

City Council Meeting

June 4, 2018 6:00 p.m.

Cadillac Municipal Complex Council Chambers 200 N. Lake St. Cadillac, MI 49601



June 4, 2018 City Council Meeting Agenda 6 p.m. at City Hall – 200 N. Lake St. – Cadillac, MI 49601

We are all accountable

CALL TO ORDER
PLEDGE OF ALLEGIANCE
ROLL CALL

- I. APPROVAL OF AGENDA
- II. PUBLIC COMMENTS

It is requested that comment time be limited to three (3) minutes.

III. CONSENT AGENDA

All items listed on the consent agenda are considered routine and will be enacted by one motion with roll call vote. There will be no separate discussion of these items unless a Council Member so requests it, in which event the items will be removed from the consent agenda and discussed separately.

- A. Minutes from the regular meeting held on May 21, 2018. Support Document III-A
- B. Minutes from the closed session held on May 21, 2018.

IV. COMMUNITY SPOTLIGHT

- A. Wexford County Council on Aging Kathy Kimmel, Executive Director
- B. Shop with a Cop Special Recognition

V. COMMUNICATIONS

A. Freedom Festival Support Document V-A

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- B. Clam Lake Band Support Document V-B
- C. UpBeat Cadillac Support Document V-C

VI. CITY MANAGER'S REPORT

A. Medical Marihuana – Introductory Discussion Regarding Process & Future Engagement with the Community Support Document VI-A

VII. PUBLIC COMMENTS

It is requested that comment time be limited to three (3) minutes.

VIII. GOOD OF THE ORDER

IX. CLOSED SESSION

Adjourn to closed session for a strategy and negotiation session connected with a collective bargaining agreement.

X. ADJOURNMENT

Core Values (R.I.T.E.)

Respect
Integrity
Trust
Excellence

Guiding Behaviors

We support each other in serving our community
We communicate openly, honestly, respectfully, and directly
We are fully present
We are all accountable
We trust and assume goodness in intentions
We are continuous learners

CITY COUNCIL MEETING MINUTES

6:00 PM – May 21, 2018 Cadillac City Hall – 200 N. Lake St. - Cadillac, Michigan 49601

CALL TO ORDER

Mayor Filkins called the City Council meeting to order at approximately 6:00 pm.

PLEDGE OF ALLEGIANCE

ROLL CALL

Council Present: Spoelman, Schippers, Engels, King, Mayor Filkins

Council Absent: None

Staff Present: Peccia, Roberts, Wallace, Dietlin, Maslin, Homier, Wasson

APPROVAL OF AGENDA

Mayor Filkins requested the agenda be amended to add a resolution regarding Canada Geese Program.

2018-101 Approve agenda as amended.

Motion was made by Schippers and supported by Spoelman to approve the agenda as amended to add a resolution regarding Canada Geese Program under Adoption of Ordinances and Resolutions as Item VIII-B.

Motion unanimously approved.

PUBLIC COMMENTS

There were no public comments.

CONSENT AGENDA

2018-102 Approve consent agenda as presented.

Motion was made by Spoelman and supported by Engels to approve the consent agenda as presented.

Motion unanimously approved.

PUBLIC HEARINGS

A. Public hearing to consider adoption of Resolution Approving Combined Brownfield Plan Raven Redevelopment.

Peccia stated the property is located at 119 S. Mitchell Street. He noted the property has been determined to be functionally obsolete. He stated Eligible Activities for this Brownfield include environmental, demolition, and site preparation with those costs estimated to be just under \$46,000. He noted it will take up to five (5) years for project dollars to be recaptured

and the investment of this project is approximately \$1 million. He noted current taxes are approximately \$5,600 and future taxes are estimated to be \$35,000. He stated this is an opportunity for this incentive program to be in place to help the developer and owner of the property recapture those eligible expenses both environmental and non-environmental.

Connie Freiberg, owner of the Raven, noted the utility work has delayed the project approximately one (1) month. She noted she believes it will be a great fit for the community. She stated that any assistance they can receive to help recoup some of the investment is greatly appreciated.

Mac McClelland, Otwell Mawby, P.C., stated the public hearing is required by Act 381. He noted the Cadillac Brownfield Redevelopment Authority (CBRA) approved the plan in April and recommends approval by the City Council.

Mayor Filkins opened the public hearing.

There were no public comments.

Mayor Filkins closed the public hearing.

Spoelman stated she appreciates hearing from the owner of the property and appreciates them investing in Cadillac.

<u>2018-103</u> Adopt Resolution Approving Combined Brownfield Plan Raven Redevelopment. Motion was made by King and supported by Schippers to adopt the Resolution Approving Combined Brownfield Plan Raven Redevelopment.

Motion unanimously approved.

B. Public hearing to consider adoption of Resolution Approving Combined Brownfield Plan Lakeside Ace Hardware.

2018-104 Recuse Council Member King.

Motion was made by Engels and supported by Schippers to recuse Council Member King based on a possible conflict of interest.

Motion unanimously approved.

Peccia stated the property is located at 834 and 836 N. Mitchell Street, commonly known as the former Hostess Bakery. He noted the property has been determined to be functionally obsolete. He stated Eligible Activities for this property include environmental, lead and asbestos abatement, demolition, site preparation and infrastructure. He noted those costs are estimated to be approximately \$175,000. He stated it will take approximately eleven (11) to twelve (12) years to capture the reimbursement of those dollars. He noted the investment in the property is estimated at \$600,000. He stated the current annual tax revenue is around \$4,000 and the estimate in year one is projected to be just under \$30,000. He noted this incentive program will help accommodate that economic development initiative.

Cainen Gilde, owner, thanked Council for considering this request.

Mayor Filkins opened the public hearing.

There were no public comments.

Mayor Filkins closed the public hearing.

Schippers stated it is nice to see development in the community.

<u>2018-105</u> Adopt Resolution Approving Combined Brownfield Plan Lakeside Ace Hardware. Motion was made by Schippers and supported by Spoelman to adopt the Resolution Approving Combined Brownfield Plan Lakeside Ace Hardware.

Motion unanimously approved.

C. Public hearing to consider adoption of Ordinance Amending the City Zoning Map.

Peccia noted this is with respect to an amendment to the City Zoning Map and approval of Sketch Plan for the Cadillac Lofts project. He stated it is likely there will be a Combined Brownfield Plan in place for this property.

John Wallace, Community Development Director, noted the project was unanimously approved and recommended by the Planning Commission. He provided a presentation summarizing the project. (see attachment)

Spoelman asked about the status of Shelby Street.

Wallace stated the current plan is that Shelby Street would be restored to a full street right-of-way.

Peccia noted the following:

- After consideration and action by the City Council, the property owner/developer will need to refine the plan for submittal to the Planning Commission for additional analysis, review, and consideration. The final Sketch Plan then goes back to City Council for review and consideration.
- This is a public/private partnership between the City of Cadillac, the developers, the State of Michigan MEDC and Michigan Strategic Fund.
- This project is a market-rate development.

Dean DeKryger, DK Design, noted the buildings are positioned to create some outside sitting space. He stated they are pursuing both retail and restaurant uses for the first level. He noted the project will be phased with the north building constructed first. He stated the parking (as shown) will be residential, not public. He stated the intent is to market the apartments to young professionals.

Mayor Filkins opened the public hearing.

There were no public comments.

Mayor Filkins closed the public hearing.

Schippers stated she likes mixed-use developments.

Mayor Filkins stated the various projects support one another. She noted it is going to be a very walkable community.

2018-106 Adopt Ordinance Amending the City Zoning Map.

Motion was made by King and supported by Engels to approve the Resolution to Adopt Ordinance Amending the City Zoning Map and Approval of Sketch Plan.

Motion unanimously approved.

D. Public hearing to consider approval of resolution to adopt Ordinance 2018-06 Establishing General Appropriations Act for Fiscal Year 2019.

Peccia summarized the Fiscal Year 2018/19 budget process.

Peccia stated the City was informed that operating millage would be subject to Headlee rollback which equates to a loss of \$6,900 in taxes.

Spoelman asked if the proposed budget needs to be amended to reflect this change.

Owen Roberts, Director of Finance, stated the new millage rate is included in the ordinance.

Mayor Filkins opened the public hearing.

There were no public comments.

Mayor Filkins closed the public hearing.

<u>2018-107</u> Adopt Ordinance 2018-06 Establishing General Appropriations Act for Fiscal Year 2019. Motion was made by Schippers and supported by Engels to approve the Resolution to Adopt Ordinance No. 2018-06 Establishing General Appropriations Act for Fiscal Year 2019.

Motion unanimously approved.

COMMUNICATIONS

A. Cadillac Area Farmer's Market.

2018-108 Approve Cadillac Area Farmer's Market.

Motion was made by Spoelman and supported by Schippers to approve the request from the Cadillac Area Farmer's Market to operate from 8:00 am to 4:30 pm on Tuesdays and Fridays from June 19, 2018 to October 30, 2018.

Jean Kohler stated the market will only be open until 1:00 pm in the month of June.

Spoelman noted they also have approval for the signage that was requested.

Motion unanimously approved.

B. Display of banner and street/parking lot closures for Back to the Bricks.

2018-109 Approve banner and street/parking lot closures for Back to the Bricks.

Motion was made by Spoelman and supported by Schippers to approve the display of a banner from June 4, 2018 to June 11, 2018 and the requested street and parking lot closures on June 8, 2018 through June 10, 2018 for Back to the Bricks.

Motion unanimously approved.

C. Display of banner, parking lot closures, and beverage tents for Craft Beer Festival.

2018-110 Approve banner, parking lot closures, and beverage tents for Craft Beer Festival.

Motion was made by Spoelman and supported by King to approve the display of a banner from September 10, 2018 to September 24, 2018 and the requested parking lot closures and beverage tents on September 20, 2018 through September 23, 2018 for the Craft Beer Festival.

Motion unanimously approved.

APPOINTMENTS

A. Recommendation regarding reappointment to the Planning Commission.

Schippers noted Dave Gregg has been serving on the Planning Commission since 2006.

2018-111 Approve reappointment to the Planning Commission.

Motion was made by Schippers and supported by King to approve the reappointment of Dave Gregg to the Planning Commission for a 3-year term to expire on May 1, 2021.

Motion unanimously approved.

CITY MANAGER'S REPORT

A. Bids and recommendation regarding purchase of Plow Truck Chassis.

Peccia stated the FY2019 budget contains an appropriation for a single axle plow truck. He noted on February 22, 2018 the City of Cadillac held a bid opening for a dual axle plow truck and three (3) bids were received with the purchase awarded to the lowest bidder, GT Diesel

Service. He noted the City contacted GT Diesel Service to determine if they would honor the bid for a second truck. He added the only difference is that the new purchase would have a single rear axle. He added this reduces the purchase price to \$109,000.

2018-112 Award purchase of Plow Truck Chassis.

Motion was made by Schippers and supported by King to award the purchase of one single axle plow truck to GT Diesel Service in the amount of \$109,000.

Motion unanimously approved.

B. Approval of Contract with MDOT for Leeson Avenue Project.

Peccia stated the City of Cadillac received a grant from Federal Highway Administration for the reconstruction of a portion of Leeson Avenue from Chestnut Street to West Division Street. He noted the administration of projects in conjunction with this program falls to the Michigan Department of Transportation (MDOT). He added the City is responsible for engineering-related services for the project, as well as the costs that fall outside of the grant which primarily includes excess street improvement costs and utility infrastructure costs.

Peccia noted total grant funds for the project will be \$176,250. He stated that after releasing the project for bids, MDOT recently awarded the contract to Malley Construction, Inc. from Mt. Pleasant, MI in the amount of \$590,109.54 which was about 6.25% below original engineering estimates for the project. Of these costs, approximately \$120,000 is for utility costs and the remaining \$470,000 is for the street component. He stated the City will be responsible for approximately \$296,750 (street component costs less Federal funds of \$176,250) which will be paid for from the final remaining funds of the 2016 General Obligation Capital Improvement Bonds.

Peccia stated it is being recommended that Council approve the Agreement with MDOT for roadway work along Leeson Avenue from Chestnut Street to West Division Street.

Mayor Filkins asked if MDOT is administering the project within the City limits because it is a grant from the Federal Highway Administration.

Roberts stated it is a federal aid eligible road.

Connie Houk, Prein & Newhof, stated Major Streets are eligible for the federal aid funding. She noted MDOT prepares the paperwork and does the auditing of the project.

Roberts noted the City will be responsible for approximately \$293,750 not \$296,750 as was stated in the Council Communication that was provided.

Spoelman asked when the project will begin.

Connie Houk stated the project will begin on June 15, 2018.

2018-113 Approve Contract with MDOT for Leeson Avenue Project.

Motion was made by Spoelman and supported by Schippers to approve the Agreement with the Michigan Department of Transportation for roadway work along Leeson Avenue from Chestnut Street to West Division Street.

Motion unanimously approved.

C. Recommendation regarding demolition of 434 Stimson Street.

Peccia stated the property located at 434 Stimson Street was destroyed by fire on March 9, 2018. He noted the property was an uninsured two-story residential dwelling. He stated the house was considered a total loss and has been condemned. He noted the property owner has not taken any steps to demolish the house and it presents a hazard to adjacent properties and the general public. He stated the City commenced court action against the property owner asserting three (3) claims:

- There needs to be an abatement of the public nuisance under MCL 600.2940
- There needs to be an abatement of the dangerous building under Act 167 of 1917
- There needs to be an abatement in compliance with the City's Zoning Ordinance Violation

Peccia stated the City is seeking a court order requiring demolition of the building. He noted the City is looking at moving forward with a company to demolish the building. He stated various quotations were solicited so the City is ready to proceed with the demolition as soon as possible. He noted a lien will be placed on the property for all of the costs incurred by the City.

Peccia stated it is being recommended to waive competitive bidding and contract with Pitsch Companies to provide the necessary demolition services at 434 Stimson Street in the amount of \$19,500.

Schippers asked if this was a rental property.

Peccia stated it was a rental property.

Engels asked for a description of the process and asked if there is an option to pursue the owner of the property.

Peccia stated the City has attempted to communicate with the property owner to develop a plan for demolishing the structure and cleaning up the property. He noted attempts at that communication have been unsuccessful. He added that, after repeated attempts, the City has not received any written or verbal communication from the property owner.

Spoelman asked if the property is posted.

Peccia stated the property is noticed as a condemned structure.

King asked if the property owner was served.

Peccia stated the owner was served.

Mayor Filkins asked if rental properties need to be insured.

Roberts stated it is his understanding that insurance on this property was dropped due to issues with the siding. He noted Pitsch Company is licensed to deal with hazardous materials.

Peccia stated that under Act 167, the lien attaches to any other real estate property that the defendant owns in the State of Michigan.

2018-114 Waive competitive bidding regarding demolition of 434 Stimson Street.

Motion was made by Spoelman and supported by Schippers to waive competitive bidding regarding the demolition of 434 Stimson Street.

Motion unanimously approved.

2018-115 Contract demolition of 434 Stimson Street.

Motion was made by Spoelman and supported by Schippers to contract Pitsch Companies to provide the necessary demolition services at 434 Stimson Street in an amount up to \$19,500.

Motion unanimously approved.

D. Recommendation regarding extension of solid waste removal contract with Republic Services.

Peccia noted that on June 3, 2013 the City Council awarded a 5-year contract for city-wide residential refuse removal to Republic Services. He stated the contract included the option to extend the contract for two two-year periods. He noted the original contract expires on June 30, 2018 and both the City and Republic Services are interested in extending the relationship. He explained that over the last couple of months, City staff has met with representatives from Republic Services in order to negotiate the terms of the extension following Council's discussion on this matter during their pre-budget work session.

Peccia noted the following:

- 1. Both parties wish to exercise both two-year extensions now, thereby extending the agreement for a total of four (4) years.
- 2. The monthly per unit rate will be increased \$1.46 on July 1, 2018 to \$10.00 per month. Monthly rental rates for the 96-gallon waste container will remain the same.
- 3. The inflationary index that will be utilized to calculate annual changes to the non-fuel portion of the contract will be changed to utilize the water, sewer and trash (WST) index. This will transition the annual consideration of rates to a more relevant index. The City negotiated a cap of 3% to any annual increase.
- 4. The fuel portion of the rate will be reset to the original amount of \$1.50. The index used to adjust this portion of the rate will remain the same, but annual changes to this portion will

only be considered when there is a change in the diesel fuel price index of greater than \$0.70 in either direction.

5. Refuse collection will change from a 4-day schedule to a 5-day schedule. Republic Services will be responsible for communicating any schedule changes to customers.

Peccia stated it is being recommended that Council approve the extension of the refuse removal contract with Republic Services for a total of four (4) years with the contract modifications as presented.

Engels asked about the "no volume limits on trash" that is referenced in the agreement.

Matt Biolette, Republic Services, stated the benefit of "collect all" is that it helps reduce the blight issues within a community.

2018-116 Approve extension of solid waste removal contract with Republic Services.

Motion was made by Schippers and supported by Engels to approve the extension of the refuse removal contract with Republic Services for a total of four (4) years with the contract modifications as presented.

Motion unanimously approved.

ADOPTION OF ORDINANCES AND RESOLUTIONS

A. Adopt Resolution Amending General Appropriations Act for Fiscal Year 2018.

Roberts noted the budget is approved by ordinance and that ordinance includes the authorization and ability to make different appropriations via resolution later in the budget year. He summarized the details of the budget amendment.

<u>2018-117 Adopt Resolution Amending General Appropriations Act for Fiscal Year 2018.</u> Motion was made by Schippers and supported by Engels to adopt the Resolution Amending General

Appropriations Act for Fiscal Year 2018 as presented.

Motion unanimously approved.

B. Adopt Resolution regarding Canada Geese Program.

Peccia stated the Michigan Department of Natural Resources requires a resolution by the legislative body to be in place in order for the City to apply for a permit for the capturing of Canada Geese including for egg and nest destruction. He noted the permit lasts for five (5) years and the previous permit has expired. He added there are timeframes involved with respect to when the City can conduct this program.

2018-118 Adopt Resolution regarding Canada Geese Program.

Motion was made by Spoelman and supported by King to adopt the resolution regarding the Canada Geese Program.

Motion unanimously approved.

MINUTES AND REPORTS OF BOARDS AND COMMISSIONS

- A. Planning Commission
- B. Downtown Development Authority

PUBLIC COMMENTS

There were no public comments.

GOOD OF THE ORDER

Spoelman asked for an update regarding the search process for a Public Safety Director.

Peccia noted there will be an Assessment Center held on May 24, 2018. He stated the Civil Service Commission will be meeting sometime in mid-June to conduct additional interviews and score the candidates.

Schippers briefly discussed the recent grand reopening of the Cadillac Historical Museum. She noted the Goodrich Cadillac 4 had a tour available to go behind the scenes to view the old parts of the theatre. She suggested inviting them to do a presentation as part of a Community Spotlight.

Peccia stated that during the construction of new restroom facilities at Kenwood Park there will be no power available in the park area.

Roberts noted it will take 6-8 weeks to complete the project.

CLOSED SESSION

Adjourn to closed session pursuant to MCL 15.268(a) to consider a periodic personnel evaluation of the City Manager, a public officer and employee, at his written request; to consult with the City Attorney regarding trial or settlement strategy in connection with Wexford County Circuit Court Consolidated Case Nos. 13-24803-CH and 17-27610-CZ, *TeriDee LLC et al. v Clam Lake Township and Haring Charter Township v City of Cadillac and HOP Family, LLC and City of Cadillac v Haring Charter Township and Clam Lake Township;* and to consider the purchase or lease of real property.

2018-119 Adjourn to closed session.

Motion was made by Spoelman and supported by Schippers to adjourn to closed session pursuant to MCL 15.268(a) to consider a periodic personnel evaluation of the City Manager, a public officer and employee, at his written request; to consult with the City Attorney regarding trial or settlement strategy in connection with Wexford County Circuit Court Consolidated Case Nos. 13-24803-CH and 17-27610-CZ, *TeriDee LLC et al. v Clam Lake Township and Haring Charter Township v City of Cadillac and HOP Family, LLC and City of Cadillac v Haring Charter Township and Clam Lake Township;* and to consider the purchase or lease of real property; invite Jeff Dietlin, Director of Utilities, Todd Keway, Human Resources Generalist, and Owen Roberts, Director of Finance, accordingly.

Motion unanimously approved.

2018-120 Return to open session.

Motion was made by Schippers and supported by King to return to open session.

Motion unanimously approved.

Mayor Filkins provided a summary of the City Manager's evaluation. She noted in the six (6) categories of the evaluation process, the City Manager "exceeds" in five (5) categories and "meets" in the remaining category. She stated that overall it was a very positive evaluation. She noted some areas for improvement were identified.

Mayor Filkins recommended that Council discuss compensation and the evaluation process.

Mayor Filkins noted that she and Mayor Pro-Tem Spoelman met with the City Manager (CM) to review the summary of his evaluation.

Mayor Filkins reviewed the current City Manager Compensation & Benefits Package – Effective May 15, 2017. She noted there was a recommendation made by Todd Keway, Human Resources Generalist, for a 6% salary increase. The recommendation was based on a salary survey that was conducted.

Spoelman asked if the CM receives a mileage reimbursement in addition to the Auto Allowance.

Peccia stated he does not receive mileage reimbursement.

Spoelman noted the Deferred Compensation was put in place after the housing allowance was terminated.

Peccia stated in his initial employment agreement the Deferred Compensation was described as "either/or". He noted when the need for a housing allowance ended it converted to what it is now.

Spoelman stated she has an issue with this being an "either/or" benefit and leaving it up to the employee to decide. She noted she feels that if it is deferred compensation and is being placed into a retirement plan than it needs to be stated in that manner. She added if it is cash that the CM can choose not to invest than it needs to be stated in that manner and added to the salary. She stated that a salary is only a portion of the overall package. She noted that when comparing average salaries for City Managers in similar cities, the entire package should be considered.

King stated that when he reviewed the compensation summary he added the Deferred Compensation of \$10,800 to the Base Salary of \$97,370 which equates to \$108,170. He noted in adding the two components the CM is already beyond the average salary.

Engels stated he believes the CM deserves a raise and is willing to entertain an increase less than the 6% that was recommended. He noted he believes the CM is valuable and would be an asset to other municipalities.

Spoelman stated if the \$10,800 is going in to a 457 Plan than it is more than 10% of his salary which is a large amount. She noted she would prefer to add that amount to his base salary.

Engels noted it is worth more as tax deferred retirement than it would be as cash.

Spoelman noted the Deferred Compensation benefit came from past practice.

Peccia stated as part of the negotiation of his initial employment contract, this amount was provided as a housing allowance. He noted after a few years, it was converted to the way it is currently.

Keway stated everyone in an executive position receives various compensation benefits in addition to a base salary. He noted the salary comparison that was done only compares base salary.

King stated a total value of the compensation package for the CM has not been provided.

Keway stated general information regarding benefits is included in the budget.

Roberts stated, in general, \$0.65 of every dollar in compensation is salary and \$0.35 is benefits.

Mayor Filkins noted the CM has not been provided a regular salary increase so it was determined to provide him a 6% increase in 2017 to narrow the salary gap between him and other City Managers.

Schippers recalled discussion last year regarding providing the CM with a 6% increase in 2017 and another 6% increase in 2018.

King noted that would equate to a 12% increase over a 2-year period.

Schippers noted the CM did not receive a salary increase for several years.

King stated he views it as a current income package of \$108,170 which is above the average CM salary listed in the information provided.

Engels noted complete benefit package information for City Managers in other cities is not available.

King stated that since there are variables in compensation packages then the salary information provided should not be used to determine a salary increase for the City Manager.

Mayor Filkins stated Council should consider the base salary and take into consideration the input received from all of the Council Members.

Spoelman recommended the Deferred Compensation component be dealt with in a different manner by removing the "either/or" language.

Peccia stated he utilizes those proceeds to help fund his Individual Retirement Account.

Spoelman stated she wonders how common it is to provide more than 10% for a retirement plan in addition to providing a pension.

King noted he doesn't believe he has the information required to make an educated decision. He stated he would like to know the full value of the compensation package. He explained he is concerned about comparing employees in different municipalities because the full value of compensation packages is unknown. He stated compensation should be based on the performance evaluation utilizing specific metrics.

Engels stated he believes the progress that has been made this year warrants an increase in salary. He noted he would support at least a 3% increase in base salary.

2018-121 Approve base salary increase for City Manager.

Motion was made by Engels and supported by Spoelman that, based on the discussion and the summarized performance evaluation, the City Manager be provided with a 3% increase in base salary which would increase the base salary to \$100,291.

Ayes: Schippers, Spoelman, Engels, Mayor Filkins

Nays: King

King stated he is concerned he doesn't have the information required to make an educated decision. He noted his vote is not a reflection on the City Manager.

Motion carried.

Peccia thanked Council for all of the comments and feedback. He stated he appreciates the support of the City Council and all of the efforts that are done as a team in moving the City forward. He noted he is as excited to be in the City as he was on his first day of employment.

Mayor Filkins stated there was a lot of discussion regarding the evaluation process. She noted Council agreed upon the process that has been used in recent years. She stated there is now a new full Council and there have been some suggestions made by Council Member King to alter the process to include additional metrics. She believes there may need to be some work sessions to discuss changes to the process.

King recommended working with the City Manager to develop the evaluation tool so everyone is clear on the goals. He noted he reached out to the Michigan Municipal League (MML) and the International City Manager's Association and received approximately twenty-five (25) different evaluation tools. He stated they are most effective when they are living documents. He proposed that a "personnel committee" collect information, work with the City Manager, and conduct work sessions to provide the City Manager with the best opportunity for success.

Mayor Filkins stated she believes the entire Council is committed to that concept moving forward because there is always room for improvement in the process.

Schippers stated evaluation models were received from the MML when the process began. She noted Mayor Filkins and Mayor Pro-Tem Spoelman were selected by the Council because of their experience and knowledge in evaluating and managing personnel. She stated she believes goals are important part of the evaluation process.

Engels stated he would like to see a work session scheduled this summer.

<u>ADJOURNMENT</u>

Respectfully submitted,

Carla J. Filkins, Mayor

Sandra L. Wasson, City Clerk



Mixed Use Planned Unit Development Rezoning Request — (former Oleson Block)

Applicant: Dean DeKryger, The DK Design Group

Owner of Property: Cadillac Lofts, LLC

Requested Rezoning: To rezone property from a B-2 zoning district to a Mixed Use Planned Unit Development to include Sketch Plan

Eligibility

 Planning Commission and City Council waived minimum 20 acre size requirement based on project meeting community benefit criteria.

Proposed Site



Existing Site Conditions

The proposed redevelopment site for the Cadillac Lofts, LLC Project currently has three buildings on the site including the 207 S. Mitchell Street, 223 S. Mitchell Street, and the former Oleson Grocery building. The site also contains the clock tower structure.



Existing Site Conditions





Site Preparation

- All three of the existing buildings will be demolished for the new construction.
- The clock tower structure will be disassembled and stored at a city site to be used in the upcoming White Pine Trailhead Project.

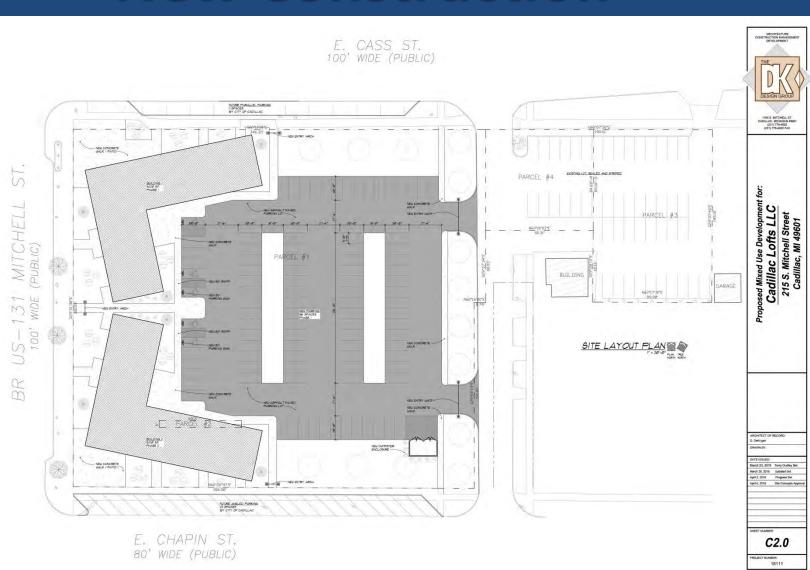
Site Preparation

 Existing curb cuts on S. Mitchell Street, E. Cass Street, and E. Chapin Street will be removed.

New Construction

 The Cadillac Lofts, LLC Project involves the construction of two new mixed use 4-story buildings with each having a ground floor area of 9,220 square feet.

New Construction



New Construction-Use Details

- The first floor of each building (9,220 square feet) is proposed for commercial use.
- The upper three floors of each building will be used for apartments.
- A total of 72 apartment units are proposed with 54 one-bedroom units and 18 two-bedroom units.

New Construction-Site Access

All site access will be relocated to Shelby Street where there will be two driveways. No access from Mitchell Street, E. Cass, or E. Chapin Streets.

New Construction-Parking

- Recommended minimum amount of parking spaces of 135.
 - Eighty spaces for the residential apartments
 - 55 spaces for the 18,440 square feet of commercial space.

New Construction-Parking Details

On-site Parcel 1 88 spaces

On-site Parcel 2 45 spaces

On-street Parking 53 spaces

Total Spaces: 186 spaces

New Construction-Parking Details

- The 88 spaces which are being provide on-site on Parcel 1 will primarily be used for residential parking.
- The 53 on-street parking spaces as well as the 45 on-site spaces on Parcel 2 will be primarily for commercial parking.

New Construction-Coordination with City Departments

The developer has met with all city department heads and is working cooperatively with them to meet individual codes and ordinances relative to fire codes, drainage standards, utility infrastructure and police concerns.



Today's Date	1/24/18	

City Received Date

DECELVED

MUST BE OFFICIALLY CANALSTEE

Request Planning Guide

This form must be completed and return to the City 30 days before an event. Any requests that are longer than a single day will require more planning therefore forms and documents must be received 45 days before the event. Additionally a representative for the event must meet with City Event Team to verify all details for the event before going to City Council for approval.

Failure to comply will result in a denial of your event. Please call (231) 775-0181 x 120 if you have questions.

Applicant Name (Print) DALE HUIZENGA Contact Person(s) Dale Huizengol				
Contact Email				
Sponsoring Organization Cadillac Freedon Festival Private Mon-Profit Exemption				
Purpose(s) & Benefit(s) to Community Cadillac Freedon Festival				
Beginning Date: 6/28/18 Ending Date: 7/2/18 Reoccurring: VES NO				
1st Day 6 /28/18 Set-up 5:00 AM Start : AM/PM End : AM/PM Tear-down : AM/PM				
2nd Day 6/29/18 Set-up 7:00 M/PM Start 10:00 M/PM End 12:00 M/PM Tear-down : AM/PM				
3rd Day 6/30/18 Set-up 7:00 AM/PM Start 10:00 AM/PM End 2:00 AM/PM Tear-down : AM/PM				
4th Day 7/1/18 Set-up 7.50 M/PM Start 10.50 M/PM End 12:00 MN/PM Tear-down : AM/PM				
5th Day 7/2/18 Set-up : AM/PM Start : AM/PM End : AM/PM Tear-down 7:00 QM/PM				
YES ✓ NO. Will you be requesting permission to close any streets or parking lots? (Form 1)				
YES ✓ NO Will you be requesting permission to display any off site signage? (Form 2) YES ✓ NO Will you be requesting permission to display a banner over Mitchell Street? (Form 3)				
YES NO Will you be requesting permission to display a batmer over whiteher street (1011113)				
YES VO Will you be requesting permission to reserve the Rotary Pavilion? (Form 5)				
YES V NO Will you be requesting permission to use any City Parks? (Form 6)				
YES √ NO Will you be requesting permission to have a parade? (Form 7)				
YES V NO Will you be requesting permission to hold any races? (Form 8)				
YES V NO Will you be requesting permission to serve alcoholic beverages? (Form 9)				
YES NO Will your event include a craft show, trade show, fair, carnival, fireworks display, tent/membrane				
structure, or other large assembly functions? (Form 10)				
if you answered <u>YES</u> to any of the above questions, additional form(s) must be completed for each one. All forms must be completely filled out and all information provided before requests will be brought to City Council for approval.				
No additional requests other than those requested on these forms will be approved.				
Form must be mailed or delivered to the above address or emailed to: javila@cadillac-mi.net (No Faxes accepted)				
I understand and agree to these requirements & understand if these are not met the request will be denied.				
Print Name DALE HUIZEUGA Signature Date 124/18				



Today's Date

City Received Date

MUST BE OFFICIALLY CITY DATE STAMP

Street & Parking Lot Closure Request Form

		Please fill out a separate form for	r each date	
Reaso	on for Request Codillac	Freedom Festival		
Conta	ct Person Dale Hui	78150		
1.0				
	Date: 6/29/18	7-2-18 Street Closures		
	Street Name CASS	Beginning Location ETKAILY	Ending Location LAKE ST	
		Beginning Time 7:00 (IN)/PM		
	Street Name LAKE	Beginning Location CASS	Ending Location 1+mars	
	CHESTNUT	Beginning Time 7. M/PM	Ending Time / 2: AM/PM	
	Street Name	Beginning Location BAT LAUNCE	Ending Location LIGHSCH - FREWORKS	
		Beginning Time:AM/PM	Ending Time:AM/PM	
1	Street Name	Beginning Location	Ending Location	
		Beginning Time:AM/PM	Ending Time:AM/PM	
	Date 6/28/18 -	7-2-18 Parking Lot Closure	es	
- 1	Lot Location Sov Th Lo7	Street CASS N	learest Cross Street MITCHELL	
-	commons		AM/PM Ending Time 7 : AM/PM	
	Lot Location	StreetN	learest Cross Street	
1		Beginning Time:	AM/PM Ending Time:AM/PM	
	Lot Location	StreetN	learest Cross Street	
		Beginning Time:	AM/PM Ending Time:AM/PM	
L				
Form	must be mailed or delivered t	to the above address or emailed to	: javila@cadillac-mi.net (No Faxes accepted)	
1 unde	erstand and agree to these red	quirements & understand if these	are not met the request will be denied.	
	Dutil sono		1 . 2" . 12	
Print I	Name DALE HUITEDGA	Signature	Date 1/24/18	
	111	II be a stiffer of the and disk and land a second to	is a said and for the acceptation are an area and	
Heg	uest will be reviewed & you wil		n is needed and/or if request is approved or denied.	
, v v » v	******	For Office Use Only		
Street	is	Date Approved	Comments	
	••	Date Approved		
Fire _		Date Approved	Comments	
_			Comments	
City N	Manager	Date Approved	Comments	
City C	ouncil			



18

Cadillac Rotary Pe	rforming Arts Pav	ilion Reservation	Request Form
Event Cadillac Freedom	Please Submit 30-days Pl	rior to Event Date	
Organization Cadillac Freedon	Festival	Contact Number	
Date of Event: 6/29/18 Set-up T	ime: 7 AM PM Starting T	ime: AM PM Ending	Time: 12. ADOM
Multi Use from 6/29/18 throw			
Electricity Water	Wind Screens Sc	ound System Me	ovie Screen/Projector System
Usage Rules	1		
Profanity and offensive language	e is strictly prohibited		
2. Noise must be limited to levels		and must be lowered at th	e City's request
-			use damage to the Pavilion, grounds
			ibited, along with the use of stakes in the
			nsing to show copyrighted material is ropriate.
5. Any signage or decorations mus	t be removed immediately fol	lowing any event.	41 ***
	-		th of the pavilion can be utilized for g is prohibited on Lake Street, even if it
has been closed for the event.			
The sale of food and non-alcohol	olic beverages may require an	additional license. (Code of	Ordinances-Chapter 28)
8. The consumption or sale of alco	holic beverages requires appr	oval of City Council. (Code	of Ordinances-Chapter 26)
 Fees - A \$35 non-refundable de due 30-days prior to the event of 		e date and time of the even	t, and Rental Fees of \$30 per hour are
I understand and agree to comply with		that the City reserves the r	ight to change or cancel any event or
program that is not in compliance with			•
	Signature		
	or delivered to Cadillac City H		
200 N	I. Lake Street in Cadillac, MI 4	9601 (Faxes will not be acc	epted)
Print Name DALE HUZENSA	Total Fees Required:	Total Fees Paid:	Date 1 /24/18
Request will be reviewed & you	vill be notified if additional in	formation is needed and/a	r if request is approved or denied.
	For Office Use	Only	•
Parks	Comments		Date Approved
ParksStreets	Comments		Date Approved
Community Dev.	Comments		Date Approved
City Police			Date Approved
City Fire	Comments		Date Approved



Today's Date 4 1/24/18

City Received Date

MUST BE OFFICIALLY CITY DATE STAMP

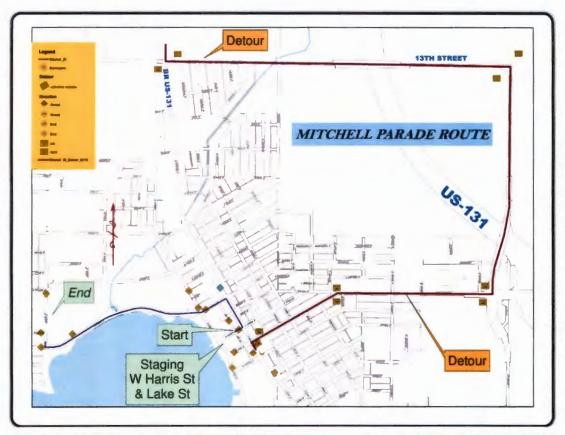
City Parks Request Form
Reason for Request Codillac Freedom Festival
Organization Codillac Freedon Festival Contact Person Dale Huzergoi
Contact Phone
Date 6/28/18-7/2/18 Times 6/28/18(5pm) - 7/2/18/(7am)
City Parks Please Check One
☑ Downtown "Fountain" City Park
□ Sound Garden
☐ The Bridge
☐ Naval Reserve Flower Open Space
City of Cadillac Guidelines:
City of Cadillac Guidelines:
Please read the following and initial to acknowledge your understanding
All Parks are for public use
The City does not provide any tents, tables, chairs, rugs, extension cords etc The fountain may not be operating due to equipment break downs or weather conditions such as wind
I understand and agree to these requirements and understand if these are not met the request will be denied
Not all parks have space for tents, chairs etc.
Form must be emailed, mailed or brought to:
Cadillac City Hall Attn: Public Works Department-Events
200 N. Lake Street
Cadillac, MI 49601
Print Name DALE HUITENGA Signature Date 1/24/18

Request will be reviewed & you will be notified if additional information is needed and/or if request is approved or denied.



То	day's Date
Ci	ty Received Dates CE I WER
1	
-1	MUST BE OFF TOTALLY COTY THE STAMP

Parade Request Form						
Name of Parade Freedom	Festival T	arade				
Purpose of Parade	nual Cele	bration				
Requesting Organization Free						
	om restiu	all Committee	E			
Contact Person(s)	rush					
Contact Pho	2	Contact Email				
Date of Parade <u>6/30/18</u>		Approx. number of p	articipating groups	30		
Requested Route □Lake Street ☑M	litchell Street	Staging Time 8:00	AM)PM			
Starting Time 10:0	MPM	Ending Time 1(: 00	М РМ			
City of Cadillac & State of Michigan Rules Parade requests must be turned in a minimum of 6 weeks before parade Only one (1) parade is allowed per month Parades are only allowed on Holiday mornings, Saturday mornings, or Weekday evenings. Parades must use one of the designated routes (See back side for the two (2) route options) Lake Street Parade Route is preferred so closure of US-131 can be avoided Mitchell Street Parade Route is only granted under special circumstances. The parade must be a well-established, annual parade with 40+ participating groups. Form must be mailed or delivered to the above address or emailed to: javila@cadillac-mi.net (No Faxes accepted) I understand and agree to these requirements & understand if these are not met the request will be denied. Print Name And Bush Signature Date 2 15518						
Request will be reviewed & you will !	be notified if addit	ional information is nec	eded and/or if request is	s approved or denied.		
***************************************			******	***********		
		Office Use Only				
Streets	_ Date Approv		Comments			
Parks			CommentsComments			
Fire						
Police			Comments			
Risk Management			Comments			
City Manager			Comments			
MDOT			Comments			
City Council	_ Date Approv	ed (Comments			







Today's	Date			

City Received Date CE | V F

MUST BE OF FEB. L. ST 2018 E STAMP

	Race Request F	orm	
Name of Race Cadillac Fre	edom Festival Race	2	
Purpose of Race Fundraiser	Cadillac High Sche	ol NHS	
Requesting Organization Freedo			
Contact Person(s) Ann Bu		1 1 1 1 1 1	1
	_ Contact Email_ @nr	· bushecadilla	c. Kla, milus
Date of Race <u>6/30/18</u>	Approx. number of p	articipates 80	
Registration Location Pavilion			
Starting Time 8:00 AM/PM	Ending Time 9:30	ANY PINI	
	City of Cadillac Rules		
	must be used unless approved	by Police Department	(Route on backside)
,	ole sidewalk chalk or small sig		
	nd will be strictly enforced & f		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
			mont monting
	le for all clean-up including re		ement markings
•	not provide escorting service		
 Organizations are responsib 	le for providing designated sa	fety and security worke	rs & escorts
 No streets are to be blocked 	off unless reviewed with City	Staff & approved by Cit	ty Council
 Participates must follow all ! 	State & City laws		
·	le for providing their own tab	es, tents, porta johns e	tc
		Ab to construct	
	ing must be provided with		
Proof of Liability Insurance (1 m			
Proof of Marine Permit from DI			
Approval from Wexford Road (y Police Dept. if race is	outside of City Limits
Detailed Daily schedule/agenda	of races and events		
e de la constitución de la const	- above address as amolfod to lis	vila@cadillas mi not (No	Favor accontad)
Form must be mailed or delivered to the			
I understand and agree to these require	ments & understand if these are	not met the request will	be denied.
OP I	a. DE		2 115/19
Print Name Ann Bush	Signature		Date 2 / 15 / 18
Request will be reviewed & you will		tion is needed and/or if r	equest is approved or denied
**************************************	AAAAAAAAAAAAAAAAAAAAAA	*****	*****************
	For Office Use Only		
Streets	Date Approved		
Parks	Date Approved		
Fire	Date Approved	Comments	
Police	Date Approved		
Risk Management	Date Approved		
City Manager	Date Approved		
City Council	Date Approved	Comments	

5K - RUN

Date ----- 2016

Race Start Time: ----- AM
Race Starts and Ends at City Park
Lake Street
Surface: Sidewalk and Road





Note: The course is marked and ----- are on the course to provide directions and safety.



Today's Date_	V24/18
-	

City Received Date

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www.cadmac-manet	Alcoholic Beverage Re	quest Form	
Event Name		fival	
Contact Person(s)	Huzenga		
Date of Event 6/29/18	through 7/1/18 Approx. no	umber of participating groups	
Starting Time 5	120m Ending Tir		
	City of Cadillac & State of I	Michigan Guidelines:	
Double fence Inspection of sit	te		
	•	·	4:
		ed to: javila@cadillac-mi.net (No Foxes of these are not met the request will be deni	
Print Name DALE HO	VECENGA Signature	Date_	124/18
		ation is needed and/or if request is approve	
	For Office Use On		
Streets	Date Approved	Comments	
Parks	Date Approved	Comments	
Fire	Date Approved	Comments	
Police	Date Approved	Comments	
City Manager		Comments	
State of MI	Date Approved	Comments	
City Council :	Data Approved	Comments	



Fire Department

200 North Lake Street Cadillac, Michigan, 49601 Phone 231-775-3114 or Fax 231-775-1408

SPECIAL EVENT PLAN REVIEW / PERMIT APPLICATION

This permit application is for special events including exhibitions, craft shows, trade shows, fairs, carnivals, fireworks displays, tents/membrane structures, and other large assembly functions.

Submit with application the permit fee of \$75.00 by check payable to the City of Cadillac.

The following information must accompany this application:

- 1. Scaled site plan showing vehicle parking, traffic patterns, emergency vehicle access, and fire lanes.
- 2. Scaled floor plan showing floor plan layout, exit locations, egress aisles and widths, interior finishes flame spread / smoke development ratings, and fire extinguisher locations.

DATE: 6 April 2018	(INTERNAL USE) PERMIT #:
APPLICANT/CONTACT PERSON: Dole Huzene	વનો
ADDRESS: P.O. Box 853	
CITY: Cadillac	STATE: MI ZIP: 49601
PHONE NUMBERS: BUSINESS:	CELL
EMAIL:	
TYPE OF EVENT: Cardillac Freedom Festi.	val Fireworks Show
EVENT DATE(S): 1 July 2018 HOUR	RS OF OPERATION: 10pm - 10:30pm
TEMPORARY TENTS/STRUCTURES: YES	NO 📝
BUSINESS/ORGANIZATION OR BUILDING NAME:	
SITE ADDRESS: Next to Codellac !	high School Baseball Field
CITY: Cadillac	STATE: MC ZIP: 49601
One (1) plan review and one (1) inspection are included. For inspections during non-business hours, inspections are minimum two (2) hour charge. Additional inspections are charged at \$50.00 per hour during non-business hours.	re charged at \$100.00 per hour with a
Applicant Signature:	

Cadillac Freedom Fest

Friday, June 29th – Kids Day

- 10am Carnival Starts in City Park Rides, vendors/food, Monster Mural & more!
- Ipm Storytime & Activities
- 3pm Storybook Princess
- 5pm to 7pm Landing Dance Academy Performance at the Rotary Pavilion
- 5pm to 9pm Red, White & Brew Wine and Beer tasting at Cadillac Commons
- 6pm Splash Dance & Pizza Party at the Splash Pad in Cadillac Commons
- 9pm Fire on the Water Military Tribute at the City Docks
- 10pm Community Movie at the Rotary Pavilion Sponsored by the Cadillac Fire Dept. (Movie title yet TBD)

Saturday, June 30th

- 6:45am to 7:30am 5k Registration Opens at the Rotary Pavilion
- 8am to 9:30am Freedom Festival 5k to benefit CHS Honor Society
- 10am all day Carnival rides, vendors/food, monster mural & more!
- 10am to 11am Freedom Festival Parade (Downtown Cadillac)
- Noon to 3:30pm Thunder on the Lakeshore Motorcycle Show on Lake St.
- 6pm to 10pm Live Music at the Rotary Pavilion
- 10pm to Midnight Live Music under the Beverage Tent

Sunday, July 1st

- 8am Pork in the Park BBQ Competition Registration, 9am cook start.
- 10am all day Carnival rides, vendors/food, monster mural & more!
- 11am Community Church Service at the Rotary Pavilion
- Ipm Pork in the Park Rib tasting tickets on sale LIMITED QUANTITIES. BUY THEM EARLY!!
- 3pm to 6pm Pork in the Park people's choice rib tasting (5 tickets for \$10, additional tickets \$2 each)
- 6pm Pork in the Park judging and awards ceremony
- 7pm to 10pm Live Music at the Rotary Pavilion
- Dusk (around 10pm) Community Fireworks Display over Lake Cadillac
- 10pm to Midnight Live Music under the Beer Tent in the City Park



City Received Date

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Banner Request Form

Monday Banner Start	Date 6 / 18/18	Monday Banner End Date 7 / 2 / 18
-		s unless it is a Holiday, then it will be the following day)
(1	Banners may only be reques	sted for <u>one week at a time</u> per form)
Reason for Banner	illac Freedon Fe	stival
Organization Cadillac	Freedon Festival	Contact Person Dale Huizerge
Contact Pho		
	City of Cadillac & Stat	te of Michigan Guidelines:
✓ Banner requested da	te is a minimum of 2 months	s prior to display date requested.
		this request form or it will not be approved.
		e banner is hung during inclement weather.
	nsible for any damages to the	
	for a reasonable and public p	
		nich may be construed to advertise, promote the sale of, or
	andise or commodity, or be p	
. /	• • • • • • • • • • • • • • • • • • • •	paying for the banner if such is not an obvious advertising of
	sale of the sponsor's goods	110
		s not exceed three inches if on a single line or two-inches if on
more than one line.		•
✓ Banner does not cont	ain an address or directions	to location.
✓ Banner meets all the	design specifications on the	back of this form.
		mum of 1 week before banner is to be displayed.
		. Call Street Supervisor at (231)920 -7800 to schedule time.
		g displayed; if it is not picked up, the banner will be disposed o
Form must be mailed or delive	ered to the above address or	remailed to: <u>iavila@cadillac-mi.net</u> (No Faxes accepted)
I understand and agree to the	se requirements & understa	nd if these are not met the request will be denied.
		-
Print Name DALE H	Signature Signature	Date 1/24/18
		al information is needed and/or if request is approved or denied.
*****************		e Use Only
Streets	Date Approved	Comments
City Manager		
State of Michigan	Date Approved_	Comments
City Council		

Annually 1st CADILLA G FREEDOM FESTIVAL OF FUN
Weekend in July CADILLA G FESTIVAL OF FUN
Live Music BBQ Cook off Military Tributes Parade Motorcycle Show Yendors Fireworks much more...

Freedom Festival

Street Closures: 7:00am June 29th thru July 2nd 12:00pm

Cass St between Elk alley & Lake St

Lake St between Cass & Harris

For Fireworks **Chestnut St** between boat launch & Cadillac Jr High School

Parking Closure: 5:00am June 28th thru July 2nd 7:00am

South lot @ the Commons along Cass St

Beverage Tent @ City Park 12:00pm to 12:00am

Fireworks July 1st Dusk

Parade June 30th Parade down Mitchell St 10am



Today's Date	
City Received Date	RECEIVED
MUST BE OFFICIAL	FEB 0 8 2018

Request Planning Guide

This form must be completed and return to the City <u>30 days</u> before an event. Any requests that are longer than a single day will require more planning therefore forms and documents must be received <u>45 days</u> before the event. Additionally a representative for the event must meet with City Event Team to verify all details for the event before going to City Council for approval.

Failure to comply will result in a denial of your event. Please call (231) 775-0181 x 120 if you have questions.

