Vehicle Operators Charged with DUI by County Dataset.” (2013-2015)


\(^{21}\) Colorado Department of Transportation, “Fatal Crash Data” https://bit.ly/2O0Mn5m
Fatalities specifically involving a driver with a BAC >.08g/ml are shown to have recent spikes in Larimer County while remaining fairly steady at the state-level. In 2013 Larimer County, there were 8 fatalities where a driver had a BAC>.08g/ml (42% of all fatal crashes). This dropped sharply to 3 fatalities where a driver had a BAC>.08g/ml (12.5% of all fatal crashes) in 2014, before increasing again in 2015 when there were 6 fatalities where a driver had a BAC>.08g/ml (18% of all fatal crashes), and finally spiking in 2016 with 14 fatalities (36.3% of all fatal crashes). At the state level, there were 142 fatalities where a driver had a BAC>.08g/ml (32.9% of all fatal crashes) in 2013. This number increased to 160 fatalities involving a driver with a BAC>.08g/ml (35.5% of all fatal crashes) in 2014, before dropping slightly to 151 fatalities where a driver had a BAC>.08g/ml (29.8% of all fatal crashes) in 2015, and returning to 161 in 2016 (26.5% of all fatal crashes).\textsuperscript{22,23,24,25} On unincorporated Larimer County roads, 32% of total crash fatalities from 2012-2016 involved a driver with a BAC>.08g/ml.\textsuperscript{26}

\textsuperscript{22} Colorado Department of Transportation, “Motor Vehicle Problem ID Report Fiscal Year 2015”  
\textsuperscript{23} Colorado Department of Transportation, “Motor Vehicle Problem ID Report Fiscal Year 2016”  
\textsuperscript{24} Colorado Department of Transportation, “Motor Vehicle Problem ID Report Fiscal Year 2017”  
\textsuperscript{25} Colorado Department of Transportation, “Motor Vehicle Problem ID Report Fiscal Year 2018”  
\textsuperscript{26} Larimer County Department of Engineering, “Unincorporated Larimer County Traffic Safety Report 2016.”
While local data remains elusive due to ongoing advancements in research and enforcement tactics, state level data shows an increase in cannabis-involved fatalities in Colorado. The number of fatalities involving drivers testing positive for 5ng or greater of Delta 9 THC increased from 19 in 2014 and 2015 to 51 in 2016. It is important to note that full Delta 9 testing was not available until 2016 and is likely responsible for the sizable spike; however, this does not mean that cannabis related fatal alcohol crashes are not occurring at an even higher rate than reflected here (see Law Enforcement Data).

Youth-focused Data

Youth reporting driving after consuming alcohol has fluctuated over time but remains a significant issue in Larimer County. In 2013, 3.8% of Larimer County students reported driving after consuming alcohol at least once in the last 30 days. The state average this year for students drinking and driving was 7.7%, well above our local findings. In 2015, this number increased to 5.9% of Larimer County youth driving a vehicle after consuming alcohol at least once in the last 30 days; again below the state average of 7.3%. The most recent numbers show a decline both at the local and state level with 3.9% of Larimer County youth and 5.6% of Colorado youth reporting drinking and driving in the last 30 days.

27 Colorado Department of Transportation, “Fatalities Analysis Reporting System” (powerpoint slide).
28 Colorado Department of Public Health and Environment, “2013 Region 2 Healthy Kids Colorado Survey Results”
29 Colorado Department of Public Health and Environment, “2015 Region 2 Healthy Kids Colorado Survey Results”
30 Colorado Department of Public Health and Environment, “2017 Region 2 Healthy Kids Colorado Survey Results”
However, without a more significant trend overtime it is difficult to say for certain that these numbers will continue to decline without prevention interventions.

A far higher percentage of Larimer County youth report smoking marijuana and driving than those who report drinking and driving, but we see a slight downward trend in this activity over time. Compared to the percentages above, far more Larimer County students report smoking marijuana and driving and the numbers are closer to the overall state averages. In 2013, 10.5% of students reported driving after consuming marijuana at least once in the last 30 days; which is on par with the statewide average of 10.9%.\textsuperscript{31} In 2015, this number dropped slightly to 9.2% of students in Larimer County and 10.4% of students across Colorado smoking and driving.\textsuperscript{32} Finally these numbers dropped slightly again in 2017 to 7.3% of Larimer County students and 9% of students across Colorado smoking marijuana and operating a vehicle in the past 30 days.\textsuperscript{33} While these numbers appear to trend in a decline they are still far higher than students drinking and driving, suggesting the perception of harm for smoking marijuana and driving is lower.