Applicant Name (Print) Clam Lake Band Contact Person(s) Zach VanderGraaff
Contact Eman
Sponsoring Organization Clam Lake Band Private Won-Profit Exemption
Purpose(s) & Benefit(s) to Community Free band concerts for the public!
Beginning Date: 7 / 2 / 2018 Ending Date: 8 / 13/ 2018 Reoccurring: YES NO
1st Day ALL MONDAYSet-up 6: 30 AM/PM Start 7: 00 AM/PM End 8: 00 AM/PM Tear-down 8: 30 AM/PM
2nd Day Set-up:AM/PM Start:AM/PM End:AM/PM Tear-down:AM/PM
3rd Day Set-up:AM/PM Start:AM/PM End:AM/PM Tear-down:AM/PM
4th Day Set-up _:AM/PM Start _:AM/PM End _:AM/PM Tear-down _:AM/PM
5th Day Set-up:AM/PM Start:AM/PM End:AM/PM Tear-down:AM/PM
YES_X NO_ Will you be requesting permission to close any streets or parking lots? (Form 1) YES_NO_Vill you be requesting permission to display any off site signage? (Form 2) YES_NO_Vill you be requesting permission to display a banner over Mitchell Street? (Form 3) YES_NO_Vill you be requesting permission to hold Farmer's Markets? (Form 4) YES_V NO_Will you be requesting permission to reserve the Rotary Pavilion? (Form 5) YES_NO_Vill you be requesting permission to use any City Parks? (Form 6) YES_NO_Vill you be requesting permission to have a parade? (Form 7) YES_NO_Vill you be requesting permission to hold any races? (Form 8) YES_NO_Vill you be requesting permission to serve alcoholic beverages? (Form 9) YES_NO_Vill your event include a craft show, trade show, fair, carnival, fireworks display, tent/membrane structure, or other large assembly functions? (Form 10)
if you answered <u>YES</u> to any of the above questions, additional form(s) must be completed for each one. All forms must be completely filled out and all information provided before requests will be brought to City Council for approval. No additional requests other than those requested on these forms will be approved.
Form must be mailed or delivered to the above address or emailed to: javila@cadillac-mi.net (No Faxes accepted) I understand and agree to these requirements & understand if these are not met the request will be denied.
Print Name Zach VanderGraaff Signature Date _2 / 8 / 2018



2/8/2018	
Date	

the

	(521) 1/2-0191	•			
www.c	adillac-mi.net				
	Cadilla	c Rotary Po	erforming Arts	Pavilion Reser	vation Request Form
			Please Submit 30-	days Prior to Event Date	•
Event_	CLAME LA	KE BAND CON	ICERTS		
Organia	zationCLAN	I LAKE Band		Contact Num	ber
Date of	f Event: <u>7</u> <u>/ 2</u>	<u>/ 201</u> 8 Set-up	Time: 6:30 PM Sta	arting Time: 7 Al 1 PM	Ending Time: 8 AMPM
MC	ONDAYS FRO	OM 7/2-8/13/20	018		
			Special K	equests: Please Circle	
	lectricity	Water	Wind Screens	Sound System	Movie Screen/Projector System
<u>Usage</u>	<u>Rules</u>				
1.	Profanity and	l offensive langua	age is strictly prohibited.		
2.	•	_		peace, and must be lower	ered at the City's request.
3.					nat will cause damage to the Pavilion, grounds
.				•	rictly prohibited, along with the use of stakes in t
4.	Movies/prog				oper licensing to show copyrighted material is
	-	-		MPAA ratings of G and PO	
5.				itely following any event.	
6.	No vehicles a	re permitted on	sidewalks or grass. Howe	ever, the sidewalk immed	iately south of the pavilion can be utilized for
		arking for the pur sed for the event	•	pick-up of equipment on	ly. Parking is prohibited on Lake Street, even if it
7.	The sale of fo	ood and non-alco	holic beverages may req	uire an additional license	. (Code of Ordinances-Chapter 28)
8.	The consump	otion or sale of al	coholic beverages requir	es approval of City Counc	cil. (Code of Ordinances-Chapter 26)
9.	Fees - A \$35	non-refundable d	leposit is required to res	erve the date and time of	f the event, and Rental Fees of \$30 per hour are
	due 30-days	prior to the even	t date.		
		ree to comply wit n compliance wit	A .	wledge that the City rese	rves the right to change or cancel any event or
	For	m must be maile	d or delivered to Cadilla	c City Hall, Attention Pul	olic Works Department-Events at
		200	N. Lake Street in Cadilla	ac, MI 49601 (Faxes will i	not be accepted)
Print N	lame ZACH	ERY VANDER	GRAMMal Fees Require	d:Total Fee	es Paid: Date//
	Reguest will b	e reviewed & you		ional information is need fice Use Only	ded and/or if request is approved or denied.
Parks		·····			Date Approved
			Comments		Date Approved
Comm	unity Dev		Comments		Date Approved
			Comments_		Date Approved
City Fir	re		Comments		Date Approved



Today	y's	Date			

City Received Date

MUST BE OFFICIALLY CITY DATE STAMP

Street & Parking Lot Closure Request Form

	3	Please fill out a separate form for each date	
Reaso	on for RequestClam Lake Ba	and Concerts	
Conta	ct Person Zachery Vand	derGraaff	
Conta	ct Phon	Contact Email	
ſ	Date: 7 / 2 / 2018	- 8/13/2018 Street Closures MONDAYS	
ı	Street Name Lake St	t Beginning Location Ending Location	
		Beginning Time 6: 30AM/PM Ending Time 8: 30AM/PM	
1	Street Name	Beginning Location Ending Location	
		Beginning Time:AM/PM Ending Time:AM/PM	
ı	Street Name	Beginning Location Ending Location	
		Beginning Time:AM/PM	
ı	Street Name	Beginning Location Ending Location	
1	4	Beginning Time:AM/PM Ending Time:AM/PM	
	Date//	Parking Lot Closures	
ı	Lot Location	Street Nearest Cross Street	
		Beginning Time :AM/PM Ending Time:AM/PM	
	Lot Location	Street Nearest Cross Street	
I	201 200011011	Beginning Time :AM/PM Ending Time:AM/PM	
- [Lot Location	Street Nearest Cross Street	
	200 20000011	Beginning Time : AM/PM Ending Time:_AM/PM	
L			
Form	must be mailed or deliver	red to the above address or emailed to: javila@cadillac-mi.net (No Faxes accepto	ed)
l unde	erstand and agree to thes	se requirements & understand if these are not met the request will be denied.	
	_	. /	
Print	Name Zachery Vander	Graaff Signature M/ Date 2 /8 /	<u>/_2018</u>
		<i>i v</i>	
		ou will be notified if additional information is needed and/or if request is approved or de	<u>eniea.</u> •••••
****		For Office Use Only	• • • • • • •
Stree	ts		
		Date Approved Comments	
Fire _		Date Approved Comments	
Police		Date Approved Comments	
	Manager	Date Approved Comments	
City C	Council	Date Approved Comments	



Today's Date 2-	8-18
-----------------	------

City Received Date

MUST BE OFFICIALLY CITY DATE STAMP

Request Planning Guide

This form must be completed and return to the City 30 days before an event. Any requests that are longer than a single day will require more planning therefore forms and documents must be received 45 days before the event. Additionally a representative for the event must meet with City Event Team to verify all details for the event before going to City Council for approval.

Failure to comply will result in a denial of your event. Please call (231) 775-0181 x 120 if you have questions.

tallity of the control of your event. Fleuse can (251) 775-0181 x 120 if you have questions.
Applicant Name (Print) Up Beat Cadillac Contact Person(s) Jim Scully
Contact Email
. 6 0 //
Purpose(s) & Benefit(s) to Community Bring Porld Class enter fainment for by
from around the country, to condillor - OUR 22 nd year
Beginning Date: 6 12/1/18 Ending Date: 8 123/18 Weekly Reoccurring: PES NO
1st Day Work Set-up S D AM/RM Start : AM/PM End : AM/PM Tear-down : AM/PM
2nd Day Set-up:AM/PM Start:AM/PM End:AM/PM Tear-down:AM/PM
3rd Day Set-up _ :AM/PM Start _ :AM/PM End _ :AM/PM Tear-down _ :AM/PM
4th Day Set-up:AM/PM
5th Day Set-up:AM/PM Start:AM/PM End:AM/PM Tear-down:AM/PM
YES NO Will you be requesting permission to close any streets or parking lots? (Form 1)
YES X NO Will you be requesting permission to display any off site signage? (Form 2)
YESNO Will you be requesting permission to display a banner over Mitchell Street? (Form 3)
YES NO Will you be requesting permission to hold Farmer's Markets? (Form 4)
YES NO Will you be requesting permission to reserve the Rotary Pavilion? (Form 5)
YES NO Will you be requesting permission to use any City Parks? (Form 6)
YESNOXWill you be requesting permission to have a parade? (Form 7)
YES NO Will you be requesting permission to hold any races? (Form 8)
YES NO Will you be requesting permission to serve alcoholic beverages? (Form 9)
YESNO Will your event include a craft show, trade show, fair, carnival, fireworks display, tent/membrane structure, or other large assembly functions? (Form 10)
structure, or other large assembly functions: (Form 10)
If you answered YES to any of the above questions, additional form(s) must be completed for each one. All forms must be
completely filled out and all information provided before requests will be brought to City Council for approval.
No additional requests other than those requested on these forms will be approved.
Form must be mailed or delivered to the above address or emailed to: javila@cadillac-mi.net (No Faxes accepted)
I understand and agree to these requirements & understand if these are not met the request will be denied.
Print Name Timoly Scyly Signature Date 18,2018



Today's Date	
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City Received Date

MUST BE OFFICIALLY CITY DATE STAMP

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Cadillac Rotary Performing Arts Pavilion Reservation Request Form

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Date	of Event: 5 /21/ 15 Set-	Special Requests: Please Circle Water Wind Screens Sound System Movie Screen/Projector System Profanity and offensive language is strictly prohibited. Noise must be limited to levels that do not disturb the peace, and must be lowered at the City's request. No decorations, props, or appurtenances shall be used or placed in a manner that will cause damage to the Pavilion, grounds including trees), or surrounding areas. The use of nails, tacks, staples, etc. is strictly prohibited, along with the use of stakes in		
			Contact Number Special Requests: Please Circle Screens Sound System Movie Screen/Projector System Movie Screen/Projecto	
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7.	The sale of food and non-al	coholic beverages may require	e an additional license.	(Code of Ordinances-Chapter 28)
8.	The consumption or sale of	alcoholic beverages requires	approval of City Counci	I. (Code of Ordinances-Chapter 26)
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l und	lerstand and agree to comply v	with these rules, and acknowle	edge that the City reserv	ves the right to change or cancel any event or
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Comm	nunity Dev	Comments		Date Approved
City Po	olice	Comments		Date Approved
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Council Communication

RE: "Medical Marihuana- Introductory Discussion Regarding Process & Future Engagement with the Community"

According to the Medical Marihuana Facilities Licensing Act ("MMFLA") Fact Sheet the Michigan Municipal League ("MML") provided, the MMFLA establishes ten core principles (can be found on the first supplemental document) that in summary provides for the following:

- 1. Legalizes the medical use of marihuana-infused products
- 2. Creates the Medical Marihuana Licensing Board with the Department of Licensing and Regulatory Affairs ("LARA")
- 3. Requires an annual license for the following categorized entities to operate a facility:
 - a. Growers
 - b. Processors
 - c. Provisioning Centers
 - d. Secure Transporters
 - e. Safety Compliance Facilities
- 4. Allows municipalities to choose whether to allow any of the aforementioned marihuana facilities within their jurisdictions by opting-in via an ordinance that clearly authorizes them, and provides for the municipality to charge an annual fee up to \$5,000 per facility to defray administrative and enforcement costs

The City of Cadillac, prior to the MMFLA becoming law instituted a moratorium on medical marihuana facilities after the City Council determined to take a "wait and see" approach several years go as to how the State of Michigan will implement the new provisions. Unfortunately, implementation of the MMFLA has been challenging for the State, and as of April 19, 2018, LARA has yet to issue a License. As of May 30, 2018, LARA has issued new Emergency Rules and an extension for operators to get their license from the State to September 15, 2018 if they submitted their application by or before February 15, 2018, and are located in a municipality that opted-in by adopting an ordinance by or before December 15, 2017.

Although there has been progress regarding the implementation of the MMFLA, it is uncertain as to whether the current discussion at the State level regarding legalizing marihuana for recreational purposes will impact the implementation of the medical marihuana law; however, it is anticipated that by the voters will have the opportunity to determine by referendum in November 2018 if recreational marihuana should be allowed.

Looking ahead, and in summary, the City Council may wish to discuss the following options regarding the MMFLA that include but are not limited to:

- a. Continue to take a "wait and see" approach regarding whether to opt-in or remain in the default opted-out position
- b. Engage City constituencies to provide an opportunity to receive feedback regarding whether the City should consider opting-in under the MMFLA, and if so, whether it should allow all five categories, limit the opt-in to only certain categories, and what potential acceptable provisions should be required (i.e., distance from schools, zones, etc.).

a. If "yes", then how should City constituencies be engaged? Examples may include a direct mailed survey; public forum outside of what will be a least two required public hearings between the Planning Commission and City Council; neighborhood meetings; other?

Note, if a determination is made by the City Council to opt-in (regardless as to whether the decision is to allow some or all of the categories), the next likely step prior to adoption of the opt-in ordinance would be to remand the issue, along with feedback, to the Planning Commission. The Planning Commission would develop any necessary zoning amendments to allow the use(s) for the City Council to consider.

To aid in becoming more familiar with the MMFLA, and various issues and opinions regarding medical marihuana, the following supplemental documents have been provided:

- MML Medical Marihuana Facilities Licensing Act Fact Sheet, Q & A, and Opt-in/Opt-Out Update
- LARA Municipal Opt-In List as of May 4, 2018
- Michigan Snippet of Laws, Regulation & Maps by Weedmaps and Cannabis Legal Group
- MML Presentation Regarding State and Local Regulation of Medical Marihuana
- LARA Extends Deadline for Pot Shops Without a License & Emergency Rules May 30, 2018
- Downsides of Legalizing Marihuana Cadillac News May 30, 2018
- Why Michigan hasn't given out any medical marihuana licenses yet Detroit Free Press April 29, 2018
- Dispelling Myths- Marihuana Regulation by Weedmaps
- 3 States Most Likely to Legalize Marihuana This Year
- City Could Legalize Medical Marihuana by July The Ticker April 24, 2018
- The Trump Administration and the State-Licensed Marijuana Industry Vanderbilt Law School White Paper – April 29, 2017
- 2017 Legalization of Marihuana in Colorado Impact Report
- Marihuana Use Driving Washington State Report Washington Traffic Safety Commission April 2018
- Pot During Pregnancy Article regarding a University of Colorado research report May 4, 2018
- Evart Approves Medical Marihuana 9 & 10 News September 14, 2017
- Mount Pleasant Committee Recommendations Summary July 12, 2017
- Mount Pleasant MMFLA Infographic May 2018
- Battle Creek Staff Report to Planning Commission Summary December 6, 2017

Recommended Action:

Discuss whether to continue with the "wait and see" approach or if not, discuss how the City should engage its constituents in so far as obtaining feedback regarding whether to opt-in or stay opted-out of the Medical Marihuana Licensing Act.



michigan municipal league

Medical Marihuana Facilities Licensing Act

Introduction

On September 21, Governor Snyder signed a package of bills (2016 PA 281-283) that significantly expand the types of medical marihuana facilities permitted under state law, and establishes a licensing scheme similar to the scheme for liquor licenses. Notably, these bills do not require a state license to operate as a primary caregiver under the Michigan Medical Marihuana Act, nor do they allow municipalities to prohibit operation as a primary caregiver. The existing regulatory scheme regarding primary caregivers remains in effect.

Requirements under the new Act

Among other things, the legislation:

- 1. Legalizes the medical use of marihuana-infused products, commonly known as "edibles," for purposes of state law.
- 2. Creates the Medical Marihuana Licensing Board within the Michigan Department of Licensing and Regulatory Affairs (LARA) to issue licenses for various medical marihuana facilities.
- 3. Requires an annual license for any of the following entities to operate a marihuana facility:
 - Growers—licensees that cultivate, dry, trim, or cure and package marihuana for sale to a processor or provisioning center. Registered patients and primary caregivers who lawfully cultivate marihuana in the quantities and for the purposes permitted under the Medical Marihuana Act are not considered "growers" under the new legislation.
 - Processors—licensees that purchase marijuana from a grower and extract resin from the marijuana or create a marijuana-infused product for sale and transfer in packaged form to a provisioning center.
 - Provisioning centers—licensees that purchase marihuana from a grower or processor and sell, supply, or provide marihuana to patients, directly or through the patient's caregiver.
 - Secure transporters—licensees that store marihuana and transport it between marihuana facilities for a fee.
 - Safety compliance facilities—licensees that receive marihuana from a marihuana facility or primary caregiver and test it for contaminants and other substances.
- 4. Allows municipalities to choose whether to allow any of these marijuana facilities within their jurisdictions. If the municipality takes no action, none of the facilities are allowed. A municipality that wishes to allow these facilities must enact an ordinance explicitly authorizing them.
- 5. Authorizes municipalities to charge an annual fee of up to \$5,000 on licensed marihuana facilities to defray administrative and enforcement costs.
- 6. Authorizes municipalities to adopt ordinances relating to marihuana facilities within their jurisdiction, including zoning ordinances.
- 7. Prohibits municipalities from imposing regulations regarding the purity or pricing of marihuana or interfering or conflicting with statutory regulations for licensing marihuana facilities.
- 8. Requires municipalities to provide to the Medical Marihuana Licensing Board within 90 days after notice that a license application was filed: (a) a copy of any ordinance authorizing the marihuana facility, (b) a copy of any zoning regulation applicable to the facility, and (c) a description of any previous medical-marihuana related ordinance violation.
- 9. Exempts from FOIA disclosure any information a municipality obtains in connection with a license application.
- 10. Requires the state to establish a "seed to sale" computer tracking system to compile data regarding marihuana plants throughout the chain of custody from grower to patient. The system will be able to provide this data in real-time to local law enforcement agencies.

This publication was written by the law firm of Dickinson Wright.

Medical Marihuana Facilities Licensing Act Q&A

Introduction

On September 21, 2016 Governor Snyder signed a package of bills (2016 PA 281-283) that significantly expands the types of medical marihuana facilities permitted under state law, and establishes a licensing scheme similar to the scheme for liquor licenses. Notably, these bills do not require a state license to operate as a primary caregiver under the Michigan Medical Marihuana Act, nor do they allow municipalities to prohibit operation as a primary caregiver. The existing regulatory scheme regarding primary caregivers remains in effect.

Q. Why are you spelling marijuana as "marihuana"?

A. The word was originally spelled with an "h" in the Michigan Medical Marihuana Act. In addition, that is how the word is spelled in federal law and the new Medical Marihuana Facilities Licensing Act. The League uses the "h" when referring to medical marihuana.

Q. Has marijuana been legalized?

A. No, marijuana has not been legalized. It is still an illegal drug under federal and state law. The Michigan Medical Marihuana Act (MMMA), Initiated Law 1 of 2008, allows qualified patients and registered caregivers identified with those patients to use marijuana for specified medical conditions. That law did not legalize marijuana, but it prohibits prosecuting or penalizing qualified patients and registered caregivers who use marihuana for medical purposes as long as they comply with the MMMA. Subsequent court opinions clarified that only those persons who were qualified patients and registered caregivers (and persons who met the requirements of Section 8 of the MMMA, even if not registered with the state) could exchange or use medical marihuana. A third party—a person providing or selling marihuana to a qualified patient who is not that person's registered caregiver—does not have the protection from prosecution under the MMMA. Any arrangement outside of the patient-caregiver relationship, including "dispensaries," does not comply with the MMMA and is illegal.

Q. What is legal today?

A. Only a patient-caregiver relationship conducted in compliance with the Michigan Medical Marihuana Act is legal today. Note that the MMMA was recently amended by PA 283 of 2016 to include certain marihuana-infused products, or "edibles," and to clarify what plants and parts of plants are allowed within the limits imposed by the Act.

Q. If marihuana dispensaries are currently illegal, how come we see them all over?

A. Because the local jurisdiction has chosen not to enforce state or federal laws that make marihuana illegal outside of the patient-caregiver relationship protected by the MMMA. In most cases, the municipality has "decriminalized" certain uses of marihuana and/or chosen to not utilize enforcement resources for small amounts or certain levels of activity. But that is a forbearance, not legalization.

Q. Didn't Michigan just pass a law making marihuana dispensaries legal?

A. Yes, the Medical Marihuana Facilities Licensing Act (MMFLA), Public Act 281 of 2016, but it does not take effect until December 20, 2016. And, the MMFLA includes an additional delay in implementation of 360 days to enable the Michigan Department of Licensing and Regulatory Affairs (LARA) to establish the licensing system required by the Act.

A person cannot apply to the state for a license of any kind under the MMFLA until December 15, 2017, And, no one can apply to the state for a license of any kind under the MMFLA unless the municipality has adopted an ordinance authorizing that type of facility.

So, even after December 15, 2017, any marihuana provisioning center or other activity involving marihuana that does not comply with the Michigan Medical Marihuana Act will still be illegal, unless the municipality has adopted an ordinance that authorizes that type of facility under the Medical Marihuana Facilities Licensing Act. (Note that the word "dispensary" has been commonly used to refer to a variety of medical marihuana activities, but the new laws do not refer to "dispensaries." Under the MMFLA, "provisioning centers" are what many people would describe as a "dispensary.")

Q. What if an applicant comes to our council meeting now and demands that we adopt an ordinance or approve the applicant's license?

A. If a municipality is approached by an applicant stating that the council must adopt an ordinance, then that applicant has misunderstood the law.

A municipality cannot be required to adopt an ordinance to allow facilities authorized under the MMFLA—now, or at any time.

If a municipality is approached by an applicant demanding it consider the application, or stating that the council must authorize the applicant's facility, note these points:

- Before December 15, 2017, no municipality can be required to consider an application. Even if a city, village, or township adopts an ordinance to allow the facilities authorized by the MMFLA, the state's licensing system is not in place, and no applications will be considered by LARA until December 15, 2017.
- After December 15, 2017, if a municipality has not adopted an ordinance allowing any of the facilities authorized by the MMFLA, then the municipality is not required to consider any applications for MMFLA licenses, because no licenses will be approved by LARA for a facility in a municipality that has not passed an opt-in ordinance.
- After December 15, 2017, if a municipality has adopted an ordinance allowing any of the facilities authorized by the MMFLA, and the application involves one of the type(s) of facilities that the city, village, or township allows in its ordinance, and the cap on the number of that type of facility imposed by the municipality's ordinance has not been reached, then the municipality will be asked to provide information to LARA as part of the licensing approval process.

Q. What do we need to do if we do NOT want any of the facilities authorized under the MMFLA in our city, village, or township?

A. Do nothing. You do not need to adopt an ordinance to prohibit the types of facilities authorized under the MMFLA. They are already prohibited by state and federal law.

You do not have to consider any application for any facilities currently because no application will be considered by the state until December 15, 2017. And even after that date, if your municipality has not adopted an ordinance allowing that type of facility, that application will not be considered by the state.

*Note that, because dispensaries and other marihuana facilities or operations outside of the patient/caregiver relationship are NOT currently lawful (even where marihuana has been decriminalized locally), existing dispensaries or other marihuana facilities or operations are not currently lawful non-conforming uses for zoning ordinance purposes.

Q. What do we need to do if we DO want any of the facilities authorized under the MMFLA?

A. Any time before December 15, 2017, a municipality that wants to allow medical marihuana facilities to operate within its boundaries could adopt an ordinance allowing one or more of the specific types of facilities authorized by the new Act. **Adopting such an ordinance before December 15, 2017 does NOT make a facility lawful!** December 15, 2017 is the earliest an applicant may submit an application to the Medical Marihuana Licensing Board (MMLB) for consideration.

Any time after December 15, 2017, a municipality that wants to allow medical marihuana facilities to operate within its boundaries would adopt an ordinance allowing one or more of the specific types of facilities authorized by the MMFLA. The ordinance should specify which type(s) of facilities—and how many of each type—the municipality is choosing to allow. If a municipality "opts in" with an ordinance that does not specify a cap on the type(s) or number of each, applications for any of the types and any number of a type within the municipality will be considered by LARA.

But a license from the state is still required before a specific facility is authorized to legally operate under the MMFLA. The council's adoption of the ordinance allowing medical marihuana facilities does not automatically make all facilities lawful. Also note that, because dispensaries and other marihuana facilities or operations outside of the patient/caregiver relationship are NOT currently lawful (even where marihuana has been decriminalized locally), existing dispensaries or other marihuana facilities or operations are not currently lawful non-conforming uses for zoning ordinance purposes.

Q. Why would a municipality consider allowing one or more of the types of facilities authorized under the MMFLA?

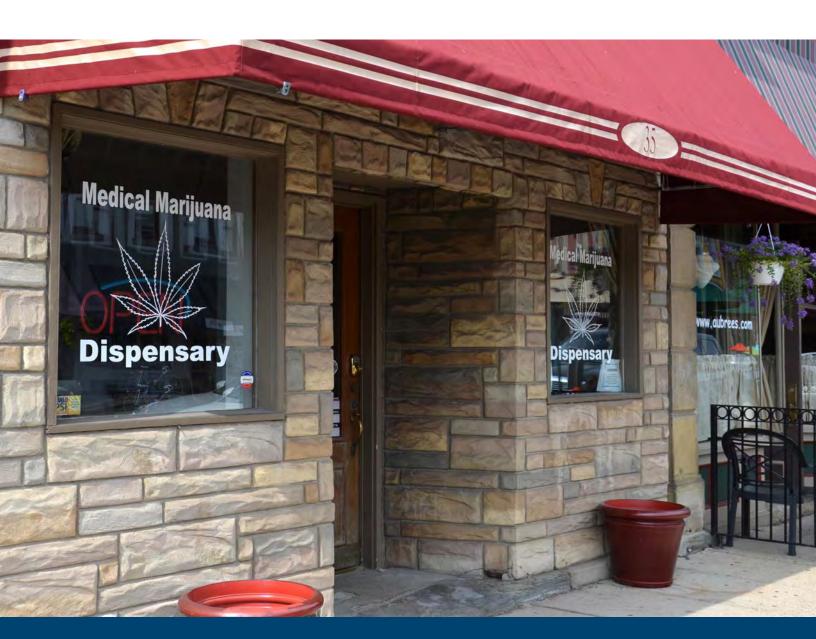
A. Some communities accept medical marihuana use for compassionate reasons, and believe that the new Facilities Licensing Act will better facilitate the spirit and actual practice of the patient-caregiver relationship authorized by the statewide initiative that created the Medical Marihuana Act in 2008.

Other communities may be responding to a real demand or broad support locally for providing medical marihuana facilities and business opportunities. And, it may be a revenue source.

- Annual administrative fee: Once a municipality adopts an ordinance allowing one or more of the types of facilities authorized by the Medical Marihuana Facilities Licensing Act, the municipality may in that ordinance require "an annual, nonrefundable fee of not more than \$5,000 on a licensee to help defray administrative and enforcement costs associated with the operation of a marihuana facility in the municipality." ("Nonrefundable"—as in not returned if the license is revoked or not renewed.)
- **Property tax revenues**: These facilities are businesses and may actually be quite profitable. And, in some communities, medical marihuana facilities will utilize commercial properties that are currently vacant or even off the tax roll due to foreclosure.
- State shared revenues, as appropriated: A state tax will be imposed on each provisioning center at the rate of 3 percent of the provisioning center's gross retail receipts, which will go to the state Medical Marihuana Excise Fund. The money in the fund will be allocated, upon appropriation, to the state, counties, and municipalities in which a marihuana facility is located, with "25 percent to municipalities in which a marihuana facility is located, allocated in proportion to the number of marihuana facilities within the municipality."

Based on the Michigan Township Association's "New Medical Marijuana Laws Q&A," by Catherine Mullhaupt, MTA Staff Attorney, 10/31/16





Medical Marihuana Facilities - Opt In/Opt Out

Updated to include LARA's Emergency Rules
May 4, 2018

CONSIDERATIONS FOR THE MUNICIPAL LAWYER

This publication is for municipal lawyers whose clients are considering "opting in" to allow medical marihuana uses under Public Act 281 of 2016, the Medical Marihuana Facilities Licensing Act (MMFLA), as recently amended by Public Act 10 of 2018. It will not address most of the substantive requirements of that law, or of its companion laws, Public Acts 282 and 283, or how they operate to establish the new "seed-to-sale" state regulatory scheme. It assumes that by now most municipal attorneys have familiarized themselves with the basics of how those laws operate to authorize the five kinds of facilities under consideration (grow operations, processing centers, testing facilities, secure transporters, and provisioning centers).

Rather, the purpose of this publication is to assemble some thoughts on advising municipalities about the sorts of things that they should consider when evaluating their options under the new state regulatory scheme. Collected below are some of the concerns to be addressed first in deciding whether to authorize the medical marihuana uses now allowed, and second, if your municipality chooses to do so, what sort of things should be in the regulatory ordinance(s) that must be adopted in order to do so.

The state's Department of Licensing and Regulatory Affairs (LARA) has, since the MMFLA was enacted, been issuing Advisory Bulletins and other information that is relevant and useful as this process unfolds; these publications continue to be full of useful information and should be regularly monitored for updates. The "home page" for the Bureau of Medical Marihuana Regulation (BMMR), which is responsible for oversight of medical marihuana in Michigan, is found at www.Michigan.gov/medicalmarihuana.

As required by the MMFLA, LARA has also issued a set of administrative rules that will govern implementation of the Act at the state level. Released on December 4, 2017 (just before medical marijuana facilities could begin applying for state operating licenses), the rules were issued as "Emergency Rules"—meaning that they were not prepared in accordance with the "complete" process of the Administrative Procedures Act of 1969, MCL 24.201 et seq. They will therefore need to be formalized (which could include revisions) at some point in the future. In the meantime, they will govern licensing actions by LARA, and must be thoroughly reviewed by any municipality considering opting in. The Emergency Rules can be found at: https://www.michigan.gov/lara/0,4601,7-154-79571_83994---,00.html.

In early 2018, the Michigan Legislature adopted Public Act 10 of 2018. In addition to providing new protection from adverse action against CPAs and financial institutions that assist medical marijuana facilities, and establishing some new operational authorities for certain facilities, Public Act 10 amended Section 205 of the MMFLA—the municipal opt-in provision—to make it even clearer that a municipality must opt in by ordinance before the state can issue a facility license. The prior bulletins, the Emergency Rules, and now Public Act 10 together clearly confirm that if municipalities do nothing, marihuana facilities will be unable to be licensed at the state level to operate in their locality. They also implicitly confirm that there is no deadline to opt in. So, a community that has decided to wait beyond the December 15, 2017 date on which applicants were allowed to begin submitting applications to the state, has not waived any future opt-in rights. What follows is intended for use by those who might still be looking at opting in.

This paper is being provided by the Michigan Municipal League (MML) to assist its member communities.

The MML Legal Defense Fund authorized its preparation, by Thomas R. Schultz of Johnson, Rosati, Schultz & Joppich. The document does not constitute legal advice and the material is provided as information only. All references should be independently confirmed.

The information contained in this paper might become outdated as additional materials are released by LARA and the BMMR and administrative rules are put in place.

The spelling of "marihuana" in this paper is the one used in the Michigan statute and is the equivalent of "marijuana."

OTHER RESOURCES

The Michigan Municipal League has compiled numerous resource materials on medical marihuana. They are available via the MML web site at: www.mml.org/resources/information/mi-med-marihuana.html

DECIDING WHETHER TO OPT IN

What sorts of arguments have been made in favor of opting in?

FILLING A NEED

An argument that your clients will hear frequently from the industry is that allowing medical marihuana facilities will fill a need in the community and provide easier access to medical marihuana for people who are in chronic pain due to a debilitating medical condition. This argument assumes the medical benefits of marihuana and focuses on the pain-relieving aspects of it. There are some effective advocates on the industry side on this point, and you may see some very personal messaging at your meetings.

IT'S WHAT THE PEOPLE WANT

A similar argument is that the authorization of medical marihuana use in a community reflects the attitude of a majority of a particular locality. Proponents regularly point out the healthy margin by which the initial medical marihuana law passed in 2008, and the number of states where marihuana uses have been authorized over the years since then. This is obviously something that each community will need to evaluate and address; some areas seem "all in" on the issue, while others have met substantial opposition.

REVENUE GENERATION

Proponents argue that medical marihuana facilities can generate revenue for a community. The Act allows a municipality to charge a nonrefundable fee in an amount "not more than" \$5,000 annually to help "defray administrative and enforcement costs." MMFLA, Section 205(3). Of course, the fees charged probably do need to approximate those costs, so this fee might end up a wash.

Arguments have also been made that the uses can possibly fill vacant buildings or lots and thereby increase property tax revenues. Some jobs will likely be created—i.e., provisioning centers will require retail workers, large grow operations could employ multiple people to engage in plant cultivation, etc.

EASIER MONITORING

Proponents also argue that allowing commercial medical marihuana activities, and regulating them through ordinances that focus production and distribution into fewer sites, could make law enforcement monitoring easier.

AVOIDS LEGISLATION BY CITIZEN "INITIATIVE"

Some municipal lawyers and others have pointed out the practical concern that would exist if a local elected body determines to "opt out" by not enacting an ordinance to allow marihuana facilities, only to have the initiative provisions of its charter be used to draft an ordinance to place before the voters without any input by that legislative body. Adopting an ordinance limiting the number of facilities and their location through study and debate might be preferable to leaving that task to the industry or your local residents by the initiative process where available.

Generally, the initiative process for local legislation (ordinance amendments) is available to cities under the Home Rule City Act (HCRA), MCL 117.4i(g) where a city charter permits it. There is no specific statutory authority for townships or general law villages to use the initiative process to amend ordinances, although it may be available in a charter village. There is probably no right in any municipality to amend a zoning ordinance by initiative. See *Korash v Livonia*, 388 Mich 737 (1972). Charter amendments by voter initiative are permitted in home rule cities (MCL 117.18-25) and charter villages (MCL 78.14-18).

SERVE AS A "TEMPLATE" FOR RECREATIONAL MARIHUANA?

On April 26, 2018 the Michigan Board of Canvassers voted to approve the signatures submitted by The Coalition to Regulate Marijuana like Alcohol. The Legislature has 40 days to enact the ballot proposal into law or it will go on the November 6, 2018 statewide ballot. Having a regulatory scheme in place for when that happens—even if it might need to be changed or revisited—could put the community in a better situation to react than if policymakers have never addressed the issue.

EARLY APPLICANTS THE BEST APPLICANTS?

An argument can be made that delay just means that your community is only missing out on the best, most reputable industry members—those who might be more likely to cooperate with the community as part of an early approval process. If you assume that everyone will have to opt in eventually, what could be left by the time you do might not be the best local partners.

What are the reasons to be cautious/skeptical?

FEDERAL LAW ISSUE

All of these uses are still illegal under federal law, and we don't know for sure what the federal government will do in the future with regard to these specified uses. The status quo is that federal attention is diverted away from uses that are "authorized" by and operated generally in compliance with state laws—but who knows if that will last? Attorney General Jeff Sessions has made his view clear: "Good people don't smoke marihuana."

On the other hand, the industry seems to be growing at a pace that exceeds the federal government's ability (time/resources) to do much about it. The likelihood that a community (or its elected officials) that is complying with this state regulatory scheme will face federal criminal sanctions for colluding or cooperating with individuals engaged in the violation of federal laws seems small and getting smaller. That said, there are no guarantees and your clients should be made aware of that.

In October, the National League of Cites presented a very thorough webinar "Marijuana Federalism" for state municipal leagues. It was conducted by Professor Robert Mikos of Vanderbilt University Law School. Articles and books written by Professor Mikos can be found at: https://law.vanderbilt.edu/bio/robert-mikos; also within the resource materials available from the Michigan Municipal League, as referenced at the bottom of Page 2.

Some providers are dangling significant amounts of cash to local government officials (on top of the fees and taxes allowed by the new law) to be used at the municipality's discretion for things like police services, patrol vehicles, etc. Those sorts of monetary exchanges, which don't have the official "cover" of a state law allowing them, seem dangerous to get involved in.

COSTS MIGHT OUTWEIGH FEES AND TAX-SHARING

A community might be required to hire additional police and/or code enforcement personnel to ensure that medical marihuana facilities are in compliance with existing laws, and to protect those facilities from theft, vandalism, and other crimes. While \$5,000 as an annual fee might seem like a significant amount of money, by the time a municipality has had an application reviewed by staff and consultants and conducted hearings (if required under an ordinance), and performed any background checks that it might want to do, the amount might not seem so generous.

Nor are most communities likely to see substantial revenue from the tax provided for in the statute. Assume for this discussion gross retail sales throughout the state of one billion dollars (\$1,000,000,000). The state's 3% excise tax on provisioning centers would raise \$30,000,000. Under the MMFLA, only 25% (\$7,500,000) of that would go to Michigan municipalities. That amount is split among municipalities "in proportion to the number of marihuana facilities within the municipality." Assume your city gets 1% of that revenue—that's \$75,000. For many municipalities, that amount may not justify the increased costs that result from opting in (and for many smaller communities considering one or two provisioning centers, the 1% number seems high).

PROPERTY TAXES MAY TAKE SOME TIME TO SHOW UP

Under our state's property tax system, communities might not start seeing significant property tax revenue just because buildings are suddenly occupied. Headlee and Proposal A could dampen the economic benefits that might otherwise occur, and assessments are certainly subject to challenge.

Moreover, some kinds of uses may actually have a negative effect on a local tax base. For example, if a formerly industrial property becomes classified as "agricultural" as a result of a grow operation, the valuation might actually go down, as opposed to up.

LOSS OF CONTROL

Once it "opts in," a community is at the mercy of the BMMR. The language of the MMFLA is unfortunately not as clear as it could be on the state's obligation to deny a license if the applicant does not meet the requirements of a local ordinance. While we know what happens if your municipality does not opt in—no license can be issued—once an ordinance is drafted to allow a particular use, the language of the statute is unfortunately fuzzy as to whether the state has to follow it. What happens if the state does not follow it? The municipality could well find itself in court seeking to enforce its ordinance.

The Emergency Rules also make clear how extensive the state's involvement in the review and regulation of the facilities will be; concerns have been raised by some local officials regarding the extent of preemption as to things like inspections of premises by local government officials.

NUISANCE/SAFETY ISSUES

Many of these large uses do emit significant odors that some find objectionable. In addition to odors, there are noise (generators), heat, and lighting issues (either with regard to the use itself or for security). The MMFLA does allow municipalities to regulate these effects, though.

CIVIL LIABILITY

Like any land use decision, approval of these sorts of uses can be challenged. Neighbors may claim everything from nuisance to diminution in land values.

ENVIRONMENTAL EFFECTS UNKNOWN

There will be environmental effects from some of these uses, particularly the grow and processing operations: pesticides, fertilizers, energy consumption, water consumption, and disposal of waste products are all certain to result from these uses. As new uses, there may not be sufficient regulation at the state level, so these matters may fall to local governments to monitor, which may or may not be possible in every community.

COMMUNITY STAKEHOLDER OPPOSITION

Some communities have reported hearing from significant community stakeholders—e.g., large employers, health care providers, community foundations, influential business leaders, etc.—who have made known their specific opposition to the presence of marihuana facilities in the community, and corresponding intentions to react in some way if they are allowed. At a minimum, these stakeholders should be invited to participate in the discussion at the outset, so that all interests are heard.

Should you wait to see what happens with efforts to legalize "recreational" marihuana?

The ballot proposal states that a municipality may completely prohibit or limit the number of marihuana establishments within its boundaries. Also, individuals may petition to initiate an ordinance to provide for the number of marihuana establishments allowed within a municipality or to completely prohibit marihuana establishments within a municipality.

Depending on what happens, any regulations that are adopted now will likely need to be revisited/revised—probably through the same public process for adopting ordinances now. Does your community want to do that twice in the span of a couple years?

Opting In? Here Are the Kinds of Things You Should Think About in Drafting Your Local Regulatory Framework

As amended by Public Act 10, Section 205(1) of Public Act 281 now provides: The board shall not issue a state operating license to an applicant unless the municipality in which the applicant's proposed marihuana facility will operate has adopted an ordinance that authorizes that type of facility. A municipality may adopt an ordinance to authorize 1 or more types of marihuana facilities within its boundaries and to limit the number of each type of marihuana facility. A municipality may adopt other ordinances relating to marihuana facilities within its jurisdiction, including zoning regulations, but shall not impose regulations regarding the purity or pricing of marihuana or interfering or conflicting with this act or rules for licensing marihuana facilities.

LARA's Emergency Rules Confirm Substantial Local Regulatory Authority

The Emergency Rules issued by LARA on December 4, 2017 include additional detail as to some of the more important Advisory Bulletins previously issued by LARA prior to adoption of the Rules—including those relating to colocation of facilities, stacking of grower licenses, the license application and document checklist, confirmation of municipal authorization of marihuana facilities, and various capitalization and other financial requirements. The Emergency Rules also provide much greater detail on some additional subjects of interest to both prospective licensees and local municipalities regarding:

- Requirements of the marihuana facility plan
- Pre-licensure investigation and inspection of the proposed facilities
- The grounds on which a license may be denied
- · Renewals of licenses, changes to facilities
- Notifications, reporting, inspections, penalties, sanctions, fines
- Transition period and licensee requirements to get marihuana product into the statewide monitoring system
- Requirements and obligations of licensed marihuana facilities
- Applicable state laws/rules, fire safety, security measures, prohibitions
- Requirements, restrictions, and maximum THC-levels for marihuana-infused products
- Storage, labeling requirements, product destruction, and waste management
- Statewide marihuana tracking system
- · Daily purchasing limits and marketing/advertising restrictions
- · Employee background check requirements
- The hearing and review process recommended by the Michigan Administrative Hearing System

In general, the Emergency Rules flesh out what LARA had previously indicated, through Advisory Bulletins, it expected the licensing process to be, with some clarifications. As originally enacted, the MMFLA contemplated a process under which a municipality would provide information to the BMMR within 90 days after notification from an applicant that he or she has applied for a license. Among the changes to the MMFLA under Public Act 10 was the requirement in Section

205(1) requiring any municipality that adopts an ordinance authorizing a marihuana facility to provide (regardless of any pending application) certain information about that ordinance to the department, including an attestation that the municipality has adopted an ordinance, a description of that ordinance, the signature of the clerk of the municipality, and any other information required by the department. Section 205(1), as amended, also indicates that the department may require a municipality to provide additional information in the event of an application for license renewal.

The Emergency Rules are consistent with the language of Public Act 10. Rule 6 of the Emergency Rules sets forth the requirements for a "complete" application to the state for a state operating license. In addition to all of the various information required by the state, subsection (d) of Rule 6 states:

An applicant shall submit confirmation of compliance with the municipal ordinance as required in Section 205 of the act and these rules. For purposes of these rules, confirmation of compliance must be on an attestation form prepared by the department that contains all of the following information:

- Written affirmation that the municipality has adopted an ordinance under Section 205 of the act, including, if applicable, the disclosure of any limitations on the number of each type of marihuana facility;
- Description of any zoning regulations that apply to the proposed marihuana facility within the municipality; and
- iii. The signature of the clerk of the municipality, or his or her designee, attesting that the information stated in the document is correct.

Under Emergency Rule 4(2), a person is allowed to submit a partial application seeking to have his or her financial and criminal backgrounds reviewed under Rule 5, in order to "prequalify to complete the remaining application requirements." Submission of the partial application gives the applicant "pending status until all application requirements in Rule 6 are completed." This rule allows an applicant to seek municipal approval while not yet fully licensed at the state level.

Rule 12 of the Emergency Rules confirms that a license may be denied if the applicant fails to comply with Act 281 or the Emergency Rules. Rule 12(1)(f) specifically states that a license may be denied if "the applicant has failed to satisfy the confirmation of compliance by a municipality in accordance with Section 205 of the act and these rules."

Essentially, the Emergency Rules more or less validate the expected two-step licensing process that the department previewed before the issuance of the Emergency Rules—a first step where the applicant seeks to "prequalify" at the state level as to financial and background matters, and a second step where municipal approval is sought pursuant to the ordinances authorized by the statute and adopted by the municipality. No state operating license will issue until compliance with those municipal regulations has been established.

The process described in the Emergency Rules for medical marihuana facilities that existed before adoption of the MMFLA is worth at least a mention here. Rule 19 of the Emergency Rules allowed for the temporary operation of facilities that had previously been approved for operation by a municipality (and confirmed for such use following enactment of the MMFLA). However, in order to qualify for temporary operation, an application for a state operating license was required to be filed with the state no later than February 15, 2018. Failure to submit a proper application by February 15, 2018, could be a reason for denial of a license under the Act and the rules. (Apparently, a number of facilities failed to heed the February 15 deadline.)

What Kinds of Ordinances Should You Consider?

So, other than regulating purity and pricing, or rules directly conflicting with the state regulations, we know that municipalities can regulate significant aspects of marihuana facilities within their boundaries—although, as noted above, the extent of the state's involvement in regulating the operation of the facilities once approved (e.g., with regard to construction standards, financial operations, and inspections) has raised concerns among some that there may be more discussion in the future as to what sorts of local regulations are viewed by the state as "conflicting" with those adopted by the state. Most of the discussion about how to do that by both municipal attorneys and attorneys for the medical marihuana industry has focused on two separate kinds of ordinances:

- ZONING ORDINANCE amendments generally relating to the location of medical marihuana facilities and the development approval process.
- CODE/POLICE POWER ordinances relating to the number of facilities within the municipality, a licensing process that works with the state's process, and listing responsibilities and obligations of facility operators, as well as some basic safety regulations aimed at new practices (e.g., butane extraction).

What makes the regulation of these uses at the local level difficult (or at least complicated) is as much timing as anything else—timing the issuance of a local license/approval of an application with the state's licensing process, and timing the license approval process with the development approval process (i.e., getting zoning and building permits for a new/ renovated facility under a different ordinance than the licensing requirements to operate within that facility).

In addition, there is the matter of deciding who gets the approval to operate a facility. Given the "prequalification" process in the Emergency Rules and the authorization for limiting the number of a particular type of facility allowed within a municipality, it can arguably be said that the local government ends up in charge of "picking" successful candidates for final licensure by the state. This may be the toughest choice facing a community that has decided to opt in.

1. Zoning ordinance

Communities can consider adopting zoning ordinance amendments to provide the following:

TYPES OF FACILITIES TO BE ALLOWED

Under the MMFLA, a community can allow all five types of facilities or can pick and choose which to allow (e.g., allow grow operation and provisioning centers, but no compliance facility, processing centers, or transport facilities). This choice will vary by community, and should be made deliberately on the basis of community needs/desires.

DISTRICTS WHERE ALLOWED

The MMFLA does not specify where these facilities may be located, except to state that a grow facility must be established in an area zoned for industrial or agricultural uses or that is un-zoned. Section 501(7). Obviously,



determining locations will need to be done on a communityby-community basis, depending on the master plan and land use goals and objectives.

Some uses seem to sort themselves into natural categories—e.g. processing plants in industrial or manufacturing areas, grow operations in industrial/agricultural. Some communities could elect to place even dispensaries (which arguably have a commercial/retail character) in industrial/agricultural districts that, depending on the community's zoning map or particular community characteristics, are better suited for such uses than traditional business districts on Main Street or in a strip mall.

Some communities have considered adopting an "overlay" zone for medical marihuana facilities. An overlay zone typically operates by adding an additional set of uses— and corresponding additional regulations—in certain areas of the community, without changing the underlying zoning district regulations. An overlay district could be considered if a community wants, for example, only certain industrially zoned areas in a particular part of town to be available to marihuana facilities.

USE PERMITTED OF RIGHT? SPECIAL LAND USE?

The community needs to determine whether these uses will be uses permitted as of right or only as discretionary special land uses. Arguments can be made in favor of either approach.

Some communities have made them uses as of right in order to avoid requiring their planning commissions to exercise discretion in determining who will be authorized to engage in the use. The discretionary element of a special land use exposes a municipality to a challenge or litigation where an applicant is denied the use, or where one applicant is granted approval and another is not. Special land use decisions can also invite challenge from adjacent property owners alleging an improper exercise of discretion when a use is granted over substantial objections at the required public hearing.

On the other hand, the special land use process affords the municipality the greatest opportunity to impose conditions allowed under the Michigan Zoning Enabling Act. MCL 125.3504. These could include important requirements for, say, building appearance, sign size, screening, access, etc.

The community could consider the "in between" approach of a "use permitted on special condition," where the conditions are fully objective (based on physical characteristics, size, etc.)

PROXIMITY AND CO-LOCATION ISSUES

Another regulatory issue to be considered as part of the zoning ordinance amendment is a distancing requirement between marihuana-based uses. Should they be clustered or dispersed? Not unlike the question that is asked with adult/sexually oriented businesses: is it better to put these uses (to the extent possible) in one general area, for easier

monitoring, or to separate them so an area does not become known for that particular characteristic. The question presents practical issues as well as fairness issues (e.g., placing provisioning centers in only one part of town).

Also, does the community want to allow different kinds of facilities —e.g., a grower and a provisioning center—to co-locate at the same site? The Emergency Rules appear to confirm that, under Section 205 of Act 281, municipalities retain the authority to regulate these basic land use issues. The same is true as to the "stacking" of Class C grow licenses, which permit up to 1,500 plants per license. The LARA rules allow stacking if it is permitted by local ordinance.

DISTANCING REQUIREMENTS FROM OTHER USES

Municipalities might also want to consider location or spacing requirements as between medical marihuana uses and other uses. For example, the ordinance provides distancing requirements from schools, parks and playgrounds, certain types of residential districts or housing types, churches, pools and recreation facilities, rehabilitation treatment centers, correctional facilities, and the like. This is a classic sort of zoning regulation and should be carefully considered. This could also be regulated in the licensing ordinance instead.

COORDINATING SITE PLAN/BUILDING PERMIT PROCESS WITH LICENSING PROCESS.

Most likely, the typical process for finalizing site plans and issuing building and occupancy permits as set forth in the zoning ordinance can be followed. Some buildings might be built new, on vacant sites; other uses might occupy existing buildings, with little or no site work.

Either way, the timing of these zoning approvals with the local and state licensing processes will need to be decided and addressed. The zoning ordinance should probably acknowledge a separate process under the licensing ordinance, and make some appropriate conditions requiring that approval.

OTHER PROVISIONS

The ordinance should contain the other usual elements:

- A statement of purpose/intent—which, as explained further below, should refer to the applicable state laws as the basis for inclusion of these uses.
- A definitions section that matches the terms from the state laws.
- A section dealing with nonconforming sites/uses. This
 may be particularly relevant if there are currently some
 marihuana-based facilities operating in the community,
 which the community may or may not want to assist in
 continuing under the new regulatory scheme.
- Provisions relating to application review fees (for planners, engineers, landscape architects, etc.).

2. Police Power/Code of Ordinances amendment to deal with licensing facilities at the local level

Again, the most difficult aspect of crafting a licensing ordinance for most communities will be timing the local license approval with the state's licensing process and the zoning/building occupancy approval process. Because the applicants at the municipal level will not yet have their final state approval (because under the Emergency Rules proof of "municipal compliance" is required to get a state operating license), there will likely need to be some sort of "conditional" aspect to the local license— i.e., it becomes effective only upon securing the state operating license and all zoning/land use approvals.

A related complication arises when the local regulatory scheme limits the number of a type of use. The first concern is how those applicants are chosen (special land use? first come, first served? random?). Problems can also result if a conditional license is granted, but then conditions are not in fact met. Should the ordinance have provisions to deal with choosing an alternative applicant?

Among the things a municipality will want to consider in its licensing/general regulatory ordinance:

PURPOSE AND INTENT CLAUSE

If nothing else, in addition to describing the general goals and objectives as relates to the particular facilities and licensing applicants regulated, a community might want to consider some explanation that the ordinance is being enacted specifically pursuant to an invitation in the state law, and with the recognition that the state law may be at odds with the federal regulatory scheme relating to marihuana. The clause should also include a recognition that if the legislative body does not act, then someone else might act in its stead (through the initiative process, assuming it is applicable).

DEFINITIONS

These need to match up with the state law, particularly as to the uses allowed. Additional definitions may be needed depending on the nature of local regulations.

LIMITATIONS ON THE NUMBER OF FACILITIES ALLOWED IN THE COMMUNITY, BY TYPE

The MMFLA does not describe how a community arrives at a limitation, just that it can. Limitation criteria can be found by way of population (e.g., x number of dispensaries per y number of residents in the community) or by area and location. Some explanation during the process (or in the purpose section) would be appropriate.

It should also address successor uses. Once the limit is reached, will no further applications be accepted? Or will they be held in order received if/when license becomes available again?

In addition, where the number of facilities is limited, the community might want to consider imposing a time frame in which the use must be established and a certificate of occupancy issued (e.g., six to nine months), with an obligation to surrender the license if the use is not established. This would limit the possibility of issuing a license to someone who wants to obtain a license but not use it (for purposes of limiting the market, or precluding a use) or, if a community allows license transfers, as an investment to transfer to another entity.

LOCATION CRITERIA

This should be cross-referenced to the zoning ordinance (assuming there is one); or the location criteria can be established in the licensing ordinance itself.

FEES

The MMFLA allows "not more than" \$5,000 per licensed facility as an annual non-refundable fee. However, because the purpose is stated as helping to defray actual costs of enforcement/oversight, a community should take care to justify the fee based upon what the community expects the actual costs to be.

REQUIRED INFORMATION

The community can get as specific as it wants. Information required can include:

- Personal information about the applicant.
- Information about the applicant's professional experience.
- Proof of ownership or other occupancy rights for the property at issue.
- Information about the facility and operations plan.
- Proof of interest in land.
- Proof of adequate insurance (describe).

What the municipality does with such information (especially information of a personal or professional nature as to each applicant) is addressed below.



CRITERIA FOR ISSUING OR DENYING THE LICENSE

- Who issues the license: The city/village/township clerk? Some other officer or body?
- What is the process? Should there be a hearing? Public input allowed?
- · Standards for issuing:
- -First come, first served?
- -Lottery/pick from hat?
- -Evaluation on the basis of discretionary criteria?

This is the step with the most "exposure" to the municipality as noted above. The more subjective the process is or seems, the greater the likelihood of challenge. Some municipal attorneys have cautioned their communities against evaluating individual applicants and picking/choosing on the basis of such reviews—focus on the site, in other words, not the applicant. Other attorneys note that the language of Section 205 of the MMFLA is quite broad, and that the only sorts of regulations that the municipality is prohibited from enacting relate to purity, pricing, or those things "conflicting with statutory regulations for licensing." The state law and the Emergency Rules do not appear to contain any specific prohibition on evaluation of individual applicants. Again, however, in addition to veering into the realm of "picking winners and losers," an applicant-specific process invites a challenge by those who are unsuccessful.

· Do existing facilities get priority?

STANDARDS FOR DENYING

These could incorporate the state laws, and could include additional limitations if appropriate.

Conditioned on all other appeals—state licenses, zoning/site plan review, occupancy permits. This contemplates a record documenting the "provisional" or "conditional" approval and specific requirements for a "final" approval.

Denial at state level revokes local approval.

OCCUPANCY PERMITS

The practice of allowing occupancy before all aspects of the building and use are finalized, by issuing a "temporary certificate of occupancy," or TCO, is typical in many communities. Doing so with these uses—which will likely be limited in number, and are essentially a "new" use with which we are not yet completely familiar—seems unnecessary. Consideration should be given to withholding occupancy rights until a final certificate of occupancy can be issued. Note that ADA compliance will be required for provisioning centers.

APPEAL OF DENIAL OF A LICENSE

As a police power (as opposed to zoning) ordinance, the Zoning Board of Appeals (ZBA) may not be an ideal appellate board; however, many township boards and city councils might not relish the thought of having to be the deciding body. While the ZBA would need to be informed of its slightly different reviewing role, it is one that they are generally used to. Alternatives could also include a separate body or commission to hear appeals.

SALE OR TRANSFER OF A LICENSE

Given the nature of the review process and the approvals given, the best practice would likely be to indicate that the license is personal to the applicant—no transfers allowed. The license should be clearly made "personal" to the applicant.

RENEWAL

The annual fee assumes a renewal of businesses that remain in compliance with the local ordinances.

REVOCATION (BY LOCAL ORDINANCE)

Revocation of a license should be a permissible result in the event of things like failure to comply with the licensing ordinance or any other ordinance of the municipality; change in ownership; change in operational plan; conviction of certain crimes; etc. Similar to a licensing revocation for liquor license.

"PERFORMANCE STANDARDS" RELATING TO THINGS LIKE:

- Noise
- Odor
- Heat
- Light
- Continued compliance with all other ordinances, including zoning ordinance.

While a local code of ordinances might already contain some general standards in these areas, medical marihuana uses have unique aspects that merit particular attention. There are resources available to communities to confirm the ability of these facilities to mitigate—with appropriate capital investments—many of these adverse effects.

ENVIRONMENTAL CONCERNS

Information about the environmental effects of these sorts of uses is limited at this point. But municipalities should at least be aware of the likely use of fertilizer and pesticides with regard to a grow operation in particular, and the ordinance could at least provide for basic standards for storage and use in accordance with other laws and regulations. Water and energy consumption may be significant with these uses as well. Both the grow operations and the processing centers raise waste disposal concerns. These areas are all fair game

under the limits set forth in Section 205(1) of the MMFLA, and the community should require information on all these aspects of all permitted uses before setting its regulations.

SECURITY/PRIVACY

Fencing. Lighting. Access controls. Video surveillance. All these should be addressed in the ordinance or as part of any approval. Due consideration for the effects of these on neighboring properties should be taken into account in crafting regulations and approvals, and perhaps in determining permitted locations under the zoning ordinance.

SIGNAGE

Signage for these uses could be offensive to some. While commercial signage is subject to greater regulation than non-commercial speech, there are obvious limitations, particularly under the *Reed v Gilbert* case. This is an important aspect of any of these uses, and the community will need to carefully research its options and closely draft its sign regulations.

INSPECTION PROVISIONS

These provisions should be comprehensive and rigorous. Consideration should be given to those including:

- A statement that the premises are subject to inspection during business hours for purposes of determining compliance with state and local laws, without a search warrant.
- An acknowledgement that the application of a facility license constitutes consent to routine inspections of the premises and examination of surveillance and security camera recordings for purposes of protecting the public safety.
- Significant penalty provision for failure to comply.

ADDITIONAL REQUIREMENTS ON THE BASIS OF THE SPECIFIC TYPE OF FACILITY

- For example, the community may want to regulate hours of operation or the physical appearance of buildings.
- List of specific prohibited acts by use (e.g., no consumption on premises at provisioning centers; requirement for all activities to occur indoors).
- Consider limitations on use of butane, propane, and other flammable products and require compliance with state and local laws for such products.

VIOLATIONS AND PENALTIES SECTION

- · Civil infraction, not misdemeanor.
- Each day a separate offense.

INDEMNIFICATION

Given the nature of this use, the applicant/licensee could be required to indicate that it will hold the local municipality and its officials harmless, and indemnify them against claims related to the use.

RIGHT TO FARM CONSIDERATIONS

There is a question whether the Right to Farm Act, MCL 286.473, et seq., will apply to grow operations. While it is good to have the law in mind, it seems unlikely at this time, since to date no Generally Accepted Agricultural and Management Practice (GAAMP) regulation has been issued for medical marijuana.

CONTINUING STATE EDUCATIONAL EFFORTS

On March 26, 2018, LARA hosted an educational session for medical marihuana license applicants. It included presentations on:

- Designing and constructing facilities, with an emphasis on compliance with state construction codes (and how the state will conduct its compliance inspections).
- MIOSHA standards and regulations pertinent to medical marihuana facilities.
- Fire protection rules and standards.
- Dealing with the State's Department of Treasury.

The Power Point presentation is available at https://www.michigan.gov/lara/0,4601,7-154-79571---,00.html. Municipalities may find the information of assistance.





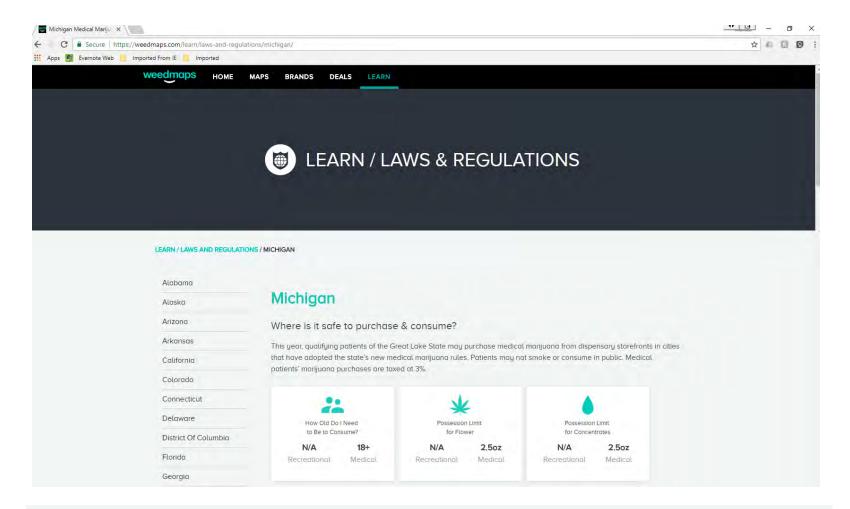


Michigan Municipal League 1675 Green Rd, Ann Arbor, MI 48105

Unofficial document: compiled by Bureau of Medical Marihuana Regulation staff for informational purposes only. This is a working document that may be revised. Updated as of 5/4/18. Highlights indicate changes since last update.

County	Municipality	Grower - Class A	Grower- Class B	Grower - Class C	Processor	Provisioning Center	Safety Compliance Facilities	Secure Transporters
Arenac	Au Gres Township	no cap	no cap	no cap	no cap	no cap	no cap	no cap
	Bangor Township	10	10	30	10	6	5	5
	Bay City	25	25	25	25	50	25	25
Bay	Gibson Township	no cap	no cap	no cap	no cap	no cap	no cap	no cap
Day	Hampton Charter Township	no cap	no cap	no cap	no cap	no cap	no cap	no cap
	Kawkawlin Township	10	10	50	10	10	6	5
	Pinconning Township	5	0	no cap	10	10	6	5
	Buchanan	5	5	5	5	5	5	5
Berrien	Galien Township	2	2	4	5	0	1	2
berrien	Niles Niles	no cap	no cap	no cap	no cap	2	no cap	no cap
	Village of Eau Claire	0	0	1	1	0	1	1
	Battle Creek	no cap	no cap	no cap	no cap	no cap	no cap	no cap
Calhoun	Bedford Charter Township	to	tal of 25 between A,B	,C	10	10	5	5
	Marshall	no cap	no cap	no cap	no cap	0	2	2
Chippewa	DeTour Township	1	1	3	2	0	2	2
Chippewa	DeTour Village	2	2	2	2	0	1	1
Crawford	Frederic Township	no cap	no cap	no cap	no cap	5	no cap	no cap
Eaton	Windsor Charter Township	10	10	10	5	0	2	2
	(Burton)	no cap	no cap	no cap	no cap	no cap	no cap	no cap
Genesee	Mount Morris Charter Township	10	10	no cap	no cap	5	5	5
	Thetford Township	no cap	no cap	no cap	no cap	no cap	no cap	no cap
Gladwin	Tobacco Township	1	1	1	1	1	1	2
Glauwili	Hay Township	0	0	0	0	1	0	0
Grand Traverse	Acme Township	no cap	no cap	no cap	no cap	no cap	no cap	no cap
Grand Traverse	Village of Kingsley	no cap	no cap	no cap	no cap	0	no cap	no cap
Gratiot	Seville Township	0	0	0	0	0	0	2
Hillsdale	Village of Camden	2	2	2	6	4	6	6
	East Lansing	no cap	no cap	no cap	no cap	no cap	no cap	no cap
Ingham	Lansing	no cap	no cap	no cap	no cap	25	no cap	no cap
iligilalii	Lansing Charter Township	1	0	0	0	0	2	0
	Village of Webberville	no cap	no cap	no cap	no cap	0	no cap	no cap
losco	AuSable Charter Township	to	otal of 3 between A,B,	С	3	1	3	3
10300	Oscoda Charter Township	to	otal of 2 between A,B,	С	2	2	2	2
Iron	Mastodon Township	no cap	no cap	no cap	no cap	no cap	no cap	no cap
Isabella	Clare	no cap	no cap	no cap	no cap	no cap	no cap	no cap
isabella	Wise Township	to	otal of 6 between A,B,	С	2	2	2	2
Houghton	Portage Charter Township	0	0	0	0	3	0	0
Jackson	Leoni Township	no cap	no cap	no cap	no cap	15	no cap	unclear: not mentioned
Jackson	Parma Township	0	0	2	1	0	0	1
	Kalamazoo Charter Township	no cap	no cap	no cap	no cap	no cap	no cap	no cap
	Kalamazoo	no cap	no cap	no cap	no cap	no cap	no cap	no cap
Kalamazoo	Ross Township	no cap	no cap	no cap	no cap	0	no cap	no cap
	Portage	no cap	no cap	no cap	no cap	no cap	no cap	no cap

	Wakeshma Township	5	5	5	15	0	15	15
Kalkaska	Village of Kalkaska	no cap	no cap	no cap	no cap	5	no cap	no cap
Lake	Pleasant Plains Township	no cap	no cap	no cap	no cap	no cap	no cap	no cap
Lapeer	City of Lapeer	no cap	no cap	no cap	no cap	6	no cap	no cap
Lenawee	Adrian	no cap	no cap	no cap	no cap	zoned 5/no cap	no cap	no cap
Lenawee	Morenci	no cap	no cap	no cap	no cap	no cap	no cap	no cap
Macomb	Center Line	5	5	5	15	15	15	15
IVIACOITID	Lenox Township	t	otal of 15 between A,B	,C	3	3	3	3
	Humboldt Township	10	10	10	5	2	2	2
Marguette	Republic Township	5	5	5	2	2	2	1
Marquette	Negaunee Township	5	5	5	2	2	no cap	no cap
	Sands Township	5	5	5	2	4	3	3
Midland	Coleman	4	4	4	4	4	4	4
Monroe	Village of Carleton	1	0	0	1	1	1	1
Muslingen	Egelston Township	0	0	8	3	2	2	2
Muskegon	Muskegon Heights	0	0	5	5	0	2	2
Name	Newaygo		total of 1 between A,B,	С	1	0	1	0
Newaygo	White Cloud	no cap	no cap	no cap	6	1	2	2
	Hazel Park	3	3	3	3	3	3	3
Oakland	Walled Lake total of 3 (type r			ied)	3	3	2	3
	Orion Charter Township	0	0	6	2	0	2	2
Ontonagon	Carp Lake Township	no cap	no cap	no cap	no cap	no cap	no cap	no cap
0	Evart	1	total of 4 between A,B,	С	4	2	2	2
Osceola	Richmond Township	no cap	no cap	no cap	no cap	no cap	no cap	no cap
Ottawa	Crockery Township	1	total of 1 between A,B,	С	0	1	0	0
Caginau	Buena Vista Township	1	total of 3 between A,B,	С	3	3	3	3
Saginaw	Village of Chesaning	no limit	no limit	no limit	no limit	unclear: 2 or 3	no limit	no limit
Schoolcraft	Mueller Township	no cap	no cap	no cap	no cap	no cap	no cap	no cap
	Juniata Township	5	5	5	0	0	2	5
Tuscola	Vassar	no cap	no cap	no cap	no cap	no cap	no cap	no cap
	Vassar Township	no cap	no cap	no cap	no cap	5	no cap	no cap
	Bangor	no cap	no cap	no cap	no cap	no cap	no cap	no cap
Van Buran	H <mark>artford</mark>	1	1	1	1	1	1	1
Van Buren	Porter Township	no cap	no cap	no cap	5	2	5	5
	Village of Breedsville	no cap	no cap	no cap	no cap	5	no cap	no cap
\A/b+	Sharon Township		total of 4 between A,B,		4	0	0	0
Washtenaw	Ypsilanti Ypsilanti		total of 3 between A,B,		3	7	0	0
	Inkster	no cap	no cap	no cap	no cap	3	no cap	no cap
Wayne	Garden City	no cap	no cap	no cap	no cap	no cap	no cap	no cap
,	River Rouge		total of 4 between A,B,		4	7	0	1

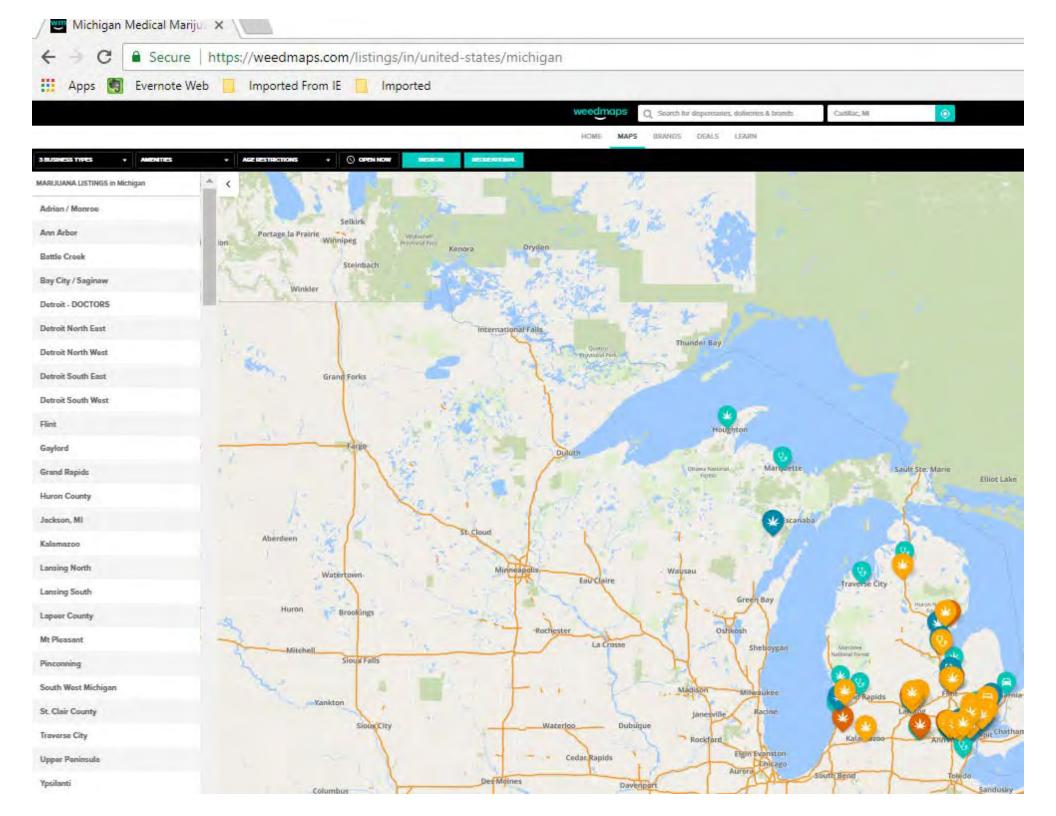


Required Testing

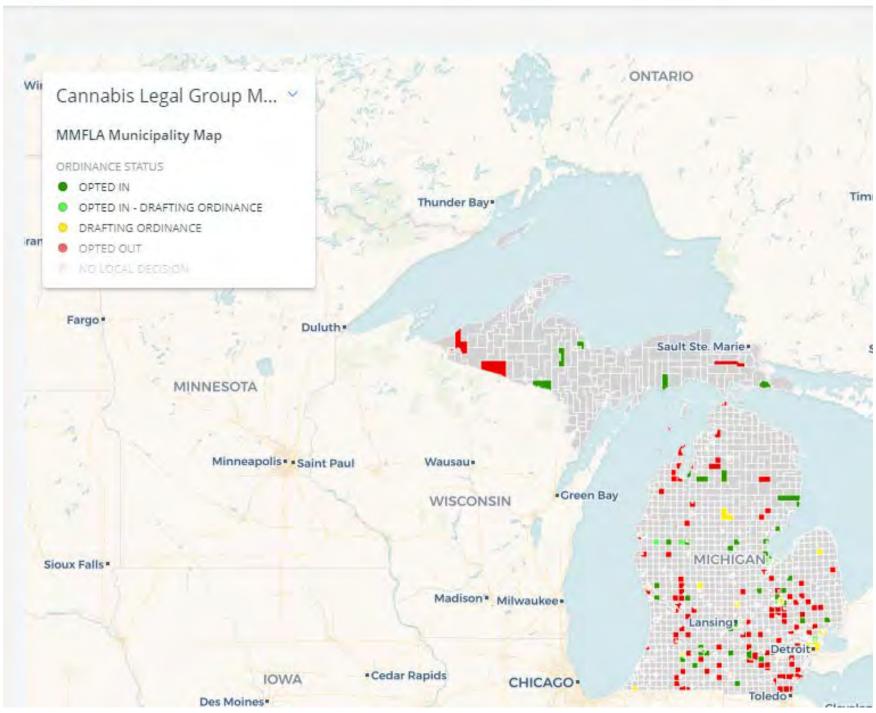
There is currently no lab testing required by the state.

Qualifying Conditions and Patient Rights

Cancer, glaucoma, HIV/AIDS, hepatitis C, ALS, Crohn's disease, agitation of Alzheimer's disease, nail patella (or the treatment of these conditions), a chronic or debilitating disease, medical condition or its treatment that produces one or more of the following: cachexia or wasting syndrome, severe and chronic pain, severe nausea, seizures (including but not limited to those characteristic of epilepsy), or severe and persistent muscle spasms (including but not limited to those characteristic of Multiple Sclerosis).









State and Local Regulation of Medical Marihuana

Michigan Municipal League October 3, 2017 Kalamazoo, MI Short History of Medical Marihuana in Michigan

Overview of Medical Marihuana Statutes

Options and Challenges for Municipalities ო

Scope of Presentation

Marihuana Act. Act fails to reference dispensaries or commercial sale of medical marihuana to qualifying patients or caregivers. November 2008: Michigan voters approve Michigan Medical

marihuana legally untenable, creating legal uncertainty surrounding <u>McQueen, which largely makes commercial sale of medical</u> February 2013: Michigan Supreme Court decides People v. commercial dispensary operations.

state law as being pre-empted by Michigan Medical Marihuana Act. strikes down ordinance prohibiting any use contrary to federal or February 2014: Michigan Supreme Court in Ter Beek v. Wyoming

Medical Marihuana Timeline

September 2016: Adoption by Legislature of three bills addressing the commercialization of medical marihuana and medibles (edible marijuana-infused products) signed into law by Governor.

Public Act 281: Medical Marihuana Facilities Licensing Act

Public Act 282: Marihuana Tracking Act

infused products"; defines "usable marihuana equivalencies"; prohibits butane Public Act 283: Amended MMMA to recognize and provide for "marihuanaresin extraction refining process in residential areas

commercialization of medical marihuana and permits consumption of marihuana by Taken together the statutes outline a "seed-to-sale" regulatory scheme for the consumption other than by smoke inhalation.

Acts took effect December 20, 2016, but application for state-issued operating licenses for the various types of marihuana facilities begins December 15, 2017.

Medical Marihuana Timeline

Public Act 283 amended Michigan Medical Marihuana Act by:

1. Adding definitions:

substances intended for human use or consumption other than by smoking. "Marihuana-infused product" (aka "medibles")

"Usable marihuana equivalent"

1 oz of usable marihuana =

16 oz. of marihuana-infused product in solid form

7 grams of marihuana-infused product in gaseous form

36 fl. oz. of marihuana-infused product in liquid form

2. Prohibits butane extraction of plant resin inside or within curtilage of a residential structure

** Public Act 546 (effective April 10, 2017) amended MMMA to:

Permit a landlord to insert language in a written lease prohibiting smoking or cultivation of marihuana on the leased premises

Overview of Public Act 283 (& P.A. 546)



Public Act 282 Marihuana Tracking Act

- Requires the establishment of a state-wide marihuana monitoring system to be accessed by licensees and law enforcement officials
- Monitors "seed-to-sale" transfers through inventory control and tracking \ \
- Department of Licensing and Regulatory Affairs (LARA) bid the contract to establish, operate and maintain the monitoring system က
- State awarded \$447,625 contract to Franwell, Inc. a Florida-based software company that supports agricultural industry and cold food supply chains
- Contractor required to deliver a functioning system by 180 days after award of the contract. 5.

Public Act 281 Medical Marihuana Facilities Licensing Act or MMFLA

Creates 5 types of Medical Marihuana Facilities:

Grower

Class A – 500 plants

Class B – 1000 plants

Class C – 1500 plants

Processor: extracts resin from plant /creates marihuana-infused products

Secure Transporter: transports marihuana & cash between facilities; may also store marihuana

Safety Compliance Facility: tests samples of marihuana for contaminants and its active ingredients

Provisioning Center: sells marihuana/marihuana infused products only to registered patients and caregivers

State Licensing Process

A 5 member **Medical Marihuana Licensing Board** evaluates and reviews every application for a license.

Farm Manager, Speaker of Michigan House 2000-04 Rick Jones (Le Roy), Chairperson

Walgreen's Pharmacist, Mich. Bd. of Pharmacy Chairperson Nichole Cover, (Mattawan)

Police Officer's Assn. of Michigan Bd. Member & Business Agent David LaMontaine, (Monroe)

Donald Bailey, (Traverse City)
Retired Michigan State Police Sgt.

Vivian Pickard, (Bloomfield Hills)

Refired Director of Public Policy for GM; Former President of GM Foundation;

State Licensing Process

Regulatory Affairs (LARA), which has created a Bureau of Medical Marihuana Regulation (BuMMR?) Places administration of Act with Department of Licensing and

State-issued facility operating licenses are good for 1 year and can be renewed.

municipality; City must supply proof of its ordinances within 90 days of Applicant must be able to show that facility is permitted in local receiving notice of a license application to the State.

State Licensing Process

Applicants for State License must:

- 1. Not have a controlled-substance felony within past 10 years
- 2. Not have a controlled-substance misdemeanor within past 5 years
- 3. Not be an elected official or governmental employee
- 4. Be a Michigan resident for 2 years, until 6/30/2018

Nature of License:

- 1. Revocable privilege, not property right
- 2. Subject to examination at any time by law enforcement
- 3. Must do background checks on prospective employees

Revenue

- 1. Nonrefundable State application fee
- 2. State regulatory assessment (not imposed on safety compliance centers)
- 3. 3% tax on retail sales at provisioning centers

Speculative State/City Revenue Projections

Scenario 1

\$1,000,000,000

Scenario 2

Gross Retail Sales

\$650,000,000

\$30,000,000

3% Excise Tax

\$19,500,000

\$7,500,000

\$4,875,000

25% Michigan Cities

1% Share

\$48,750

\$75,000

Local Options under the MMFLA:

1. Do Nothing / Wait & See

No action precludes any type of marihuana facility from getting a State-issued license to operate in the local municipality since a local ordinance authorizing marihuana facilities is required

2. Adopt an ordinance or resolution affirmatively prohibiting marihuana facilities from operating in the municipality

3. Adopt an ordinance authorizing 1 or more types of marihuana facilities and limit the number of each type:

- . may not regulate purity or pricing
- may not interfere or conflict with state regulations
- may establish an annual nonrefundable fee of up to \$5000 to help defray administrative and enforcement costs
- eligible to receive proportional share of 25% of State Medical Marihuana Excise Fund reserved for municipalities ਰ

Municipal Response: Preparation of ordinances

- Adopt or Amend any applicable ordinance provisions to bring language up to date due to changes in MMMA to address butane refining/infused products by registered caregivers/patients
- Amend Zoning Code to define where various types of marihuana facilities may lawfully locate if permitting medical marihuana facilities

Amend General Code

- a. To permit and perhaps limit number of marihuana facilities in the City
- b. To create a licensing process complementary to that of the State
- c. Set forth the responsibilities and obligations of medical marihuana facility operators

Should all types of facilities be permitted?

Where should the various types of permitted facilities be located? (Growers limited to industrial, agricultural or unzoned areas) Should they be clustered or dispersed? (Distances from other protected uses?)

grower/processor/provisioning centers at the same location. Requires separate licenses and LARA issue Advisory Bulletin on September 21, 2017 indicating intent to permit separate entrances/exits. Local municipalities may prohibit co-location, however.

How proactive should the municipality be in vetting licensees?

If permitted, location by right or by special use? (Don't invite legal challenges!)

You are not alone: How have communities in Michigan and other states addressed these and other issues associated with medical marihuana commercialization?

Grower Facility

Three classes: Class A (500 plants) /Class B (1000 plants)/Class C (1500 plants)

- Cultivates, dries, trims or cures and packages marihuana for sale to a processor or provisioning center; may sell seeds and plants to another grower
- May not have an interest in a secure transporter or testing center
- Until 12/31/2021 must employ a formerly registered caregiver with at least 2 years
- May not be a current registered caregiver nor employ a currently registered caregiver
- May only operate in an industrial or agricultural zone or unzoned land
- On September 28, 2017 LARA issued Advisory Bulletin authorizing "multiple (stacked) class C grow licenses" (Must locals go along?)

Processor Facility

- Extracts resin from marihuana or creates marihuana-infused products for sale in packaged form to a provisioning center
- Until 12/31/2021 must employ a former caregiver
- May not be a registered caregiver nor employ a currently registered caregiver
- Not eligible to hold a secure transporter or safety compliance (testing center)
- Must make use of statewide monitoring system
- Must purchase marihuana from a grower

Secure Transporter Facility

- Stores and transports marihuana and money between facilities for a fee
- May not transport to a patient or caregiver
- May not have an interest in any other type of facility
- Can't be a registered patient or caregiver
- Drivers must have chauffeur's license and in past 5 years, not have been convicted of any felony or a controlled substance misdemeanor
- Each vehicle must employ a 2-person crew and not bear markings that it carries
- ATF does not condone possession of firearms & marihuana *

Safety Compliance Center Facility

- contaminants, tetrahydrocannabinol (THC) and other cannabinoids Receives marihuana from a facility or caregiver and tests it for
- Must use statewide monitoring system
- Lab space cannot be accessible to general public
- May test samples of up to 2.5 oz. brought in registered patients and caregivers
- Must employ at least 1 staff member with advanced degree in a medical or laboratory science (State clarification of standard likely.)

Provisioning Center Facility

- Purchases marihuana from grower or processer
- Sells, supplies or provides marihuana to patients and caregivers after inquiry
- Must use secure transporter
- May only sell tested and labeled marihuana
- Must use statewide monitoring system
- May not permit sale, consumption or use of alcohol or tobacco on premises
 (But MMFLA permits "finctures" which are alcohol-based extracts)
- Physician not allowed to conduct exams or issue certifications on premises

City of Kalamazoo Response: Proposed Zoning Regulation of Marihuana Facilities

Separation Distances	Marihuana	Alcohol
Schools	1000 feet	500 feet
Playground or park	1000 feet	
Public housing authority property	1000 feet	
Licensed child care center	500 feet	
Place of worship/religious assembly	500 feet	500 feet
Pool or recreational facility	500 feet	
Halfway house, correctional facility	500 feet	
Substance abuse rehab or treatment	500 feet	
Residential zoning district	500 feet*	
Another marihuana facility	500 feet	

^{*}Applicable only to Grower and Processor Facilities

City of Kalamazoo Response: Limitation of Marihuana Facilities

Permitted Number	
Type of Facility	

Grower

All Classes

No Limit

No Limit

Secure Transporter

Processor

No Limit

Safety Compliance Center

No Limit

Provisioning Center

1 per every 10,000 City residents

Municipal Response: Census of Patients/Caregivers

County	Patients	Caregivers	Per 1000 population
Kalamazoo	4081	758	15.6
Allegan	2508	521	21.7
Barry	1169	244	19.6
Berrien	2914	099	18.9
Branch	1076	215	24.8
Calhoun	3164	664	23.5
Cass	977	189	18.9
Kent	8754	1366	13.6
Ottawa	3341	499	11.8
St. Joseph	1136	223	18.7
Van Buren	1988	428	26.4

Source: State of Michigan Medical Marihuana Act Statistical Report for FY 2016 Issued December 22, 2016

Medical Marihuana businesses traffic in a Schedule 1 substance and can be heavily cash-oriented, thereby making facilities an attractive crime target

Large amounts of growing/stored marihuana can have an unpleasant odor

Processing can involve use of flammable materials to extract resin from plant

Issues associated with waste disposable; safety, accessibility

Firearms and security pose questions under federal ATF rules

Should the City determine who gets a license? And if so, how?

Other public health, safety, & welfare issues? What needs to be in your ordinance?

Exposure to Federal criminal/civil liability for City officials and employees? Local Options/Response

True Parties in Interest: Section 404 of MMFLA:

- 1. Proprietorships: proprietor & spouse
- . Partnerships: partners & spouses
- Private Corporations: officers, stockholders & spouses
- Public Corporations: officers & spouses
- Nonprofit Corporation: individuals and entities with membership or shareholde rights & spouses
- Excludes: Lessors/Landlords unless they control or manages business and employees who receive not more than 25% bonus %

Protected Activities: Sections 201 & 202 of MMFLA

- Exempt from state or local criminal and civil marihuana offenses
- Exempt from searches or inspection unless by law enforcement/LARA
- Exempt from seizures based on a marihuana –related offense
- Exempt from professional disciplinary actions
- May grow, possess, process, transport, test, purchase or transfer marihuana
 - May receive compensation for products and services
- Under MMMA, caregiver may only receive compensation for assisting a patient in the medical use of marihuana

Exposure to Federal criminal/civil liability for City officials and employees?

This is a real concern. See Safe Streets Alliance v. Hickenlooper, 2017 U.S. App LEXIS 10101 (10th Federal Circuit Court of Appeals)

adjacent marijuana grow operation and reduction in property value due to proximity Racketeer Influenced and Corrupt Organizations Act (RICO) that marijuana growers Permitted claims by adjacent landowners properly brought claims under the federal Controlled Substances Act, caused injury to their property through noxious odor of operating pursuant to state and county issued licenses, by violating the federal to an unlawful enterprise under federal law.

at issue in this case. RICO claims against governmental entities and officials dismissed. Case involves only recreational marijuana, Colorado medical marijuana scheme not

Municipal Response: Next Steps

- 2018 Ballot Question to Legalize Recreational Marihuana
- Initiative Question requires 252,523 vaild signatures
- As reported by MLive on August 6, 2017, proposal would:
- Permit possession of 2.5 ounces on one's person (Most states permit 1 oz. on person)
- Permit additional 10 ounces in one's home
- By some estimates, this would be enough to roll over 1000 joints
- Legal landscape may drastically change in 2 years; Stay tuned!

Municipal Response: Next Steps

- Consult your municipal attorney
- Provide information to the Planning Commission & City Council in advance
- Hold public outreach meetings regarding the proposed ordinances to receive citizen feedback
- Incorporate feedback into ordinances and finalize language •
- Get out in front of the issue
- Be aware of the possibility of ordinance/charter initiatives
- Opponents may compare local regulation of marihuana akin to that of alcohol or adult businesses (MMFLA does not change MMMA re: registered caregiver-patient relationship, nor does it "legalize" marihuana, or eliminate the black market)
- Industry will frame the issue as one of altruism; it is providing much needed medicine to underserved

"There's always cash when we sell drugs. That's why we sell drugs."

--Nancy Botwin (Character from the Showtime series "Weeds")

wholesale value of marijuana is \$1614/lb., the retail value is \$4536/lb. According to a August 31, 2017 Wall Street Journal article, the



NEWS UPDATE View in a browser



News Bill Tracking Legislation

Wednesday, May 30, 2018, 12:26 PM

LARA Extends Deadline For Pot Shops Without A License

Medical marijuana shops without a license to operate that faced a June 15 license to shut down or risk harming their license application can continue to do business until September 15, the Department of Licensing and Regulatory Affairs declared today with the issuance of new emergency rules.

So far, the state has yet to issue any licenses, and it was becoming evident it would not complete action on licensing requests prior to the June 15 deadline. LARA Director Shelly Edgerton said the new rules will give the Bureau of Medical Marihuana Regulation and the Medical Marihuana Licensing Board enough time to process license applications.

"Extending the deadline to September 15th will make sure that this law is implemented correctly and assure that potential licensees are thoroughly reviewed. It is important that we ensure that medical marihuana patients have continued access to their medicine," Ms. Edgerton said in a statement.

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

BUREAU OF MEDICAL MARIHUANA REGULATION

MEDICAL MARIHUANA FACILITIES LICENSING ACT

EMERGENCY RULES

Filed with the Secretary of State on May 30, 2018

These rules take effect upon filing with the Secretary of State and shall remain in effect for 6 months.

(By authority conferred on the department of licensing and regulatory affairs by section 206 of 2016 PA 281, MCL 333.27206, enacting section 2 of Act 281 of 2016, by section 3 of 2016 PA 282, MCL 333.27903, and by section 6 of MCL 333.26426, 2008, Initiated Law 1.)

FINDING OF EMERGENCY

These rules are promulgated by the department of Licensing and Regulatory Affairs (department) to establish emergency rules for the purpose of implementing the Medical Marihuana Facilities Licensing Act (act), 2016 PA 281, MCL 333.27101 et seq., which took effect December 20, 2016 and was recently amended by 2018 PA 10. The act provides for a state regulatory structure to license and regulate medical marihuana growers, processors, provisioning centers, secure transporters, and safety compliance facilities that interacts with the statewide monitoring system for commercial marihuana transactions; establishes a medical marihuana licensing board (Board) created within the department and appointed by the governor; and prescribes civil fines and sanctions and provides remedies.

The act includes an enacting section specifying that the legislature found it necessary for the promulgation of emergency rules to preserve the public health, safety, or welfare for access to safe sources of marihuana for medical use and the immediate need for growers, processors, secure transporters, provisioning centers, and safety compliance facilities to operate under clear requirements. In addition, section 206 of the act requires the department, in consultation with the Board, to promulgate administrative rules and emergency rules as necessary to implement, administer, and enforce the act. Furthermore, section 206 specifies that the rules shall ensure the safety, security, and integrity of the operation of marihuana facilities.

To date, no administrative rules have been promulgated under the authority granted to the department, in consultation with the Board that has been created within the department. Specifically, there are no current administrative rules to ensure the safety, security, and integrity of the operation of marihuana facilities. Pursuant to section 401 of the act, beginning December 15, 2017, persons may apply to the Board created within the department for state operating licenses in the categories of class A, B, or C grower, processor, provisioning center, secure transporter, and safety compliance facility. The Board is required to review all applications for licensure, issue or deny issuance of a license, and inform each applicant of the Board's decision. To date, no state

operating licenses have been issued because the processing and review of applications requires attention and numerous hours of review. If issuance is denied, the Board is required, upon request, to provide a public investigative hearing. In addition, any party aggrieved by an action of the Board suspending, revoking, restricting, or refusing to renew a license, or imposing a fine, shall be given a hearing before the Board upon request. There are no administrative rules currently in place that will provide for the implementation of these requirements as specified in the act.

In addition, the act requires the promulgation of administrative rules to prescribe the use of the statewide monitoring system to track all marihuana transfers, as provided in the Marihuana Tracking Act, 2016 PA 282, MCL 333.27901 et seq. To date, these administrative rules have not been promulgated. The statewide monitoring system is used to track and inventory marihuana and is a key component to preserving the integrity of the operation of marihuana facilities, monitoring the industry, investigating, and supporting compliance with the act to promote the public health, safety, or welfare.

The lack of administrative rules to implement the act will have a detrimental effect on the necessity for access to a safe source of marihuana for medical use and the immediate need for growers, processors, secure transporters, provision centers, and safety compliance facilities to operate under clear requirements. Furthermore, the use of the statewide monitoring system to track all marihuana transfers is integral to the safety and compliance requirements of the act. Also, the act requires the promulgation of administrative rules to establish testing standards, procedures, and requirements for marihuana sold through provisioning centers. To date, there are no administrative rules in place to set the testing standards to ensure public health, safety or welfare. The emergency administrative rules are needed to enable the department, through its Bureau of Medical Marihuana Regulation, to implement the act to provide a safe environment for the state operating licensees and Michigan communities, as well as access to medical marihuana that has been tested for safety for sale to registered qualifying patients and registered primary caregivers.

If the complete process specified in the Administrative Procedures Act of 1969, 1969 PA 306, MCL 24.201 et seq. for the promulgation of rules were followed, the process would not be completed in time for the department to comply with the act's requirements to process applications according to the timelines specified in the act, provide administrative hearing procedures, or implement the tracking requirements. Furthermore, the administrative rules would not be promulgated prior to the issuance of state operating licenses, thus causing uncertainty and financial hardship to individuals or businesses that plan to apply for commercial state operating licenses.

The department, in consultation with the Board, therefore, finds that the preservation of the public health, safety, and welfare requires the promulgation of emergency rules as provided in section 48 without following the notice and participation procedure required by sections 41 and 42 of 1969 PA 306, as amended, being MCL 24.241, and MCL 24.242 of the Michigan Compiled Laws.

Rule 1. Definitions.

(1) "Act" means the medical marihuana facilities licensing act, 2016 PA 281, MCL 333.27101 to 333.27801.

- (2) "Batch" means all the plants of the same variety of medical marihuana that have been grown, harvested, and processed together and exposed to substantially similar conditions throughout cultivation and processing.
- (3) "Building" means a combination of materials forming a structure affording a facility or shelter for use or occupancy by individuals or property. Building includes a part or parts of the building and all equipment in the building. A building shall not be construed to mean a building incidental to the use for agricultural purposes of the land on which the building is located.
- (4) "Bureau" means the department of licensing and regulatory affairs' bureau of medical marihuana regulation.
- (5) "Bureau of fire services" or "BFS" means the department of licensing and regulatory affairs' bureau of fire services.
- (6) "Department" means the department of licensing and regulatory affairs.
- (7) "Director" means the director of the department of licensing and regulatory affairs or his or her designee.
- (8) "Employee" means a person performing work or service for compensation.
- (9) "Harvest batch" means marihuana that has been harvested.
- (10) "Immature plant" means a nonflowering marihuana plant that is no taller than 8 inches and no wider than 8 inches produced from a cutting, clipping, tissue culture, or seedling that is in a growing/cultivating medium or in a growing/cultivating container that is no larger than 2 inches wide and no more than 2 inches tall that is sealed on the sides and bottom.
- (11) "Limited access area" means a building, room, or other contiguous area of a marihuana facility where marihuana is grown, cultivated, stored, weighed, packaged, sold, or processed for sale, under control of the licensee.
- (12) "Marihuana facility" means a location at which a licensee is licensed to operate under the act and these rules.
- (13) "Marihuana product" means marihuana or marihuana-infused product, or both, as those terms are defined in the act unless otherwise provided for in these rules.
- (14) "Marihuana tracking act" means the marihuana tracking act, 2016 PA 282, MCL 333.27901 to 333.27904.
- (15) "Michigan medical marihuana act" means the Michigan medical marihuana act, 2008 IL 1, MCL 333.26421 to 333.26430.
- (16) "Package tag" means an RFID tag supplied through the statewide monitoring system for the purpose of identifying a package containing marihuana product.
- (17) "Plant tag" means an RFID tag supplied through the statewide monitoring system for the purpose of identifying an individual marihuana plant.
- (18) "Proposed marihuana facility" means a location at which an applicant plans to operate under the act and these rules if the applicant is issued a state operating license.
- (19) "Restricted access area" means a designated and secure area at a marihuana facility where marihuana products are sold, possessed for sale, and displayed for sale.
- (20) "Same location" means separate state operating licenses that are issued to multiple marihuana facilities that are authorized to operate at a single property but with separate business addresses.
- (21) "Stacked license" means more than 1 state operating license issued to a single licensee to operate as a grower of class C-1,500 marihuana plants as specified in each license at a marihuana facility.

(22) "Tag" or "RFID tag" means the unique identification number or Radio Frequency Identification (RFID) issued to a licensee by the department for tracking, identifying and verifying marihuana plants, marihuana products, and packages in the statewide monitoring system.

Rule 2. Terms; meanings.

Terms defined in the act have the same meanings when used in these rules unless otherwise indicated.

Rule 3. Adoption by reference.

- (1) National fire protection association (NFPA) standard 1, 2018 edition, entitled "Fire Code" is adopted by reference as part of these rules. Copies of the adopted provisions are available for inspection and distribution from the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, Massachusetts, 02169, telephone number 1-800-344-3555, for the price of \$99.50.
- (2) Cannabis Inflorescence: Standards of Identity, Analysis, and Quality Control monograph published by the American Herbal Pharmacopoeia. A copy of that publication may be obtained from the American Herbal Pharmacopoeia, P.O. Box 66809, Scotts Valley, California 95067, or at the Internet address http://www.herbal-ahp.org/, for the price of \$44.95.
- (3) Safe Quality Food (SQF), 7.2 edition available at http://www.sqfi.com/wp-content/uploads/SQF-Code_Ed-7.2-July.pdf.
- (4) The International Organization for Standardization (ISO), ISO 22000 / ISO/TS 22002-1 food safety bundle, available for purchase at: https://webstore.ansi.org/RecordDetail.aspx?sku=ISO+22000+%2f+ISO%2fTS+22002-1+-+Food+Safety+Bundle, for the price of \$275.00.
- (5) International Organization for Standardization (ISO), ISO/IEC 17025, general requirements for the competence of testing and calibration laboratories available at: https://webstore.ansi.org/RecordDetail.aspx?sku=ISO%2fIEC+17025%3a2017, for the price of \$162.00.

Rule 4. Application procedure; requirements.

- (1) A person may apply for a state operating license on the form created by the department accompanied by the application fee as prescribed in these rules. Each question on the application must be answered in its entirety and all information requested and required by the act and these rules must be submitted in the application. Failure to comply with these rules and the application requirements in the act is grounds for denial of the application.
- (2) A person may submit a partial application under Rule 5 on the condition that it is to prequalify to complete the remaining application requirements. This is a pending status until all application requirements in Rule 6 are completed. The department shall not issue a license at this stage of the application.
- (3) The department may delay an application while additional information is requested including, but not limited to, requests for additional disclosures and documentation to be furnished to the department.
- (4) For purposes of this rule and Rules 5 and 6 the term "applicant" includes the officers, directors, and managerial employees of the applicant and any persons who hold any direct or indirect ownership interest in the applicant.

- Rule 5. Application requirements; financial and criminal background.
- (1) The first part of the application is a financial background and full criminal history background check of the applicant. For purposes of this rule an applicant includes the officers, directors, and managerial employees of the applicant and any persons who hold any direct or indirect ownership interest in the applicant.
- (2) An applicant shall disclose the identity of every person having any ownership interest in the applicant with respect to which the license is sought including, but not limited to, date of birth, government issued identification, or any other documents required by the act.
- (3) An applicant and any persons who have a direct or indirect interest in the applicant, as well as any officers, directors, and managerial employees of the applicant shall disclose all the financial information required in the act and these rules in a format created by the department including, but not limited to, the following:
- (a) Financial statements, pecuniary interest, any deposit of value of the applicant or made directly or indirectly to the applicant, or both, and financial account information including but not limited to, funds, savings, checking, or other accounts including any or all financial institutions information, such as names, account type, amounts of the foregoing, and a list of all loans, amounts, securities, or lender information.
- (b) Property ownership information, deeds, leases, rent, real estate trusts, purchase agreements or institutional investors.
- (c) Tax information, W-2 and 1099 forms, and any other information required by the department.
- (d) For in-state and out-state applicants, the applicant's business organizational documents filed with this state, local county, or foreign entity, if applicable, including proof of registration to do business in this state and certificate of good standing from this state or foreign entity, if applicable.
- (e) Disclosure by the applicant of the identity of any other person who meets either of the following:
- (i) Controls, directly or indirectly, the applicant.
- (ii) Is controlled, directly or indirectly, by the applicant or by a person who controls, directly or indirectly, the applicant.
- (f) Written consent by the applicant to a financial background investigation as authorized under the act and these rules.
- (g) Disclosure by the applicant of any true parties of interest as required in section 404 of the act.
- (h) Disclosure by the applicant of the stockholders or other persons having a 1% or greater beneficial interest in the proposed marihuana facility as required in section 303 of the act.
- (i) The sources and total amount of the applicant's capitalization to operate and maintain the proposed marihuana facility in compliance with Rule 11.
- (j) A CPA-attested financial statement including foreign attested CPA statement, or its equivalent, if applicable, on capitalization pursuant to Rule 11.
- (k) Information on the financial ability of the applicant to purchase and maintain adequate liability and casualty insurance in compliance with Rule 10.
- (l) Any other documents, disclosures, or attestations created or requested by the department that are not inconsistent with the act or these rules.
- (4) An applicant and each person having any ownership interest in the proposed marihuana facility and each person who is an officer, director, or managerial employee of the applicant shall disclose criminal history background information and regulatory compliance as provided under

the act and these rules in a format created by the department, including, but not limited to, all the following:

- (a) Attestation, in writing, that the person consents to inspections, examinations, searches, and seizures that are permitted under the act and these rules.
- (b) Written consent to a criminal history check, submission of a passport quality photograph to the department and 1 set of fingerprints to the department of state police in accordance with section 402 of the act and these rules for the applicant, each person having any ownership interest in the proposed marihuana facility, and each person who is an officer, director, or managerial employee of the applicant.
- (c) Submission of a handwriting exemplar, fingerprints, photographs, and information authorized by the act and by these rules.
- (d) Attestation affirming a continuing duty to provide information requested by the department and to cooperate in any investigation, inquiry, or hearing.
- (e) Attestation acknowledging that sanctions may be imposed for violations on a licensee while licensed or after the license has expired as provided in the act and these rules.
- (f) Disclosure of any noncompliance with any regulatory requirements in this state or any other jurisdiction.
- (g) Disclosure of an application or issuance of any commercial license or certificate issued in this state or any other jurisdiction and the requirements under section 401(1)(e) of the act.
- (h) Any other documents, disclosures, or attestations created or requested by the department that are not inconsistent with the act or these rules.
- (5) An applicant shall submit in the application any information requested and required by the act and these rules.

Rule 6. Application requirements; complete application.

- (1) A complete application for a state operating license must include all the information in Rule 5 and all the following:
- (a) A description of the type of marihuana facility, anticipated or actual number of employees, projected or actual gross receipts, a business plan, proposed marihuana facility location, and security plan as required under the act and these rules.
- (b) A copy of the proposed marihuana facility plan under Rule 8.
- (c) An applicant shall pass the pre-licensure inspection as provided in Rule 9.
- (d) An applicant shall submit confirmation of compliance with the municipal ordinance as required in section 205 of the act and these rules. For purposes of these rules, confirmation of compliance must be on an attestation form prepared by the department that contains all of the following information:
- (i) Written affirmation that the municipality has adopted an ordinance under section 205 of the act, including, if applicable, the disclosure of any limitations on the number of each type of marihuana facility.
- (ii) Description of any zoning regulations that apply to the proposed marihuana facility within the municipality.
- (iii) The signature of the clerk of the municipality or his or her designee attesting that the information stated in the document is correct.
- (e) The disclosure of the true party of interest as required in section 404 of the act and these rules.
- (f) The disclosure of the beneficial interest as required in section 303(1)(g) of the act.

- (g) Additional information and documents requested by the department not inconsistent with the act and these rules.
- (h) Any other documents, disclosures, or attestations created or requested by the department that are not inconsistent with the act and these rules.

Rule 7. Application; fees; assessment.

- (1) An application for a state operating license must be accompanied by the nonrefundable application fee of \$6,000.00 upon initial application under Rule 5.
- (2) If the costs of the investigation and processing the application exceed the application fee, the applicant shall pay the additional amount.
- (3) The regulatory assessment must be paid on or before the date a licensee begins operating and annually thereafter pursuant to section 603 of the act and these rules.
- (4) A license will not be issued until a complete application is submitted, the fees required under these rules are paid, and it is determined that the applicant is qualified to receive a license under the act and these rules.

Rule 8. Marihuana facility plan.