\textsuperscript{31} CDPHE “2013 Region 2 Healthy Kids Colorado Survey Results”
\textsuperscript{32} CDPHE “2015 Region 2 Healthy Kids Colorado Survey Results”
\textsuperscript{33} CDPHE “2017 Region 2 Healthy Kids Colorado Survey Results”
The number of Larimer County youth reporting being a passenger in a vehicle operated by someone under the influence of alcohol has not significantly declined since 2013. In 2013, 13.4% of Larimer County students reported riding in the car where a driver had been drinking alcohol at least once in the last 30 days, below the state average of 17.9%. By 2015, this percentage had increased to 15.5% of Larimer County students and exactly matched the state average. In 2017, this number declined slightly to 13.8% falling below the state average of 15.2%; but not below the 2013 numbers. While a lower percentage of students reporting drinking and driving themselves (see above), a more significant number of students are passengers in vehicles operated by known individuals to the students who are under the influence; suggesting a potential norming of this behavior.

34 CDPHE, “2013 HKCS”
35 CDPHE, “2015 HKCS”
36 CDPHE, “2017 HKCS”
The number of Larimer County youth reporting being a passenger in a vehicle operated by someone under the influence of marijuana has increased in recent years. In 2013, 18.3% of students Larimer County rode in the car with a driver who had been smoking marijuana at least once in the last 30 days; this is slightly below the 2013 state average of 19.7%. In 2015, this number declined slightly to 15.3% of Larimer County students while the state average climbed to 20.4% of all Colorado students. However, we have seen an increase in recent years in Larimer County of students riding in vehicles with drivers using marijuana while the state average has dropped, suggesting a lower perception of harm locally. The most recent data from 2017 shows that 18.5% of Larimer County students engaged in this behavior, now on par with the state average of which dropped to 18.6%.

**Enforcement Results**

While alcohol-related impaired driving offense seemed to be in decline in Larimer County, recent spikes in 2017 indicate that increased enforcement is needed to keep up with the volume of offenders. From 2014 – 2016, alcohol-related offense in Larimer County seemed to be in decline based off data from all local law enforcement agencies; with a drop from 1,247 offense in 2014 to 1,071 offense in 2016. However, in 2017 the number of offense jumped to a 4 year high with 1,320 offense taking place. This suggests either a spike in offenders due to population growth, or, more likely, increased enforcement catching more of the individuals who perceive drinking and driving as a low risk activity.

While alcohol-related offense seem far more prevalent than driving under the influence of drugs, this may be due to the difficulty of spotting drugged drivers and the frequency of mixing drugs and

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37 CDPHE, “2013 HKCS”  
38 CDPHE, “2015 HKCS”  
39 CDPHE, “2017 HKCS”  
40 Colorado Department of Motor Vehicles, “DMV Data Downloads - Alcohol Related Data” https://bit.ly/2zMDhRb
alcohol. According to data from the Larimer County Sheriff’s Office from 2016-2017 there were approximately 500 more arrests for alcohol offense than drug offense in vehicles. While this may lead us to believe that drugged driving is not as much of an issue in our community, after conversations with officers it seems that the reality is more nuanced. A lack of immediate roadside tests for drugs, the various signs different drugs can present that are difficult to identify, and the frequency of mixing alcohol (much easier to detect) with drugs may be leading to mislabeled offense.\footnote{Larimer County Sheriff’s Office, “2016-2017 Arrests Dataset”}

Young adults aged 18-34 are most likely to engage in impaired driving in Larimer County and the number of arrests for this age group is increasing over time. According to arrest data from the Colorado State Patrol, young adults aged 18-24 went from 43 arrests in 2016 to 88 arrests in 2017.
Similarly, young adults aged 25-34 went from 110 arrests in 2016 to 153 arrests in 2017. Both of these spikes are far higher than the increases for any of the other age groups.\textsuperscript{42}