- (1) To ensure the safety, security, and integrity of marihuana facility operations, an applicant shall submit a marihuana facility plan for the proposed marihuana facility as required in Rule 6 and thereafter upon request by the department. Upon the request of the department an applicant or licensee may be required to submit a revised marihuana facility plan.
- (2) The marihuana facility plan shall include, but not be limited to, the following:
- (a) The type of proposed marihuana facility, location, description of the municipality, and any of the following if applicable:
- (i) Operation at the same location under Rule 24.
- (ii) Proof of common ownership interest under Rule 24.
- (iii) Stacked license under Rule 22.
- (iv) Temporary operation under Rule 19.
- (b) Diagram of the marihuana facility including, but not limited to, its size and dimensions; specifications; physical address; location of common entryways, doorways, or passageways; means of public entry or exit; limited-access areas within the marihuana facility; and indication of the distinct areas or structures at a same location as provided for in Rule 24.
- (c) Floor plan and layout, including dimensions, maximum storage capabilities, number of rooms, dividing structures, fire walls, and entrances and exits.
- (d) Means of egress, including, but not limited to, delivery and transfer points.
- (e) Construction details for structures and fire-rated construction for required walls.
- (f) Building structure information, including but not limited to, new, pre-existing, free-standing, or fixed. Building type information, including but not limited to, commercial, warehouse, industrial, retail, converted property, house, building, mercantile building, pole barn, greenhouse, laboratory, or center.
- (g) Zoning classification and zoning information.
- (h) If the proposed marihuana facility is in a location that contains multiple tenants and any applicable occupancy restrictions.
- (i) A proposed security plan that demonstrates the proposed marihuana facility must meet the security requirements under Rule 27.

- (j) Any other information required by the department as long as it is not inconsistent with the act and these rules.
- (3) Any changes or modifications to the marihuana facility plan under this rule must be reported to the department and may require preapproval by the department.
- (4) The department may provide a copy of the marihuana facility plan to the state fire official, local fire department, and local law enforcement for use in pre-incident review and planning.
- (5) The department may reinspect the marihuana facility to verify the plan at any time and may require that the plan is resubmitted upon renewal.

Rule 9. Pre-licensure investigation and proposed marihuana facility inspection.

- (1) An applicant for a state operating license shall submit to a pre-licensure physical inspection to ensure the safety, security, and integrity of the operation of a proposed marihuana facility.
- (2) The department shall establish an inspection process to confirm that the applicants and proposed marihuana facilities meet the requirements of the act and these rules.
- (3) The department shall investigate applicants in accordance with the act and these rules.
- (4) The department, through its investigators, agents, auditors, or the state police, shall conduct inspections and examinations of applicants and proposed marihuana facilities in accordance with the act and these rules.
- (5) An applicant shall submit proof to the department of the following:
- (a) A certificate of use and occupancy as required pursuant to section 13 of 1972 PA 230, MCL 125.1513 and these rules.
- (b) A final inspection completed by the department notwithstanding any local ordinance or building permit inspection.
- (c) Proof of a fire safety inspection as provided for in Rule 26.

Rule 10. Proof of financial responsibility; insurance.

- (1) Before a license is issued or renewed, the licensee or renewal applicant shall file a proof of financial responsibility for liability for bodily injury on the form prescribed in section 408 of the act for an amount not less than \$100,000.00. If the proof under this subrule is a bond, the bond must be in a format acceptable to the department.
- (2) A renewal applicant or licensee shall carry premise liability and casualty insurance for an amount not less than \$100,000.00. An applicant shall provide proof of premises liability insurance to the department no later than 60 days after a state operating license is issued or renewed.
- (3) A secure transporter shall show proof of auto insurance, vehicle registration, and registration as a commercial motor vehicle as applicable for any transporting vehicles used to transport marihuana product as required by the act and these rules.

Rule 11. Capitalization requirements.

- (1) An applicant shall disclose the sources and total amount of capitalization to operate and maintain a proposed marihuana facility.
- (2) The total amounts of capitalization based on the type of marihuana facility specified in the application for a state operating license are as follows:
- (a) Grower: Class A \$150,000.00.
- (b) Grower: Class B \$300,000.00.
- (c) Grower: Class C \$500,000.00.
- (d) Processor: \$300,000.00.

- (e) Provisioning Center: \$300,000.00.
- (f) Secure Transporter: \$200,000.00.
- (g) Safety Compliance Facility: \$200,000.00.
- (3) An applicant shall provide proof to the department of the capitalization amounts in subrule (2) of this rule from sources as follows:
- (a) Not less than 25% is in liquid assets to cover the initial expenses of operating and maintaining the proposed marihuana facility as specified in the application. For purposes of this subdivision liquid assets include assets easily convertible to cash, including, but not limited to, cash, CDs, 401(k), stocks and bonds, and marihuana inventory that meet the all the following conditions:
- (i) The marihuana inventory is possessed by an applicant who is a registered qualifying patient or registered primary caregiver or by an applicant who applies for a state operating license and possesses marihuana inventory in compliance with the Michigan medical marihuana act.
- (ii) No more than 15 ounces of usable marihuana or 72 marihuana plants may be utilized as marihuana inventory in this subdivision or utilized towards the capitalization requirement under this subrule.
- (b) Proof of the remaining capitalization to cover the initial expenses of operating and maintaining the proposed marihuana facility may include but is not limited to additional liquid assets as described in subdivision (a) of this subrule or equity in real property, supplies, equipment, fixtures or any other nonliquid asset.
- (4) The applicant shall provide proof that there is no lien or encumbrance on the asset provided as a source of capitalization.
- (5) The capitalization amounts and sources must be validated by CPA-attested financial statements. The applicant shall disclose any of the capitalization sources that are foreign and a foreign CPA or its equivalent shall attest to the validation and a domestic CPA shall attest that foreign validation.

Rule 12. Denial of the issuance of a license; additional reasons.

- (1) If an applicant fails to comply with the act or these rules, a license may be denied as provided under the act and these rules.
- (2) In addition to the reasons for denial in the act, a license may be denied as provided in the act and these rules for the following reasons:
- (a) The applicant's marihuana facility plan does not fully comply with the act or these rules.
- (b) The applicant's proposed marihuana facility or marihuana facility is substantially different from the marihuana facility plan pursuant to Rule 8 and these rules.
- (c) The department is unable to access the proposed marihuana facility for pre-licensure physical inspection or the applicant denied the department access to the proposed marihuana facility.
- (d) The applicant made a material misrepresentation on the application.
- (e) The applicant failed to correct any deficiencies within the application in accordance with section 403 of the act and these rules.
- (f) The applicant has failed to satisfy the confirmation of compliance by a municipality in accordance with section 205 of the act and these rules.
- (g) The applicant is operating a proposed marihuana facility or a marihuana facility without a license after December 15, 2017, except for as provided in Rule 19, that would otherwise require an application for a state operating license as required under the act and these rules.

Rule 13. Renewal of license.

- (1) A license is issued for a 1-year period and is renewable annually. A licensee may apply to renew a license on a form established by the department.
- (2) Failure to comply with any of the provisions in the act and these rules may result in the nonrenewal of a license.
- (3) The licensee shall meet the requirements of the act and any other renewal requirements set forth in these rules or laws to be promulgated or enacted.

Rule 14. Notification and reporting.

- (1) Applicants and licensees have a continuing duty to provide the department with up-to-date contact information and shall notify the department in writing of any changes to its mailing address, phone numbers, electronic mail address, and other contact information it provides the department.
- (2) Applicants and licensees shall report any material and nonmaterial changes to the department.
- (3) Applicants and licensees shall report nonmaterial changes to the department within 7 business days.
- (4) Applicants and licensees shall report material changes to the department prior to the change, within 1 business day, and may need prior authorization by the department. Material changes, include, but are not limited to, the following:
- (a) Change in owners, officers, members, or managers.
- (b) Change of location. A change of location of a marihuana facility may trigger a new license and new inspection.
- (c) The addition or removal of named people.
- (d) Change in entity name.
- (e) Any attempted transfer, sale, or other conveyance of an interest in a license.
- (5) An applicant or licensee shall notify the department within 1 business day of all the following:
- (a) Adverse reactions to marihuana product sold or transferred by any licensee.
- (b) Criminal convictions, charges, or civil judgements in this state or any other state.
- (c) Regulatory disciplinary action taken or determined against an applicant or licensee by this state or any other states, including any pending action.
- (6) Failure to report material changes pursuant to subrule (4) of this rule or notifications under subrule (5) of this rule may result in sanctions or fines, or both.
- Rule 15. Notifications of diversion, theft, loss, or criminal activity pertaining to any marihuana product.
- (1) Licensees and applicants shall notify the department, state police, and local law enforcement authorities within 24 hours of theft or loss of any marihuana product or criminal activity.
- (2) Failure to notify or report under subrule (1) of this rule may result in sanctions or fines, or both.

Rule 16. Inspection; investigation.

- (1) The department shall do all of the following with respect to inspections and investigations of applicants, licensees, proposed marihuana facilities, and marihuana facility operations:
- (a) Oversee and conduct inspections through its investigators, agents, auditors, or the state police of proposed marihuana facilities and marihuana facilities as provided in section 303 of the act to ensure compliance with the act and these rules.
- (b) Investigate individuals employed by marihuana facilities.
- (c) Inspect and examine marihuana facilities and proposed marihuana facilities.

- (d) Inspect, examine, and audit records of the licensee.
- (2) The department may at any time, through its investigators, agents, auditors, or the state police, without a warrant and without notice to the licensee, enter the proposed marihuana facility or marihuana facility, offices, or other places of business of a licensee, if evidence of compliance or noncompliance is likely to be found in accordance with the act and these rules.
- (3) To ensure the safety, security, and integrity of marihuana facility operations, the department, through its investigators, agents, auditors, or the state police may place an administrative hold on marihuana product and order that no sales or transfers occur during an investigation for an alleged violation or violation of the act or these rules.
- (4) The department, through its investigators, agents, auditors, or the state police may inspect, examine, and audit relevant records of the licensee. If a licensee fails to cooperate with an investigation, the department through its investigators, agents, auditors, or the state police may impound, seize, assume physical control of, or summarily remove records from a proposed marihuana facility or marihuana facility.
- (5) The department through its investigators, agents, auditors or the state police may eject, or exclude or authorize the ejection or exclusion of, an individual from a proposed marihuana facility or marihuana facility if that individual violates the act, a final order, or these rules.
- (6) The department through its investigators, agents, auditors, or the state police may take any reasonable or appropriate action to enforce the act and rules.
- (7) This rule does not limit the application of any other remedies or sanctions that are available through local, state, and federal laws, the act, and these rules.
- (8) For purposes of this rule, the term "record" means books, ledgers, documents, writings, photocopies, correspondence, electronic records, videotapes, surveillance footage, electronic storage mediums, electronically stored records, money receptacles, equipment in which records are stored, including data or information in the statewide monitoring system, or any other document that is used for recording information.

Rule 17. Persons subject to penalty; violations.

- (1) If the department through its investigators, agents, auditors, or the state police during the physical site inspection determine violations of the act or these rules exist, the department shall notify the person, applicant, or licensee of the violation during the physical site inspection or thereafter and the person, applicant or licensee may be responsible for sanctions or fines, or both.
- (2) The department may issue a notice of a violation or fine, or both, for any violations of the act and applicable rules, including those observed by the department through its investigators, agents, auditors, or the state police while in the performance of their duties.
- (3) Where the department through its investigators, agents, auditors, or the state police determine a violation of the act or these rules exists, such violations must be cited in a format established by the department. After a notice of violation or fine or both is issued to a person, applicant, or licensee, the department may hold a compliance conference or a hearing if applicable as prescribed in the act and these rules.
- (4) The department may forward information regarding violations of the act or these rules or any other state or federal law to the state police, department of attorney general, and the prosecutor for the jurisdiction in which the alleged violation of the act or rules has occurred.
- (5) The department may take action for failure to pay any fine within the time written on the violation notice pursuant to the act or these rules.

Rule 18. Sanctions; fines.

- (1) A person, applicant, or licensee found in violation of these rules or the act may be subject to sanctions, including, but not limited to, license denial, limitation, fines, revocation, suspension, nonrenewal, administrative holds, and orders to cease operations.
- (2) A violation of these rules, the act, the marihuana tracking act, or any ordinance adopted under section 205 of the act may result in 1 or more of the following:
- (a) A license may be denied, limited, revoked, or restricted.
- (b) A licensee or an employee of a licensee may be removed.
- (c) Civil fines of up to \$5,000.00 may be imposed against an individual.
- (d) Civil fines up to \$10,000.00 or an amount equal to the daily gross receipts, whichever is greater, against a licensee for each violation of the act, these rules, or an order.
- (e) Civil fines may be assessed for each day the licensee is not in compliance with the act or these rules. Assessment of a civil fine is not a bar to the investigation, arrest, charging, or prosecution of an individual for any other violation of the act or these rules.
- (3) A license may be suspended without notice or hearing upon a determination that the safety or health of patrons or employees is jeopardized by continuing a marihuana facility's operation as provided in the act or these rules.
- (4) The attempted transfer, sale, or other conveyance of an interest in a license without prior approval is grounds for suspension or revocation of the license or for other sanction as provided in sections 406 and 409 of the act or these rules.
- (5) The department may impose any other remedies, sanctions, or penalties not inconsistent with the act or these rules.

Rule 19. Temporary operation; limited circumstances; conditional.

- (1) An applicant for a state operating license may temporarily operate a proposed marihuana facility that would otherwise require a state operating license if either of the following applies:
- (a) The applicant's proposed marihuana facility is within a municipality that adopted an ordinance before December 15, 2017 but is pending the adoption of an ordinance pursuant to section 205 of the act. The applicant shall submit an attestation on a form established by the department that includes the signature of the clerk of the municipality or his or her designee attesting to all of the following:
- (i) The municipality has adopted an ordinance before December 15, 2017.
- (ii) The municipality authorizes the temporary operation of the applicant.
- (b) The applicant's proposed marihuana facility is within a municipality that has adopted an ordinance pursuant to section 205 of the act before December 15, 2017. The applicant shall submit an attestation on a form established by the department that includes the signature of the clerk of the municipality or his or her designee attesting to all the following:
- (i) The municipality has adopted an ordinance pursuant to section 205 of the act, including, if applicable, the disclosure of any limitations on the number or type of marihuana facilities, or both.
- (ii) The municipality authorizes the temporary operation of the applicant. A resolution may be adopted by a municipality that authorizes the clerk of the municipality or his or her designee to sign the attestation form in subdivision (b) of this subrule.
- (2) A person that does not comply with this rule shall cease and desist operation of a proposed marihuana facility and may be subject to all the penalties, sanctions, and remedies under state and federal law, the act, or these rules.

- (3) An applicant that is temporarily operating under this rule is not guaranteed a state operating license.
- (4) For purposes of this rule only, an applicant shall apply for a state operating license as prescribed by the act and these rules no later than February 15, 2018. If the applicant does not apply for a state operating license as prescribed by the act and these rules no later than Feb 15, 2018 then the temporary operation may be used as a reason for denial of a license as prescribed in Rule 12.
- (5) The department shall issue or deny a state operating license under this rule on or before September 15, 2018. A municipality with an authorizing ordinance under subrule (1)(a) of this rule shall have adopted a new or amended ordinance pursuant to section 205 of the act and these rules no later than September 15, 2018.
- (6) An applicant under this rule that has been denied licensure, or has not been issued a license by September 15, 2018, is operating without a license and shall cease any operation. Any temporary operation after September 15, 2018 is considered unlicensed activity. Unlicensed activity may result in a referral to law enforcement for unlicensed activity. The department may notify the state police and department of attorney general of any unlicensed activity.
- (7) Notwithstanding the provisions of this rule, if a state operating license is issued, an applicant is no longer operating temporarily and shall comply with all the provisions of the act and these rules.

Rule 20. Transition period.

- (1) To ensure the safety, security, and integrity of the operation of marihuana facilities, there is a transition period consisting of 30 calendar days during which marihuana product can be entered into the statewide monitoring system to ensure statewide tracking beginning on the day a state operating license is issued to a licensee for the first time except for additional licenses issued to the same license holder for a stacked license after a first license is issued.
- (2) Within the 30-calendar-day period, a licensee shall do all of the following:
- (a) Record all marihuana product in the statewide monitoring system during this 30-calendar-day period as prescribed by the act and these rules.
- (b)Tag or package all inventory that has been identified in the statewide monitoring system as prescribed by the act and these rules.
- (c) Comply with all testing requirements as prescribed by the act and these rules.
- (3) After the 30-calendar-day period, any marihuana product that has not been identified in the statewide monitoring system under these rules and the act is prohibited from being onsite at a marihuana facility.
- (4) A violation of this rule may result in sanctions or fines, or both.
- (5) At any time during this 30-calendar-day period and thereafter, a marihuana facility is subject to an inspection under Rule 16.

Rule 21. State operating licenses; licensees; operations; general.

- (1) A state operating license and a stacked license as described in Rule 22 are limited to the scope of the state operating license issued for that type of marihuana facility that is located within the municipal boundaries connected with the license.
- (2) In order to ensure the safety, security, and integrity of the operation of marihuana facilities, a licensee shall comply with all of the following:

- (a) Marihuana facilities shall be partitioned from any other marihuana facility, activity, business, or dwelling.
- (b) Access to the marihuana facility is restricted to the licensee, employees of the licensee, and registered qualifying patients and registered primary caregivers with valid registry cards, if applicable, and the department, through its investigators, agents, auditors, or the state police. A separate waiting area may be created for visitors not authorized to enter the marihuana facility. The licensee shall maintain a log tracking all visitors to a marihuana facility. The visitor log must be available at all times for inspection by the department, through its investigators, agents, auditors, or the state police to determine compliance with the act and these rules.
- (c) Licensee records must be maintained and made available to the department upon request.
- (d) The marihuana facility must be at a fixed location. Mobile marihuana facilities and drive through operations are prohibited. Any sales or transfers of marihuana product by internet or mail order, consignment, or at wholesale are prohibited.
- (e) A state operating license issued under the act must be framed under a transparent material and prominently displayed in the marihuana facility.
- (f) Any other operational measures requested by the department that are not inconsistent with the act and these rules.

Rule 22. Stacked license.

A grower that has already been issued a state operating license specified as a class C-1,500 marihuana plants may apply to stack a license at a marihuana facility specified in the state operating license subject to payment of a separate regulatory assessment for each state operating license stacked and may be subject to any additional fees under Rule 7 and is subject to all requirements of the act and these rules.

Rule 23. Changes to licensed marihuana facility.

- (1) Any change or modification to the marihuana facility after licensure is governed by the standards and procedures set forth in the act and these rules and any regulations adopted pursuant thereto, and requires the approval of the department before any changes or modification.
- (2) Any change of a location of a marihuana facility after licensure requires a new license application under Rules 5 and 6 and may include, but is not limited to, regulatory assessment or application fees or both. A licensee shall produce written documentation from the municipality approving the proposed new marihuana facility location as indicated on the application provided to the department and be in compliance with section 205 of the act.

Rule 24. Operation at a same location—grower, processor, and provisioning center.

- (1) Any combination of the following types of state operating licenses may operate as separate marihuana facilities at the same location:
- (a) A grower.
- (b) A processor.
- (c) A provisioning center.
- (2) To operate at a same location subject to subrule (1) of this rule all the following apply:
- (a) The department has authorized the proposed operation at the same location.
- (b) The operation at a same location shall not be in violation of any local ordinances or regulations.

- (c) The operation at a same location does not circumvent a municipal ordinance or zoning regulation that may limit the type or number of marihuana facilities under section 205 of the act or prohibit the operation at the same location.
- (d) Each marihuana facility subject to subrule (1) of this rule shall do all the following:
- (i) Apply for and be granted separate state operating licenses and pay a separate regulatory assessment for each state operating license.
- (ii) Have distinct and identifiable areas with designated structures that are contiguous and specific to the state operating license.
- (iii) Have separate entrances and exits, inventory, record keeping, and point of sale operations, if applicable.
- (iv) Post the state operating license on the wall in its distinct area and as provided in these rules.
- (e) Additional inspections and permits may be required for local or state building inspection, fire services, and public health standards.
- (3) Operation of a state operating license at the same location that includes a licensed provisioning center shall have the entrance and exit to the licensed provisioning center marihuana facility and entire inventory physically separated from any of the other licensed marihuana facility or facilities so that persons can clearly identify the retail entrance and exit.
- (4) For purposes of this rule, a marihuana facility operating at a same location under this rule with multiple state operating licenses may transfer marihuana product or money between marihuana facilities authorized to operate at a same location under the following circumstances:
- (a) Each state operating license operating at a same location has common ownership.
- (b) An employee is designated by each licensee of a marihuana facility to monitor the transfer and execute the transfer or a licensed secure transporter executes the transfer in accordance with the act and these rules.
- (c) A manifest in the statewide monitoring system is created documenting the transfer as provided in the act and these rules.
- (d) Receipt of the transfer is recorded in the statewide monitoring system as provided in these rules.

Rule 25. Marihuana facilities; requirements.

- (1) To ensure the safety, security, and integrity of the operation of marihuana facilities a grower shall operate at a marihuana facility under either of the following conditions:
- (a) The marihuana facility operations are within a building that meets the security requirements and passes the inspections in these rules and has a building permit pursuant to Rule 26 and these rules.
- (b) The marihuana facility operations are within a building except for cultivation may occur in an outdoor area that must meet all the following conditions:
- (i) The outdoor area containing the cultivation of marihuana plants is contiguous with the building, fully enclosed by fences or barriers that block outside visibility of the marihuana plants from the public view, with no marihuana plants growing above the fence or barrier that is visible to the public eye and the fences are secured and comply with the applicable security measures in these rules, including but not limited to, locked entries only accessible to authorized persons or emergency personnel.
- (ii) After the marihuana is harvested, all drying, trimming, curing, or packaging of marihuana occur inside the building meeting all the requirements under these rules.

- (iii) The building meets the security requirements and passes the inspections in these rules and has a building permit pursuant to Rule 26 and these rules.
- (2) To ensure the safety, security, and integrity of the operation of marihuana facilities, a secure transporter shall have a primary place of business as its marihuana facility that is operating in a municipality that has adopted an ordinance that meets the requirements of section 205 of the act and these rules and its marihuana facility must comply with the requirements prescribed by the act and these rules. A secure transporter may travel through any municipality to transport marihuana product. All the following apply:
- (a) The secure transporter may take physical custody of the marihuana or money but legal custody belongs to the transferor or transferee.
- (b) A secure transporter is prohibited from selling or purchasing marihuana products.
- (c) A secure transporter must transport any marihuana product in a locked, secured, sealed container that is not accessible while in transit. If the licensee transports money associated with the purchase or sale of marihuana product between facilities, the licensee shall lock the money in a sealed container kept separate from the marihuana product and only accessible to the licensee and its employees.
- (d) All transactions including, but not limited to, current inventory must be entered in the statewide monitoring system. These records must be maintained and made available to the department upon request.
- (e) All handling of money associated with the purchase or sale of marihuana between facilities must be logged and tracked. These records must be maintained and made available to the department upon request.
- (f) A secure transporter shall have a route plan and manifest available for inspection by the department, through its investigators, agents, auditors, or the state police to determine compliance with the act and these rules. A copy of the route plan and manifest must be carried with the secure transporter during transport between marihuana facilities. A secure transporter is subject to administrative inspection by a law enforcement officer at any point during the transportation of marihuana product pursuant to the act or these rules. A copy of a route plan and manifest must be carried in the transporting vehicle and presented to a law enforcement officer upon request.
- (g) A secure transporter shall follow the manifest. In cases of emergencies the secure transporter shall notify the transferor and transferee, update the statewide monitoring system and revise the manifest to reflect the unexpected change to the original manifest.
- (h) The reasonable timeframe for the secure transporter to maintain custody of the marihuana is not more than 48 hours or by permission of the department on a case-by-case basis.
- (i) A secure transporter shall identify and record all vehicles with the department and have the required registration with the secretary of state as required under state law. Secure transporter vehicles may be subject to inspection at any time by the department, through its investigators, agents, auditors, or the state police to determine compliance with act or these rules.
- (3) To ensure the safety, security, and integrity of the operation of marihuana facilities, a provisioning center shall have a separate room that is dedicated as the point of sale area for the transfer or sale of marihuana product as provided in the act and these rules. The provisioning center shall keep marihuana products behind a counter or other barrier to ensure a registered qualifying patient or registered primary caregiver does not have direct access to the marihuana products.

- (1) An applicant's proposed marihuana facility or a licensee's marihuana facility may be subject to inspection by a state building code official, state fire official, or code enforcement official to confirm that no health or safety concerns are present.
- (2) The department or its authorized agents, state building code official, or his or her authorized designee may conduct pre-licensure and post-licensure inspections to ensure that applicants and licensees comply with the Stille-DeRossett-Hale single state construction code act, 1972 PA 230, MCL 125.1501 to 125.1531.
- (3) An applicant or licensee shall not operate a marihuana facility unless a permanent certificate of occupancy has been issued by the appropriate enforcing agency. Prior to a certificate of occupancy being issued work must be completed in accordance with the Stille-DeRossett-Hale single state construction code act, 1972 PA 230, MCL 125.1501 to 125.1531. All of the following apply:
- (a) An applicant or licensee shall obtain a building permit for any building utilized as a proposed marihuana facility or marihuana facility as provided in the act and these rules. The issuance, enforcement, and inspection of building permits under this act may remain with the governmental entity having jurisdiction under 1972 PA 230, MCL 125.1501 to 125.1531.
- (b) An applicant or licensee shall obtain a building permit for a change of occupancy for an existing building to be utilized as a proposed marihuana facility or marihuana facility as provided in the act and these rules.
- (4) An applicant or licensee shall not operate a marihuana facility unless the proposed marihuana facility or marihuana facility has passed prelicensure fire safety inspection by the Bureau of Fire Services (BFS). The department or its authorized agents, or state fire marshal or his or her authorized designee, may conduct pre-licensure and post-licensure inspections of a marihuana facility. An applicant or licensee shall comply with the following:
- (a) A BFS inspection may be conducted at any reasonable time to ensure fire safety compliance as provided in this rule and subrule (5) of this rule. A BFS inspection may be annual or biannual and result in the required installation of fire suppression devices or other means necessary for adequate fire safety pursuant to state standards.
- (b) BFS may require marihuana facilities to obtain operational permits, including but not limited to, carbon dioxide systems used in beverage dispensing applications, amended for cultivation use and extraction, compressed gases, combustible fibers, flammable and combustible liquids, fumigation and insecticidal fogging, hazardous materials, high piled storage (high rack system cultivation), and liquefied petroleum (LP) gas.
- (c) For specific installation or systems, BFS may require facilities to obtain construction permits, including but not limited to, building construction, electrical, mechanical, compressed gases, flammable and combustible liquids, hazardous materials, LP gas, automatic fire extinguishing/suppression systems, fire alarm and detections systems, and related equipment found during fire safety inspections.
- (5) The department or its authorized agents, or state fire marshal or his or her authorized designee, may conduct a BFS fire safety inspection of marihuana facility, at any reasonable time to ensure compliance with the national fire protection association (NFPA) standard 1, 2018 edition, entitled "fire code," which is adopted by reference as part of these rules. A licensee shall comply with the NFPA 1, 2018 fire code as adopted and the following additional requirements:
- (a) Ductwork must be installed with accordance with the manufacturer and NFPA 90A.
- (b) Suppression systems outlined in NFPA 12, NFPA 13, NFPA 17, NFPA 2001 may be required to meet the suppression needs within a marihuana facility.

- (c) Processors, growers, and safety compliance facilities shall implement appropriate exhaust ventilation systems to mitigate noxious gasses or other fumes used or created as part of any production process or operations. Exhaust ventilation equipment must be appropriate for the hazard involved and must comply with local fire code and Michigan mechanical codes.
- (6) In addition to meeting all the requirements in subrules (1) to (4) of this rule, growers and processors shall also comply with the following:
- (a) The department or its authorized agents, or state fire marshal or his or her authorized designee, may enter and inspect a grower and processor marihuana facility at any reasonable time.
- (b) In addition to any inspections required under the act and these rules, fire safety inspections are required if any of the following occur:
- (i) Modifications to the grow areas, rooms and storage, extraction equipment and process rooms, or marihuana-infused product processing equipment within a marihuana facility.
- (ii) Changes in occupancy.
- (iii) Material changes to a new or existing grower or processor facility including changes made pre-licensure and post-licensure.
- (iv) Changes in extraction methods and processing or grow areas and building structures may trigger a new inspection.
- (c) For extractions using compressed gases of varying materials including, but not limited to, butane, propane, and carbon dioxide that are used in multiple processes in cultivation or extraction the following must be met:
- (i) Flammable gases of varying materials may be used in multiple processes in cultivation or extraction and must meet the requirements in NFPA 90 A, NFPA 58, Appendix B of NFPA 58, NFPA 70 and the applicable parts of the international fuel gas code.
- (ii) Processes that extract oil from marihuana plants and marihuana products using flammable gas or flammable liquid must have leak and/or gas detection measures. All equipment used in the detection of flammable and/or toxic gases must be approved by the BFS and may require construction and mechanical permits.
- (iii) Marihuana facilities that have exhaust systems are regulated by NFPA 45, NFPA 91 and the applicable parts of the Michigan mechanical code.

Rule 27. Security measures; required plan; video surveillance system.

- (1) An applicant for a license to operate a proposed marihuana facility shall submit a security plan that demonstrates, at a minimum, the ability to meet the requirements of this rule.
- (2) Licensees shall ensure that any person at the marihuana facility, except for employees of the licensee, are escorted at all times by the licensee or at least 1 employee of the licensee when in the limited-access areas at the marihuana facility.
- (3) A licensee shall securely lock the marihuana facility, including all interior rooms, windows, and points of entry and exits with commercial-grade, nonresidential door locks.
- (4) A licensee shall maintain an alarm system at the marihuana facility. Upon request, a licensee shall make available to the department all information related to the alarm system, monitoring, and alarm activity.
- (5) A licensee shall have a video surveillance system that, at a minimum, consists of digital or network video recorders, cameras capable of meeting the recording requirements in this rule, video monitors, digital archiving devices, and a color printer capable of delivering still photos.
- (6) The licensee shall ensure the video surveillance system does all the following:

- (a) Records at a minimum the following areas:
- (i) Any areas where marihuana products are weighed, packed, stored, loaded, and unloaded for transportation, prepared, or moved within the marihuana facility.
- (ii) Limited-access areas and security rooms. Transfers between rooms must be recorded.
- (iii) Areas storing a surveillance system storage device with at least 1 camera recording the access points to the secured surveillance recording area.
- (iv) The entrances and exists to the building must be recorded from both indoor and outdoor vantage points. The areas of entrance and exit between marihuana facilities at the same location if applicable, including any transfers between marihuana facilities.
- (v) Point of sale areas where marihuana products are sold and displayed for sale.
- (b) Records at all times images effectively and efficiently of the area under surveillance with sufficient resolution.
- (7) A licensee shall install each camera so that it is permanently mounted and in a fixed location. Each camera must be placed in a location that allows the camera to clearly record activity occurring within 20 feet of all points of entry and exit on the marihuana facility, and allows for the clear and certain identification of any person, including facial features, and activities, including sales or transfers, in all areas required to be recorded under these rules.
- (8) A licensee shall have cameras that record continuously 24 hours per day and recorded images must clearly and accurately display the time and date.
- (9) A licensee must secure the physical media or storage device on which surveillance recordings are stored in a manner to protect the recording from tampering or theft.
- (10) A licensee shall keep surveillance recordings for a minimum of 14 days, except for in instances of investigation or inspection by the department, through its investigators, agents, auditors, or the state police, in which case the licensee shall retain the recordings until such time as the department notifies the licensee that the recordings may be destroyed.
- (11) Surveillance recordings of the licensee are subject to inspection by the department, through its investigators, agents, auditors, or the state police, and must be kept in a manner that allows the department to view and obtain copies of the recordings at the marihuana facility immediately upon request. The licensee shall also send or otherwise provide copies of the recordings to the department upon request within the time specified by the department.
- (12) A licensee shall maintain a video surveillance system equipped with a failure notification system that provides notification to the licensee of any interruption or failure of the video surveillance system or video surveillance system storage device.
- (13) A licensee shall maintain a log of the recordings, which includes all of the following:
- (a) The identities of the employee or employees responsible for monitoring the video surveillance system.
- (b) The identity of the employee who removed the recording from the video surveillance system storage device and the time and date removed.
- (c) The identity of the employee who destroyed any recording.

Rule 28. Prohibitions.

(1) Marihuana products not identified and recorded in the statewide monitoring system pursuant to the act, the marihuana tracking act, or these rules are prohibited from being on or at a marihuana facility. A licensee is prohibited from transferring or selling marihuana product that is not identified in the statewide monitoring system pursuant to the act or these rules.

- (2) Any marihuana product without a batch number or identification tag or label pursuant to these rules is prohibited from being on or at a marihuana facility. Marihuana product must be immediately tagged or identified into the statewide monitoring system or recorded as part of a batch as defined in these rules.
- (3) A violation of these rules may result in sanctions or fines, or both, in accordance with the act or these rules.

Rule 29. Plant batches, testing procedures.

- (1) A grower shall uniquely identify each immature plant batch in the statewide monitoring system. Each immature plant batch must not consist of more than 100 immature plants.
- (2) A grower shall tag each plant that is greater than 8 inches in height or more than 8 inches in width with an individual plant tag and record the identification information in the statewide monitoring system.
- (3) A grower shall delineate or separate the plants as the plants go through different growth stages and ensure that the plant tag is always identified with the plant throughout the growth span so that all plants can be easily identified and inspected pursuant to the act and these rules. A grower shall ensure that identification information is recorded in the statewide monitoring system in accordance with the act, the marihuana tracking act, and these rules.
- (4) After a tagged plant is harvested, it is part of a harvest batch so that a sample of the harvest batch can be tested by a safety compliance facility. A grower shall isolate a harvest batch from other plants or batches that has test results pending. A harvest batch must be easily distinguishable from other harvest batches until the batch is broken down into packages.
- (5) Before the marihuana product can leave the grower facility, a sample of the harvest batch must be tested by a licensed safety compliance facility as provided in Rule 32, and test results must indicate a passed test result in the statewide monitoring system before the marihuana can be packaged. Marihuana product from harvest batches must not be transferred or sold until tested, packaged, and tagged as required under subrule (4) of this rule.
- (6) After test results show a passed test, the grower shall destroy the individual plant tags and the harvest batch is packaged. Each package must have a package tag attached. A grower shall ensure this information is placed in the statewide monitoring system in accordance with the act, the marihuana tracking act, and these rules.
- (7) A grower shall not transfer or sell any marihuana product that has not been packaged with a package tag attached and recorded in the statewide monitoring system in accordance with the act, the marihuana tracking act, and these rules.
- (8) After a processor receives or purchases a package in the statewide monitoring system, and the processor proceeds to process the marihuana product in accordance with the scope of a processor license, the act, and these rules, the processor must give the marihuana product a new package tag anytime it changes state or is incorporated into something else.
- (9) Once a package is created by a processor of the marihuana product in its final state, the processor shall have the sample tested pursuant to Rule 32. The processor shall not transfer or sell a final package until after test results indicate a passed test.
- (10) After a provisioning center receives or purchases marihuana product in the statewide monitoring system, a licensee may sell or transfer marihuana product only to a registered qualifying patient or registered primary caregiver under all of the following conditions:

- (a) The marihuana product has received passing test results in the statewide monitoring system. If the information cannot be confirmed, the marihuana product must be tested by a safety compliance facility and receive passing test results prior to sale or transfer.
- (b) The marihuana product bears the label required for retail sale under the act and these rules.

Rule 30. Retesting.

- (1) A safety compliance facility may test or retest a sample to validate the results of a failed quality assurance test except as indicated under subrule (2) of this rule. The marihuana facility that provided the sample is responsible for all costs involved in a retest.
- (2) A failed test sample must pass 2 separate retests consecutively in order to be eligible to proceed to sale or transfer. If both retests pass, then the batch is out of quarantine and eligible for sale or transfer. If 1 or both retests fail, then the marihuana product must be destroyed as provided in these rules.
- (3) Marihuana product is prohibited from being retested in all the following:
- (a) The marihuana product is in a final package.
- (b) An original test for pesticides failed pursuant to these rules. If the amount of pesticides is not permissible by the department, the marihuana product is ineligible for retesting and the product must be destroyed.
- (c) An original failed test for microbials on marihuana-infused product is ineligible for retesting and the product must be destroyed.

Rule 31. Testing; safety compliance facility.

- (1) A safety compliance facility shall use analytical testing methodologies for the required quality assurance tests in subrule (2) of this rule that are validated and may be monitored on an ongoing basis by the department or a third party which shall include either of the following:
- (a) Following the most current version of the Cannabis Inflorescence: Standards of Identity, Analysis, and Quality Control monograph published by the American Herbal Pharmacopoeia.
- (b) Following the alternative testing methodology approved by the department and validated by an independent third party that the methodology followed by the laboratory produces scientifically accurate results as quality assurance for each test it conducts.
- (2) A safety compliance facility shall conduct the required quality assurance tests that include all of the following:
- (a) Moisture content.
- (b) Potency analysis.
- (c) Tetrahydrocannabinol level.
- (d) Tetrahydrocannabinol acid level.
- (e) Cannabidiol and cannabidiol acid levels.
- (f) Foreign matter inspection.
- (g) Microbial and mycotoxin screening.
- (h) Pesticides.
- (i) Chemical residue.
- (j) Fungicides.
- (k) Insecticides.
- (1) Metals screening.
- (m) Residual solvents levels.
- (n) Terpene analysis.

- (o) Water activity content.
- (3) Except as otherwise provided, if a sample collected pursuant to Rule 32 or provided to a safety compliance facility pursuant to these rules does not pass the microbial, mycotoxin, heavy metal, pesticide chemical residue, or residual solvents levels test based on these rules, the marihuana facility that provided the sample shall dispose of the entire batch from which the sample was taken and document the disposal of the sample using the statewide monitoring system pursuant to the act, marihuana tracking act, and these rules.
- (4) For the purposes of the microbial test, a sample provided to a safety compliance facility pursuant to this rule is deemed to have passed if it satisfies the standards set forth in Table 9 of the Cannabis Inflorescence: Standards of Identity, Analysis, and Quality Control monograph adopted by reference pursuant to these rules.
- (5) For the purposes of the mycotoxin test, a sample provided to a safety compliance facility pursuant to this rule is deemed to have passed if it meets the following standards:

Test	Specification
The total of aflatoxin B1, aflatoxin B2, aflatoxin G1 and	
aflatoxin G2	<20 uG/KG of Substance
Ochratoxin A	<20 uG/KG of Substance

(6) For the purposes of the heavy metal test, a sample of marihuana is deemed to have passed if it meets the following standards:

Metal	Natural Health Products	Acceptable Limits for
	Acceptable Limits uG/KG (X)	Finished Products (ug/g) (Y)
Arsenic	< 0.14	0.98
Cadmium	< 0.09	0.63
Lead	< 0.29	2.0
Mercury	< 0.29	2.0

The acceptable limit for finished products is calculated using the following equation: $X \frac{g}{g} \times 70 \frac{g}{g} \times 1/10 \frac{g}{g} = Y \frac{g}{g}$

- (7) A safety compliance facility shall do the following:
- (a) Become fully accredited to the International Organization for Standardization (ISO), ISO/IEC 17025, by an ISO 17011, ILAC recognized accreditation body or by an entity approved by the department within 1 year after the date the license is issued and agree to have the inspections and reports of the International Organization for Standardization made available to the department.
- (b) Become provisionally accredited under subdivision (a) of this subrule within 6 months from the issuance of a license. A safety compliance facility may be ordered to cease operations if provisional accreditation is not received within 6 months.
- (c) Maintain internal standard operating procedures.
- (d) Maintain a quality control and quality assurance program.
- (8) The department shall establish a proficiency testing program and designate safety compliance facility participation. A safety compliance facility shall analyze proficiency test samples using the same procedures with the same number of replicate analyses, standards, testing analysts and equipment as used for marihuana product testing.

- (9) The department shall publish a list of approved pesticides for use in the cultivation and production of marihuana plants and marihuana products to be sold or transferred in accordance with the act or these rules. For the purposes of the pesticide chemical residue test, a sample provided to a safety compliance facility pursuant to this rule is deemed to have passed as to that chemical if the sample satisfies the most stringent acceptable standard for an approved pesticide chemical residue as set forth in Subpart C of 40 C.F.R. Part 180, 40 C.F.R., § 180, et seq. or FIFRA section 25(b), whichever is more stringent.
- (10) If a sample provided to a safety compliance facility pursuant to this rule and Rule 32 passes the tests required under subrule (2) of this rule, the safety compliance facility shall enter the information in the statewide monitoring system of passed test results. Passed test results must be in the statewide monitoring system for a batch to be released for immediate processing, packaging, and labeling for transfer or sale in accordance with the act and these rules.
- (11) A safety compliance facility shall enter the results into the statewide monitoring system and file with the department an electronic copy of each safety compliance facility test result for any batch that does not pass the required tests while it transmits those results to the facility that provided the sample. In addition, a safety compliance facility shall maintain the test results and make them available to the department upon request.
- (12) The department shall take immediate disciplinary action against any safety compliance facility that fails to comply with the provisions of this rule or falsifies records related to this rule, including any sanctions or fine, or both.
- (13) A safety compliance facility is prohibited from doing the following:
- (a) Desiccating samples.
- (b) Dry labeling samples.
- (c) Pre-testing samples.
- (14) A safety compliance facility shall comply with random quality assurance compliance checks upon the request of the department. The department or its authorized agents may collect a random sample of marihuana product from a safety compliance facility or designate another safety compliance facility to collect a random sample of marihuana product in a secure manner to test that sample for quality assurance compliance pursuant to this rule.
- (15) A safety compliance facility shall comply with the Cannabis Inflorescence: Standards of Identity, Analysis, and Quality Control monograph published by the American Herbal Pharmacopoeia, and any updates, which is adopted by reference as part of these rules, unless these rules provide otherwise.

Rule 32. Sampling.

- (1) A safety compliance facility shall test samples as provided in the act, the Michigan medical marihuana act, and these rules.
- (2) To ensure the safety, security, and integrity of the operation of marihuana facilities, a safety compliance facility shall collect the samples of marihuana product from another marihuana facility as follows:
- (a) The safety compliance facility shall physically collect samples of marihuana product from another marihuana facility to be tested at the safety compliance facility. The safety compliance facility shall ensure the samples of marihuana product are placed in secured, sealed containers that bear the labeling information as required under these rules.
- (b) The safety compliance facility shall collect a sample size sufficient to complete all analyses required but the sample shall in no case be less than 0.5% of the weight of the batch (9.1 gram

- minimum). The maximum batch size should be 10 pounds. The department may publish recommendations for this subdivision based on the type of marihuana product being tested.
- (c) The safety compliance facility shall enter in the statewide monitoring system the marihuana product sample that was collected from a grower, processor, or provisioning center, including the date and time the marihuana product is collected, transferred, tested, and returned.
- (d) When a testing sample is collected from a marihuana facility for testing in the statewide monitoring system, that marihuana facility must quarantine the marihuana product that is undergoing the testing from any other marihuana product at the marihuana facility. The marihuana facility shall indicate the sample being tested in the statewide monitoring system. The quarantined marihuana product must not be transferred or sold until testing results pass as provided under these rules.
- (e) Any marihuana product that a safety compliance facility collects for testing from a licensee under this rule must not be transferred or sold to any other marihuana facility other than the licensee from whom the sample was collected.
- (f) A safety compliance facility may request additional sample material from the same licensee where the sample was collected from for the purposes of completing the required quality assurance tests as long as the requirements of this rule are met.
- (g) A safety compliance facility or its authorized employee shall be physically present when collecting the samples of marihuana product for testing.
- Rule 33. Requirements and restrictions on marihuana-infused products; edible marijuana product.
- (1) A processor shall prepackage and properly label marihuana-infused products before sale or transfer.
- (2) A processor of marihuana-infused products shall list and record the THC level of marihuana-infused products, as provided in Rule 34, in the statewide monitoring system and indicate the THC level on the label along with the tag identification as required under these rules. Items that are part of a product recall issued in the statewide monitoring system, the department, or other state agency if applicable must be immediately pulled from production and not sold or transferred.
- (3) Marihuana-infused products must be stored and secured as prescribed under these rules.
- (4) At a minimum, a processor shall label any marihuana-infused product it produces or packages with all the following:
- (a) The name and address of the marihuana facility that processes or packages the marihuana-infused product.
- (b) The name of the marihuana-infused product.
- (c) The ingredients of the marihuana-infused product, in descending order of predominance by weight.
- (d) The net weight or net volume of the product.
- (e) For an edible marihuana product, the processor shall comply with subdivisions (a) to (d) of this subrule and all of the following:
- (i) Allergen labeling as specified by federal labeling requirements.
- (ii) If any nutritional claim is made, appropriate labeling as specified by federal labeling requirements and these rules.
- (iii) A statement printed in at least the equivalent of 11-point font size in a color that provides a clear contrast to the background: "Made in a marihuana facility."
- (5) A processor of edible marihuana product shall comply with all the following to ensure safe preparation:

- (a) 21 CFR part 110, except that refrigerated potentially hazardous marihuana product must be stored at 4.4 degrees Celsius (40 degrees Fahrenheit) or below.
- (b) The licensee shall provide employee training on safe food handling by providing any of the following:
- (i) Proof of ServSafe certification.
- (ii) Documentation of employee training on food handling, including, but not limited to, allergens and proper sanitation and safe food handling techniques.
- (c) A licensee, to ensure the safe preparation standards under this subrule, shall comply with 1 or more of the following:
- (i) FDA Food Safety Modernization Act (FSMA), 21 U.S.C. section 2201 et seq.
- (ii) Safe Quality Food (SQF), 7.2 edition.
- (iii) The International Organization for Standardization (ISO), ISO 22000/ISO/TS 22002-1.
- (d) The department may request in writing documentation to verify certifications and compliance with these rules.
- (6) A processor edible marihuana product must comply with all the following:
- (a) No edible marihuana product can be in a shape, color, package, or labeled in a manner that it would appeal to minors aged 17 years or younger. No edible marihuana product can be associated with or have cartoons, caricatures, toys, colors, designs, shapes, labels, or package that would appeal to minors.
- (b) No edible marihuana product can be easily confused with commercially sold candy. The use of the word candy or candies on the packaging or labeling is prohibited.
- (c) An edible marihuana product must be in child resistant packages or containers.
- (7) A processor is prohibited from producing an edible marihuana product that requires time or temperature control for safety. The end-product must be a stable shelf-life edible marihuana product.
- (8) For purposes of this rule, the term "edible marihuana product" means any marihuana-infused product containing marihuana that is intended for human consumption in a manner other than smoke inhalation.
- (9) This rule does not affect the application of any applicable local, state, or federal laws or regulations.

Rule 34. Maximum THC levels for marihuana-infused products.

Marihuana-infused products processed, sold, or transferred through provisioning centers must not exceed the maximum THC levels as shown in table 1 as follows:

TABLE 1Maximum THC Levels for Marihuana-Infused Products

MEDICAL MARIHUANA THC CONCENTRATION AND SERVING SIZE			
LIMITS			
Type of Marihuana-Infused	Maximum	Maximum	
Product	Concentration or	Concentration or	
	Amount of THC Per	Amount of THC in	
	Serving*	Container*	
Topical formulation	N/A	6% by volume	
(examples – lotions, balms, rubs, etc.)			

Tincture	N/A	1,000mg
Beverage	50mg	500mg
Edible Substance	50mg	500mg
(examples – candy bars, cookies,		
popcorn, honey, gummies, butter, etc.)		
Other similar high-potency	N/A	1,000mg
infused product		
(examples – capsules, suppositories,		
transdermal patches, etc.)		

^{*}All limits allow for a variance of + or - 10%.

Rule 35. Storage of marihuana product.

- (1) All inventory of marihuana products must be stored at a marihuana facility in a secured limited access area or restricted access area, and identified and tracked consistently with the statewide monitoring system under the act, the marihuana tracking act, or these rules.
- (2) All containers used to store marihuana products for transfer or sale between marihuana facilities must be clearly marked, labeled, or tagged, if applicable, and enclosed on all sides in secured containers. The secured containers must be latched or locked in a manner to keep all contents secured within. Each secured container must be identified and tracked in accordance with the act, the marihuana tracking act, and these rules.
- (3) All chemicals or solvents must be stored separately from marihuana products and kept in locked storage areas.
- (4) Marihuana-infused products or materials used in direct contact with such products must have separate storage areas from toxic or flammable materials.
- (5) A provisioning center shall store all marihuana products for transfer or sale behind a counter or other barrier separated from stock rooms.
- (6) A safety compliance facility shall establish an adequate chain of custody and instructions for sample and storage requirements.
- (7) A licensee shall ensure that any stock or storage room meets the security requirements of these rules and any other applicable requirements in the act and these rules.

Rule 36. Marihuana product destruction and waste management.

- (1) Marihuana product that is to be destroyed or is considered waste must be rendered into an unusable and unrecognizable form and recorded in the statewide monitoring system.
- (2) A licensee shall not sell marihuana waste or marihuana products that are to be destroyed, or that the department orders destroyed.
- (3) A licensee shall manage all waste that is hazardous waste pursuant to part 111 of 1994 PA 451, MCL 324.11101 to 324.90106.
- (4) A licensee shall dispose of marihuana product waste in a secured waste receptacle using 1 or more of the following:
- (a) A manned and permitted solid waste landfill.
- (b) A manned compostable materials operation or facility.
- (c) An in-vessel digester.
- (d) In a manner in compliance with applicable state and local laws and regulations.
- (5) Wastewater generated during the cultivation of marihuana and processing of marihuana products shall be disposed of in compliance with applicable state and local laws and regulations.

Rule 37. Tracking identification; labeling requirements; general.

- (1) All marihuana product sold or transferred between marihuana facilities must have the tracking identification number that is assigned by the statewide monitoring system affixed, tagged, or labeled and recorded, and any other information required by the department, the act, and these rules.
- (2) To ensure access to safe sources of marihuana product the department if alerted in the statewide monitoring system may recall any marihuana products, issue safety warnings, and require a marihuana facility to provide information material or notifications to a registered qualifying patient or registered primary caregiver at the point of sale.

Rule 38. Marihuana plant; tracking requirements.

Prior to a marihuana plant being sold or transferred, a package tag must be affixed to the plant or plant container and enclosed with a tamper proof seal that has the following information:

- (a) Business or trade name, licensee number, and RFID package tag assigned by the statewide monitoring system that is visible.
- (b) Name of the strain.
- (c) Date of harvest if applicable.
- (d) Seed strain if applicable.
- (e) Universal symbol if applicable.

Rule 39. Marihuana product sale or transfer; labeling requirements.

Prior to marihuana product being sold or transferred to or by a provisioning center, the container, bag, or product holding the marihuana product must have a label and be sealed with all the following information:

- (a) The name of the licensee and license number that is the producer, including business or trade name, and tag or source number as assigned by the statewide monitoring system.
- (b) The name of the licensee and license number including business or trade name of licensee that packaged the product, if different from the processor of the marihuana product.
- (c) The unique identification number for the package or the harvest if applicable.
- (d) Date of harvest.
- (e) Name of strain.
- (f) Net weight in United States customary and metric units.
- (g) Concentration of THC or CBD.
- (h) Activation time expressed in words or through a pictogram.
- (i) Name of the safety compliance facility that performed any test, any associated test batch number, and any test analysis date.
- (j) Universal symbol published by the department.
- (k) A warning that states all the following:
- (i) "For use by registered qualifying patients only. Keep out of reach of children."
- (ii) "It is illegal to drive a motor vehicle while under the influence of marihuana."

Rule 40. Sale or transfer; provisioning centers.

(1) A provisioning center may sell or transfer marihuana product to a registered qualifying patient or a registered primary caregiver if the following are met:

- (a) The licensee verifies with the statewide monitoring system that the registered qualifying patient or a registered primary caregiver holds a valid, current, unexpired, and unrevoked registry identification card.
- (b) The licensee confirms that the registered qualifying patient or the registered primary caregiver presented his or her valid driver license or government-issued identification card that bears a photographic image of the qualifying patient or primary caregiver.
- (c) The licensee determines, if completed, any transfer or sale will not exceed the daily purchasing limit prescribed in Rule 41.
- (d) Any marihuana product that is sold or transferred under this rule has been tested and bears the label required for sale or transfer in accordance with Rule 39.
- (2) A provisioning center may sell or transfer marihuana product to a visiting qualifying patient if all the following are met:
- (a) The licensee verifies that the visiting qualifying patient has a valid unexpired medical marihuana registry card or its equivalent issued in another state, district, territory, commonwealth, or insular possession of the United States that allows the medical use of marihuana.
- (b) The licensee confirms that the visiting qualifying patient presented his or her valid driver license or government-issued identification card that bears a photographic image of the visiting qualifying patient.
- (c) The licensee determines, if completed, any transfer or sale will not exceed the daily purchasing limit prescribed in Rule 41.
- (d) Any marihuana product that is sold or transferred under this rule has been tested and bears the label required for sale or transfer in accordance with Rule 39.
- (e) For purposes of this subrule, the term "visiting qualifying patient" means that term as defined in section 3 of the Michigan medical marihuana act.
- (3) The provisioning center shall enter all transactions, current inventory, and other information required by these rules in the statewide monitoring system in compliance with the act, marihuana tracking act, and these rules. The provisioning center shall maintain appropriate records of all sales or transfers under the act and these rules and make them available to the department through its investigators, agents, auditors, or the state police upon request.

Rule 41. Daily purchasing limits; provisioning center.

The licensee shall verify in the statewide monitoring system before a sale or transfer of marihuana product to a registered qualifying patient or registered primary caregiver that the sale or transfer will not exceed the daily purchasing limit as follows:

- (a) For a registered qualifying patient, an amount of marihuana product that does not, in total, exceed 2.5 ounces per day.
- (b) For a registered primary caregiver, an amount of marihuana product that does not, in total, exceed 2.5 ounces per day for each registered qualifying patient with whom he or she is connected through the department's registration process.

Rule 42. Marketing and advertising restrictions.

- (1) Marihuana facilities shall comply with all municipal ordinances, state law, and these rules regulating signs and advertising.
- (2) A licensee shall not advertise marihuana product where the advertisement is visible to members of the public from any street, sidewalk, park, or other public place.

- (3) Marihuana products must be marketed or advertised as "medical marihuana" for use only by registered qualifying patients or registered primary caregivers.
- (4) Marihuana products must not be marketed or advertised to minors aged 17 years or younger. Sponsorships targeted to members aged 17 years or younger are prohibited.

Rule 43. Employees; requirements.

- (1) A licensee shall conduct a criminal history background check on any prospective employee prior to hiring that individual pursuant to section 405 of the act. The licensee shall keep records of the results of the criminal history background checks. A licensee shall record confirmation of criminal history background checks and make the confirmation of criminal history background checks available for inspection upon request by the department or authorized persons.
- (2) To ensure the safety, security, and integrity of marihuana facility operations, a licensee shall comply with all of the following:
- (a) A licensee shall have a policy in place that requires employees to report any new or pending charges or convictions. If an employee is charged or convicted for a controlled substance-related felony or any other felony, the licensee shall report it immediately to the department.
- (b) A licensee shall enter any employee of the licensee at the time of hire in the statewide monitoring system for an identification number that will be assigned by the department in the statewide monitoring system. The licensee shall immediately update in the statewide monitoring system employee information and status.
- (c) If an employee is no longer employed by a licensee, the licensee shall remove access and permissions to the marihuana facility and the statewide monitoring system.
- (d) A licensee shall train employees and have an employee training manual that includes, but is not limited to, employee safety procedures, employee guidelines, security protocol, and educational training, including, but not limited to, marihuana product information, dosage and daily limits, or educational materials.
- (e) A licensee shall establish point of sale or transfer procedures for employees at provisioning centers performing any transfers or sales to registered qualifying patients and registered primary caregivers. The qualifications and restrictions must include, but are not limited to, training in dosage, marihuana product information, health or educational materials, point of sale training, daily purchasing limits, CBD and THC information, serving size, and consumption information including any warnings.
- (f) A licensee shall screen prospective employees against a list of excluded employees based on a report or investigation maintained by the department in the statewide monitoring system.
- (g) At the time a registered primary caregiver is hired as an employee of a grower, processor, or secure transporter, the licensee or the individual shall withdraw registration as a registered primary caregiver in a manner established by the department.
- (h) If an individual is present at a marihuana facility or in a secure transporter vehicle who is not identified as a licensee or an employee of the licensee in the statewide monitoring system or is in violation of the act or these rules, the department, through its investigators, agents, auditors, or the state police may take any action permitted under the act and these rules.
- (3) Employee records are subject to inspection or examination by the department, through its investigators, agents, auditors, or the state police to determine compliance with the act or these rules.

(4) For purposes of this rule "employee" includes, but is not limited to, hourly employees, contract employees, trainees, or any other person given any type of employee credentials or authorized access to the marihuana facility.

Rule 44. Definitions.

These rules use terms as defined in Rule 1, sections 101 to 102 of the act, and sections 1 to 3 of the APA. In addition, as used in this these rules:

- (a) "Agency" means the department, bureau, board, authority, or officer created by the constitution, statute, or agency action.
- (b) "APA" means the administrative procedures act of 1969, 1969 PA 306, MCL 24.201 to 24.328.
- (c) "Contested case hearing" means an administrative hearing conducted by an administrative law judge within MAHS on behalf of the agency in accordance with MCL 333.27407(4) and 333.27302(i).
- (d) "MAHS" means the Michigan administrative hearing system within the Michigan department of licensing and regulatory affairs.
- (e) "MAHS general hearing rules" means the administrative hearing rules promulgated by the Michigan administrative hearing system set forth in R 792.10101 to R 792.10137 of the Michigan administrative code.
- (f) "Public investigative hearing" means a proceeding before the medical marihuana licensing agency to provide an applicant an opportunity to present testimony and evidence to establish suitability for a license, in accordance with MCL 333.27407(3).

Rule 45. Hearing procedures; scope and construction of rules.

- (1) These rules apply to hearings under the jurisdiction of the agency involving the denial of a license or other licensing action pursuant to section 407 of the act, marihuana tracking act, or involving complaints brought by licensees pursuant to section 302 of the act.
- (2) These rules are construed to secure a fair, efficient, and impartial determination of the issues presented in a manner consistent with due process.
- (3) If the rules do not address a specific procedure, the MAHS general hearing rules, the currently effective Michigan court rules, and the contested case provisions of sections 71 to 87 of the APA apply.

Rule 46. Hearing on license denial.

- (1) An applicant denied a license by the agency may request a public investigative hearing in writing within 21 days of service of notice of the denial.
- (2) After the agency receives notice of an applicant's request for a public investigative hearing, the agency shall provide an opportunity for such hearing at which the applicant may present testimony and evidence to establish suitability for a license.
- (3) The agency shall provide the applicant with not less than 2 weeks written notice of the public investigative hearing. The notice must include all of the following information:
- (a) A statement of the date, hour, place, and nature of the hearing.
- (b) A statement of the legal authority and jurisdiction under which the hearing is to be held.
- (c) A short and plain statement of the issues involved, and reference to the pertinent sections of the act and rules involved.
- (d) A short description of the order and manner of presentation for the hearing.

- (4) Not less than 2 weeks before the hearing, the agency shall post notice of the public investigative hearing at its business office in a prominent place that is open and visible to the public.
- (5) The agency, or 1 or more administrative law judges designated and authorized by the agency, may conduct and preside over the public investigative hearing and may do all of the following:
- (a) Administer oaths or affirmations to witnesses called to testify at the hearing.
- (b) Receive evidence in the form of testimony and exhibits.
- (c) Establish and regulate the order of presentation and course of the public investigative hearing; set the time and place for continued hearings; and fix the time for filing written arguments, legal briefs, and other legal documents.
- (d) Accept and consider relevant written and oral stipulations of fact and law that are made part of the hearing record.
- (6) Upon timely request of the applicant or the agency in accordance with the Michigan court rules currently in effect, the agency or the agency's designated administrative law judge may issue subpoenas duces tecum for the production of books, ledgers, records, memoranda, electronically retrievable data, and other pertinent documents and administer oaths and affirmations to witnesses as appropriate to exercise and discharge the powers and duties under the act.
- (7) During the public investigative hearing, the applicant and the agency must be given a full opportunity to present witnesses and questions or cross-examine the opposing party's witnesses, and to present all relevant information to the agency regarding the applicant's eligibility and suitability for licensure.
- (8) The applicant shall at all times have the burden of establishing, by clear and convincing evidence, its eligibility and suitability for licensure under the act and these rules.
- (9) The agency shall record the public investigative hearing at its direction, stenographically or by other means, to adequately ensure preservation of an accurate record of the hearing.
- (10) Following the public investigative hearing, the matter must be considered by a quorum of the agency at a regular or emergency meeting properly noticed, at which the agency shall decide whether to affirm, reverse, or modify in whole or in part the denial of license.
- (11) The agency's decision to affirm, reverse, or modify in whole or in part the denial of license must be based on the whole record before the agency and not be limited to testimony and evidence submitted at the public investigative hearing, in accordance with section 407(3) of the act.
- (12) The agency's decision to affirm, reverse, or modify in whole or in part the denial of license must be reduced to writing and served upon the applicant and agency within a reasonable time.

Rule 47. Review of licensing action.

- (1) A licensee notified of a license violation, or of the agency's intent to suspend, revoke, restrict, or refuse to renew a license or impose a fine, may be given an opportunity to show compliance with the requirements before the agency taking action as prescribed by the act or these rules.
- (2) A licensee aggrieved by an action of the agency to suspend, revoke, restrict, or refuse to renew a license, or to impose a fine, may request a contested case hearing in writing within 21 days of service of notice of the intended action.
- (3) Upon receipt of a timely request, the agency shall provide the licensee an opportunity for a contested case hearing in accordance with sections 71 to 87 of the APA and the MAHS general hearing rules.
- (4) The contested case hearing must be conducted by an administrative law judge or judges within the MAHS.

- (5) Upon timely request of the licensee or the agency in accordance with the Michigan court rules currently in effect, an assigned administrative law judge may issue subpoenas duces tecum for the production of books, ledgers, records, memoranda, electronically retrievable data, and other pertinent documents, and administer oaths and affirmations to witnesses as appropriate to exercise and discharge the powers and duties under the act.
- (6) A written request for admission may be served upon a designated party in a contested case pursuant to the Michigan court rules. Each of the matters for which an admission has been requested must be deemed admitted, unless the designated party responds to the request in the manner set forth in the currently effective Michigan court rules.
- (7) The agency has the burden of proving, by a preponderance of the evidence, that sufficient grounds exist for the intended action to suspend, revoke, restrict, or refuse to renew a license, or to impose a fine, or for the summary suspension of a license.

Rule 48. Summary suspension.

- (1) If the agency summarily suspends a license under section 407(2) of the act without notice or hearing upon a determination that the safety or health of patrons or employees is jeopardized by continuing a marihuana facility's operation, a post-suspension hearing must be held promptly to determine if the suspension should remain in effect, in accordance with section 92 of the APA and the MAHS general hearing rules.
- (2) At the post-suspension hearing, the agency has the burden of proving by a preponderance of the evidence that the summary suspension should remain in effect because the safety or health of patrons or employees is jeopardized by continuing a marihuana facility's operation.
- (3) Immediately after the post-suspension hearing, the administrative law judge assigned to hear the matter shall issue a written order granting or denying dissolution of the summary suspension.
- (4) If the licensee fails to appear at the post-suspension hearing, the administrative law judge shall find that the safety or health of patrons or employees is jeopardized by continuing a marihuana facility's operation, and continue the order of summary suspension.
- (5) The record created at the post-suspension hearing becomes a part of the record at any subsequent hearing in the contested case.

Rule 49. Complaint by licensee.

- (1) A licensee may file a written complaint with the agency regarding any investigative procedures of this state that are believed to be unnecessarily disruptive of marihuana facility operations, as provided in MCL 333.27302(i).
- (2) The agency may delegate to a subcommittee of the agency the authority to hear, review, or rule on a licensee complaint.
- (3) The agency or its subcommittee may delegate authority to an administrative law judge to hear a licensee complaint as a contested case in accordance with sections 71 to 79 of the APA and the MAHS general hearing rules.
- (4) As the complaining party, a licensee has the burden of proving by a preponderance of the evidence that the investigative procedures of this state unreasonably disrupted its marihuana facility operations.

Rule 50. Proposal for decision, exceptions, and replies.

Following an opportunity for contested case hearing and closure of the record after submission of briefs, if any, the administrative law judge shall prepare and serve upon the parties a proposal for

decision containing proposed findings of fact and conclusions of law, in accordance with section 81 of the APA.

Rule 51. Final order.

- (1) The agency shall consider the entire contested case record and may affirm, reverse, or modify all or part of the proposal for decision.
- (2) The agency's decision must be reduced to writing and served upon the licensee within a reasonable time.
- (3) The review decision or order of the agency following an opportunity for hearing is deemed to be the final agency decision or order for purposes of judicial review under sections 101 to 106 of the APA.

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Shelly Edgerton, Director
Department of Licensing and Regulatory Affairs

Pursuant to Section 48(1) of 1969 PA 306, as amended, MCL 24.248(1), I hereby concur in the finding of the Department of Licensing and Regulatory Affairs that the circumstances creating an emergency have occurred and the promulgation of the above rules is required for the preservation of the public health, safety, and welfare.

Rick Snyder, Governor	Date

The down sides of legalizing marijuana

In a recent article, this paper presented a fair com-parison of two sides to the issue of legalization of recre ational-use marijuana. This significant issue will most likely be on the ballot in just a few months.

The tactical plan to go from medical to recreational use being applied in Michigan is nothing new. The same approach has been used in other states. The first step is to introduce medical marijuana. Putting aside the issue of whether marijuana and its hundreds of potential cannabinoids has legitimate medical benefit, its legalization did not result in it being regulated like any other medicine. Its regulation has from the beginning been more like a food product. Where we regulate most consumer products based on weight and total volume, we regulate medications and their dispensing and use by potencies, such as the amount of the active ingredient. For instance, whether one takes an over the counter or prescription medication, theinstructions on use is based on the drug in each dose. That is not true for medical marijuana

Medical marijuana is permitted based on "usable ounces" and the number of plants. There are two reasons why this small disguise was ingenious. First, the definition of "usable ounces" varies. The marijuana plant has three basic parts: the bud or flower, leaves, and stem The bud is what most people smoke and argue as being the "useable" part. While some say that leaves and stem are not useable, the truth is that they have potential use. These parts can be used through butane extraction to make hash or THC oil, which is used for dabbing or infusion into other products.

Second, the tricky part was that by regulating it based on quantity of marijuana, it hides the potency or amount of THC. Today's marijuana has a much more potent THC than marijuana from 30 years ago. The focus should really be on the amount of THC in the product. THC is of course the one cannabinoid in marijuana plants that creates euphoria. The focus on volume of ounces and plants and not amount of THC means no-one is paying attention to the amount of THC and therefore potency of the marijuana product. A focus on the number of ounces and plants means nothing when one considers that depending on the grower's green

plant numbers tell us knowing about the amount of THC to which one has access. Moreover depending on the form, such as extract verse the bud, the THC amount inside the product may also drastically vary and be condensed.

The point here is, unlike every other medication and even alcoholic beverages, the real amount of the euphoric compound THC is hidden.

Think of it like this: wine is regulated because of its alcohol content. Remove the alcohol and it is just grape juice. Also, some medications come in prescription and nonprescription strengths based on the amount of the active ingredient — not the number of pills. Why is medical marijuana not regulated based on the cannabinoid content? Moreover, since the recreational-use amounts mirror medical marijuana, why would we not regulate recreational-use marijuana based on cannabinoid con-

It is important to remem-ber that Michigan is not the first to address this issue. The U.S. Department of Drug Enforcement has established high intensity drug trafficking area teams. There are 28 HIDTAs consisting of 18 percent of the counties in the country. The HIDTAs in states that have legalized medical and then recreational use, put out annual reports on the impact of legalization on crime, teens, healthcare, black markets, and tax ben efits. These reports are available online, such as www. hidtanmi.org.

Supporters claim that le galization will reduce prison overcrowding. This seems catchy One must first note that jails and prisons are different. Jail is locally oper ated by the sheriff for those sentenced to less than a year. Prisons are operated by the state for those sentenced to more than a year. Locally, most cases that involve only marijuana do not result in prison sentences. Possession and use of marijuana are punishable by up to 1 vear and six months respectively. Most possessions are resolved with a plea to use. Either way, most of these cases involve minimal jail sentences or no jail and sim-



Guest Column

Jason Elmore

Supporters claim that restrictions will protect children. The statistics from Colorado mon sense. Once it

ply probation with small fines and

disprove that argument. So does conis culturally accepted for adults, teens will see it as acceptable. Plus, just as teens get access to alcohol either by permission or other means, they wil still get access to marijuana despite so called restric

tions. Restrictions are only as good as the adults, parents, and guardians in charge.

Supporters claim that may ijuana is no different than alcohol. That is not true. It is metabolized in the body differently. It remains in the sys tem longer and is stored in fat cells. Plus, as mentioned above, approach to be taken will not tell users how much THC is contained in the proluct being used.

Supporters claim that maijuana is no more dangerous than alcohol, and therefore it too should be permitted. The logic of such an argument is inherently flawed. Its validity depends on alcohol being problem-free substance; however, we know that is not true. Both teens and adults abuse it and commit crime under its influence, be it on the road or with acts of violence. The argument seeks to partner-up with those who do drink alcohol regardless whether the voter abuses it. We also have people who abuse legal prescription medications. So, where is the logic in thinking that because we have some legal substances people abuse, we should add another?

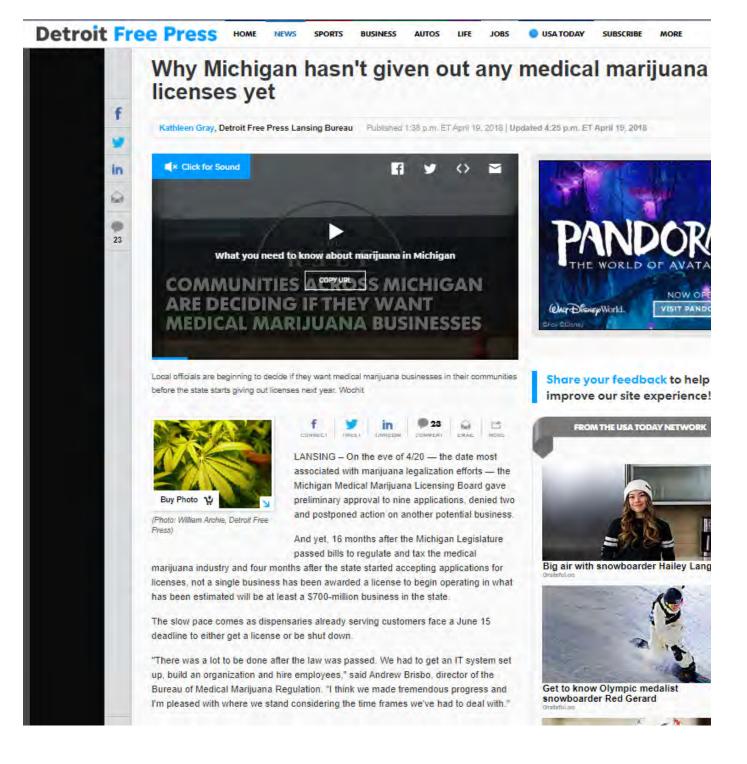
Supporters suggest that by legalizing marijuana we free up law enforcement to focus more on other crimes and drugs such as opioids. This argument sounds like a logical shift of resources however, that is only when one does not understand law enforcement. Anecdot ally, from the prosecutor's office, I can say that most local marijuana cases resul: from incidental discovery. For instance, one of the most common marijuana case scenarios is when an officer conducts a traffic stop and de tects an odor or presence of marijuana. Another is when an officer is investigating one offense, such as a sexual

assault or another drug case and a search of the person or scene results also in the discovery of marijuana. The supporter's argument would only be correct if police were out knocking on doors to find marijuana. That is simply not the case. While TNT does bust a couple of large illegal grow or dispensary operations a year across its eight counties, it is already heav ily focused on investigating opioids, meth, and heroin cases. Legalization will not create a magical freeing of police resources. To further demonstrate the failure of the supporter's comparison to alcohol, the legalization of alcohol has certainly not freed up law enforcement resources. Police spend a lot of their time on illegal sales to minors, MIP, drinking and driving, disorderly conduct, bar fights, sexual assaults, and a myriad of alcohol in fused crimes

In other parts of the state, drug-free coalitions and medical organizations are speaking out against the egalization of recreationaluse marijuana. Locally I sit on the Human Services Leadership Council and its Safe and Healthy Communities Coalition. In April, the coalition passed a resolution I prepared speaking out against the legalization. In May, I presented an identical resolution to the Wexford County Physician Health Organization, which also passed it. These resolutions provide that together, these groups are committed to the future for our children, the economic health of our community, and safety of our neighborhoods. We believe based on research and the impact in other states that have legalized it already there will be increases in marijuana related traffic deaths, hospitalizations, overall crime both teen and adult use, babies born with THC in their systems, and more. Together, we encourage those in Wexford County to do their own research and oppose its legalization.

Above I mentioned that this will likely be on the bal-lot. Why "likely?" Because our state legislature is actually considering seizing control of the issue and simply making it legal without putting it on the ballot to hear the voice of voters. If you have an opinion on this issue, please contact your representative w and be heard.

JASON ELMORE is the Wexford



The licensing board at least made some progress Thursday, approving pre-qualification for four dispensaries, including three that also were pre-qualified as a grow operation, one testing facility, one secure transporter and two processing facilities.

A pre-qualification means that the applicants have gone through the background checks done by the Department of Licensing and Regulatory Affairs and the Michigan State Police, but they still have to get approval from the community where they want to do business and have their facility inspected by the state. Once they get those, they can go back to the licensing board to get a license.

Read more:

Medical marijuana dictionary: Words to know

Michigan towns poised to become marijuana hubs

Amy Brown, owner of ABKO Labs, had the distinction of getting the first prequalification approval from the board.

"I'm very excited," she said. "I was in financial services for 28 years and I'm also a lawyer and I was ready for a career change moment. My dad was a chemist and I was looking at getting into this and we started working on this together."

Her dad has since died, but she's looking for space for her marijuana testing facility in a community that has passed an ordinance that allows for medical marijuana businesses. She also hasn't started hiring employees because, until Thursday, she wasn't sure whether she would be able to get a license.

"We have a location in Warren that is ideal, but it's a little too close to residential," Brown said. "So we've got to work on that."

The two applicants who were denied — a secure transporter and grow operation — both had criminal records that, on their own, wouldn't have disqualified them from getting a license. But they had failed to disclose the issues on their applications and that led to them getting denied.

"It's unfortunate that we're confronted with the situation of having to drag people through the mud," said board member David LaMontaine, referring to Raymond Oatman, who was applying for a growing license. "He served his time, he beat his drug addiction and it looks like he's got a successful plumbing business going. But he failed to disclose not just one, but two things."

The other denial came for Greentransport Services, a Gratiot County secure transporter whose owner had a 20-year-old, non-drug-related misdemeanor that he failed to disclose on his application.

"It isn't so much that he had this old conviction, it's the fact that he left it off his application," said board member Donald Bailey, a retired Michigan State Police officer.

Bailey also had a problem with an application from an Ann Arbor business that applied for licenses for a dispensary, grow operation and processing facility. He questioned the large financial transactions that were disclosed in the application and suggested that it might be laundering money.

"This was a business that was making millions a year ago and sold to the applicant for \$59,000. I'm a police officer and that doesn't make any sense to me," Bailey said.

But other board members noted that they didn't read the application in the same way and realize that because of federal drug laws, which still consider marijuana an illegal substance, the industry is largely a cash industry because banks don't want to run afoul of federal regulators.

"As it pertains to the money business, this is going to be a cash business and people are going to have to get creative," LaMontaine said. "I'm not sure if these guys are just smarter or ahead of the game."

Several people who have submitted applications, but haven't gotten a hearing yet, complained to the board of the snail's pace in awarding licenses. The issue becomes especially crucial on June 15, the date when 215 medical marijuana businesses that are operating under emergency rules while their applications wait to get consideration, will have to shut down or risk getting their applications denied.

"If you only reviewed 11 applications today, you're going to have to have 43 meetings to get through the rest of them," said Tim Schuler, who has applied for a secure transport license. "And all the ones who have gotten pre-qualification have to come back for approval before they get a license."

David Harns, spokesman for LARA, said businesses still operating after June 15 could risk their chance at a license, but "LARA does not currently intend to issue cease and desist letters nor refer to law enforcement any applicant who turned in their state application with local attestation by Feb. 15, 2018, has a pending application, and is making a good faith effort to become licensed by LARA."

The state sent cease and desist orders last month to more than 200 marijuana facilities that were operating without having submitted an application.

The businesses that got pre-qualification Thursday were: ABKO Labs, a testing facility; Motas, Inc., a secure transporter based in Hazel Park; Herban Legends dispensary; Pure Green, a processor in Inkster; Agri-Med, a Class B grower and dispensary in Muskegan; Green Eden, a Class C grower and dispensary in Portage; Cannarbor, Inc., a dispensary in Ann Arbor; Arbor Farm, a Class A grower in Ann Arbor, and Arbor Kitchen, a processor in Ann Arbor.

Consideration of the application from Straw Hat, Inc., a Class C grower in Adrian, was postponed.

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Dispelling Myths

The Facts About Marijuana Regulation

Opponents of medical and adult-use cannabis laws often make bold claims about the negative impact marijuana will have on individuals and communities. Examples of these claims include arguments that marijuana is a "gateway drug," that legalization will double traffic fatalities, or that cannabis use results in increased levels of drug abuse and addiction.

Establishing effective marijuana laws and regulations is a complicated process, made more difficult when elected leaders and voters lack accurate information. The following paper addresses potential sources of misinformation using the growing body of research that has emerged since the passage of state-level cannabis laws. Through a review of government publications, academic articles, third party studies, and other resources, this paper examines the five most common arguments against marijuana legalization to separate MYTH from FACT.

- MYTH: Marijuana is a "gateway drug."
- FACT: Marijuana use is not a causal factor in use of harder drugs.
- MYTH: Marijuana is addictive and more dangerous than cigarettes or alcohol.
- FACT: Marijuana is safer and less addictive than both cigarettes and alcohol.
- MYTH: Legalized marijuana will lead to higher youth usage.
- FACT: Youth usage does not increase when marijuana is legalized.
- MYTH: Legalizing marijuana will empower black market activity.
- FACT: Effective marijuana regulation can help eliminate black markets.
- MYTH: Legalizing marijuana will double traffic fatalities.
- FACT: Preliminary data on traffic fatalities is mixed at best.

While misinformation about cannabis remains widespread, an increasing number of individuals and organizations have scrutinized existing evidence and concluded that the actual impact of medical and adult-use cannabis laws deviates considerably from opponents' bleak forecasts. As an example, the Cato Institute noted in a recent report "that state marijuana legalizations have had minimal effect on marijuana use and related outcomes.....On the basis of available data...we find little support for the stronger claims made by either opponents or advocates of legalizations. The absence of significant

adverse consequences is especially striking given the sometimes dire predictions made by legalization opponents."¹

We believe that policymakers and voters will reach similar conclusions when provided with accurate information.

"Our conclusion is that state marijuana legalizations have had minimal effect on marijuana use and related outcomes....The absence of significant adverse consequences is especially striking given the sometimes dire predictions made by legalization opponents." – Cato Institute, 2016

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¹ Angela Dills, Sietse Goffard, and Jeffrey Miron (Cato Institute). <u>Dose of Reality: The Effects of State Marijuana Legalizations</u>, 2016, p. 1.



Myth: Marijuana is a "Gateway Drug."

Fact: Marijuana use is not a causal factor in use of harder drugs.

While studies have found that those who use marijuana are more likely to use other drugs, these studies

demonstrate correlation not causation. In a seminal 1999 report, the Institute of Medicine found that marijuana "does not appear to be a gateway drug to the extent that it is the *cause* or even that it is the most significant predictor of serious drug abuse."²

"While the gateway theory has enjoyed popular acceptance, scientists have always had their doubts. Our study shows that these doubts are justified." – Andrew Morral (RAND, 2002)

More recent studies further undermine the so-called "gateway theory."

- ➤ In a 2006 study published in the American Journal of Psychiatry, researchers found that drug abuse is not determined by preceding use of marijuana, but rather a user's individual tendencies and environmental circumstances.³
- ➢ In a 2002 study, RAND's Drug Policy Research Center concluded that "it is not marijuana use but individuals' opportunities and unique propensities to use drugs that determine their risk of initiating hard drugs." Upon the release of this study, Andrew Morral, Associate Director of RAND's Public Safety and Justice division asserted, "We have shown that the marijuana gateway effect is not the best explanation for the link between marijuana use and the use of harder drugs. While the gateway theory has enjoyed popular acceptance, scientists have always had their doubts. Our study shows that these doubts are justified."

With the passage of medical and adult-use cannabis laws in several states, researchers have begun studying the impact of expanded cannabis access on hard drug use. In a May 2014 National Bureau of Economic Research paper, public health researchers at Emory University found that the implementation of medical marijuana laws had no impact on hard drug use, leading to the conclusion that "the oftenvoiced concerns about the potential gateway effect of marijuana is not supported by our findings." 6

While evidence supporting the gateway theory is limited, there is a growing body of research indicating that medical cannabis has actually served as a substitute for alternative substances like alcohol, prescription drugs, and illicit drugs. In fact, researchers have even found that medical cannabis laws are associated with significant reductions in prescription medications, opioid pain reliever (OPR) overdose deaths, OPR hospitalizations.

In short, there is no evidence suggesting that marijuana use in and of itself is a gateway to harder drugs or drug abuse. On the contrary, regulated cannabis has the potential to reduce abuse of harmful drugs.

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² Institute of Medicine. Marijuana and Medicine: Assessing the Science Base, 1999, p. 101. http://www.nap.edu/read/6376/chapter/2#6

³ Ralph E. Tarter et al. <u>"Predictors of Marijuana Use in Adolescents before and after Licit Drug Use: Examination of the Gateway Hypothesis,"</u> in *American Journal of Psychiatry*, December 2006, Vol. 163, No. 12, p. 2139.

⁴ RAND Drug Policy Research Center. "Using Marijuana May Not Raise the Risk of Using Harder Drugs," in Research Briefs, 2002, p. 2.

⁵ Andrew R. Morral et al. <u>"Reassessing the Marijuana Gateway Effect,"</u> in *Psychology Society Bulletin*, Fall 2003, Vol. 1, No. 1, 2003, p. 63.

⁶ Hefei Wen et al. <u>"The Effect of Medical Marijuana Laws on Marijuana, Alcohol, and Hard Drug Use,"</u> in *NBER Working Paper Series*, May 2014, p. 25.

⁷ Amanda Reiman. <u>"Cannabis as a Substitute for Alcohol and Other Drugs,"</u> in *Harm Reduction Journal*, December 2009, p. 1.

⁸ Ashley C. Bradford. "Medical Marijuana Laws Reduce Prescription Medication Use in Medicare Part D," in Health Affairs, July 2016, Vol. 35, No. 7, p. 1230; Marcus A. Bachhuber et al. "Medical Cannabis Laws and Opioid Analgesic Overdose Mortality in the United States, 1999,2010," in Journal of the American Medical Association, October 2014; and Yuyan Shi. "Medical Marijuana Policies and Hospitalizations Related to Marijuana and Opioid Pain Reliever," in Drug and Alcohol Dependence, February 2017, p. 148.

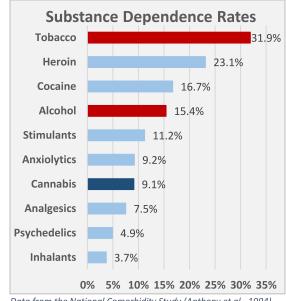


Myth: Marijuana is addictive and more dangerous than cigarettes or alcohol. Fact: Marijuana is safer and less addictive than both cigarettes and alcohol.

While marijuana dependence is a serious issue, the addiction rate for marijuana is much lower than that

of other illegal and legal substances. In a comprehensive analysis of data from the National Comorbidity Survey, researchers from Johns Hopkins University and the University of Michigan found that marijuana has one of the lowest dependency rates among ten of the most widely used substances in the US. Whereas 9.1 percent of marijuana users develop dependency on marijuana, addiction rates stand at 31.9 percent for tobacco users, 23.1 percent for heroin users, 16.7 percent for cocaine users, and 15.4 percent for alcohol users.9

The Institute of Medicine also concluded that few marijuana users develop dependence, particularly when compared to other drugs. The Institute acknowledges that, though rare, marijuana users can develop dependence, but marijuana users "appear to be less likely to do so than users of other drugs (including



Data from the National Comorbidity Study (Anthony et al., 1994).

alcohol and nicotine), and marijuana dependence appears to be less severe than dependence on other drugs."10

The health costs and risks associated with marijuana are also substantially lower than those associated with alcohol and nicotine. In a review of the direct health care costs associated with the use of certain substances, researchers in Canada found that the direct annual health care costs per user stood at \$20.50 for cannabis, \$165.11 for alcohol, and \$822.26 for tobacco. 11 In a separate study, researchers conducted a comparative risk assessment of ten substances and, based on these assessments, categorized both alcohol and tobacco as "high risk" and cannabis as "low risk." The researchers concluded that "the risk of cannabis may have been overestimated in the past" and the low risk levels associated with cannabis "suggest a strict legal approach rather than the current prohibition approach."12

While some have raised concerns that smoking marijuana may have an adverse impact on the lungs, a 20-year study on marijuana use published in *The Journal of the American Medical Association* found "no evidence that increasing exposure to marijuana adversely affects pulmonary function."13 A 2006 study on the potential connection between marijuana smoking and lung and upper aerodigestive tract cancers

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⁹ James C. Anthony, Lynn A. Warner, and Ronald C. Kessler. "Comparative Epidemiology of Dependence on Tobacco, Alcohol, Controlled Substances, and Inhalants: Basic Findings from the National Comorbidity Survey," in Experimental and Clinical Psychopharmacology, 1994, Vol.

¹⁰ Janet E. Joy et. al. (Institute of Medicine). Marijuana and Medicine: Assessing the Science Base, 1999, p. 98.

¹¹ Gerald Thomas and Chris Davis. "Cannabis, Tobacco, and Alcohol Use in Canada: Comparing Risks of Harm and Costs to Society," in Visions: BC's Mental Health and Addictions Journal, Vol. 5, No. 4, 2009, p. 13.

¹² Drik W. Lachenmeier and Jurgen Rehm. "Comparative Risk Assessment of Alcohol, Tobacco, Cannabis, and Other Illicit Drugs Using the Margin of Exposure Approach," in Scientific Reports, January 2015, p. 4 and 6.

¹³ Mark P. Pletcher et al. "Association Between Marijuana Exposure and Pulmonary Function over 20 Years," in The Journal of the American Medical Association, January 2012, Vol. 307, No. 2., p. 177.



found no such connection and concluded that "the association of these cancers with marijuana, even long-term or heavy use, is not strong and may be below practically detectable limits." ¹⁴

In 1995, the World Health Organization (WHO) published a comprehensive report on the health risks associated with marijuana and concluded that "these risks are small to moderate in size." The report added that "In aggregate they are unlikely to produce public health problems comparable in scale to those currently produced by alcohol and tobacco....on even the most worst-case scenario, it is unlikely that the public health effect of cannabis use would approach those of alcohol or tobacco use." WHO also made the following findings:

- "Tobacco smoking is associated with a wide variety of other chronic health conditions for which cannabis smoking has not so far been implicated. These include cancer of the cervix, stomach, bladder and kidney, coronary heart disease, peripheral vascular disease, and stroke, as well as cataracts and osteoporosis."
- "There is good evidence that chronic, heavy alcohol use increases the risk of premature mortality from accidents, suicide and violence. There is no comparable evidence for chronic cannabis use."
- In large doses alcohol can cause death by asphyxiation, alcohol poisoning, cardiomyopathy and cardiac infarct. There are no recorded cases of overdose fatalities attributed to cannabis, and the estimated lethal dose for humans extrapolated from animal studies is so high that it cannot be achieved by recreational users."
- "A major difference between [alcohol and cannabis] is that withdrawal symptoms are either absent or mild after dependent cannabis users abruptly stop their cannabis use, whereas the abrupt cessation of alcohol use in severely dependent drinkers produces a well-defined withdrawal syndrome which can be potentially fatal."¹⁶

These findings led Philip M. Boffey, the former science and health editor of *The New York Times*, to conclude that there is a "vast gap between antiquated federal law enforcement policies and the clear consensus of science that marijuana is far less harmful to human health than most other banned drugs and is less dangerous than the highly addictive

"[This] neatly illustrates the vast gap between antiquated federal law enforcement policies and the clear consensus of science that marijuana is far less harmful to human health than most other banned drugs and is less dangerous than the highly addictive but perfectly legal substances known as alcohol and tobacco."—Philip M. Boffey (The New York Times, 2014)

but perfectly legal substances known as alcohol and tobacco. Marijuana cannot lead to a fatal overdose. There is little evidence that it causes cancer. Its addictive properties, while present, are low, and the myth that it leads users to more powerful drugs has long since been disproved."¹⁷

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¹⁴ Mia Hashibe et al. "Marijuana Use and the Risk of Lung and Upper Aerodivestive Tract Cancers: Results of a Population-Based Cast-Control Study," in Cancer Epidemiology, Biomarkers, & Prevention, October 2006, Vol. 15, No. 10, p. 1829.

¹⁵ World Health Organization, Project on Health Implications of Cannabis Use. A Comparative Appraisal of the Health and Psychological Consequences of Alcohol, Cannabis, Nicotine and Opiate Use, August 1995.

¹⁶ World Health Organization, Project on Health Implications of Cannabis Use. *A Comparative Appraisal of the Health and Psychological Consequences of Alcohol, Cannabis, Nicotine and Opiate Use*, August 1995.

¹⁷ Philip M. Boffey. "What Science Says about Marijuana," in The New York Times, July 30, 2014.



Myth: Legalized marijuana will lead to higher youth usage.

Fact: Youth usage does not increase when marijuana is legalized.

National and state-level data make clear that marijuana legalization does not increase youth usage of marijuana. Over the past two decades, the United States has seen a proliferation of state laws legalizing medical and adult-use marijuana, yet youth marijuana usage rates have declined throughout this period. According to data from the CDC:

- ➤ Between 1995 and 2015, the percent of high school students who had used marijuana at some point in their lifetime fell from 42.4 percent to 38.6 percent.
- ➤ Between 1995 and 2015, the percent of high school students who had used marijuana at least once in the past month fell from 25.3 percent to 21.7 percent.¹8

In a 2014 study published in the peer-reviewed journal, *Lancet Psychiatry*, the authors analyzed youth marijuana usage rates over a 24-year period and found "no evidence for an increase of adolescent marijuana use after passage of state laws permitting use of marijuana for medical purposes." The authors concluded, "concerns that increased adolescent marijuana use is an unintended effect of state medical marijuana laws seem unfounded."¹⁹

While there are fewer years of data available on the impact of adult-use legalization laws on youth usage rates, initial data shows that these laws have not resulted in increased youth marijuana usage. In fact, states that have already implemented recreational marijuana laws have seen youth usage rates decline across the board.

- Colorado: Between 2009 and 2015, the percent of adolescents who have tried marijuana at least once in their lifetime fell from 43 percent to 38 percent. Over this same period, the percent of adolescents who reported using marijuana in the past month fell from 25 percent to 21 percent.²⁰
- ➤ Alaska: Between 2007 and 2015, the percent of adolescents who have tried marijuana at least once in their lifetime fell from 44.7 percent to 38.8 percent. Over this same period, the percent of adolescents who reported using marijuana in the past month fell from 20.5 percent to 19.0 percent.²¹
- ➤ Oregon: Between 2011 and 2015, the percent of 8th graders who reported using marijuana in the past month fell from 11.1 percent to 8.8 percent. Over this same period, the percent of 11th graders who reported using marijuana in the past month fell from 20.6 percent to 19.1 percent. Note that Oregon's survey of adult marijuana use only covers 8th and 11th graders.²²
- ➤ Washington: Between 2012 and 2016, the percent of 6th, 8th, 10th, and 12th graders who reported using marijuana at least once in their life or within the past 30 days either remained constant or declined. At most grade levels, usage rates declined.²³

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¹⁸ US Centers for Disease Control. <u>Trends in the Prevalence of Marijuana, Cocaine, and Other Illegal Drug Use National YRBS: 1991-2015</u>.

¹⁹ Hasin et. al. "Medical Marijuana Laws and Adolescent Marijuana Use in the USA from 1991 to 2014: Results from Annual, Repeated Cross-Sectional Surveys," in *Lancet Psychiatry*, 2015, 2, p. 607.

²⁰ Colorado. Health Kids Colorado Survey, Marijuana Use Among Youth in Colorado, 2015.

 $^{^{\}rm 21}$ Alaska Department of Health and Social Services. 2015 Youth Risk Behavior Survey Results, p. 10.

²² Oregon Health Authority. 2011 Oregon Healthy Teens Survey (8th and 11th Grade Survey Data), p. 48/53; Oregon Health Authority. 2013 Oregon Healthy Teens Survey, p. 58; and Oregon Health Authority. 2015 Oregon Healthy Teens Survey, p. 56-59.

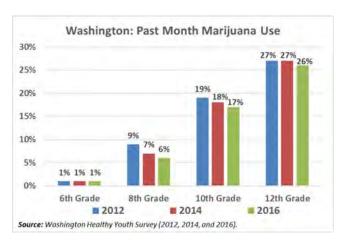
²³ Washington State. Healthy Youth Survey, Youth Marijuana Use in Washington State, 2012; Washington State. Healthy Youth Survey, Youth Marijuana Use in Washington State, 2014; and Washington State. Healthy Youth Survey, Youth Marijuana Use in Washington State, 2016.

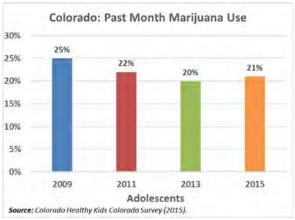


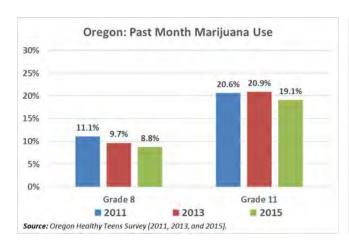
Despite initial concerns that youth access to marijuana will increase following the passage of legalization laws, the CDC found that the perceived availability of marijuana among adolescents has declined considerably in recent years. Between 2002 and 2014, the percent of adolescents reporting that marijuana is either "very easy" or "fairly easy" to obtain fell from 55.0 percent to 47.8 percent.²⁴

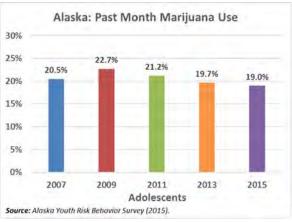
As more states pass medical and adult-use marijuana laws, the United States has also seen a decline in marijuana use disorders among adolescents. In a June 2016 article published in the *Journal of the American Academy of Child & Adolescent Psychiatry*, researchers at the Washington University School of Medicine analyzed data from the National Survey on Drug Use and Health. Overall, the study found that marijuana use disorders among adolescents declined 24 percent between 2002 and 2013.²⁵ The study also found noteworthy decline in the number of teenagers with marijuana-related issues; enjoying a drop in disciplinary issues with both parents and schools, and a seemingly diminished interest in getting high.

State-Level Youth Marijuana Usage Rate Data









²⁴ Centers for Disease Control and Prevention. *National Estimates of Marijuana Use and Related Indicators — National Survey on Drug Use and Health, United States, 2002–2014*, September 2016, p. 1-25.

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²⁵ Richard Grucza et al. "Declining Prevalence of Marijuana Use Disorders Among Adolescents in the United States, 2002 to 2013," in *Journal of the American Academy of Child & Adolescent Psychiatry*, 55.6, June 2016.



Myth: Legalizing marijuana will empower black market activity.

Fact: Effective marijuana regulation can help eliminate black markets.

Marijuana legalization and regulation can be tools to neutralize illegal marijuana sales. As the Institute on Taxation and Economic Policy highlighted in its official testimony before the Vermont Senate Committee on Finance, "one primary motivation behind legalizing retail marijuana is to eliminate the illegal black market for marijuana and its social ills." ²⁶

Both legal and illegal markets for marijuana are driven by consumer demand and, like the markets for any other good, are influenced by ease of access, price, and product quality. These principles are supported by the Colorado Department of Revenue, which commissioned a report regarding the market size and demand for marijuana within the State. The report noted "If the price of regulated marijuana remains high, as it has in early 2014, black-market production could continue if it could compete with the regulated market on price, but the regulated market is likely to reduce market share held by the black market." The Department also pointed out that if prices between the legal and illegal market are similar, "consumers would likely shift to the regulated market because the selection, quality, and product safety is generally much higher at a licensed retail provider."²⁷

While there is certainly room for improvement, states that regulate medical and adult-use cannabis have made considerable progress towards reducing the size of the black market. According to a recent article in *The Economist*, Colorado's legal market has captured 70 percent of total cannabis sales.²⁸ In an economic impact analysis commissioned by the State of Colorado, the Marijuana Policy Group predicts that the black market's share of total cannabis sales will eventually fall to a mere 10 percent.²⁹

As governments consider passing medical and adult-use cannabis laws, policy experts forecast major declines in the size of the illegal market should politicians adopt the appropriate tax and regulatory levels. In an April 2017 policy brief, C.D. Howe Institute predicted that the passage of adult-use cannabis laws in Canada could result in the regulated market capturing as much as 90 percent of the country's black market.³⁰

Prohibition is not an effective means of eliminating illegal markets for marijuana. Unlike other illegal drugs, consumer feelings about marijuana have changed and progressed significantly over time. Over the years, public polling by Pew Research Center has found that 57 percent of American adults are in favor of marijuana legalization, 49 percent of Americans have tried marijuana, 69 percent of Americans believe alcohol is more harmful to a person's health than marijuana, and 63 percent believe alcohol would still be more harmful to society if marijuana were legalized.³¹

In light of existing consumer attitudes toward marijuana, prohibition in and of itself will not eliminate demand. In the absence of an effective regulatory framework, patients and consumers have few options other than the black market.

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²⁶ Carl Davis and Richard Phillips (Institute on Taxation and Economic Policy). <u>Tax Policy Issues Associated with Legalized Retail Marijuana:</u> Testimony before the Vermont Senate Committee on Finance, January 19, 2016.

²⁷ Colorado Department of Revenue (Provided by the Marijuana Policy Group). Market Size and Demand for Marijuana in Colorado, 2014, p. 27.

²⁸ Staff. "Legalising Cannabis: Reeferegulatory Challenges," in *The Economist*, February 13, 2016.

²⁹ Marijuana Policy Group. *The Economic Impact of Marijuana Legalization in Colorado*, October 2016, p. 6.

³⁰ Rosalie Wyonch. <u>"With Legal Weed the Government Must Choose Revenue or Regulated Market, Not Both,"</u> in *Intelligence Memos*, April 10, 2017, p. 1.

³¹ Abigail Geiger (Pew Research Center). "Support for Marijuana Legalization Continues to Rise," in FactTank, October 12, 2016; and Seth Motel (Pew Research Center). "6 Facts about Marijuana," in FactTank, April 14, 2015.



Myth: Legalizing marijuana will double traffic fatalities.

Fact: Preliminary data on traffic fatalities is mixed at best.

In states that have legalized recreational or medical marijuana, traffic collisions involving drivers testing positive for marijuana have increased. Opponents of legalization often site these statistics as one of the dangers of normalizing marijuana. Driving while impaired by any drug is dangerous and should be prohibited, but it is irresponsible to make incorrect inferences from the limited data.

In exploring potential connections between marijuana use and traffic fatalities, the National Highway Traffic Safety Administration (NHTSA) cautions that "drug presence does not necessarily imply impairment." Since marijuana can be detected for a period of days or weeks after ingestion, drug presence remains long after impairment ends. Accordingly, any data associating the passage of medical and adult-use cannabis legislation with traffic fatalities warrants a degree of scrutiny.

That said, existing studies on marijuana legalization and highway safety are largely inconclusive.

In a recent examination of fatal car accidents, the Cato Institute found no major increase in fatal crashes following the passage of medical and adult-use cannabis laws in Colorado, Washington, Oregon, and Alaska.³³

The National Highway Traffic Safety Administration (NHTSA) conducted the largest and most comprehensive study on drug crash risk in the United States. Notably, the study found that after accounting for variables like age, gender, race/ethnicity, and alcohol consumption, "there was no significant contribution of drugs to crash risk."³⁴

Additionally, traffic data from Colorado and Washington is being misinterpreted. The Washington Traffic Safety Commission (WTSC) released data in 2015 indicating the number of drivers involved in fatal crashes with active THC in their blood increased from 38 in 2013 to 75 in 2014. However, the reasons for the increases are not entirely clear. As the Seattle Times reported, "One obvious reason is that state-regulated pot stores opened in 2014, providing access to legal weed. But the first few stores didn't open until July, and their supply was scarce." The article went on to say, "What's more, there were more marijuana-involved fatal crashes in the first half of 2014, before stores opened, than in the second half of the year." Half of these drivers were also under the influence of alcohol, and the majority of those were intoxicated. Shelly Baldwin, the spokesperson for the WTSC, acknowledged that the presence of marijuana in a driver's system is an important factor to monitor but that it does not necessarily lead to collisions. The spokesperson is a specific provided to collisions.

In Colorado, the number of traffic fatalities has slightly increased since marijuana was legalized. In 2012, the year Colorado voters legalized recreational marijuana, there were 474 traffic fatalities.³⁸ This figure

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³² US Department of Transportation, National Highway Traffic Safety Administration. *Results of the 2013-2014 National Roadside Survey of Alcohol and Drug Use by Drivers*, February 2015, p. 2.

³³ Angela Dills, Sietse Goffard, and Jeffrey Miron (Cato Institute). *Dose of Reality: The Effects of State Marijuana Legalizations*, September 2016, p. 18.

³⁴ US Department of Transportation, National Highway Traffic Safety Administration. *Drug and Alcohol Crash Risk: A Case-Control Study*, December 2016, p. 5.

³⁵ Bob Young. "More Pot Use Found in Fatal Crashes, Data Says," in The Seattle Times, August 19, 2015.

³⁶ Bob Young. "More Pot Use Found in Fatal Crashes, Data Says," in The Seattle Times, August 19, 2015.

³⁷ Bob Young. "More Pot Use Found in Fatal Crashes, Data Says," in The Seattle Times, August 19, 2015.