Male offenders in Larimer County are far more common than female offenders when it comes to alcohol-related driving infractions. From 2014 – 2017, law enforcement records from all local agencies show that male offenders are consistently more frequent than female offenders with approximately 400 more male offenders than female. Additionally, with the spike in offense in 2017, we see a jump in male offenders from 583 in 2016 to 774 in 2017; compared to the jump in female offenders from 227 in 2016 to 306 in 2018.\textsuperscript{43} This data is corroborated by individual data from the Colorado State Patrol for Larimer County which shows that 74.9\% of offenders from 2016-2017 were males.\textsuperscript{44}

\textsuperscript{42} Colorado State Patrol, “2016-2017 Arrests Dataset”
\textsuperscript{43} Colorado Department of Motor Vehicles, “DMV Data Downloads - Alcohol Related Data”
\textsuperscript{44} Colorado State Patrol, “2016-2017 Arrests Dataset”
When examining offense by their arresting agency, there has been an increase in enforcement from 2016 to 2017 in Larimer County. It’s key to note that the majority of agencies seem to follow a
similar trend line over time from 2014 to 2017. We see a general decrease or holding pattern of offense in 2015 and 2016 followed by a spike up in 2017.\textsuperscript{45} The fact that all agencies are showing similar trends despite the diversity of their geographical and demographic areas, suggests that there has not been a sudden increase in offenders in any one location within Larimer County. Rather, it suggests that an increase in enforcement in 2017 was effective to stop offenders that had been slipping through in previous years.


<table>
<thead>
<tr>
<th>Law Enforcement Agency</th>
<th>2014</th>
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<td>ESTES PARK PD</td>
<td>35</td>
<td>74</td>
<td>34</td>
<td>142</td>
</tr>
</tbody>
</table>

Larimer County sees spikes in DUI offense from September through October annually. According to 2016-2017 data from the Larimer County Sheriff’s Office, arrests annually jump during the September through October time period. This could be due to students returning to Colorado State University and the increased enforcement that is connected to this annual migration. It is important to note that when we analyze these results by substance, we see this annual spike correlated in the alcohol data rather than in the drug offense. However, officers note that many times alcohol and drugs are used in unison and alcohol-related symptoms are far easier to spot during a DUI traffic stop; meaning there may be more instances of drug-related offense or combined substance offense than are reflected in this needs assessment.\textsuperscript{46}

\textsuperscript{45} Colorado Department of Motor Vehicles, “DMV Data Downloads - Alcohol Related Data”

\textsuperscript{46} Larimer County Sheriff's Office, “2016-2017 Arrests Dataset”
Sentencing that has worked traditionally for DUI/DWAI offense may no longer be appropriate with the legalization of marijuana. Drivers who refuse testing for alcohol or drugs have their license automatically revoked. However, at times the court will reinstate the license with the installation of an interlock device. The use of interlock devices in cars is highly effective for preventing drivers consuming alcohol from operating the motor vehicle. However, these devices are not able to detect the use of marijuana. This means that drivers sentenced with interlock devices are still able to operate vehicles under the influence of marijuana or other illegal drugs.47

Public information around the number of drinks it takes to reach the “legal limit” BAC does not take into account the high alcohol content in craft beer and novelty drinks. Traditional information about how many drinks a person can consume before being too intoxicated to drive are based on 12 oz. of beer at 4.5% ABV.48 However, the craft beer industry is a large part of the culture in Larimer County with many beers having well over 7% ABV. Therefore, the old education which states that it takes one hour for one drink to pass through your system does not apply.

Community Resources/Assets

When discussing the needs of Larimer County related to DUI/DWAI issues, it is also key to discuss the local resources already in place working in this area.