³⁸ Colorado Department of Transportation. <u>Drugged Drivers Involved in Car Crashes</u>, 2014.



increased to 481 In 2013 and 488 in 2014. Traffic fatalities were significantly higher in Colorado in the years prior to the state establishing any marijuana regulations. Colorado established laws to regulate medical marijuana in 2009 and voters approved recreational sales in 2012. Between 2009 and 2014 the average number of traffic fatalities in Colorado was 467.5 compared to an average of 592 traffic fatalities between 2003 and 2008.³⁹ This does not necessarily suggest that legalizing marijuana is related to safer roads, but rather that traffic data varies significantly over time, and it is difficult to have definitive answers without more exhaustive studies. 52 percent of drivers in Colorado who tested positive for marijuana also tested positive for alcohol and an additional 15 percent tested positive for other drugs.⁴⁰ Regarding the available data on marijuana-impaired data Glenn Davis, the Colorado Department of Transportation's Highway Safety Manager, said "We really do not have accurate data. I recognize that marijuana impairment is going to be a challenge for us. Davis added "I would say the increased availability of marijuana to the driving public has some impact on crashes, but we don't know."⁴¹

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³⁹ Colorado Department of Transportation. <u>Drugged Drivers Involved in Car Crashes</u>, 2014.

⁴⁰ Rocky Mountain High Intensity Drug Trafficking Area. <u>The Legalization of Marijuana in Colorado: The Impact</u>, September 2015.

⁴¹ Peter Hecht. "What Stoned Driving Looks Like and How California Might Regulate It," in *The Sacramento Bee*, September 16, 2016.

3 States Most Likely to Legalize Marijuana This Year

Two of them look like shoo-ins.

Keith Speights (TMFFishBiz) May 6, 2018 at 7:17AM

Going green has taken on a new meaning in the U.S. Thirty states plus the District of Columbia now allow legal use of medical marijuana. Eight of those states, along with D.C., also have legalized recreational use of marijuana. The numbers in both categories could be higher in the not-too-distant future.

Two states appear to be on course to legalize recreational marijuana in 2018. Another state could also join the ranks of those allowing legal use of medical marijuana. Here's what you need to know.



MAGE SOURCE: GETTY IMAGES.

1. Michigan

Michigan already allows patients to use medical marijuana. The prospects of the Wolverine State also legalizing recreational marijuana now look better than ever.

The Michigan Board of State Canvassers gave its stamp of approval on April 26, 2018 to an initiative to put recreational marijuana legalization on the ballot later this year. Supporters needed to gather 250,000 signatures; they ended up with more than 365,000.

There's <u>one compelling reason</u> why states like Michigan are considering allowing recreational marijuana: higher tax revenue. The proposed ballot measure would legalize possession and sale of up to 2.5 ounces of marijuana for recreational use, if passed. All recreational marijuana sales would be taxed at an additional 10% on top of Michigan's current 6% sales tax. The revenue generated would be used to fund education, roads, and cities and counties with marijuana-related businesses.

It's possible, however, that legalization of recreational marijuana won't be on the ballot when voting takes place in November. The state legislature could pass a bill to legalize recreational marijuana even sooner.

Republicans are currently in control of Michigan's legislature. Some of them are concerned that having recreational marijuana legalization on the ballot could boost voter turnout in ways that hurt their chances to maintain their majority.

2. New Jersey

It was clear <u>nearly a year ago</u> that New Jersey could be headed down the path to legalize recreational marijuana. Then-candidate for governor Phil Murphy publicly voiced his support for legalization.

Fast forward to today. Murphy, a Democrat, is now governor of New Jersey, and his party controls the state's general assembly.

Gov. Murphy is promoting a bill that would legalize recreational marijuana in his state. He even included additional taxes from recreational marijuana sales in his proposed budget for New Jersey's next fiscal year, which begins on July 1. However, Murphy is running into obstacles.

Some members of his own party are opposed to legalization, as well as most Republicans in the state assembly. In addition, public polls have shown that New Jersey residents have mixed views on allowing legal use of marijuana. A <u>recent Stockton University poll</u>, for example, found that 49% support legalization of recreational marijuana, with 44% opposed. With a margin of error at 3.65%, the poll's results certainly don't indicate a consensus.

Still, with the top elected official in the state pushing hard for legalization, there's a decent chance that New Jersey will join the list of U.S. states that allow recreational marijuana. Peer pressure could make a difference in the outcome: Support is building to legalize recreational pot in neighboring New York state.

3. Oklahoma

Oklahoma currently has no laws broadly allowing legal use of marijuana for either medical or recreational purposes. The state does, however, have a law in place allowing medical use of cannabis extracts that have high levels of cannabidiol (CBD) and low levels of THC (the primary psychoactive ingredient in marijuana).

However, that could change on June 26. Oklahomans will vote that day on State Question 788, which proposes legalization of medical marijuana and the establishment of a state system to tax and regulate its use. If the measure is passed, patients would be able to legally purchase medical marijuana at licensed dispensaries with authorization by a physician. They would also be allowed to grow up to six mature marijuana plants on their own.

The proposal would impose a 7% sales tax on sales of medical marijuana and would generate additional money through licensing. Three-quarters of any excess revenue from medical marijuana would go toward funding education in Oklahoma, with the remaining one-quarter used to fund drug and alcohol rehabilitation programs.

Polls taken earlier this year indicate that the majority of Oklahomans support the proposal in State Question 788. Another ballot initiative could be on the way, too. A group called Green the Vote is gathering signatures to include State Question 797 -- which would legalize recreational use of marijuana -- on the ballot in November.



IMAGE SOURCE: GETTY IMAGES.

Investing opportunities

Despite the continued increase in public support for marijuana legalization and the growing number of states allowing either medical or recreational marijuana, there remain very few decent investing alternatives to capitalize on these trends. Most of the biggest marijuana stocks are Canadian companies

that don't have major operations in the U.S. because of federal anti-marijuana laws. And most of the stocks of U.S. companies in the marijuana industry are penny stocks -- which have significant risks.

However, investors might want to take a look at two U.S. stocks that could benefit from the expansion of cannabis in the U.S., and especially if additional large states like Michigan and New Jersey legalize recreational marijuana. **Scotts Miracle-Gro** (NYSE:SMG) and **Kush Bottles**(NASDAQOTH:KSHB) aren't marijuana growers, but they could profit from growth of marijuana usage in the U.S.

Scotts Miracle-Gro sells fertilizer, hydroponics, lighting systems, and other supplies to cannabis growers. The company has placed big bets on pot, making multiple acquisitions in recent years, including the \$450 million buyout of hydroponics products company Sunlight Supply only a few days ago. Most of Scotts' revenue, though, still comes from its lawn and garden products. The stock is a less risky option than most for investors wanting to buy a marijuana stock.

Kush Bottles was the <u>top-performing marijuana stock of the first quarter</u>. The company makes bottles and child-resistant containers for cannabis growers and assists them with branding solutions. Kush has operations in California, Colorado, and Washington state, all of which have legalized recreational pot. The company is a lot smaller than Scotts Miracle-Gro -- however, it has a much steeper valuation.

Neither stock is a perfect vehicle for investing in the marijuana industry, but there simply aren't many options from which to choose right now. Investors might be better off looking north to Canada until the day comes when the federal government officially allows states to make their own decisions about cannabis.

Marijuana stocks are overhyped: 10 better buys for you now

When investing geniuses David and Tom Gardner have a stock tip, it can pay to listen. After all, the newsletter they have run for over a decade, *Motley Fool Stock Advisor*, has tripled the market.*

David and Tom just revealed what they believe are the ten best stocks for investors to buy right now... and marijuana stocks were noticeably absent! That's right -- they think these 10 stocks are better buys.

https://www.fool.com/investing/2018/05/06/3-states-most-likely-to-legalize-marijuana-this-ye.aspx

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City Could Legalize Medical Marijuana Facilities By July

By Beth Milligan | April 24, 2018

Traverse City could join other northern Michigan communities – including Kalkaska, Kingsley, and Acme – in legalizing medical marijuana facilities as soon as July.

That's the timeline Traverse City commissioners set for themselves Monday for adopting new city regulations governing what types of medical marijuana facilities can operate where in the city. New laws that went into effect in December in Michigan allow five types of marijuana business operations in the state, including growing marijuana, processing the plant, conducting laboratory testing, providing secured transportation of the drug,

and selling marijuana through provisioning centers/dispensaries. But communities must choose to "opt in" and pass zoning and police power ordinances detailing which types of licenses are allowed – whether some or all – and under what conditions in order for such businesses to operate legally in that city.

City commissioners had previously unanimously expressed their support for allowing medical marijuana facilities in Traverse City (https://www.traverseticker.com/news/city-commissioners-consider-medical-marijuana-facilities/). At Monday's meeting, commissioners reiterated that passing an ordinance allowing such facilities was one of their highest priorities for the coming year and approved a schedule and plan suggested by staff to make that goal a reality by this summer.

"It's an ambitious calendar for what could happen...if there are no wrinkles and (the process) goes smoothly," said City Attorney Lauren Trible-Laucht. Despite the aggressive timeline, Mayor Jim Carruthers said commissioners were motivated to address the licensing issue quickly to help business owners and medical marijuana patients. "I believe it's the will of this commission to make something happen in a timely manner," Carruthers said.

The commission's plan calls for establishing an ad hoc committee of commissioners who will meet to develop a recommended licensing ordinance and bring it back to the full commission for approval. The board agreed Monday to have Commissioners Brian McGillivary, Michele Howard, and Amy Shamroe serve on that committee. At the city commission's next meeting on May 7, commissioners will determine a list of specific questions and issues the ad hoc committee will work on.

On a parallel track, the city planning commission will also meet over the next several weeks to craft a recommendation on the zoning aspects of the new medical marijuana ordinance. City commissioners will tentatively hold a special meeting on June 12 to discuss both the ad hoc committee's and planning commission's recommendations, to be followed by a required July 2 public hearing. Commissioners could adopt the new medical marijuana ordinance as soon as the night of that public hearing.

Several city boards and officials have already started weighing in on the proposed regulations. At their April 17 meeting, planning commissioners took a first stab at drafting rules for the new ordinance, expressing support for allowing all five types of medical marijuana licenses in the city but potentially setting some type of distance requirement to space out dispensaries. The board showed interest in placing businesses in more intensive commercial districts and restricting the growing and processing of plants to industrial areas. Commissioners also discussed adding rules to limit the impact medical

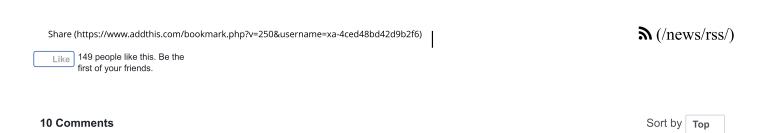
marijuana businesses would have on neighboring properties, such as requiring that the smell of marijuana not be detectable beyond the business parcel and that lights not shine outside buildings between sunset and sunrise.

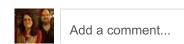
Traverse City Police Department Chief Jeff O'Brien sent a letter to City Planning Director Russ Soyring earlier this month expressing several concerns about allowing medical marijuana facilities in the city. He cited a study conducted by the Rocky Mountain High-Intensity Drug Trafficking Area – a federally funded law enforcement group that has expressed opposition to legalizing marijuana – that claimed Colorado had seen sharp increases in violent crime and homelessness after legalizing marijuana. O'Brien said he anticipated a "huge investment of time and resources" required of the TCPD to address marijuana-related issues if the city allowed such businesses.

"A commitment to this industry will demand additional law enforcement personnel as it did in Colorado," he wrote. O'Brien asked that if the city did proceed with allowing medical marijuana businesses, it limit dispensaries to two in the city – one on the east side and one on the west side of town.

Meanwhile, Traverse City Downtown Development Authority (DDA) board members also debated the proposed ordinance at their Friday meeting. DDA CEO Jean Derenzy told city commissioners Monday that the board's discussion focused on the number of dispensaries that should be allowed in the city, particularly downtown. "We decided that we didn't want the provisioning centers in the downtown until we had time to really thoughtfully and respectfully look at the location and the number of (dispensaries) in the downtown," Derenzy said. She added that the DDA hoped to hold a joint meeting with the city planning commission to discuss the medical marijuana ordinance.

"We're not saying no, we're just saying let's have time to look at the ordinance and find the right locations for the provisioning (centers) so we can protect the retail on Front Street," Derenzy said. "We only have two percent vacancy of retail, and we do want to protect that."







David Bell · Leland, Michigan

If I have surgery and need a pain med, my doctor gives me a prescription and I go to the pharmacy to get it filled. Same with all other prescription meds. Why are we setting up a different, parallel distribution system for this one medication? I say, forget about agonizing about the number and placement of "dispensaries" and require distribution via licensed pharmacies.

Like · Reply · 8 · 5w



Brian Van Den Brand · Grand Valley State University

Pharmacies like CVA can't get into it because they bank federally. Secondly, do you really want big pharma's greedy hands in another cookie jar?

Like · Reply · 1 · 5w



Charlene Reeve Woody

It's a natural substance!

Like · Reply · 5w



Angela O'Hearn · Northwestern Michigan College

I do expect that the commisionners will seek unbiased research regarding the claims of about the "potential" increase in violence & homelessness. I do not consider a federally-funded study to be unbiased. It does not take long to find statistics that fully contradict what this person is claiming happened in Colorado. I am not saying any particular statistics are correct, just that it is important to get multiple views and sources. And perhaps more importantly, this person is likely referring to Colorado after recreational legalization and not simply medical, which are two different bodies of statistics that are at least twelve years apart.

Like · Reply · 7 · 5w



Jay Zelenock · Attorney at Jay Zelenock Law Firm PLC

The city should not allow these businesses in the downtown bar district, or near bars and liquor stores. Legitimate medical businesses tend to locate near Munson and Copper Ridge, not on Union Street.

Like · Reply · 3 · 5w



Andrew McFarlane · Curator at Michigan in Pictures

You calling Thompson Pharmacy & Peterdyl Drug illegitimate, Jay? And I'm pretty sure that the interaction of alcohol and prescription pain medications are much more dangerous. I'm just kidding of course - I know that you make legal arguments up to suit whatever client you might have.

Like · Reply · 3 · 5w



Naomi Ruth Lena Bellemore · Traverse City, Michigan

You are kidding me right Jay Zelenock? Because you know, those crazy medical patients who LIVE downtown, should of COURSE be forced to travel further for the medicine they need. Wouldn't want those medical patients hurting innocent civilians.

How many medical marijuana deaths, injuries, fights, vandalism, accidents have happened downtown?

How many ALCOHOL related deaths, injuries, fights, vandalism, accidents, have occurred downtown??

Please. A patient who lives downtown who is able to pick up their opioid prescriptions from Thompson, CVS, Peterdyl, etc, should also be able to pick up their medical marijuana.

Like · Reply · 7 · 5w



Jay Zelenock · Attorney at Jay Zelenock Law Firm PLC

Andrew McFarlane and Naomi Ruth Lena Bellemore:

The fact that alcohol and opoids are terrible problems filling our local jail and burdening local mental health, law enforcement, and community service organizations, is not a logical argument in favor of making even more intoxicating substances readily available and further stoking these already very serious problems. Quite the opposite, actually. And, Andrew, I know you're frustrated that my legal arguments have repeatedly defeated your wishes on local issues, but try to get over it and move on, dude.

Like · Reply · 5w

Show 10 more replies in this thread



Brian Tennis · Northport, Michigan

Long overdue and I'm not surprised that some would point to a biased study to support the continued criminality of marijuana.

After all, jails need customers, especially private ones. Follow the money. Why do you think the Attorney General Jeff Sessions

has investments in private prisons and wants to keep all forms of marijuana illegal?

Like · Reply · 7 · 5w



Dennis Wiand Northwestern Michigan College Aviation

truthorfiction.com claims the Jeff Sessions ownership of private prisons as fiction

Like · Reply · 5w



Andrew McFarlane · Curator at Michigan in Pictures

Dennis Wiand Snopes says he has shares in two (highly diversified) mutual funds that include holdings in two leading private prisons companies. It's a small thing, but he definitely profits from private prisons.

https://www.snopes.com/fac.../jeff-sessions-private-prisons/

Like · Reply · 2 · 5w



Dylan Wiand Works at Urge Juice

Andrew McFarlane Snopes is notorious for not fact finding on political issues especially when the out favors the "Left".

Like · Reply · 4w



Naomi Ruth Lena Bellemore · Traverse City, Michigan

So many thoughts with this. re O'Brien: For the community you only want two dispensaries.. because you fell for some bogus report from a group who is AGAINST the legalization of Marijuana. That is like taking advice from a group against the killing of animals to limit butcheries to two storefronts. (I know a ludicrous comaparison... for a ludicrous concern). I have a large amount of family and a large group of friends who all live in Colorado. They have not seen any increase in "violent crime or homelessness".. and if there were increases, perhaps they should look to other reasons for those ca... See More

Like Reply 8 5w



Tom Mair · Works at I work in my community

"The truth of this whole thing is that medical marijuana provides an alternative to prescription medications to patients who need relief."

Support 'medical' marijuana .

Like · Reply · 4 · 5w



Brian Van Den Brand · Grand Valley State University

Wherever these facilities end up (and I support MM), I hope a ban on using it outside is aggressively enforced. Take a walk in Denver or Seattle to smell my reasons why.

Like · Reply · 1 · 5w



Tc

By that logic there should only be two pharmacies on opposite sides of town and those pharmacies should not be allowed to light the outside of their businesses after sunset as well.

Could you plead site some research on the rise in crime from the dispensaries that were operating in travese city?

Like · Reply · 2 · 5w



Ellen Stowe Montoya · Traverse City, Michigan

I agree there needs to be some dispenseries in TC, in mulitple locations for easy access. Unfortunately, the minute someone say the word MARIJUANA most people imagine a smoke filled room with people laying about completely baked and out of it. So not the case. Not only is there a plethora of health ailments that are alleviated by Marijuana, but it doesn't have the side effects that Pharmeceuticals have.....liver damage, kidney damage, heart damage, etc.... And the user may not be smoking it..... it is distributed in many forms, including teas, edibles, oils, and more. So let's all try to educate ourselves on how it is used, and what it's used for, before we go worrying about the 'pot den'.

Like · Reply · 3 · 5w



Dennis Wiand · Northwestern Michigan College Aviation

Not to be blunt but a "joint" meeting of the DDA and the Planning Commission might require munchies.

Like · Reply · 5 · 5w



Glinda Baum · Medical Consultant at Self-Employed

I'm certain that was an intentional construction of the sentence by Beth. Well done. 😃

Like · Reply · 5w · Edited



Bert Tutlis · Founder/CEO/Owner at Boardman Valley Preservation Society

420 A number which shall go down in infamy. 420

Like · Reply · 5w

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Risky Business? The Trump Administration and the State-Licensed Marijuana Industry

Robert A. Mikos Vanderbilt Law School

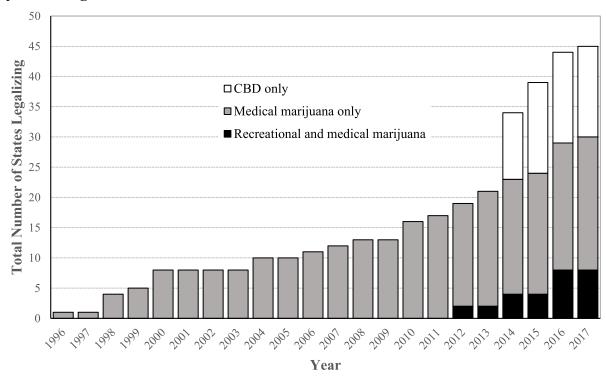
2017 U. Ill. L. Rev. Online (April 29, 2017)

This paper can be downloaded without charge from the Social Science Research Network Electronic Paper Collection: http://ssrn.com/abstract_id=2965665

Risky Business? The Trump Administration and the State-Licensed Marijuana Industry Robert A. Mikos*

2017 U. Ill. L. Rev. Online (April 29, 2017)

Over the past two decades, state marijuana reforms have flourished. At present, more than forty states have legalized the possession and use of marijuana in at least some circumstances, as depicted in **Figure 1**.¹



Even more boldly, nearly all of these states have authorized firms to produce and sell marijuana, seeking to supplant the black market of old with a legal but still heavily regulated one. Colorado, for example, has licensed more than 600 firms to produce and/or distribute marijuana, while requiring those licensees to comply with more than 150 pages of regulations.²

But can this state-licensed marijuana industry survive the new Trump Administration? Notwithstanding the passage of state reforms, federal law continues to ban outright the possession, production, and distribution of marijuana. While the Obama Administration eschewed enforcing that ban against marijuana users and suppliers as long as they <u>complied with state regulations</u>, there are signs the new Administration might not follow suit. Most notably, President Trump's Attorney General Jeff Sessions has made it clear that he opposes legalization of marijuana, a drug

^{*} Professor of Law, Vanderbilt University Law School. I want to thank Aaron Rothbaum for his helpful research assistance on this essay, which is part of the University of Illinois Law Review Online: Trump 100 Days symposium.

¹ See ROBERT A. MIKOS, MARIJUANA LAW, POLICY, AND AUTHORITY 3, fig. 1 (Aspen 2017).

 $^{^{2}}$ *Id.* at 4–5.

he considers <u>"only slightly less awful"</u> than heroin. Comments like this have led some to predict that the Attorney General will launch a new "war on weed" that could decimate the state-licensed marijuana industry.³

In this short essay, however, I want to suggest that the Trump Administration's actual impact on the industry will be far less dramatic, because the Administration is constrained by three potent forces.

One of these constraining forces is politics. With roughly 60% of Americans now supporting outright legalization,⁴ cracking down on the marijuana industry could prove costly for Republicans in the midterm congressional elections, not to mention Trump himself in the 2020 Presidential election. For this reason alone, President Trump might not let his Attorney General pursue aggressive legal action against the state-licensed marijuana industry. Indeed, it is telling that Donald Trump repeatedly disavowed any plans for a crackdown while on the campaign trail in 2016, insisting that it was for the states to decide how to regulate marijuana.⁵

The same political realities could generate resistance to any crackdown from *within* the Department of Justice as well. Local United States Attorneys will be responsible for executing the Administration's policy, but these front line officials may not share Sessions' hardline views of marijuana (many Republicans do not), and some who aspire to elected office might fear alienating local constituencies. Although the Attorney General can pressure these reluctant officials to fall in line, his influence over them is by no means absolute. Hence, they might be able to blunt or even thwart a legal crackdown.⁶

For similar reasons, Congress might put a swift halt to any crackdown. For most of the last two decades, Congress has been content to let the DOJ address the messy conflict between state and federal marijuana policy. As marijuana reforms have become more popular, however, Congress has begun to assert itself, even forbidding the DOJ from using any of its budgeted funds "to prevent [states] from implementing their own laws that authorize the use, distribution, possession, or cultivation of medical marijuana," including by prosecuting "individuals who engaged in conduct permitted by [state medical marijuana laws]" While Congress hasn't yet barred the agency from prosecuting federal crimes involving *recreational* marijuana, an aggressive crackdown by the DOJ could provoke Congress to do just that.⁸

³ See e.g., Debra Borchardt, 5 Ways Trump Could Affect the Marijuana Industry, FORBES (Jan. 20, 2017), https://www.forbes.com/sites/debraborchardt/2017/01/20/5-ways-trump-could-affect-the-marijuana-industry/#4008a2622ed7; Mark Joseph Stern, Spicer: Trump Supports States' Rights to Discriminate Against Trans Kids but Not to Legalize Pot, SLATE (Feb. 23, 2017, 5:21 PM), http://www.slate.com/blogs/the_slatest/2017/02/23/spicer_says_trump_will_prosecute_recreational_marijuana.html; Paul Waldman, Will Jeff Sessions launch a War on Weed?, THE WASH. POST (Apr. 20, 2017), https://www.washingtonpost.com/blogs/plum-line/wp/2017/04/20/will-jeff-sessions-launch-a-war-on-weed-if-so-it-could-accelerate-marijuana-legalization/?utm_term=.7fc1984aff44; Alicia Wallace, 'Something's Going to Have to Give': An Untenable Conflict Between Feds, Legalized States, THE CANNABIST (Mar. 6, 2017), http://www.thecannabist.co/2017/03/06/trump-marijuana-legalization-industry-lobbyists/74960/.

⁴ See Waldman, supra note 3 (noting poll results).

⁵ See generally David S. Schwartz, *Presidential Politics as a Safeguard of Federalism: The Case of Marijuana Legalization*, 62 BUFF. L. REV. 599, 601–02 (2014) (suggesting that the need to win swing states may curb Presidential candidates' enthusiasm for enforcing the federal marijuana ban).

⁶ See Robert A. Mikos, <u>A Critical Appraisal of the Department of Justice's New Approach to Medical Marijuana</u>, 22 STAN. L. & POL'Y REV. 633, 643-46 (2011) (discussing limits on Attorney General's influence over lower level DOJ officials).

⁷ United States v. McIntosh, 833 F.3d 1163, 1175, 1177 (9th Cir. 2016).

⁸ See Waldman, supra note 3.

A second constraining force is resources, or more accurately, a lack thereof. The Trump Administration doesn't have the personnel needed to enforce the federal marijuana ban aggressively, especially if it wants to pursue other priorities, like combatting the opioid crisis. The DEA, for example, employs only about 5,000 agents and they are responsible for regulating *all* controlled substances, not just marijuana. While the DEA could try to "make an example" out of a handful of state-licensed marijuana suppliers, the impact would be limited. After all, there is no shortage of people who would be willing to take the place of those suppliers (especially if the crackdown is expected to be short-lived). Indeed, the lack of resources compared to potential enforcement targets is one of the main reasons why earlier crackdowns conducted during the Clinton and Bush II Administrations failed to stop the spread of state marijuana reforms (as shown by **Figure 1**).

To be sure, the Attorney General could attempt to challenge state regulations as preempted, without over-taxing the DOJ's limited resources. Even if such a gambit were successful (and that's a big if^{10}), however, it wouldn't necessarily serve the Attorney General's goals. After all, preemption wouldn't restore state prohibitions on marijuana; it would only remove the regulatory restrictions that states have imposed in lieu of those prohibitions. Think marijuana is cheap and accessible in Colorado now? Just imagine how cheap and accessible it would be if marijuana suppliers no longer had to obtain state licenses, test and securely package their products, or pay hefty state taxes on sales of the drug. Indeed, Jeff Sessions has seemingly disavowed any preemption challenge, recognizing that the states "can pass the laws they choose."

A third moderating influence stems from legal constraints on the Administration's ability to convince states to turn their backs on reforms. Under the Supreme Court's anti-commandeering rule, of course, the Attorney General cannot simply order the states to reinstate their prohibitions on marijuana. But under rules governing conditional spending, he can't even *pressure* them to do so, the way he's now pressuring cities to abandon their <u>sanctuary policies</u> by threatening to withhold federal law enforcement grant funding from them. That's because no congressional statute clearly conditions the receipt of federal grants on the states helping the DOJ to enforce the federal marijuana ban. In any event, Congress would have a tough time convincing the states to abandon their reforms voluntarily, given the substantial tax revenues they now glean from the licensed marijuana industry.

In sum, while it is clear that the new Attorney General opposes state marijuana reforms, it is less clear what he will or even could do to block those reforms or to curb the industry that has flourished under them. The popularity of reforms, limits on federal resources, and legal doctrines like the anti-commandeering rule all limit the DOJ's ability to shut down the state-licensed marijuana industry. While Jeff Sessions may never embrace reforms, he may choose to pursue other tactics, like anti-marijuana media campaigns, to curb the use of marijuana and the harms caused thereby. Only time will tell, of course, but if history is any guide, the state marijuana industry will survive the Trump Administration intact.

⁹ See Robert A. Mikos, <u>On the Limits of Supremacy: Medical Marijuana and the States' Overlooked Power to Legalize Federal Crime</u>, 62 VAND. L. REV. 1421, 1467 (2009) (discussing de facto limits on federal government's influence over marijuana).

¹⁰ See Robert A. Mikos, <u>Preemption Under the Controlled Substances Act</u>, 16 J. HEALTH CARE L. & POL'Y 5 (2013).

¹¹ *Id*. at 18-19

¹² Mikos, *On the Limits*, supra note 9, at 1455-60.

The Legalization of Marijuana in Colorado: The Impact

Volume 5 October 2017



Rocky Mountain High Intensity
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STRATEGIC INTELLIGENCE UNIT

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Executive Summary

Purpose

Rocky Mountain High Intensity Drug Trafficking Area (RMHIDTA) is tracking the impact of marijuana legalization in the state of Colorado. This report will utilize, whenever possible, a comparison of three different eras in Colorado's legalization history:

• 2006 – 2008: Medical marijuana pre-commercialization era

• 2009 – Present: Medical marijuana commercialization and expansion era

• **2013 – Present:** Recreational marijuana era

Rocky Mountain HIDTA will collect and report comparative data in a variety of areas, including but not limited to:

- Impaired driving and fatalities
- Youth marijuana use
- Adult marijuana use
- Emergency room admissions
- Marijuana-related exposure cases
- Diversion of Colorado marijuana

This is the fifth annual report on the impact of legalized marijuana in Colorado. It is divided into ten sections, each providing information on the impact of marijuana legalization. The sections are as follows:

<u>Section 1 – Impaired Driving and Fatalities:</u>

- Marijuana-related traffic deaths when a <u>driver</u> was positive for marijuana more than <u>doubled</u> from **55 deaths** in 2013 to **125 deaths** in 2016.
- Marijuana-related traffic deaths increased 66 percent in the four-year average (2013-2016) since Colorado legalized recreational marijuana compared to the four-year average (2009-2012) prior to legalization.
 - o During the same time period, <u>all traffic deaths</u> increased 16 percent.

• In 2009, Colorado marijuana-related traffic deaths involving <u>drivers</u> testing positive for marijuana represented **9 percent** of all traffic deaths. By 2016, that number has more than <u>doubled</u> to **21 percent**.

Section 2 - Youth Marijuana Use:

- Youth past month marijuana use **increased 12 percent** in the three-year average (2013-2015) since Colorado legalized recreational marijuana compared to the three-year average prior to legalization (2010-2012).
- The latest 2014/2015 results show Colorado youth ranked #1 in the nation for past month marijuana use, up from #4 in 2011/2012 and #14 in 2005/2006.
- Colorado youth past month marijuana use for 2014/2015 was **55 percent higher** than the national average compared to **39 percent higher** in 2011/2012.

Section 3 - Adult Marijuana Use:

- College age past month marijuana use **increased 16 percent** in the three-year average (2013-2015) since Colorado legalized recreational marijuana compared to the three-year average prior to legalization (2010-2012).
- The latest 2014/2015 results show Colorado college-age adults ranked #2 in the nation for past-month marijuana use, up from #3 in 2011/2012 and #8 in 2005/2006.
- Colorado college age past month marijuana use for 2014/2015 was **61 percent higher** than the national average compared to **42 percent higher** in 2011/2012.
- Adult past-month marijuana use **increased 71 percent** in the three-year average (2013-2015) since Colorado legalized recreational marijuana compared to the three-year average prior to legalization (2010-2012).
- The latest 2014/2015 results show Colorado adults ranked #1 in the nation for past month marijuana use, up from #7 in 2011/2012 and #8 in 2005/2006.
- Colorado adult past month marijuana use for 2014/2015 was **124 percent higher** than the national average compared to **51 percent higher** in 2011/2012.

<u>Section 4 – Emergency Department and Hospital Marijuana-Related Admissions:</u>

- The yearly rate of emergency department visits related to marijuana **increased 35 percent** after the legalization of recreational marijuana (2011-2012 vs. 2013-2015).
- Number of hospitalizations related to marijuana:
 - o 2011 **6,305**
 - o 2012 **6,715**
 - o 2013 **8,272**
 - o 2014 **11,439**
 - o Jan-Sept 2015 **10,901**
- The yearly number of marijuana-related hospitalizations **increased 72 percent** after the legalization of recreational marijuana (2009-2012 vs. 2013-2015).

<u>Section 5 – Marijuana-Related Exposure:</u>

- Marijuana-related exposures **increased 139 percent** in the four-year average (2013-2016) since Colorado legalized recreational marijuana compared to the four-year average (2009-2012) prior to legalization.
- Marijuana-<u>Only</u> exposures more than <u>doubled</u> (**increased 210 percent**) in the four-year average (2013-2016) since Colorado legalized recreational marijuana compared to the four-year average (2009-2012) prior to legalization.

Section 6 – Treatment:

- Marijuana treatment data from Colorado in years 2006 2016 does not appear to demonstrate a definitive trend. Colorado averages **6,683** treatment admissions annually for marijuana abuse.
- Over the last ten years, the top four drugs involved in treatment admissions were alcohol (average 13,551), marijuana (average 6,712), methamphetamine (average 5,578), and heroin (average 3,024).

<u>Section 7 – Diversion of Colorado Marijuana:</u>

- In 2016, RMHIDTA Colorado drug task forces completed 163 investigations of individuals or organizations involved in illegally selling Colorado marijuana both in and out of state.
 - o These cases led to:
 - 252 felony arrests
 - 7,116 (3.5 tons) pounds of marijuana seized
 - 47,108 marijuana plants seized
 - **2,111** marijuana edibles seized
 - 232 pounds of concentrate seized
 - 29 different states to which marijuana was destined
- Highway interdiction seizures of Colorado marijuana **increased 43 percent** in the four-year average (2013-2016) since Colorado legalized recreational marijuana compared to the four-year average (2009-2012) prior to legalization.
- Of the **346** highway interdiction seizures in 2016, there were **36** <u>different states</u> destined to receive marijuana from Colorado.
 - The most common destinations identified were Illinois, Missouri, Texas, Kansas and Florida.

Section 8 – Diversion by Parcel:

- Seizures of Colorado marijuana in the U.S. mail has **increased 844 percent** from an average of 52 parcels (2009-2012) to 491 parcels (2013-2016) in the four-year average that recreational marijuana has been legal.
- Seizures of Colorado marijuana in the U.S. mail has **increased 914 percent** from an average of 97 pounds (2009-2012) to 984 pounds (2013-2016) in the four-year average that recreational marijuana has been legal.

Section 9 – Related Data:

- Crime in Denver **increased 6 percent** from 2014 to 2016 and crime in Colorado **increased 11 percent** from 2013 to 2016.
- Colorado annual tax revenue from the sale of recreational and medical marijuana was **0.8 percent** of Colorado's total statewide budget (FY 2016).
- As of June 2017, there were **491 retail marijuana stores** in the state of Colorado compared to **392 Starbucks** and **208 McDonald's**.
- **66 percent** of local jurisdictions have banned medical and recreational marijuana businesses.

Section 10 – Reference Materials:

This section lists various studies and reports regarding marijuana.

THERE IS MUCH MORE DATA IN EACH OF THE TEN SECTIONS. THIS PUBLICATION MAY BE FOUND ON THE ROCKY MOUNTAIN HIDTA WEBSITE; GO TO WWW.RMHIDTA.ORG AND SELECT REPORTS.

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Introduction

Purpose

The purpose of this annual report is to document the impact of the legalization of marijuana for medical and recreational use in Colorado. Colorado serves as an experimental lab for the nation to determine the impact of legalizing marijuana. This is an important opportunity to gather and examine meaningful data and identify trends. Citizens and policymakers nationwide may want to delay any decisions on this important issue until there is sufficient and accurate data to make informed decisions.

The Debate

There is an ongoing debate in this country concerning the impact of legalizing marijuana. Those in favor argue that the benefits of removing prohibition far outweigh the potential negative consequences. Some of the cited benefits include:

- Eliminate arrests for possession and sale, resulting in fewer people with criminal records and a reduction in the prison population
- Free up law enforcement resources to target more serious and violent criminals
- Reduce traffic fatalities since users will switch from alcohol to marijuana, which does not impair driving to the same degree
- No increase in use, even among youth, because of strict regulations
- Added revenue generated through taxation
- Eliminate the black market

Those opposed to legalizing marijuana argue that the potential benefits of lifting prohibition pale in comparison to the adverse consequences. Some of the cited consequences include:

- Increase in marijuana use among youth and young adults
- Increase in marijuana-impaired driving fatalities
- Rise in number of marijuana-addicted users in treatment
- Diversion of marijuana

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- Adverse impact and cost of the physical and mental health damage caused by marijuana use
- The economic cost to society will far outweigh any potential revenue generated

Background

As of 2016, a number of states have enacted varying degrees of legalized marijuana by permitting medical marijuana and eight permitting recreational marijuana. In 2010, legislation was passed in Colorado that included the licensing of medical marijuana centers (dispensaries), cultivation operations, and manufacturing of marijuana edibles for medical purposes. In November 2012, Colorado voters legalized recreational marijuana allowing individuals to use and possess an ounce of marijuana and grow up to six plants. The amendment also permits licensing marijuana retail stores, cultivation operations, marijuana edible manufacturers, and testing facilities. Washington voters passed a similar measure in 2012.

Preface

It is important to note that, for purposes of the debate on legalizing marijuana in Colorado, there are three distinct timeframes to consider: the early medical marijuana era (2000-2008), the medical marijuana commercialization era (2009 – current) and the recreational marijuana era (2013 – current).

- <u>2000 2008</u>: In November 2000, Colorado voters passed Amendment 20 which permitted a qualifying patient, and/or caregiver of a patient, to possess up to 2 ounces of marijuana and grow 6 marijuana plants for medical purposes. During that time there were between 1,000 and 4,800 medical marijuana cardholders and no known dispensaries operating in the state.
- <u>2009 Current:</u> Beginning in 2009 due to a number of events, marijuana became *de facto* legalized through the commercialization of the medical marijuana industry. By the end of 2012, there were over 100,000 medical marijuana cardholders and 500 licensed dispensaries operating in Colorado. There were also licensed cultivation operations and edible manufacturers.

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• <u>2013 – Current:</u> In November 2012, Colorado voters passed Constitutional Amendment 64 which legalized marijuana for recreational purposes for anyone over the age of 21. The amendment also allowed for licensed marijuana retail stores, cultivation operations and edible manufacturers. Retail marijuana businesses became operational January 1, 2014.

Colorado's History with Marijuana Legalization

Medical Marijuana 2000 - 2008

In November 2000, Colorado voters passed Amendment 20 which permitted a qualifying patient and/or caregiver of a patient to possess up to 2 ounces of marijuana and grow 6 marijuana plants for medical purposes. Amendment 20 provided identification cards for individuals with a doctor's recommendation to use marijuana for a debilitating medical condition. The system was managed by the Colorado Department of Public Health and Environment (CDPHE), which issued identification cards to patients based on a doctor's recommendation. The department began accepting applications from patients in June 2001.

From 2001 – 2008, there were only 5,993 patient applications received and only 55 percent of those designated a primary caregiver. During that time, the average was three patients per caregiver and there were no known retail stores selling medical marijuana (dispensaries). Dispensaries were not an issue because CDPHE regulations limited a caregiver to no more than five patients.

In late 2007, a Denver district judge ruled that CDPHE violated the state's open meeting requirement when it set a five-patient-to-one-caregiver ratio and overturned the rule. That opened the door for caregivers to claim an unlimited number of patients for whom they were providing and growing marijuana. Although this decision expanded the parameters, very few initially began operating medical marijuana commercial operations (dispensaries) in fear of prosecution, particularly from the federal government.

The judge's ruling, and caregivers expanding their patient base, created significant problems for local prosecutors seeking a conviction for marijuana distribution by caregivers. Many jurisdictions ceased or limited filing those types of cases.

Medical Marijuana Commercialization and Expansion 2009 - Present

The dynamics surrounding medical marijuana in Colorado began to change substantially after the Denver judge's ruling in late 2007, as well as several incidents beginning in early 2009. All of these combined factors played a role in the explosion of the medical marijuana industry and number of patients:

At a press conference in Santa Ana, California on February 25, 2009, U.S. Attorney General Eric Holder was asked whether raids in California on medical marijuana dispensaries would continue. He responded "No" and referenced the President's campaign promise related to medical marijuana. In mid-March 2009, the U.S. Attorney General clarified the position saying that the Department of Justice enforcement policy would be restricted to traffickers who falsely masqueraded as medical dispensaries and used medical marijuana laws as a shield.

Beginning in the spring of 2009, Colorado experienced an explosion to over 20,000 new medical marijuana patient applications and the emergence of over 250 medical marijuana dispensaries (allowed to operate as "caregivers"). One dispensary owner claimed to be a primary caregiver to 1,200 patients. Government took little or no action against these commercial operations.

In July 2009, the Colorado Board of Health, after public hearings, voted to keep the judge's ruling of not limiting the number of patients a single caregiver could have. They also voted to change the definition of a caregiver to a person that only had to provide medicine to patients, nothing more.

On October 19, 2009, U.S. Deputy Attorney General David Ogden provided guidelines for U.S. Attorneys in states that enacted medical marijuana laws. The memo advised to "Not focus federal resources in your state on individuals whose actions are in clear and unambiguous compliance with existing state law providing for the medical use of marijuana."

By the end of 2009, new patient applications jumped from around 6,000 for the first seven years to an additional 38,000 in just one year. Actual cardholders went from 4,800 in 2008 to 41,000 in 2009. By mid-2010, there were over 900 unlicensed marijuana dispensaries identified by law enforcement.

In 2010, law enforcement sought legislation to ban dispensaries and reinstate the one-to-five ratio of caregiver to patient as the model. However, in 2010 the Colorado

Legislature passed HB-1284 which legalized medical marijuana centers (dispensaries), marijuana cultivation operations, and manufacturers for marijuana edible products. By 2012, there were 532 licensed dispensaries in Colorado and over 108,000 registered patients, 94 percent of which qualified for a card because of severe pain.

Recreational Marijuana 2013 - Present

In November of 2012, Colorado voters passed Amendment 64 which legalized marijuana for recreational use. Amendment 64 allows individuals 21 years or older to grow up to six plants, possess/use 1 ounce or less, and furnish an ounce or less of marijuana if not for the purpose of remuneration. Amendment 64 permits marijuana retail stores, marijuana cultivation sites, marijuana edible manufacturers and marijuana testing sites. The first retail marijuana businesses were licensed and operational in January of 2014. Some individuals have established private cannabis clubs, formed coops for large marijuana grow operations, and/or supplied marijuana for no fee other than donations.

What has been the impact of commercialized medical marijuana and legalized recreational marijuana on Colorado? Review the report and you decide.

NOTES:

- DATA, IF AVAILABLE, WILL COMPARE PRE- AND POST-2009 WHEN MEDICAL MARIJUANA BECAME COMMERCIALIZED AND AFTER 2013 WHEN RECREATIONAL MARIJUANA BECAME LEGALIZED.
- MULTI-YEAR COMPARISONS ARE GENERALLY BETTER INDICATORS OF TRENDS. ONE-YEAR FLUCTUATIONS DO NOT NECESSARILY REFLECT A NEW TREND.
- PERCENTAGE COMPARISONS MAY BE ROUNDED TO THE NEAREST WHOLE NUMBER.
- PERCENT CHANGES ADDED TO GRAPHS WERE CALCULATED AND ADDED BY ROCKY MOUNTAIN HIDTA.
- THIS REPORT WILL CITE DATASETS WITH TERMS SUCH AS "MARIJUANA-RELATED" OR "TESTED POSITIVE FOR MARIJUANA." THAT DOES NOT NECESSARILY PROVE THAT MARIJUANA WAS THE CAUSE OF THE INCIDENT.

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SECTION 1: Impaired Driving and Fatalities

Some Findings

- Marijuana-related traffic deaths when a <u>driver</u> tested positive for marijuana more than doubled from **55** deaths in 2013 to **125** deaths in 2016.
- Marijuana-related traffic deaths **increased 66 percent** in the four-year average (2013-2016) since Colorado legalized recreational marijuana compared to the four-year average (2009-2012) prior to legalization.
 - o During the same time period, <u>all traffic deaths</u> increased 16 percent.
- In 2009, Colorado marijuana-related traffic deaths involving <u>drivers</u> testing positive for marijuana represented **9 percent** of all traffic deaths. By 2016, that number has more than <u>doubled</u> to **21 percent**.
- Consistent with the past, in 2016, less than half of drivers (44 percent) or operators (48 percent) involved in traffic deaths were tested for drug impairment.
- The number of toxicology screens positive for marijuana (primarily DUID) increased 63 percent in the four-year average (2013-2016) since Colorado legalized recreational marijuana compared to the four-year average (2009-2012) prior to legalization.
- The 2016 Colorado State Patrol DUID Program data includes:
 - o **76 percent** (767) of the 1004 DUIDs involved marijuana.
 - o **38 percent** (385) of the 1004 DUIDs involved marijuana only.

Differences in Data Citations

The Denver Post article "Exclusive: Traffic fatalities linked to marijuana are up sharply in Colorado. Is legalization to blame?" cited the <u>number of drivers</u> identified in fatal crashes who tested positive for marijuana. There were 47 positive drivers in 2013 and 115 positive drivers in 2016, which represents a 145 percent increase.

RMHIDTA cites the <u>number of fatalities</u> when a driver tested positive for marijuana. There were 55 fatalities in 2014 and 123 fatalities in 2016 when a driver was positive for marijuana, which represents a 124 percent increase.

There have been some fatality numbers for "cannabinoid positive drivers" cited that use slightly higher figures than those used by RMHIDTA. After careful analysis of complete data obtained from CDOT, RMHIDTA is confident the numbers cited in this report are accurate.

Definitions by Rocky Mountain HIDTA

<u>Driving Under the Influence of Drugs (DUID):</u> DUID could include alcohol in combination with drugs. This is an important measurement since the driver's ability to operate a vehicle was sufficiently impaired that it brought his or her driving to the attention of law enforcement. The erratic driving and the subsequent evidence that the subject was under the influence of marijuana helps confirm the causation factor.

<u>Marijuana-Related</u>: Also called "marijuana mentions," is any time marijuana shows up in the toxicology report. It could be marijuana only or marijuana with other drugs and/or alcohol.

<u>Marijuana Only:</u> When toxicology results show marijuana and no other drugs or alcohol.

<u>Fatalities:</u> Any death resulting from a traffic crash involving a motor vehicle.

<u>Operators:</u> Anyone in control of their own movements such as a driver, pedestrian or bicyclist.

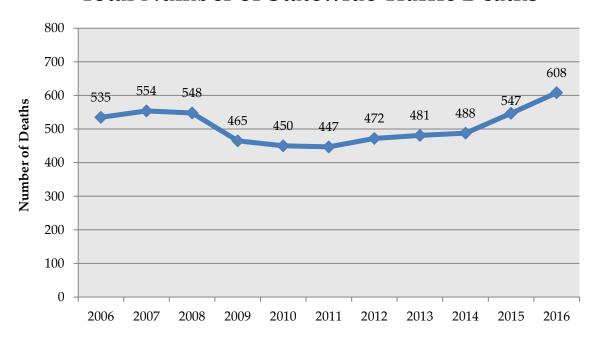
<u>Drivers:</u> An occupant who is in physical control of a transport vehicle. For an out-of-control vehicle, an occupant who was in control until control was lost.

<u>Personal Conveyance:</u> Non-motorized transport devices such as skateboards, wheelchairs (including motorized wheelchairs), tricycles, foot scooters, and Segways. These are more or less non-street legal transport devices.

NOTE:

- THE DATA FOR 2012 THROUGH 2015 WAS OBTAINED FROM THE COLORADO DEPARTMENT OF TRANSPORTATION (CDOT). CDOT AND RMHIDTA CONTACTED CORONER OFFICES AND LAW ENFORCEMENT AGENCIES INVESTIGATING FATALITIES TO OBTAIN TOXICOLOGY REPORTS. THIS REPRESENTS 100 PERCENT REPORTING. PRIOR YEAR(S) MAY HAVE HAD LESS THAN 100 PERCENT REPORTING TO THE COLORADO DEPARTMENT OF TRANSPORTATION, AND SUBSEQUENTLY THE FATALITY ANALYSIS REPORTING SYSTEM (FARS). ANALYSIS OF DATA WAS CONDUCTED BY ROCKY MOUNTAIN HIDTA.
- 2016 FARS DATA WILL NOT BE OFFICIAL UNTIL JANUARY 2018.

Total Number of Statewide Traffic Deaths

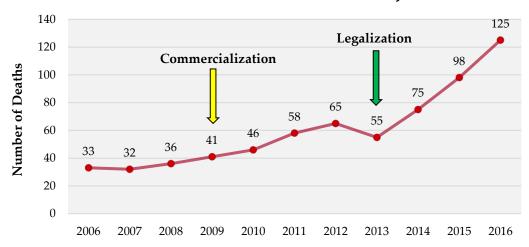


- ❖ In 2016 there were a total of 608 traffic deaths of which:
 - o 390 were drivers
 - o 116 were passengers
 - o 79 were pedestrians
 - o 16 were bicyclists
 - o 5 were in personal conveyance
 - o 2 had an unknown position in the vehicle

Traffic Deaths Related to Marijuana When a DRIVER Tested Positive for Marijuana				
Crash Year	Total Statewide Fatalities	Fatalities with <u>Drivers</u> Testing Positive for Marijuana	Percentage Total Fatalities	
2006	535	33	6.17%	
2007	554	32	5.78%	
2008	548	36	6.57%	
2009	465	41	8.82%	
2010	450	46	10.22%	
2011	447	58	12.98%	
2012	472	65	13.77%	
2013	481	55	11.43%	
2014	488	75	15.37%	
2015	547	98	17.92%	
2016	608	125	20.56%	

- ❖ In 2016 there were a total of 125 marijuana-related traffic deaths when a driver tested positive for marijuana. Of which:
 - o 102 were drivers
 - o 19 were passengers
 - o 2 were pedestrians
 - o 2 were bicyclists
- * "In 2016, of the 115 drivers in fatal wrecks who tested positive for marijuana use, 71 were found to have Delta 9 tetrahydrocannabinol, or THC, the psychoactive ingredient in marijuana, in their blood, indicating use within hours, according to state data. Of those, 63 percent were over 5 nanograms per milliliter, the state's limit for driving." 1

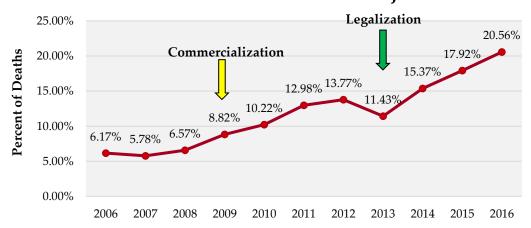
Traffic Deaths Related to Marijuana when a <u>Driver</u> Tested Positve for Marijuana



SOURCE:

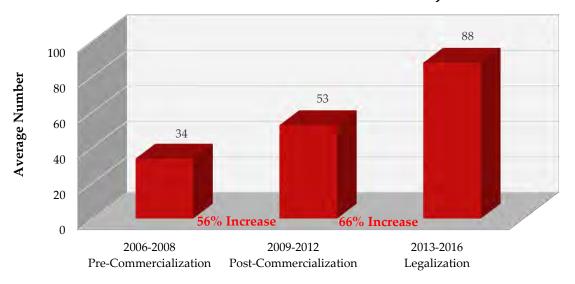
National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS), 2006-2011 and Colorado Department of Transportation 2012-2016

Percent of All Traffic Deaths That Were Marijuana-Related when a Driver Tested Positive for Marijuana

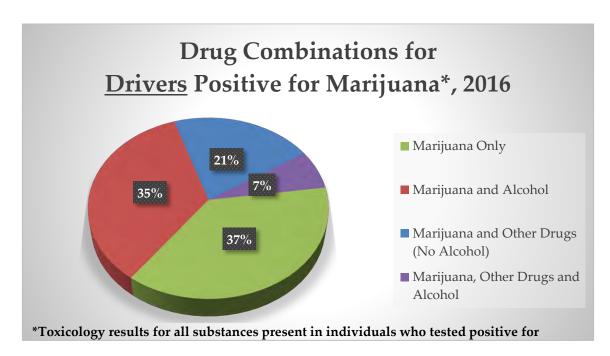


SOURCE:

Average Number of Traffic Deaths Related to Marijuana when a <u>Driver</u> Tested Positive for Marijuana

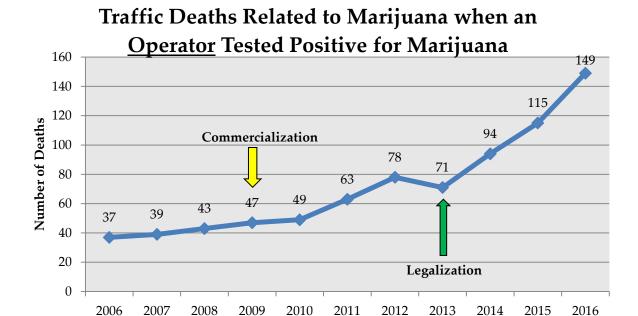


SOURCE: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS), 2006-2011 and Colorado Department of Transportation 2012-2016



Traffic Deaths Related to Marijuana* When an OPERATOR Tested Positive for Marijuana				
Crash Year	Total Statewide Fatalities	Fatalities with <u>Operators</u> Testing Positive for Marijuana	Percent of Total Fatalities	
2006	535	37	6.92%	
2007	554	39	7.04%	
2008	548	43	7.85%	
2009	465	47	10.10%	
2010	450	49	10.89%	
2011	447	63	14.09%	
2012	472	78	16.53%	
2013	481	71	14.76%	
2014	488	94	19.26%	
2015	547	115	21.02%	
2016	608	149	24.51%	

- ❖ In 2016 there were a total of 149 marijuana-related traffic deaths of which:
 - o 102 were drivers
 - o 19 were passengers
 - o 21 were pedestrians
 - o 7 were bicyclists

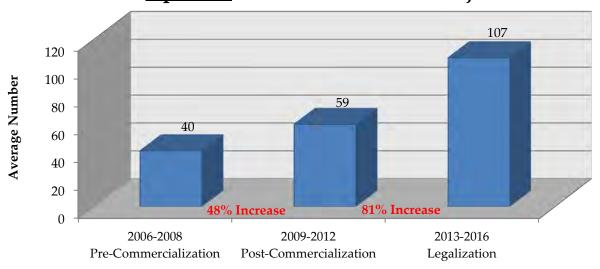


SOURCE: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS), 2006-2011 and Colorado Department of Transportation 2012-2016

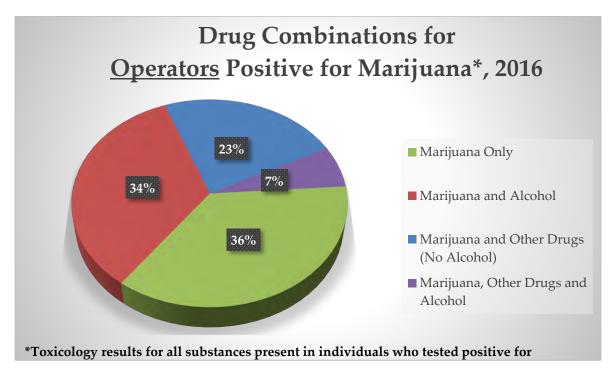
Percent of All Traffic Deaths That Were Marijuana-Related when an <u>Operator</u> Tested Positive for Marijuana



Average Number of Traffic Deaths Related to Marijuana when an Operator Tested Positive for Marijuana



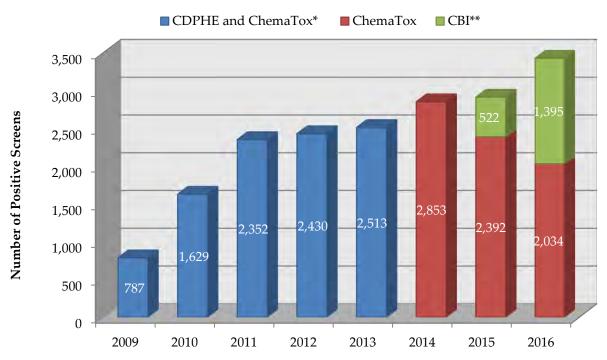
SOURCE: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS), 2006-2011 and Colorado Department of Transportation 2012-2016



Data for Impaired Driving

NOTE: IF SOMEONE IS DRIVING INTOXICATED FROM ALCOHOL AND UNDER THE INFLUENCE OF ANY OTHER DRUG (INCLUDING MARIJUANA), ALCOHOL IS ALMOST ALWAYS THE ONLY INTOXICANT TESTED FOR. WHETHER OR NOT HE OR SHE IS POSITIVE FOR OTHER DRUGS WILL REMAIN UNKNOWN BECAUSE OTHER DRUGS ARE NOT OFTEN TESTED.

Number of Positive Cannabinoid Screens



^{*}Data from the Colorado Department of Public Health and Environment was merged with ChemaTox data from 2009 to 2013. CDPHE discontinued testing in July 2013.

SOURCE: Colorado Bureau of Investigation and Rocky Mountain HIDTA

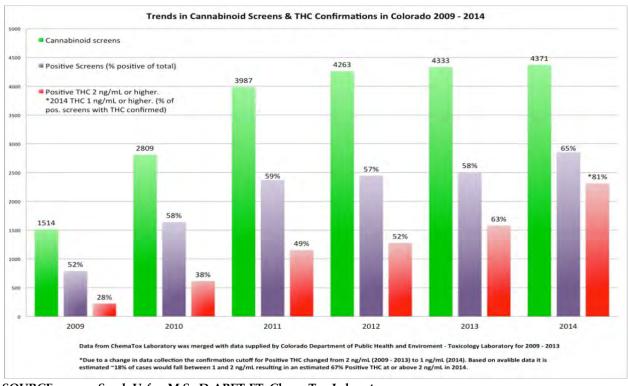
❖ The above graph is Rocky Mountain HIDTA's conversion of the following ChemaTox data as well as data from the Colorado Bureau of Investigation's state laboratory.

NOTE:	THE ABOVE GRAPHS INCLUDE DATA FROM CHEMATOX LABORATORY WHICH WAS
	MERGED WITH DATA SUPPLIED BY COLORADO DEPARTMENT OF PUBLIC HEALTH AND
	ENVIRONMENT - TOXICOLOGY LABORATORY. THE VAST MAJORITY OF THE SCREENS
	ARE DUID SUBMISSIONS FROM COLORADO LAW ENFORCEMENT.
NOTE:	COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT DISCONTINUED

TESTING IN JULY 2013. THE COLORADO BUREAU OF INVESTIGATION BEGAN TESTING ON JULY 1, 2015.

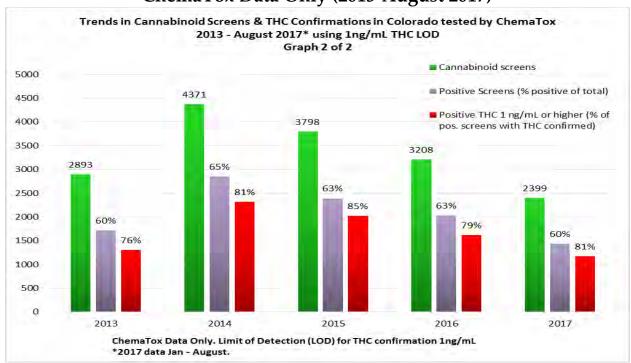
^{**}The Colorado Bureau of Investigation began toxicology operations in July 1, 2015.

ChemaTox and Colorado Department of Public Health and Environment (Data Combined 2009-2013)



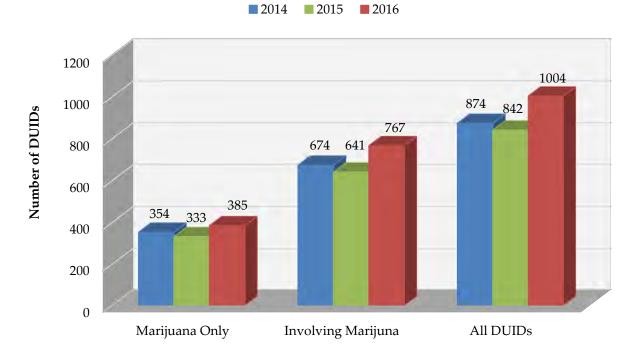
SOURCE: Sarah Urfer, M.S., D-ABFT-FT; ChemaTox Laboratory

ChemaTox Data Only (2013-August 2017)



SOURCE: Sarah Urfer, M.D., D-ABFT-FT, ChemaTox Laboratory

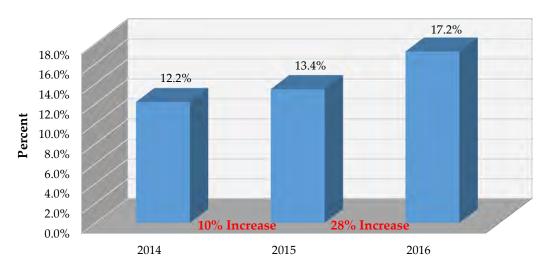
Colorado State Patrol Number of Drivers Under the Influence of Drugs (DUIDs)



SOURCE: Colorado State Patrol, CSP Citations for Drug Impairment by Drug Type

❖ In 2016, 76 percent of total DUIDs involved marijuana and 38 percent of total DUIDs involved marijuana only

Marijuana as a Percent of All DUI and DUIDs*



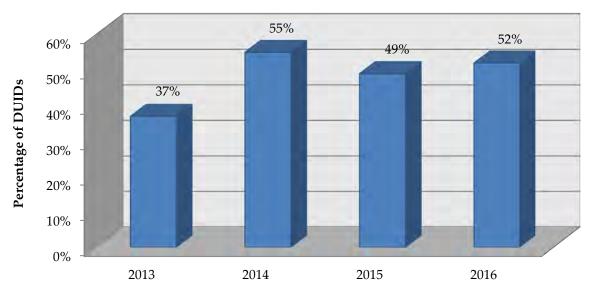
*Driving Under the Influence of Alcohol and Driving Under the Influence of Drugs

SOURCE: Colorado State Patrol, CSP Citations for Drug Impairment by Drug Type

- ❖ In 2016, Colorado State Patrol made about 300 fewer DUI and DUID cases than in 2015.
 - However, marijuana made up 17 percent of the total in 2016 compared to 13 percent of the total in 2015 and 12 percent of the total in 2014.

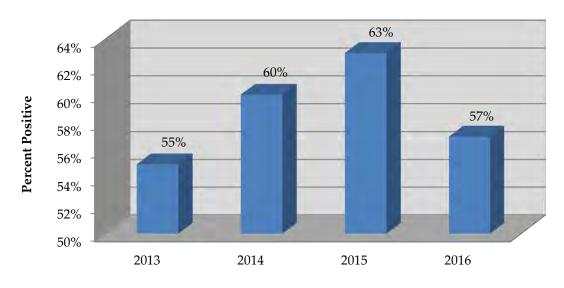
NOTE: "MARIJUANA CITATIONS DEFINED AS ANY CITATION WHERE CONTACT WAS CITED FOR DRIVING UNDER THE INFLUENCE (DUI) OR DRIVING WHILE ABILITY IMPAIRED (DWAI) AND MARIJUANA INFORMATION WAS FILLED OUT ON TRAFFIC STOP FORM INDICATING MARIJUANA & ALCOHOL, MARIJUANA & OTHER CONTROLLED SUBSTANCES, OR MARIJUANA ONLY PRESENT BASED ON OFFICER OPINION ONLY (NO TOXICOLOGICAL CONFIRMATION)." - COLORADO STATE PATROL

Denver Police Department Percent of DUIDs Involving Marijuana



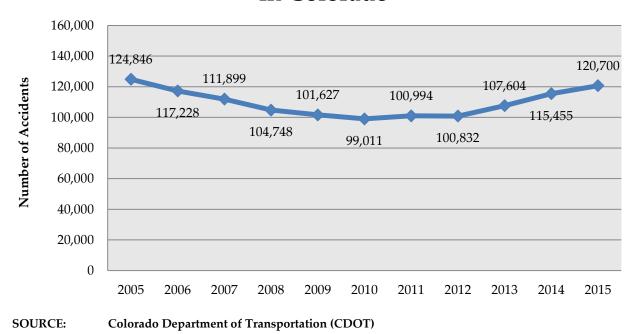
SOURCE: Denver Police Department, Traffic Operations Bureau via Data Analysis Unit

Larimer County Sheriff's Office Percent of DUIDs Involving Marijuana



SOURCE: Larimer County Sheriff's Office, Records Section

Total Number of Traffic Accidents in Colorado



❖ Per CDOT, the total number of traffic accidents in Colorado for 2016 was not available at the time of this report's publication.

NOTE: ROCKY MOUNTAIN HIDTA HAS BEEN ASKED ABOUT THE TOTAL NUMBER OF TRAFFIC ACCIDENTS SEEN IN COLORADO SINCE LEGALIZATION AND IS, THEREFORE, PROVIDING THE DATA. ROCKY MOUNTAIN HIDTA IS NOT EQUATING ALL TRAFFIC ACCIDENTS WITH MARIJUANA LEGALIZATION.

Related Costs

Economic Cost of Vehicle Accidents Resulting in Fatalities: According to the National Highway Traffic Safety Administration report, *The Economic and Societal Impact of Motor Vehicles Crashes*, 2010, the total economic costs for a vehicle fatality is \$1,398,916. That includes property damage, medical, insurance, productivity, among other considerations. ²

<u>Cost of Driving Under the Influence:</u> The cost associated with the first driving-under-the-influence (DUI) offense is estimated at \$10,270. Costs associated with a DUID (driving-under-the-influence-of-drugs) are very similar to those of a DUI/alcohol. ³

Case Examples

<u>Traffic Fatalities Linked to Marijuana are up Sharply in Colorado:</u> Since the legalization of recreational marijuana, the number of fatal accidents involving drivers who tested positive for marijuana has "increased at a quicker rate than the increase of pot usage in Colorado since 2013." Many family members and loved ones of victims involved in these fatal accidents are speaking out about the inability for authorities to properly test for impairment.

"I never understood how we'd pass a law without first understanding the impact better,' said Barbara Deckert, whose fiancée, Ron Edwards, was killed in 2015 in a collision with a driver who tested positive for marijuana use below the legal limit and charged only with careless driving. 'How do we let that happen without having our ducks in a row? And people are dying.'"

On January 13, 2016 just past 2 a.m., "Cody Gray, 19, and his running buddy, Jordan Aerts, 18, were joyriding around north Denver in a car they had stolen a few hours earlier. Ripping south along Franklin Street, where it curves hard to the right onto National Western Drive, Gray lost control, drove through a fence and went straight onto the bordering railroad tracks. The car rolled and Gray was ejected. Both died." Corina Triffet, mother of Cody Gray, did not know that an autopsy done revealed that her son had 10ng/mL, twice the legal limit, of THC in his system when he died, until the *Denver Post* contacted her. "There's just no limit on what they can take, whether it's smoking it or edibles," said Triffet and "I just can't imagine people are getting out there to drive when they're on it. But my son apparently did, and there it is."

Too little is understood about how marijuana impairs a person's ability to operate a vehicle. Due to this lack of understanding the *Denver Post* stated, "Even coroners who occasionally test for the drug bicker over whether to include pot on a driver's death certificate."

"'No one's really sure of the broad impact because not all the drivers are tested, yet people are dying,' said Montrose County Coroner Dr. Thomas Canfield. 'It's this false science that marijuana is harmless, ... but it's not, particularly when you know what it does to your time and depth perception, and the ability to understand and be attentive to what's around you.'"

Colorado now mandates that traffic fatalities within the state be analyzed to see what role drugs played in the crashes. State police are re-analyzing samples from suspected drunk drivers in 2015 and a *Denver Post* source stated, "more than three in five also tested positive for active THC." However, testing remains expensive and most departments will stop testing when a driver tests positive for alcohol impairment. ¹

20-Year-Old Colorado Man Kills 8-Year-Old Girl While Driving High: A former star athlete at Mead High School accused of fatally running over an 8-year-old Longmont girl on her bike told police he thought he'd hit the curb — until he saw the girl's stepfather waving at him, according to an arrest affidavit released July 29, 2016.

Kyle Kenneth Couch, 20, turned right on a red light at the same time Peyton Knowlton rolled into the crosswalk on May 20, 2016. The girl was crushed by the rear right tire of the Ford F-250 pickup, and died from her injuries. Couch, of Longmont, surrendered to police Friday on an arrest warrant that included charges of vehicular homicide and driving under the influence of drugs. One blood sample collected more than two hours after the collision tested positive for cannabinoids, finding 1.5 nanograms of THC per milliliter of blood. That's below Colorado's legal limit of 5 nanograms per milliliter. But Deputy Police Chief Jeff Satur said the law allows the DUI charge when those test results are combined with officer observations of impaired behavior and marijuana evidence found inside Couch's pickup.

The presumptive sentencing range for vehicular homicide, a Class 3 felony, is four to 12 years in prison.

Couch attends Colorado Mesa University where, in 2015, he appeared in six games as a linebacker as a red shirt freshman for the football team. In 2013, Couch became the first athlete from Mead High School to win a state title when he captured the Class 4A wrestling championship at 182 pounds. He was named the *Times-Call's* Wrestler of the Year that season and was able to defend his crown a year later, winning the 4A title at 195 pounds to cap his senior season with a 49-1 record.

Couch, now 20, has been arrested on suspicion of vehicular homicide and driving under the influence of marijuana in connection with the death of 8-year-old Peyton Knowlton. ⁴

Valedictorian and Friends Die in Fatal Crash after Using Marijuana: An 18 year old recent valedictorian of St. John's Military School, Jacob Whitting, was driving his truck with his friends when he "lost control and ran off the road, rolling down an embankment and into a creek." Whitting, along with 2 of the 3 other passengers, ages 16 and 19, died in the crash. According to the toxicology report, all three deceased teenagers had taken Xanax and marijuana. Whitting's toxicology "recorded THC levels at higher than 5 nanograms or more of active THC (delta-9 tetrahydrocannabinol) per milliliter of blood, which under Colorado law is considered impaired while driving." ⁵

Man Killed, Woman and Two Children Injured after Vehicle Careens off I-76:

Anthony Griego, 28, "was driving very aggressively and speeding, and had been trying to pass a semi-truck using the shoulder when he lost control," according to Colorado State Patrol, just before 7 a.m. on December 27, 2016. "Troopers say Griego lost control, blew thought a guardrail, went airborne and flipped the truck nearly 20 feet down onto the road below." Both Griego and the adult female passenger were not wearing seatbelts and were ejected from the vehicle. Griego died at the scene. The female passenger suffered a shattered pelvis, broke her spine in three places, and was in a coma. The two children passengers, 7 year-old Jazlynn, had a punctured lung and, 6 year-old Alexis, had a fractured skull and broken collar bone. An autopsy of Griego showed he had 19ng/mL of THC in his system at the time of the crash. That is nearly 4 times the legal limit. ^{6,7}

"I fell asleep" Boulder Teen Pleads Guilty to Vehicular Homicide: Quinn Hefferan faces up to two years in the Colorado Department of Youth Corrections for killing Stacy Reynolds (30) and Joe Ramas (39) on May 7th 2016. Hefferan, who was 17 years old at the time of the accident, told the judge he "had split a joint with his friends" and fell asleep at the wheel while trying to make his midnight curfew. Hefferan rear ended the couple "at speeds upwards of 45 miles per hour... police did not find any evidence the teen driver tried to brake before the crash." According to the toxicology report, he had 4 times the legal limit of THC in his system. Cassie Drew, a friend of the couple says, "It's not about resentment or getting back, or feeling angry. [Hefferan's] life is forever changed and we recognize that, we recognize how much this will impact him and his family." 8,9

Middle School Counselor Killed by High Driver as She Helped Fellow Motorist:

On July 10, 2016, a counselor at Wolf Point Middle School, in Montana, was hit by a car and killed by an impaired driver in Colorado as she stopped to help another driver. The Jefferson County coroner in Colorado identified the woman as Jana Elliott, 56. She died of multiple blunt force trauma injuries. Elliott is identified as a counselor for the sixth grade in Montana.

The driver who hit Elliott, identified as Curtis Blodgett, 24, is being charged with vehicular homicide for allegedly smoking marijuana prior to the crash, according to *The Denver Post*. Blodgett allegedly admitted he had smoked marijuana that day. Detectives are working to determine whether Blodgett was legally impaired at the time of the crash. "How much he had in his system and what he had in his system will determine whether additional charges could be filed," Lakewood Police Spokesman Steve Davis told *The Post* (subsequent testing revealed Blodgett had 4.8 ng/mL of THC in his system).

According to the Lakewood Police Department Traffic Unit, Elliott was driving on US Highway 6 when a vehicle traveling in the left lane lost the bicycle it was carrying on its top. The driver of the vehicle stopped to retrieve the bike and Elliott stopped along the shoulder as well to help. After they retrieved the bicycle and were preparing to drive away, another vehicle rear ended Elliott's vehicle at a speed of 65 mph. Elliott was killed in the crash. ¹⁰

<u>Suspected DUI Driver Runs A Red Light:</u> On August 30th, 2017, at around 5:30 a.m. a driver in a Toyota 4Runner ran a red light and crashed into a public transit bus. Two people were injured in the crash. Police investigating the crash found "marijuana in the 4Runner and the crash is being investigated as a possible DUI for alcohol and marijuana." The typically busy intersection in Wheat Ridge, CO had to be closed down for several hours during rush hour. ¹¹

For Further Information on **Impaired Driving** See Page 147

Sources

31st, 2017.

¹ David Migoya, "Exclusive: Traffic fatalities linked to marijuana are up sharply in Colorado. Is legalization to blame?" *The Denver Post*, August 25th, 2017, http://www.denverpost.com/2017/08/25/colorado-marijuana-traffic-fatalities/, accessed August 25th, 2017.

² National Center for Statistics and Analysis, "The Economic and Societal Impact Of Motor Vehicle Crashes," National Highway Traffic Safety Administration, Washington, DC, revised May 2015, https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812013, accessed August

³ *Cost of a DUI* brochure, https://www.codot.gov/library/brochures/COSTDUI09.pdf/view, accessed February 19, 2015.

- ⁴ Amelia Arvesen, *Times-Call*, July 29, 2016, "Driver accused of killing Longmont girl riding bike thought he'd hit curb," <a href="http://www.timescall.com/news/crime/ci_30185142/driver-accused-killing-longmont-girl-bike-thought-hed," accessed July 29, 2016.
- ⁵ Yesenia Robles, "Autopsy shows teens in fatal Conifer crash had traces of Xanax and marijuana in their system," *The Denver Post*, July 7th 2016, http://www.denverpost.com/2016/07/07/teens-conifer-crash-traces-drugs-thc/, accessed August 28th, 2017.
- ⁶ Allison Sylte, "Man killed, woman and two children injured after vehicle careens off I-76," 9NEWS, December 27, 2016, http://www.9news.com/traffic/man-killed-woman-and-two-children-injured-after-vehicle-careens-off-i-76/379100251, accessed September 25, 2017.
- ⁷ Macradee Aegerter, "CSP: Driver who went off elevated section of I-76 may have been high," *FOX31 Denver*, December 28, 2016, http://kdvr.com/2016/12/28/csp-marijuana-may-have-been-contributing-factor-in-deadly-crash/, accessed September 25, 2017.
- ⁸ Michell Byars, "'I fell asleep': Boulder teen pleads guilty to vehicular homicide, DUI in crash that killed 2," *The Daily Camera*, December 16th, 2016, http://www.dailycamera.com/news/boulder/ci_30665690/quinn-hefferan-boulder-fatal-crash-dui, accessed August 23, 2017.
- ⁹ Lauren DiSpirito, "Teen Accused Of Being Stoned In Crash That Killed Boulder Couple," *CBS Denver*, June 11th 2016, http://Denver.cbslocal.com/2016/06/11/stacey-reynolds-joe-rama-fatal-crash/, accessed August 23rd, 2017.
- ¹⁰ Aja Goare, "Wolf Point school counselor killed by car while helping other driver in Colorado," KTVS.com, July 13, 2016, http://www.ktvq.com/story/32440083/wolf-point-school-counselor-killed-by-car-while-helping-other-driver-in-colorado, accessed July 13, 2016.
- ¹¹ Chuck Hickey, "Police: Suspected DUI driver runs red light, crashed into RTD bus in Wheat Ridge," *Fox 31 Denver*, August 30th 2017, http://kdvr.com/2017/08/30/rtd-bus-3-vehicles-involved-in-wheat-ridge-crash/, accessed August 30th, 2017.

SECTION 2: Youth Marijuana Use

Some Findings

- Youth past month marijuana use **increased 12 percent** in the three-year average (2013-2015) since Colorado legalized recreational marijuana compared to the three-year average prior to legalization (2010-2012).
- The latest 2014/2015 results show Colorado youth ranked #1 in the nation for past month marijuana use, up from #4 in 2011/2012 and #14 in 2005/2006.
- Colorado youth past month marijuana use for 2014/2015 was **55 percent higher** than the national average compared to **39 percent higher** in 2011/2012.
- The <u>top ten states</u> with the highest rate of <u>current marijuana</u> youth use were all medical marijuana states, whereas the bottom ten were all non-medical-marijuana states.

Surveys NOT Utilized

❖ Rocky Mountain HIDTA did not use the following datasets in this report because of the following reasons:

Healthy Kids Colorado Survey (HKCS)

The HKCS shows a 7.6 percent increase in student marijuana use from 2013 (19.7 percent) to 2015 (21.2 percent). According to a front page article in *The Denver Post* (June 21, 2016), the increase was not statistically significant and thus "Pot use among Colorado teens flat." In fact, *The Denver Post* released an editorial on June 22, 2016 titled "Colorado's good news on teen pot use." An analysis of the data paints a different picture of student marijuana use in Colorado.

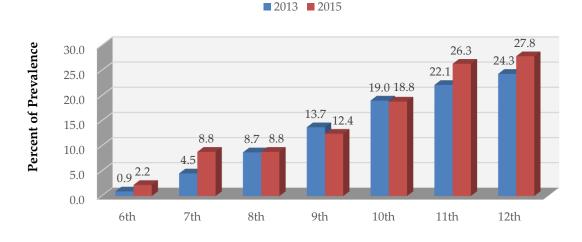
Some concerns with the HKCS include:

• Jefferson County (the 2nd largest school district), Douglas County (the 3rd largest school district), El Paso County (Colorado Springs, 2nd largest metro area), and Weld County results were listed as N/A which means data not available due to low participation in the region.

NOTE: This is a similar reason why HKCS results were considered unweighted by the national YRBS survey.

- In 2015 the HKCS survey had a response rate of 46 percent, which is well below the 60 percent rate required by YRBS. Even though HKCS samples a large number of students, their participation rate is below the industry standard for weighted data.
- From 2013 to 2015, marijuana use:
 - High School increased 14 percent among seniors and 19 percent among juniors.
 - o Middle School **increased 96 percent** for 7th Graders and **144 percent** among 6th Graders.

Healthy Kids Colorado Survey: Current Marijuana Use for High School and Middle School Students in Colorado



SOURCE: Colorado Department Public Health and Environment, Healthy Kids Colorado Survey

For a detailed analysis and additional data, go to www.rmhidta.org and click on the Reports tab to read "Colorado Youth Marijuana Use: Up – Down – Flat? Examine the Data and You Decide!"

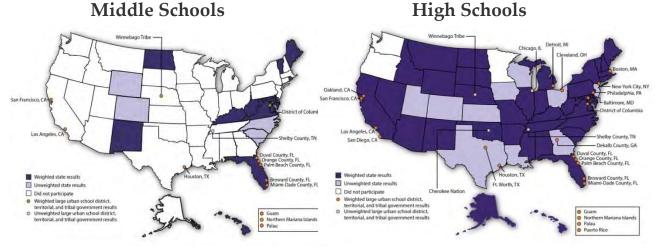
Monitoring the Future (MTF) Study

Although Colorado cited Monitoring the Future data in a response letter to Attorney General Jeff Sessions, the study is designed to be nationally-representative and not state-representative. MTF does not provide usable estimates for the specific state of Colorado because of the state's relatively small size. Colorado is only 1.6 percent of the total U.S. population; thus, the sampling would only be 1.6 percent of Colorado schools (400) or about 6 schools per year. Since 2010, the survey sampled an average of 4.6 Colorado schools. In 2014 and 2015, there were four schools surveyed each year of which three were eighth grade. Therefore, the MTF study is not useful for state data pertaining to Colorado for school-age drug use data and trends.

Centers for Disease Control Youth Risk Behavior Survey (YRBS)

In 2015, Colorado fell short of the required 60 percent participation rate and was, therefore, not included with weighted data in this survey. Additionally, upon further review, it was discovered that since 1991 the state of Colorado has only been represented in the High School YRBS survey with weighted data four times. Since 1995, Colorado has only been represented in the Middle School YRBS survey by weighted data twice. States that participated in the 2015 Middle School and High School YRBS surveys are represented in dark purple in the below maps. It should be noted, in 2015, high schools in the following ten states were not included with weighted high school data: Utah, Colorado, Kansas, Texas, Louisiana, Georgia, Iowa, Wisconsin, Ohio, and New Jersey. Washington, Oregon, and Minnesota did not participate in the survey.

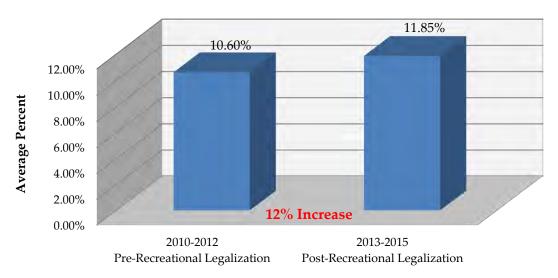
Centers for Disease Control Youth Risk Behavior Survey 2015 YRBS Participation Map



SOURCE: Centers for Disease Control and Prevention, Adolescent and School Health, YRBS Participation Maps and History http://www.cdc.gov/healthyyouth/data/yrbs/participation.htm

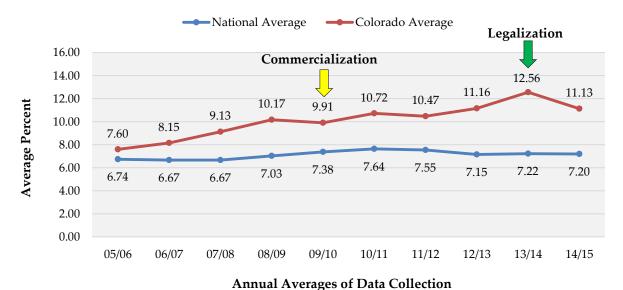
Youth Ages 12 to 17 Years Old

Average Past Month Use of Marijuana Youth Ages 12 to 17 Years Old



SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2014 and 2015

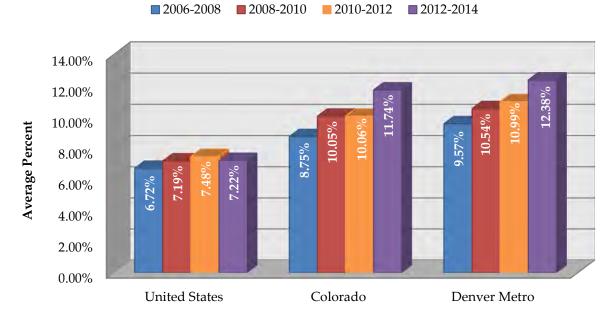
Past Month Marijuana Use Youth Ages 12 to 17 Years Old



SAMHSA.gov, National Survey on Drug Use and Health 2014 and 2015

SOURCE:

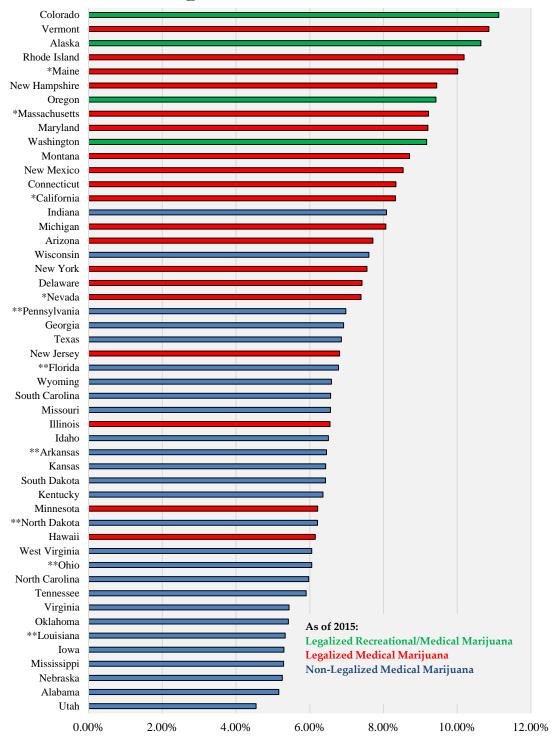
Prevalence of Past 30-Day Marijuana Use Youth Ages 12 to 17 Years Old



SOURCE: SAMHSA.gov, National Survey on Drug Use and Health, Substate Region Estimates 2006-2014

NOTE: SUB-STATE DATA IS ONLY AVAILABLE FROM THE NATIONAL SURVEY ON DRUG USE AND HEALTH IN THE ABOVE TIMEFRAMES.

Past Month Usage, 12 to 17 Years Old, 2014/2015

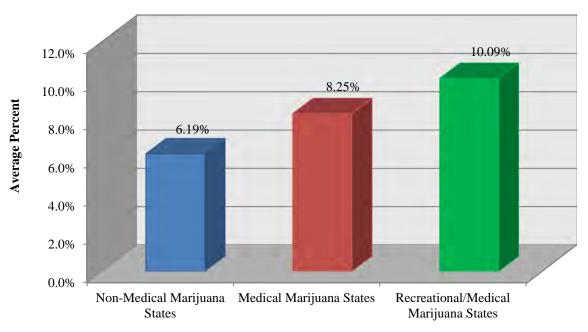


SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2014 and 2015

NOTE: *California, Massachusetts, Maine and Nevada voted to legalize recreational marijuana in November 2016

**States that had legislation for medical marijuana signed into effect during 2015

Average Past Month Use Youth Ages 12 to 17 Years Old, 2014/2015



SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2014 and 2015

Past Month Marijuana Use Youth Ages 12 to 17 Years Old, 2014/2015

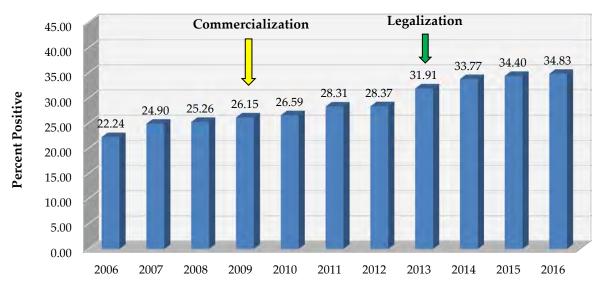
O	•				
<u>Top 10</u>	Bottom 10				
(Medical/Recreational States)	(Non-Medical or Recreational States)				
National Average = 7.20%					
1. Colorado – 11.13%	41. North Carolina – 5.97%				
2. Vermont – 10.86% 42. Tennessee – 5.90 %					

- 3. Alaska 10.64%
- 4. Rhode Island 10.19%
- 5. Maine 10.01%
- 6. New Hampshire 9.44%
- 7. Oregon 9.42%
- 8. Massachusetts 9.22%
- 9. Maryland 9.20%
- 10. Washington 9.17%

- 43. Virginia 5.44%
- 44. Oklahoma 5.42%
- 45. Louisiana 5.33%
- 46. Iowa 5.30%
- 47. Mississippi 5.29%
- 48. Nebraska 5.26%
- 49. Alabama 5.16%
- 50. Utah 4.54%

SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2014 and 2015

Colorado Probation Percent of All Urinalysis Tests Positive for Marijuana Youth Ages 10 - 17 Years Old



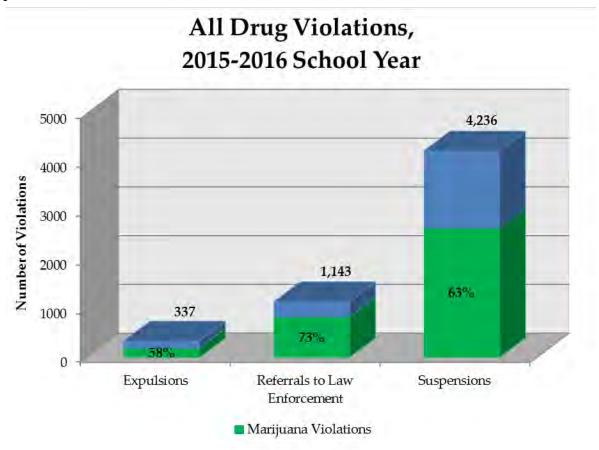
SOURCE:

Division of Probation Services/State Court Administrator's Office

Impact on School Violation Numbers

* "Note that Senate Bill 12-046 and House Bill 12-1345 targeted reform of 'zero tolerance' policies in schools, and appear to have decreased expulsions, suspensions and referrals to law enforcement." – Colorado Department of Public Safety, Marijuana Legalization in Colorado: Early Findings, A Report Pursuant to Senate Bill 13-283, March 2016

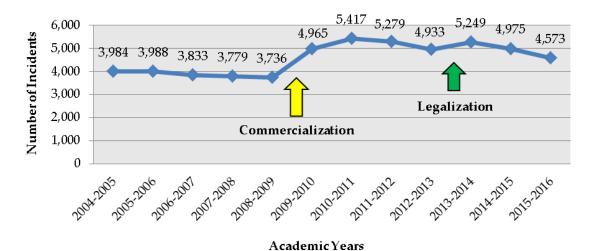
Data for the 2016-2017 school year were not available by the time of release for this report.



SOURCE: Colorado Department of Education, 10-Year Trend Data: State Suspension and Expulsion Incident Rates and Reasons

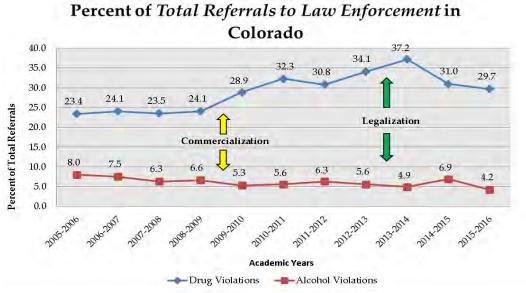
NOTE: THE COLORADO DEPARTMENT OF EDUCATION BEGAN COLLECTING MARIJUANA VIOLATIONS SEPARATELY FROM ALL DRUG VIOLATIONS DURING THE 2015-2016 SCHOOL YEAR.

Drug-Related Suspensions/Expulsions



SOURCE: Colorado Department of Education, 10-Year Trend Data: State Suspension and Expulsion Incident Rates and Reasons

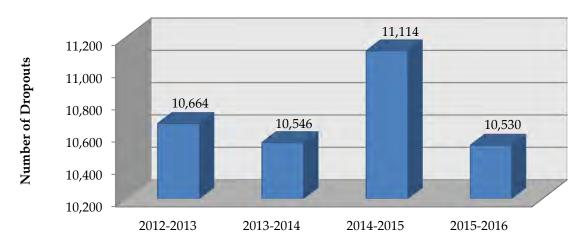
❖ In school year 2015/2016, 62 percent of all drug expulsions and suspensions were for marijuana violations.



SOURCE: Colorado Department of Education, 10-Year Trend Data: State Suspension and Expulsion Incident Rates and Reasons

❖ In school year 2015/2016, 73 percent of all drug related referrals to law enforcement were for marijuana violations.

Number of Reported School Dropouts



SOURCE: Colorado Department of Education

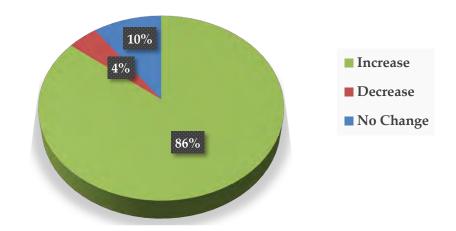
NOTE: ROCKY MOUNTAIN HIDTA HAS BEEN ASKED ABOUT THE NUMBER OF SCHOOL DROPOUTS IN COLORADO NUMEROUS TIMES AND IS, THEREFORE, PROVIDING THE DATA. ROCKY MOUNTAIN HIDTA IS NOT ATTRIBUTING THE NUMBER OF DROPOUTS TO MARIJUANA LEGALIZATION.

Colorado School Resource Officer Survey

In June 2017, 76 school resource officers (SRO) participated in a survey concerning marijuana in schools. The majority were assigned to high schools and had a tenure of three years or more as a SRO. They were asked for their professional opinion on a number of questions. The questions and their responses are shown in the following pages.

<u>Question:</u> Since the legalization of recreational marijuana, what impact has there been on marijuana-related incidents at your school?

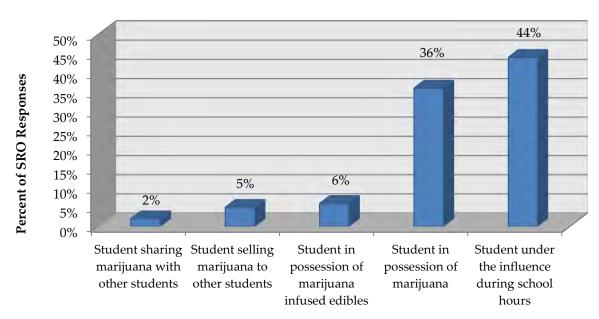
Impact on Marijuana-Related Incidents, 2017



SOURCE: Colorado Association of School Resource Officers (CASRO) and Rocky Mountain HIDTA

<u>Question:</u> What were the most predominant marijuana violations by students on campus?

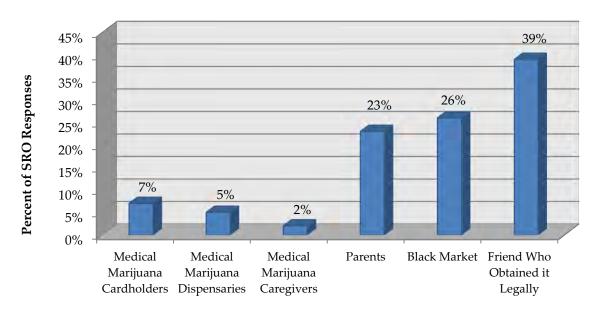
Predominant Marijuana Violations, 2017



SOURCE: Colorado Association of School Resource Officers (CASRO) and Rocky Mountain HIDTA

Question: Where do the students get their marijuana?

Student Marijuana Source, 2017



SOURCE: Colorado Association of School Resource Officers (CASRO) and Rocky Mountain HIDTA

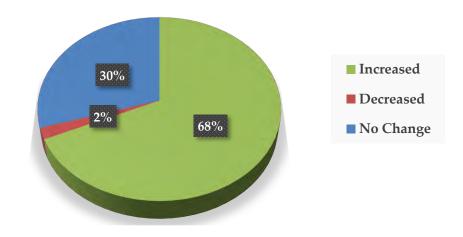
School Counselor Survey

❖ Since the 2015 survey, the Colorado School Counselor Association has elected not to participate in any further surveys.

In August 2015, 188 school counselors participated in a survey concerning the legalization of marijuana in schools. The majority were assigned to high schools with an average tenure of ten years. They were asked for their professional opinion on a number of question. The questions and their responses are shown in the following pages.

<u>Question:</u> Since the legalization of recreational marijuana, what impact has there been on marijuana-related incidents at your school?

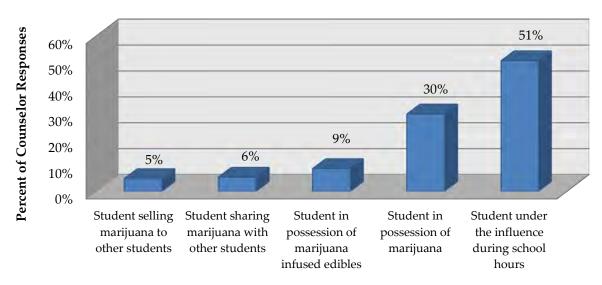
Impact on Marijuana-Related Incidents, 2015



SOURCE Colorado School Counselor Association (CSCA) and Rocky Mountain HIDTA

<u>Question:</u> What were the most predominant marijuana violations by students on campus?

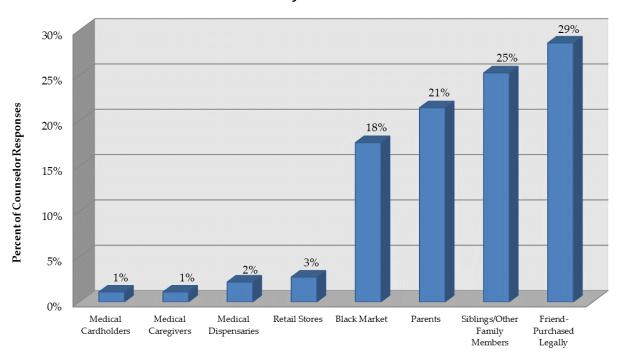
Predominant Marijuana Violations, 2015



SOURCE Colorado School Counselor Association (CSCA) and Rocky Mountain HIDTA

Question: Where do the students get their marijuana?

Student Marijuana Source, 2015



SOURCE Colorado School Counselor Association (CSCA) and Rocky Mountain HIDTA

Case Examples

My son and his Marijuana: "It was February 6th at 3:15 a.m. when my oldest son woke me and urgently whispered that his brother had just tried to take his own life. I couldn't comprehend that my second-born, a high achieving, gifted young man had just attempted suicide by hanging. Thankfully, his brother discovered him and saved his life before we lost him. It changed our family forever.

Later that morning after the assessment and intake procedure, the hospital social worker explained that my son's prescription for Adderall combined with his heavy marijuana use had caused a psychotic break called marijuana induced psychosis. She said this was quite common among young people today. I felt blindsided as I had no idea my son was using marijuana.

Sadly, in-patient treatment was not successful, nor was out-patient treatment. Our lives began to revolve around our son's addiction and the never-ending appointments, meetings, confrontations, stress, and bizarre drama that we never

imagined we would experience. It was both frustrating and heartbreaking to listen as my son frequently described his passionate commitment to marijuana and observe his inability to see how negatively it impacted – even controlled him.

We learned we were not fighting a behavior but a mind-set that was cemented into his belief system. Marijuana had become his life, his religion, and his identity. In spite of a multitude of problems and ongoing depression that continue to prevent him from living successfully, his belief that marijuana will solve all of his troubles remains ingrained in him and leaves our family feeling fearful and often hopeless to help him." ¹

<u>Teen Shot While Trying to Sell Marijuana:</u> While attempting to sell marijuana to a car filled with four other teenagers, an 18 year old in Greeley, Colorado was shot with a handgun. The seller had been leaning into the car window when the occupants shot him and quickly drove away. The wound sustained by the teenager was not life threatening. ²

One Teen Wounded, Another Killed While Trying to Steal Marijuana: Shortly after 2 a.m. on Sunday, October 9th, 2016, Denver Police received a call from a 14-year-old boy stating that he and his friend had been shot. Both boys had been trying to steal marijuana plants from a backyard when the resident was alerted to their presence and fired multiple shots at the boys. Both boys were struck as they were trying to escape the backyard, the 14-year-old was wounded and the 15-year old boy was killed. The home owner was arrested and held for investigation of murder, attempted murder and investigation of felony marijuana cultivation. ³

Some Comments from School Resource Officers

They End Up Sick:

- o "A student came to after-prom after eating some marijuana edibles. She later got very sick and was transported by ambulance to the hospital. She later admitted to being given the edibles by another student."
- "A student asked another to get them marijuana. Student brought some edibles, later that week, and then the other student shared the edibles with 5 other people, who became sick. All students were disciplined. It is very common for students to bring edibles and share with others, and they end up sick from eating too much."
- o "8th grader brought marijuana brownies to school, gave them to friends and then overdosed on them and ended up in the hospital."

Organized and Well-planned Distribution:

- "Students sometimes put Marijuana in Cheetos bags and sell to each other."
- Our agency just processed a 12 year old student for distribution of MJ. The child admitted to stealing 'unnoticeable' amounts of MJ from several different relatives, who purchased the recreational MJ legally, then sold it to other students. The 12 year old suspect had also recruited other students to sell the MJ. The crime was eventually reported by the sister of one of the accomplices."
- o "Student, age 16 (10th grade) recently came with father from California (father wanted to start a grow operation) frequently peddled marijuana on and around campus. Eventually, school/police alerted that he was packing a gun."
- o "Student has a medicinal marijuana card, became marijuana dealer to fellow students, arrested and is being prosecuted for distribution."
- o "A student baked THC brownies and sold them at school (10-12 grades). Students were charged [with distribution] of marijuana, it was organized and well-planned in school distribution (9-11 grades).

<u>Burglarized Dispensary:</u> "Five male students were found on school grounds with an overabundance of dabs and shatter that was still in the packaging from a dispensary that had been burglarized the previous weekend by five masked individuals that were caught on surveillance tape."

<u>Student Commits Suicide:</u> "Sophomore caught selling marijuana to students on campus. He was distributing for another student. That student was obtaining high quality marijuana on the black market. Original was charged and committed suicide 3 days later. Other subject made suicidal statements and received treatment."

<u>Fine for Their Kids to Use:</u> "Multiple students at my 'affluent' middle school obtain marijuana and use marijuana with their families who all seem to have their own marijuana grows. Most of these parents think their 'medicine' is fine for their kids to use."

<u>Social Media Delivery Service:</u> "Students using social media to order up their hash/marijuana/shatter and have it delivered to their local park or fast food joint. No names exchanged and very difficult to prove a case. Was able to get a warrant on a suspect with the help of MED (Marijuana Enforcement Division). "

Attempting to Official a Game: "Referee in possession and smelling like marijuana while attempting to official a game."

Leave Campus and Come Back High:

- "Students will leave campus and smoke either in their home, parks, or cars and come back after lunch. Adult dealers have trolled [the] parking lot for students looking to buy marijuana. Lots of marijuana use at juvenile parties on the weekend."
- "Most of our marijuana offenses in the schools are at the middle school and high school level where students leave campus, get high and come back to school. Some are caught with possession of marijuana and some are only consuming."

Young Students Stealing from Parents:

- "Ten year old in possession and consuming in school using parents pot and pipe"
- "6th grader stealing and then bringing mom's medical marijuana to school, sharing with friends and smoking in bathrooms before school."
- "5th grader stealing recreational marijuana from parents and bringing it to school, showing it to all his friends and then smoking it at school."

Some Comments from School Counselors

Halls Reek of Pot After Lunch:

- "Many kids come back from lunch highly intoxicated from marijuana use. Halls reek of pot, so many kids are high that it is impossible to apprehend all but the most impaired."
- "They go off campus and smoke during lunch with friends. They will run home with friends during lunch and smoke then."
- "There have been several instances of students in their cars on lunch or during their off hours 'hotboxing' or smoking marijuana. Most students are seniors but on occasion, seniors will provide marijuana to 9th or 10th grade students."
- "2014/2015 school year, several students caught coming back from off-campus lunch under the influence of marijuana."
- "Had a student come back from lunch, teacher believed that they were high. Student was escorted to the office, student admitted they were indeed high to the administrator."
- "Students are often referred after lunch (open campus) after they have been riding around smoking marijuana with their friends."
- "More and more students are coming back to school high after lunch."
- "In April 2015, students were going out for a break. 2-3 students smoked marijuana about a block away from school. They smelled like pot when they got back."

Just a Plant: "In March of 2015 a fifth grade boy offered marijuana to another fifth grader on the playground. In October of 2014 a kindergarten girl described the pipe in her grandmother's car and the store where you go to buy pipes. In May of 2015 a first grade girl reported that her mom smokes weed in the garage. 'It's not a drug, it's just a plant.'"