- Local law enforcement agencies; including the Larimer County Sheriff’s Office, Colorado State Patrols, Fort Collins Police Department, Estes Park Police Department, Loveland Police Department, and CSU Police Department; have designated officers trained to stop motorists driving under the influence and organize targeted efforts to use heavy law enforcement presence as a deterrent to DUI/DWAI during high risk events and hours.
- The local court systems see hundreds of DUI cases each year and works to provide public safety by sentencing offenders, but also with the goal of preventing recidivism.
- The alcohol and marijuana industries work closely with TEAM through the local Responsible Association of Retailers which provides information on getting patrols home safely, avoiding over-serving, and recognizing inauthentic identification.
- Local advocacy groups, including Mothers against Drunk Drivers, diligently promote the use of designated drivers and advocate against impaired driving in our community.
- Ride-share programs remain extremely popular with young adults and college students. Colorado State University instituted its own, college-student focused, ride-share program called RamRide which provides students with a free, safe ride home on Thursdays from 10pm to 2 am, and Fridays and Saturdays from 10pm to 3am. Uber and Lyft are both available in the local community as well as local bus networks.
- Colorado State University also has a mandatory alcohol education program for all incoming freshman called AlcoholEdu. This is mimicked by alcohol education programs available through the school systems for younger students.

47 Conversation with DUI Enforcement Officer from the Larimer County Sheriff’s Office
48 Business Insider, “Here’s how much you can legally drink before driving” https://read.bi/2P6NxJ8 (2013)
Substance abuse treatment providers, such as Summit Stone and TEAM’s Rebound program, provide treatment to prevent future DUI/DWAI offense by those suffering from addiction. Media campaigns, such as the Cannabis Conversation campaign by CDOT, create public awareness of issues around DUI/DWAI and increases perception of harm.

**Community Readiness**

Within Larimer County, we expect to have to take on some level of public awareness around driving under the influence of marijuana in order for our interventions to be successful. While there have been some public awareness programs to raise information about the issue of driving while high, a significant portion of the population view it as a low risk activity. Additionally, it can be difficult for law enforcement officers to identify that an individual is under the influence of marijuana without a roadside Delta 9 test leading the public to believe they cannot be caught.

Given the strong attachment to alcohol, particularly craft beer, as a part of the culture of Larimer County; attempts to restrict access to or reduce the density of alcohol establishments are likely to be met with public pushback.

**Dissemination Plan**

This needs assessment report will be shared virtually via email with all parties who shared data and provided insights that contributed to its development. Additionally, the assessment will be shared with key stakeholders (including law enforcement agencies, nonprofit partners, the Office of Behavioral Health, public officials, fellow grantees, etc.) via email outreach.

In order to reach a wider audience, the needs assessment will be made publically available online and announced through the TEAM Wellness & Prevention monthly newsletter as well as through social media to our followers.

The steering committee and data workgroup will be included in the dissemination of the report and will help to inform the next steps for the information, including potential public events and discussions.

**Conclusion**

This assessment finds that the following target populations are at a higher risk for DUI/DWAI offense.

**Targeted Populations:**

- **White males who are aged 18-34** are most likely to receive DUI/DWAI charges.
- A significant percentage of Larimer County **high school students** engage in driving while under the influence of marijuana.
- The return of **college students** to Colorado State University may be a trigger for increased DUI/DWAI offense, as Larimer County sees spikes in DUI arrests from September through October annually.

This assessment finds the following risk factors to be key contributors to DUI/DWAI offense in Larimer County.
Risk Factors:

- Larimer County has an extremely high density of alcohol retailers and marijuana dispensaries in its most populated areas, especially in Fort Collins.
- **Binge drinking** occurs at a higher rate in Larimer County than the state average and these individuals are more likely to drive under the influence.
- There is a high level of difficulty for law enforcement to spot drugged drivers, specialized training is needed.
- Increased enforcement leads to increases in DUI/DWAI arrests, suggesting that there are offenders slipping through the cracks when law enforcement capacity or funding declines.
- **Interlock devices are not a deterrent for marijuana** and other drug offense.
- Public information does not take into account the high alcohol content in craft beer and novelty drinks.

The following intervention goals are recommended as potential ways to address these factors for the target population.

- Increased perception of harm for driving under the influence of marijuana for high school students through young adults.
- Increased enforcement capacity and efficiency for DUI/DWAI officers through funding or mapping of targeted DUI/DWAI areas to focus on.
- Change in policy to prevent those stopped from driving under the influence of drugs from receiving ineffective interlock devices in their vehicles.
- Increase public awareness of the effects of craft beer vs. normal beer and what that means for their BAC.
Appendix A: References

Business Insider, “Here’s how much you can legally drink before driving”


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https://www.colorado.gov/dmv/dmv-data-downloads

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