Arrives at School Stoned:

- "At the beginning of the second semester, three middle school boys were routinely arriving late at school, and noticeable intoxicated."
- "We have middle school students who either come to school high, or have it on them in a bag. Or they have pipes on them."
- "In May 2015, a teacher witnessed 2 seniors smoking marijuana while driving to school. One student admitted to having done so; the other denied it."
- "Teaching a lesson in class during first period that started 7:30 AM and 2 students were already high in class."

- "A male 13 y/o student fell asleep in several classes. He was interviewed by the school counselor and the RSO (sic). He was assessed as being high and admitted that he uses marijuana often before school. He steals it from his older brother."
- "12 yr. old, sixth grader, was suspected of coming to summer school high. When confronted he told the teacher that he smoked it at home the night before but denied being high at the time. Later, he confirmed that he had smoked early that morning. The marijuana came from his mother's stash."

New Use of Bathrooms:

- "2 students were smoking marijuana in the restroom last year."
- "8th grade male student had marijuana in his locker, classmates reported it. 8th grade female student smoked a joint in a school bathroom during school hours. Shared it with a friend."
- "7th grade girl last year had hidden marijuana and a pipe in the girl's restroom and told several friends who began getting bathroom break passes from various classrooms. Security noted an increased traffic flow to and from that restroom and found the weed and soon after the violators."

It's Legal:

- "3 or 4 times in the last school year, students have come to school under the influence after meeting at homes where parents were absent, sharing marijuana off campus and then bringing it on campus. 7th and 8th grade students have been involved, and most often their reaction when caught is 'it's legal'."
- "I met with at least 5 students last year alone that have been showing significant signs of drug use or were caught and they all said they will not stop using weed on a daily basis. Their justification was it's fine because it's legal. If it's legal it's not as bad as what adults say about the risks."

Grades Decline: "I would like to say that in general our Marijuana incidents have not gone up. We have a savvy population that knows to keep it away from school. However, I have seen a huge spike in talking with kids about it in my sessions. Last year I had two very intelligent students (above 4.0) that used marijuana 2-6 times a week. Both of them had grades decline and significant social emotional issues spike in the spring of their Senior Year. They also both had violations at school."

<u>Dad Allows Pot Smoking:</u> "We had reports of two students (brothers) appear to be high at school. Our officer assessed both of them and discovered that their father, who had a medical marijuana card, was having them both "smoke a bowl" before school. He thought it would make their school day easier."

<u>Parents High:</u> "At our elementary school, we have noticed an increased number of parents showing up to school high. Kids have also brought [marijuana] to school to show their friends."

<u>Difficulty in Assessment:</u> "For school personnel, it is more difficult to evaluate what substance a student is under the influence of. We can smell alcohol and smoked marijuana but the edibles and vapes are hard to detect."

<u>Drug Canine Use:</u> "I would like to just offer that we need policy that allows for more use of drug dogs and not having to forewarn students or parents when these dogs will be present. Students and especially dealers, the ones we need to catch, are very vigilant in making adjustments when these resources are used."

For Further Information on Youth Marijuana Use See Page 151

Sources

- ¹ Jo McGuire, "One Mom's Story: Marijuana and My Kid," *Jo McGuire Inc.*, August 29th, 2017, < https://jomcguire.wordpress.com/>, accessed August 29th, 2017.
- ² Nate Miller, "Sheriff's office seeks public's help to learn more about northeast Greeley shooting," *The Tribune*, May 16, 2017, http://www.greeleytribune.com/news/crime/sheriffs-office-seeks-publics-help-to-learn-more-about-northeast-greeley-shooting/, accessed September 12, 2017.
- ³ Kirk Mitchell, "Denver man arrested after allegedly shooting, killing teen in marijuana-filled backyard," *Denver Post*, October 10, 2016, http://www.denverpost.com/2016/10/10/marijuana-grow-house-slaying-denver-man-arrested/, accessed September 12, 2017.

The Legalization of Marijuana in Colorado: The Impact Vol.	. 5/October 201
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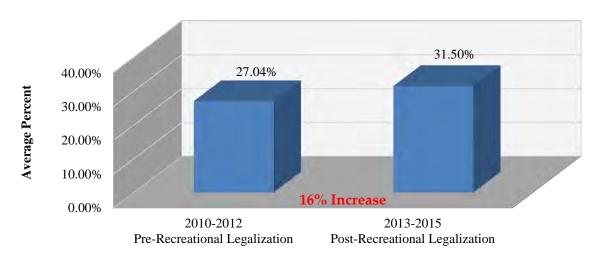
SECTION 3: Adult Marijuana Use

Some Findings

- College age past month marijuana use **increased 16 percent** in the three-year average (2013-2015) since Colorado legalized recreational marijuana compared to the three-year average prior to legalization (2010-2012).
- The latest 2014/2015 results show Colorado college-age adults ranked #2 in the nation for past-month marijuana use, up from #3 in 2011/2012 and #8 in 2005/2006.
- Colorado college age past month marijuana use for 2014/2015 was **61 percent higher** than the national average compared to **42 percent higher** in 2011/2012.
- Adult past-month marijuana use **increased 71 percent** in the three-year average (2013-2015) since Colorado legalized recreational marijuana compared to the three-year average prior to legalization (2010-2012).
- The latest 2014/2015 results show Colorado adults ranked #1 in the nation for past month marijuana use, up from #7 in 2011/2012 and #8 in 2005/2006.
- Colorado adult past month marijuana use for 2014/2015 was **124 percent higher** than the national average compared to **51 percent higher** in 2011/2012.

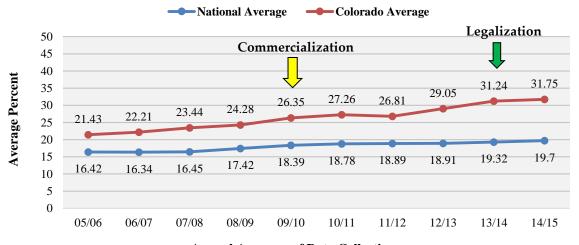
College Age 18 to 25 Years Old

Average Past Month Use of Marijuana College Age 18 to 25 Years Old



SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2014 and 2015

Past Month Marijuana Use College Age 18 to 25 Years Old

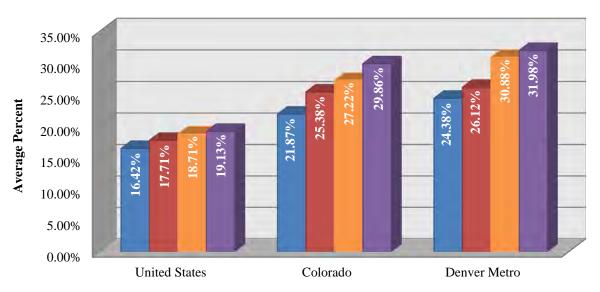


Annual Averages of Data Collection

SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2014 and 2015

Prevalence of Past 30-Day Marijuana Use College Age 18 to 25 Years Old

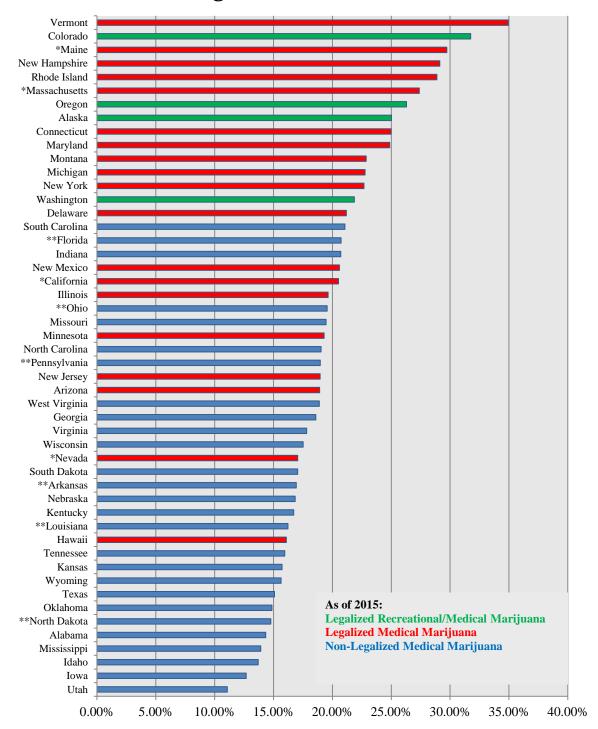




SOURCE: SAMHSA.gov, National Survey on Drug Use and Health, Substate Region Estimates 2006-2014

NOTE: SUB-STATE DATA IS ONLY AVAILABLE FROM THE NATIONAL SURVEY ON DRUG USE AND HEALTH IN THE ABOVE TIMEFRAMES.

Past Month Usage, 18 to 25 Years Old, 2014/2015

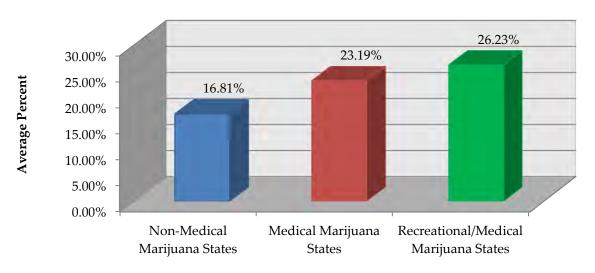


SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2013 and 2014

NOTE: *California, Massachusetts, Maine and Nevada voted to legalize recreational marijuana in November 2016

**States that had legislation for medical marijuana signed into effect during 2015

Average Past Month Use College Age 18 to 25 Years Old, 2014/2015



SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2014 and 2015

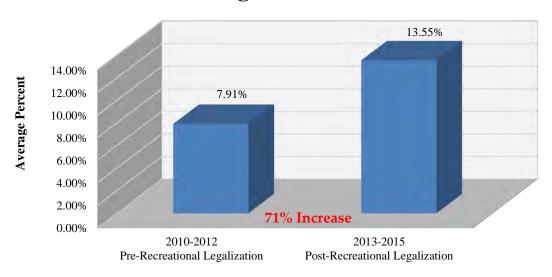
Past Month Marijuana Use College Age 18 to 25 Years Old, 2014/2015

<u>Top 10</u>	Bottom 10	
(Medical/Recreational States)	(Non-Medical or Recreational States)	
National Average = 19.99%		
1. Vermont – 34.95%	41. Kansas – 15.73%	
2. Colorado – 31.75%	42. Wyoming – 15.64%	
3. Maine – 29.72%	43. Texas – 15.08%	
4. New Hampshire – 29.12%	44. Oklahoma – 14.87 %	
5. Rhode Island – 28.89%	45. North Dakota – 14.77%	
6. Massachusetts – 27.39%	46. Alabama – 14.33%	
7. Oregon – 26.29%	47. Mississippi – 13.91%	
8. Alaska – 25.02%	48. Idaho – 13.69%	
9. Connecticut – 24.99%	49. Iowa – 12.67%	
10. Maryland – 24.87%	50. Utah – 11.07%	

SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2014 and 2015

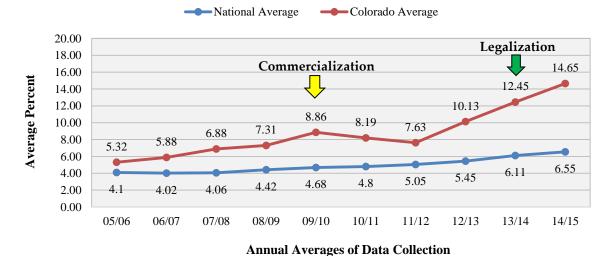
Adults Age 26+ Years Old

Average Past Month Use of Marijuana Adults Ages 26+ Years Old



SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2014 and 2015

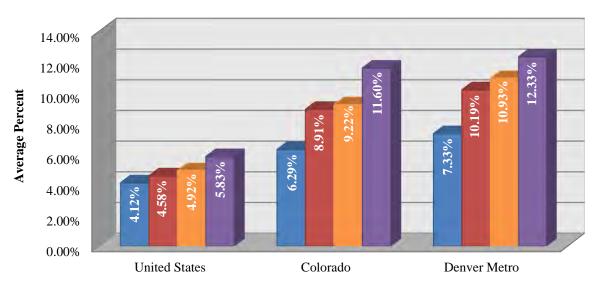
Past Month Marijuana Use Adults Age 26+ Years Old



SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2014 and 2015

Prevalence of Past 30-Day Marijuana Use Adults Age 26+ Years Old

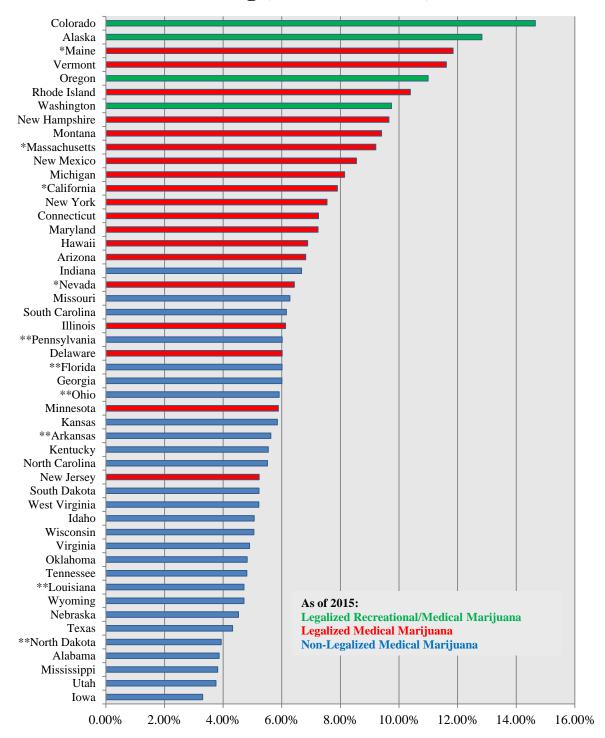




SOURCE: SAMHSA.gov, National Survey on Drug Use and Health, Substate Region Estimates 2006-2014

NOTE: SUB-STATE DATA IS ONLY AVAILABLE FROM THE NATIONAL SURVEY ON DRUG USE AND HEALTH IN THE ABOVE TIMEFRAMES.

Past Month Usage, 26+ Years Old, 2014/2015

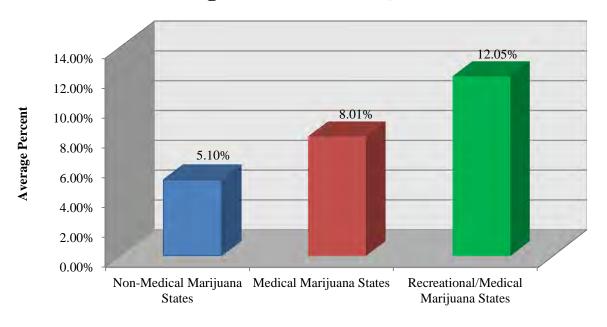


SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2014 and 2015

NOTE: *California, Massachusetts, Maine and Nevada voted to legalize recreational marijuana in November 2016

**States that had legislation for medical marijuana signed into effect during 2015

Average Past Month Use Adults Ages 26+ Years Old, 2014/2015



SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2014 and 2015

Past Month Marijuana Use Adults Ages 26+ Years Old, 2014/2015

<u>Top 10</u>	Bottom 10	
(Medical/Recreational States)	(Non-Medical or Recreational States)	
National Average = 6.76%		
1. Colorado – 14.65%	41. Tennessee – 4.81%	
2. Alaska – 12.83%	42. Louisiana – 4.71%	
3. Maine – 11.84%	43. Wyoming – 4.71%	
4. Vermont – 11.61%	44. Nebraska – 4.53%	
5. Oregon – 10.99%	45. Texas – 4.32%	
6. Rhode Island – 10.39%	46. North Dakota – 3.93%	
7. Washington – 9.74%	47. Alabama – 3.86%	
8. New Hampshire – 9.65%	48. Mississippi – 3.81%	
9. Montana – 9.41%	49. Utah – 3.75%	
10. Massachusetts – 9.21%	50. Iowa – 3.30%	

SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2014 and 2015

Colorado Adult Marijuana Use Demographics¹

According to the Colorado Behavior Risk Factor Surveillance System, 2016:

- 13.6 percent of adults (18+ years old) are current users of marijuana
 - o Nearly half of current users (47 percent) report using marijuana daily
- 1 out of 5 current users (20 percent) report driving after using marijuana
- Top demographics of those who report current marijuana use:
 - o Between 18 to 25 years old
 - Next highest are those 26 to 34 years old
 - o Black, Non-Hispanic individuals
 - Next highest are Multiracial (Non-Hispanic) individuals
 - o Gay/Lesbian/Bisexual adults
 - o Males
- The Southwest region of Colorado reports the highest current marijuana use
 - o The Southeast and Northwest regions are tied for second highest

NOTE: THE BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS) COLLECTS DATA ON ADULT, INDIVIDUAL-LEVEL BEHAVIORAL HEALTH RISK FACTORS. QUESTIONS SPECIFICALLY REGARDING MARIJUANA USE WERE NOT ADDED UNTIL 2014.

- MONITORING HEALTH CONCERNS RELATED TO MARIJUANA IN COLORADO: 2016, COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Case Examples

Young Professional Commits Suicide at 23, Parents Question if THC is to Blame:

Marc Bullard, a young professional with no apparent signs of depression or mental illness committed suicide in April 2016. He had recently graduated college "near the top of his college class," and had been hired at a consulting firm in Denver. "In December of 2015, he was on top of the world explaining in a video documenting his success that, 'It's been a good year..' and that he was looking forward to making plans for 2016." After his death, his parents began reading Marc's personal diaries and found that he had been writing entries such as:

I found out I was dabbing too much which I already knew and had cut back in February. But apparently if you overdo it, you can get almost like poison and experience some negative effects.

Marc's parents began to question "whether his death [was] related to his use of high potency THC." Before Marc's death neither of them had even heard of dabbing. Marc's father Mike explained "I had the mindset, well, it's just marijuana, it's not going to hurt anything." While Marc's death certificate does not say marijuana was the cause of death, it "lists a contributing factor to 'use of concentrated marijuana products."

Parents Charged with Child Abuse for Identical Deaths of Two Babies: In Aurora, Colorado a couple was booked into jail on two counts of misdemeanor child abuse. Charges were filed against the couple after their second child died under similar circumstances as their first child who died two years previously. According to police reports, both babies "died while sleeping in bed with the parents" and both parents "appear[ed] to be intoxicated or under the influence." During the investigation of the first child's death there were "indications of alcohol and marijuana use." The cause of death as shown on autopsy reports for each child was listed as undetermined, however per the Arapahoe County Coroner Dr. Kelly Lear-Kaul this is "because suffocation leaves no trace." ³

Man Shoots Wife and Kills Neighbor in a "Marijuana and Caffeine-Fueled Paranoid State": While home for lunch, Dr. Kenneth Atkinson heard shots being fired next door at his neighbor's home. He went outside to see what was going on and "found his neighbor, Elizabeth Lyons, lying in a driveway, covered in blood." Elizabeth Lyons had been shot in the back by her husband Kevin Lyons. Dr. Atkinson attempted to attend to Mrs. Lyons' wounds when Kevin Lyons shot at him striking him in the leg. Dr. Atkinson attempted to call 911 but "more shots rang out as Lyons fired at Atkinson's head at point-blank range, fatally wounding him."

Lyons was sentenced to life in prison plus 352 years in May 2017. Lyons' public defender stated in defense of his actions that "Lyons suffered repeated head injuries – from sports, a car wreck and other activities – that, combined with substance abuse and difficult circumstances in his life, including marital and financial problems, left him delusional. Lyons was also in a marijuana and caffeine-fueled paranoid state on the day of the shooting." ⁴

For Further Information on Adult Marijuana Use See Page 152

Sources

- ¹ Colorado Behavioral Risk Factor Surveillance System 2016, "Marijuana Use in Colorado," Colorado Department of Public Health and Environment.
- ² John Ferrugia, "Marijuana in Colorado: A warning about dabbing," *9News*, http://www.9news.com/news/health/marijuana-in-colorado-a-warning-about-dabbing/346018775, accessed September 12, 2017.
- ³ Rob Low, March 7, 2017, "Aurora parents charged with child abuse for identical deaths of 2 babies," Fox 31News, http://kdvr.com/2017/03/07/parents-charged-with-child-abuse-for-identical-deaths-of-2-babies/, accessed April 19, 2017.
- ⁴ Jesse Paul, "Kevin Lyons apologizes for Centennial shooting rampage that killed beloved doctor, gets life in prison plus 352 years," *Denver Post*, http://www.denverpost.com/2017/06/05/kevin-lyons-centennial-shooting-rampage-killed-kenneth-atkinson/, accessed September 12, 2017.

SECTION 4: Emergency Department and Hospital MarijuanaRelated Admissions

Some Findings

- The yearly rate of emergency department visits related to marijuana **increased 35 percent** after the legalization of recreational marijuana (2011-2012 vs. 2013-September 2015).
- <u>Number</u> of hospitalizations related to marijuana:
 - o 2011 **6,305**
 - o 2012 **6,715**
 - o 2013 **8,272**
 - o 2014 **11,439**
 - o Jan-Sept 2015 **10,901**
- The yearly number of marijuana-related hospitalizations **increased 72 percent** after the legalization of recreational marijuana (2009-2012 vs. 2013-September 2015).

Definitions

<u>Marijuana-Related</u>: Also referred to as "marijuana mentions." Data could be obtained from lab tests, patient self-admission or some other form of validation obtained by the provider. Being marijuana-related does not necessarily prove marijuana was the cause of the emergency department admission or hospitalization.

<u>International Classification of Disease (ICD):</u> A medical coding system used to classify diseases and related health problems.

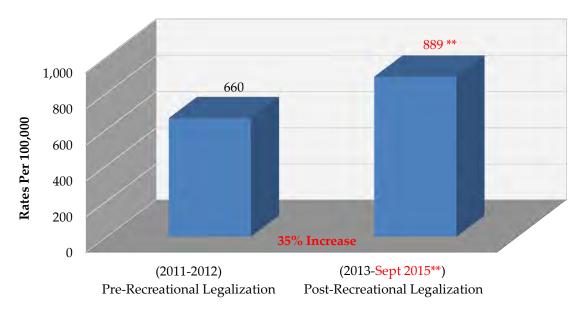
**In 2015, ICD-10 (the tenth modification) was implemented in place of ICD-9. Although ICD-10 will allow for better analysis of disease patterns and treatment outcomes for the advancement of medical care, comparison of trends before and after the conversion can be made difficult and/or impossible. The number of codes increased from approximately 13,600 codes to approximately 69,000 codes. For the above reasons, hospitalization and emergency department data is only provided pre-conversion to ICD-10.1

Emergency Department Data

Colorado Department of Public Health and Environment

NOTE: "Possible Marijuana Exposures, Diagnoses, or Billing Codes in Any of Listed Diagnosis Codes: These data were chosen to represent the HD and ED visits where marijuana could be a causal, contributing, or coexisting factor noted by the physician during the HD or ED visit. For these data, marijuana use is not necessarily related to the underlying reason for the HD or ED visit. Sometimes these data are referred to as HD or ED visits 'with any mention of marijuana.'" - Colorado Department of Public Health and Environment, Monitoring Health Concerns Related to Marijuana in Colorado: 2014

Average Emergency Department Rates Related to Marijuana*



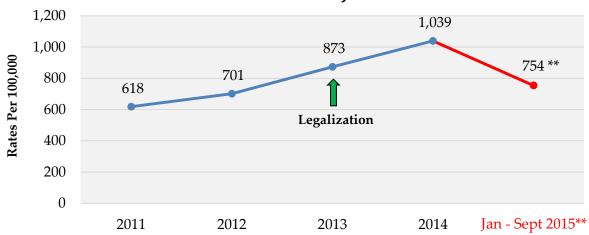
^{*}Rates of Emergency Department (ED) Visits with Possible Marijuana Exposures, Diagnoses, or Billing Codes per 100,000 ED Visits by Year in Colorado

SOURCE: Colorado Department of Public Health and Environment

NOTE: DATA NOT AVAILABLE PRE-2011. EMERGENCY DEPARTMENT DATA FROM 2011 AND 2012 REFLECTS INCOMPLETE STATEWIDE REPORTING. INFERENCES CONCERNING TRENDS, INCLUDING 2011 AND 2012, SHOULD NOT BE MADE.

^{**}Only 9 months of comparable 2015 data, see ICD definition on page 68

Emergency Department Rates Related to Marijuana*



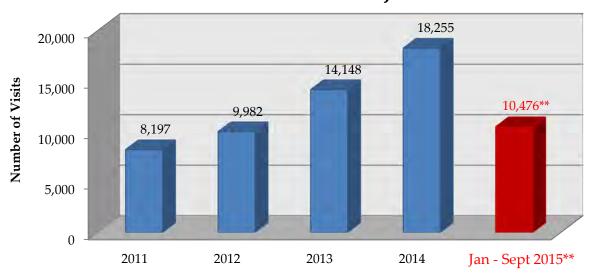
^{*}Rates of Emergency Department (ED) Visits with Possible Marijuana Exposures, Diagnoses, or Billing Codes per 100,000 ED Visits by Year in Colorado

SOURCE: Colorado Department of Public Health and Environment, Monitoring Health Concerns Related to Marijuana in Colorado: 2016

NOTE: DATA NOT AVAILABLE PRE-2011. EMERGENCY DEPARTMENT DATA FROM 2011 AND 2012 REFLECTS INCOMPLETE STATEWIDE REPORTING. INFERENCES CONCERNING TRENDS, INCLUDING 2011 AND 2012, SHOULD NOT BE MADE.

^{**}Only 9 months of comparable 2015 data, see ICD definition on page 68

Emergency Department Visits Related to Marijuana



**Only 9 months of comparable 2015 data, see ICD definition on page 68

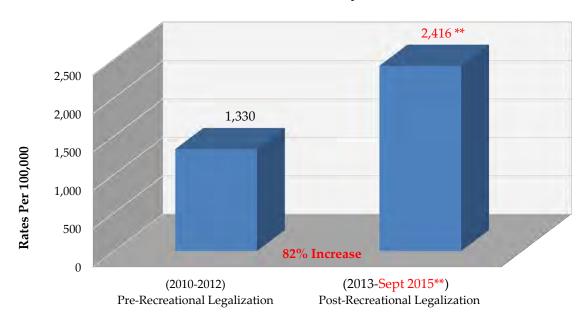
SOURCE: Colorado Hospital Association, Emergency Department Visit Dataset. Statistics prepared by the Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment

NOTE: DATA NOT AVAILABLE PRE-2011. EMERGENCY DEPARTMENT DATA FROM 2011 AND 2012 REFLECTS INCOMPLETE STATEWIDE REPORTING. INFERENCES CONCERNING TRENDS, INCLUDING 2011 AND 2012, SHOULD NOT BE MADE.

Colorado Department of Public Health and Environment

NOTE: "Possible Marijuana Exposures, Diagnoses, or Billing Codes in Any of Listed Diagnosis Codes: These data were chosen to represent the HD and ED visits where marijuana could be a causal, contributing, or coexisting factor noted by the physician during the HD or ED visit. For these data, marijuana use is not necessarily related to the underlying reason for the HD or ED visit. Sometimes these data are referred to as HD or ED visits 'with any mention of marijuana.'" - Colorado Department of Public Health and Environment, Monitoring Health Concerns Related to Marijuana in Colorado: 2014

Average Hospitalization Rates Related to Marijuana*

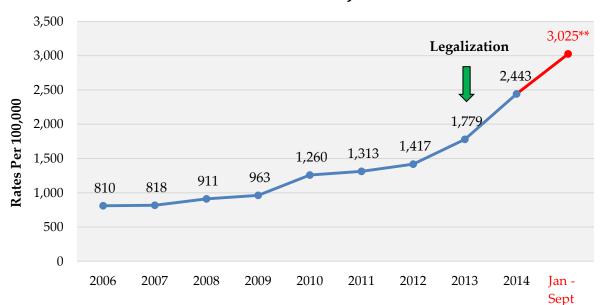


^{*}Rates of Hospitalization (HD) Visits with Possible Marijuana Exposures, Diagnoses, or Billing Codes per 100,000 HD Visits by Year in Colorado

**Only 9 months of comparable 2015 data, see ICD definition on page 68

SOURCE: Colorado Department of Public Health and Environment

Hospitalization Rates Related to Marijuana*

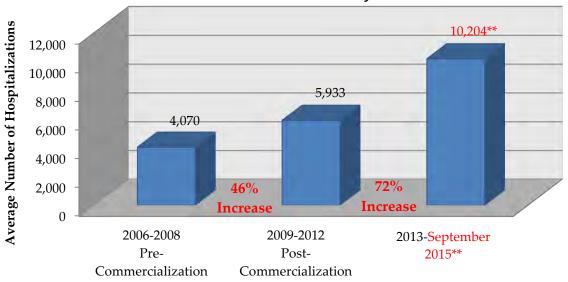


*Rates of Hospitalization (HD) Visits with Possible Marijuana Exposures, Diagnoses, or 2015** Billing Codes per 100,000 HD Visits by Year in Colorado

**Only 9 months of comparable 2015 data, see ICD definition on page 68

SOURCE: Colorado Department of Public Health and Environment, Monitoring Health Concerns Related to Marijuana in Colorado: 2014

Average Hospitalizations Related to Marijuana

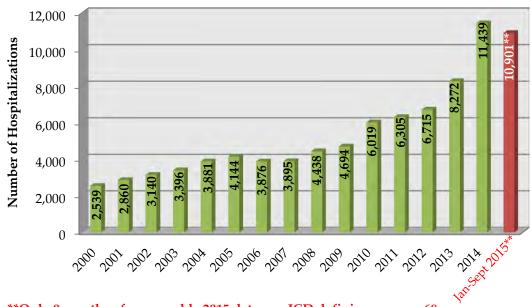


**Only 9 months of comparable 2015 data, see ICD definition on page 68

SOURCE:

Colorado Hospital Association, Hospital Discharge Dataset. Statistics prepared by the Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment

Hospitalizations Related to Marijuana



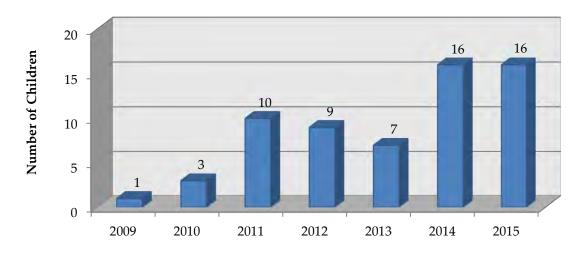
**Only 9 months of comparable 2015 data, see ICD definion on page 68

SOURCE:

Colorado Hospital Association, Hospital Discharge Dataset. Statistics prepared by the Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment

Additional Sources

Colorado Children's Hospital, Marijuana Ingestion Among Children Under 9 Years Old



SOURCE: George Sam Wang, MD, Marie-Claire Le Lait, MS, Sara J. Deakyne, MPH, Alvin C. Bronstein, MD, Lalit Bajaj, MD, MPH, Genie Roosevelt, MD, MPH, July 25, 2016

Cost

<u>Cost of Emergency Room:</u> The U.S. Department of Health and Human Services estimates the average cost of an emergency room visit in 2014 was \$1,533.00." ²

Case Examples

Elderly Male with Altered Mental Status: "I had an elderly male come to the [emergency department] with a family chief complaint of 'altered mental status' or stroke. The patient was essentially catatonic (awake but not responsive and not following commands). He had a very expensive stroke work up (including an EKG, CT, labs, etc.). Work up was negative and then family stated that he ate [marijuana] butter on his toast in the morning and then became catatonic. He had consumed at least 200 mg of THC. He was observed for many hours and improved. His [emergency department] visit costs probably topped \$10,000." ³

<u>Elderly Woman with Nausea and Vomiting</u>: "I had an elderly female who came to the [emergency department] with a chief complaint of significant nausea and vomiting. The patient had come to visit a family member who happened to work at a pot shop. They thought it would be fun to get 'grandma high' and gave her edibles. She ate too much and spent 12 hours in the emergency department vomiting and screaming (probably some psychosis induced at the time)." ³

<u>Marijuana Laced with Methamphetamine</u>: "I had a young woman who was in her last trimester of pregnancy, she came to the ED for 'anxiety.' Her urine drug screen was positive for methamphetamines and [marijuana]. The patient states that the MJ (street) sellers, dip their products in cocaine or methamphetamines to make them 'better.' She was using both and was pregnant. She justified the use of MJ for her anxiety and did not want to hear about how the MJ would or could affect her child." ³

<u>High on Marijuana while Riding a Bicycle</u>: "A 16 [year old] male came after being struck by a car while riding a bike. He had been smoking marijuana. He was morbidly obese (over 300 pounds), not in school and getting his MJ from his parents who thought 'it's ok because it's legal.'" ³

<u>Unresponsive after an Edible Overdose</u>: "I just had a case last week of a young patient who ate a full bag of the chocolates, 100 mcg of THC per chocolate. She presented unresponsive, GCS of 6. (Only slightly withdrew to painful stimuli, otherwise unresponsive). She went to the ICU and there was just observed until she woke up. She stayed in the ED for over 8 hours with no change before going to the ICU. There were no other substances on her drug screens that were positive." ⁴

<u>Dangers of Marijuana Experienced Firsthand:</u> A May 2017 article written by Dr. Brad Roberts described his experience of returning to his home town of Pueblo, CO in order to serve the community he grew up in.

I recently finished my residency in emergency medicine and began to practice in Pueblo, Colorado. I grew up there, and I was excited to return home. However, when I returned home, the Pueblo I once knew had drastically changed. Where there were once hardware stores, animal feed shops, and homes along dotted farms, I now found marijuana shops—and lots of them.

Among the various observations the newly minted doctor noted:

Multiple different types of patients are coming into the emergency department with a variety of unexpected problems such as marijuana-induced psychosis, dependence, burn injuries, increased abuse of other drugs, increased homelessness and its associated problems, and self-medication with marijuana to treat their medical problems instead of seeking appropriate medical care.

Dr. Roberts recalled a few specific incidents in which marijuana was directly involved in the patient's visit to the emergency department. Among the specific incidents were cases in which a teenage girl had to be restrained after dabbing highly potent THC. Additionally, a young man reported that after smoking marijuana "all day, every day" and he was "seeing ghosts" that were telling him to kill himself (he tried to hang himself three times). Lastly, two young men presented with severe burns due to a butane hash oil explosion they created when trying to make concentrated THC.

The greatest concern that I have is the confusion between medical and recreational marijuana. Patients are being diagnosed and treated from the marijuana shops by those without any medical training. I have had patients bring in bottles with a recommended strain of cannabis and frequency of use for a stated medical problem given at the recommendation of a marijuana shop employee. My colleagues report similar encounters, with one reporting seeing two separate patients with significantly altered sensorium and with bottles labeled 60 percent THC. They were taking this with opioids and benzodiazepines.

After discussing a variety of significantly adverse health effects of marijuana use, Dr. Roberts stated "We need to provide immediate treatment and assistance in stopping use. If we are going to use this as a medication, then we should use it as we use other medications. It should have to undergo the same scrutiny, Food and Drug Administration approval, and regulation that any other medication does." 5

<u>Pot-Related ER Visits Increase among Visitors to Colorado:</u> In February 2017, Matt Kroschel of CBS Denver described how "some of Colorado's mountain towns helped push Summit County to the top of the list for emergency room visits related to people getting high."

Summit County reported 21 marijuana-related emergency room visits (per 1,000 people) from 2011-2013. In 2014-2015, that number increased to 56 visits per 1,000 people.

Dr. Marc Doucette of St. Anthony Summit Medical Center stated, "We certainly do see patients that come in with adverse effects related to marijuana." In response to the recent statistics released by the Colorado Department of Public Health and Environment, Doucette said, "I was a little surprised to see that but it speaks to the fact that most of our population, especially in the ski season, are out-of-state patients and tourists." Discussing the types of patients and cases presenting to the emergency room, Dr. Doucette reported "Often we see complications related to edible products."

"Hospital officials say they did notice the uptick in people coming in for help following the legalization of marijuana in the state in 2014. They say most of those cases were patients visiting from outside of Colorado." ⁶

<u>ER Visits for Kids Rise Significantly after Pot Legalized in Colorado:</u> In 2017, researchers reported "the number of teenagers sent to emergency rooms more than quadrupled after marijuana was legalized in Colorado – mostly for mental health symptoms."

Dr. George Sam Wang, a Colorado physician, was the lead researcher who authored a study which examined Colorado youth, marijuana use and associated emergency room visits. According to a May 2017 article published by NBC News, "639 teenagers who went to one hospital system in Colorado in 2015 had either cannabis in their urine or told a doctor they'd been using cannabis. That's up from 146 in 2005, before the use of marijuana was legalized in Colorado."

"In 2016 Wang found that the average rate of marijuana-related visits to the children's hospital doubled after legalization. Poison center calls about marijuana went from nine in 2009 to 47 in 2015."

In the 2017 interview by NBC News, Dr. Wang explained that "The perception of risk has gone down quite a bit." In the same interview, he goes on to say that "People believe marijuana is safe – but it is not." ⁷

Mysterious Illness Tied to Marijuana Use on the Rise in States with Legal Weed: An Indianapolis physician recently diagnosed a condition in a patient, Lance Crowder, who had been experiencing severe abdominal pain and vomiting for over two years. None of the local physicians had been able to diagnose the problem, until now. Over the past several years there has been an increase in the number of emergency room visitors presenting with the same exact signs and symptoms as Lance, known as cannabinoid hyperemesis syndrome (CHS).

Dr. Kennon Heard of Aurora, Colorado co-authored a study published in 2015 which showed that when medical marijuana became widely available, emergency room visit diagnoses for CHS in two Colorado hospitals nearly doubled. "It is certainly something that, before legalization, we almost never saw," Heard said in an interview. "Now we are seeing it quite frequently."

"CHS has only been recognized for about the past decade, and nobody knows exactly how many people suffer from it. But as more states move towards the legalization of marijuana, emergency room physicians like Dr. Heard are eager to make sure both doctors and patients have CHS on their radar." ⁸

For Further Information on <u>Emergency Department Visits and</u>
<u>Hospitalizations</u> See Page 155

Sources

- ¹ American Academy of Professional Coders, "ICD-10 FAQ," https://www.aapc.com/icd-10/faq.aspx, accessed August 1, 2017.
- ² Medical Expenditure Panel Survey 2014, "Emergency Room Services-Median and Mean Expenses per Person With Expense and Distribution of Expenses by Source of Payment: United States," U.S. Department of Health and Human Services.
- ³ Karen Randall, DO, "MJ ER Visits/Exposure," e-mail message, September 14, 2017.
- ⁴ Brad Roberts, MD, "MJ ER Visits/Exposure," e-mail message, September 15, 2017.
- ⁵ Brad Roberts, MD, "Dangers of Marijuana Experienced Firsthand," May 15, 2017, http://www.acepnow.com/article/dangers-marijuana-experienced-firsthand/, accessed August 9, 2017.
- ⁶ Matt Kroschel, "Pot-Related ER Visits Increase Among Visitors To Colorado," February 14, 2017, < http://denver.cbslocal.com/2017/02/14/pot-related-er-visits-increase-among-visitors/>, accessed September 12, 2017.
- ⁷ Maggie Fox, "ER Visits for Kids Rise Significantly After Pot Legalized in Colorado," NBC News, May 5, 2017, http://www.nbcnews.com/health/health-news/er-visits-kids-rise-significantly-after-pot-legalized-colorado-n754781, accessed May 4, 2017.
- ⁸ Jonathan Lapook, "Mysterious illness tied to marijuana use on the rise in states with legal weed," KKTV/CBS, December 28, 2016, http://www.kktv.com/content/news/Mysterious-illness-tied-to-marijuana-use-on-the-rise-in-states-with-legal-weed-408565045.html, accessed August 2, 2017.

SECTION 5: Marijuana-Related Exposure

Some Findings

- Marijuana-related exposures **increased 139 percent** in the four-year average (2013-2016) since Colorado legalized recreational marijuana compared to the four-year average (2009-2012) prior to legalization.
- Marijuana-related exposures in children (ages 0 to 5) nearly <u>tripled</u> in the four-year average (2013-2016) since Colorado legalized recreational marijuana compared to the four-year average (2009-2012) prior to legalization.
- For adults 26 years of age or older, nearly <u>triple</u> the amount of yearly marijuanarelated exposures occurred in 2013-2016 as compared to 2009-2012.
- Marijuana <u>only</u> exposures more than <u>doubled</u> (**increased 210 percent**) in the four-year average (2013-2016) since Colorado legalized recreational marijuana compared to the four-year average (2009-2012) prior to legalization.

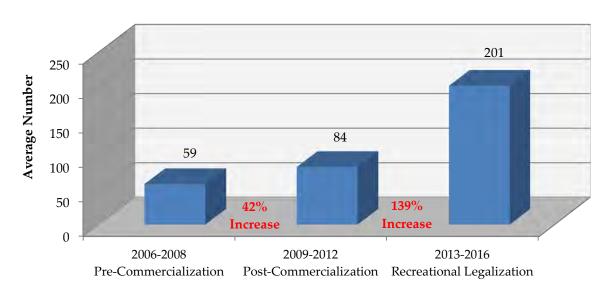
Definitions

<u>Marijuana-Related Exposure:</u> Any phone call to the Rocky Mountain Poison and Drug Center in which marijuana is mentioned.

<u>Marijuana Only Exposure:</u> Marijuana was the only substance referenced in the call to the poison control center.

Data

Average Number of Marijuana-Related Exposures, All Ages



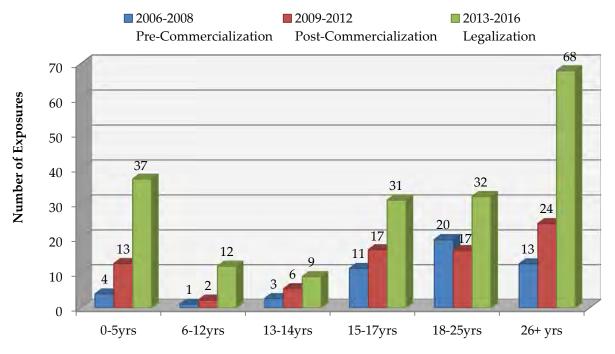
SOURCE: Rocky Mountain Poison and Drug Center

Marijuana-Related Exposures



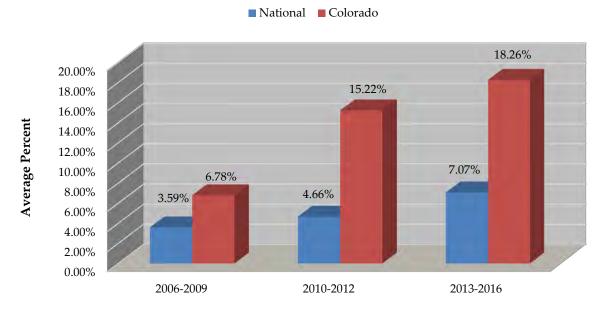
SOURCE: Rocky Mountain Poison and Drug Center Report, Colorado Marijuana Statistics for 2016

Average Marijuana-Related Exposures by Age Range



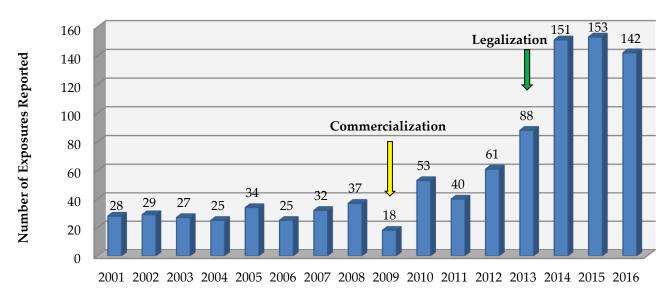
SOURCE: Rocky Mountain Poison and Drug Center

Average Percent of All Marijuana-Related Exposures, Children Ages 0 to 5 Years Old



SOURCE: Rocky Mountain Poison and Drug Center

Number of <u>Marijuana Only*</u> Exposures Reported



*Marijuana was the only substance referenced in the call to the poison control center

SOURCE: Rocky Mountain Poison and Drug Center

Case Examples

Rocky Mountain Poison and Drug Center: 1

"Caller asking if there is such thing as a withdrawal phenomenon with marijuana? Her daughter is home from college and she is having major anxiety since being home and not smoking her daily weed. She also wants to know if it will 'hurt her brain' while in college if she smokes regularly? She was advised that yes, withdrawal has been described after heavy use. And that yes, there could be effects to her brain."

"Caller concerned – had out of town guests staying at her house. Made a favorite pie one day when they were out, and substituted marijuana oil for the normal amount of oil. She did not intend for her guests to eat her pie. Guests ate a significant amount one day when she was upstairs and developed paranoia, confusion, and feeling 'stoned.' The effects wore off the next day."

"Caller ate a couple marijuana gummys [sic] while at work, not knowing they were MJ-containing. Developed lightheadedness and dizziness, which resolved the next day without any treatment."

"Caller asking if marijuana can be transferred to baby who is breast-feeding."

"Caller says her spouse ingested an edible containing THC and felt nauseous. Then took an OTC [over the counter] medicine to counteract the queasiness, and then felt worse (foggy, dizzy, confused). PC referred caller to an Emergency Department because of her worsened status."

<u>Colorado dog dazed and confused:</u> In late 2016, Colorado resident Heidi Sodetz took her two golden retrievers for a run on Tenderfoot Mountain. According to the resident, one of the dogs began to act strangely approximately an hour after the run. Lenni was "...barely moving, not responsive and even peed herself on the carpet, something she never does." The dog was taken to the Buffalo Mountain Animal Hospital in Silverthorne, CO to investigate what was happening.

Based on the signs and symptoms, the local veterinarian was immediately suspicious of THC being in the dog's blood. The dog tested positive for THC, the psychoactive ingredient in marijuana. According to the owner, who claims to not use the drug, "the only plausible explanation was that Lenni had eaten a marijuana edible that someone had dropped on the trail."

Dr. Michelle Gross, Lenni's primary care provider said "For me, lately it's been about one or two a month, but it used to be maybe once a year." Coincidentally, there were two additional dogs being treated for marijuana exposure at the same facility at the same time. ²

For Further Information on **Exposures** See Page 157

Sources

- ¹ Rocky Mountain Poison and Drug Center, August 2017.
- ² Jack Queen, "Colorado dog dazed and confused after eating marijuana edibles found on trail," *Summit Daily*, http://www.summitdaily.com/news/marijuana/incolorado-marijuana-edibles-increasingly-sending-dogs-to-the-animal-er/, accessed September 12th, 2017.

The Legalization of Mariju	ana in Colorado: The Impact	Vol. 5/October 2017
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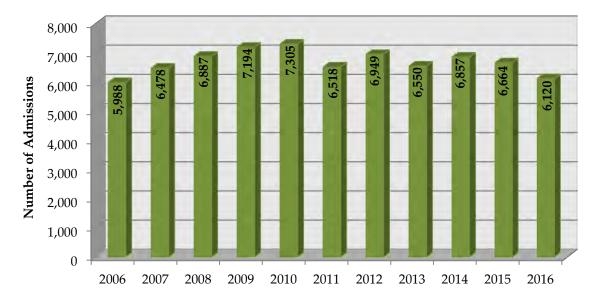
SECTION 6: Treatment

Some Findings

- Marijuana treatment data from Colorado in years 2006 2016 does not appear to demonstrate a definitive trend. Colorado averages **6,683** treatment admissions annually for marijuana abuse.
- Over the last ten years, the top four drugs involved in treatment admissions were alcohol (average 13,551), marijuana (average 6,712), methamphetamine (average 5,578), and heroin (average 3,024).

Data

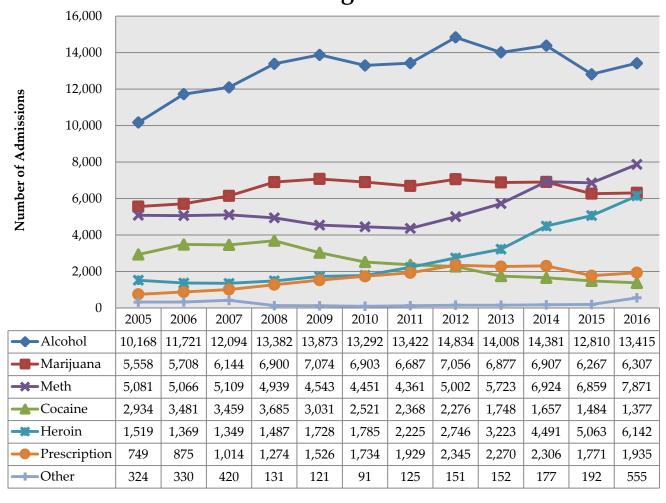
Treatment with Marijuana as Primary Substance of Abuse, All Ages



SOURCE:

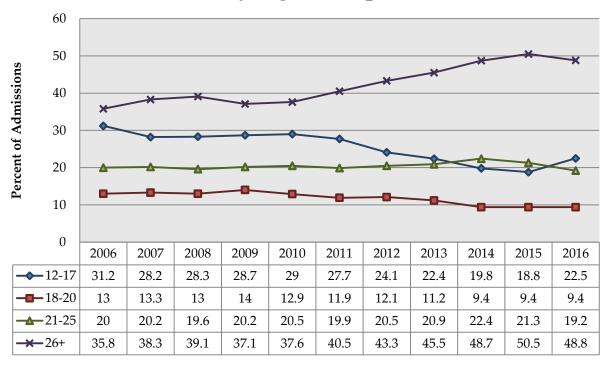
Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS) Based on administrative data reported by States to TEDS through July 6, 2017

Drug Type for Treatment Admissions, All Ages



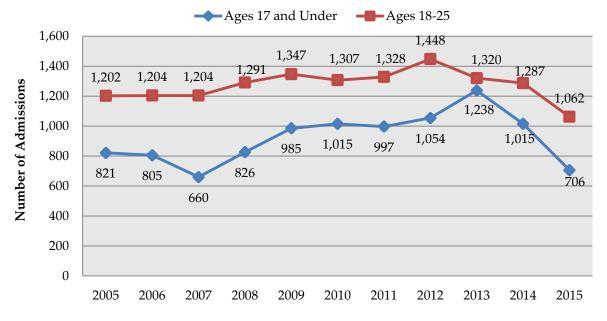
SOURCE: Colorado Department of Health Services, Office of Behavioral Health, 2005-2016

Percent of Marijuana Treatment Admissions by Age Group



SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS) Based on administrative data reported by States to TEDS through July 6, 2017

Marijuana Treatment Admissions Based on Criminal Justice Referrals



SOURCE: Colorado Department of Health Services, Office of Behavioral Health, 2005-2016

Comments from Colorado Treatment Providers

"...Symptoms Are So Debilitating...": "Many patients minimize the consequences of cannabis use, yet they consistently report that they have become isolated, paranoid and unable to effectively interact with the outside world. In treatment, there has been a consistent increase in psychosis associated with patients who use cannabis. Thought broadcasting, thought insertion, ideas of reference and command hallucinations are not uncommon. These symptoms often occur in the absence of any other psychiatric disorder. The symptoms appear to decrease over time, with more time in recovery, but it is unclear whether the symptoms are long lasting. Since these symptoms are so debilitating, it is crucial to learn more about the long term effects of cannabis use." 1

"...Lives Have Been Completely Disrupted...": "In my professional experience, have definitely seen more cannabis use in the individuals I am treating. I've also seen an increasing number of young men coming into treatment with symptoms of mania, psychosis and dangerous behaviors associated with cannabis use. Their lives have been completely disrupted due to the cannabis use. Unfortunately, abstinence from the cannabis use alone is not enough to make the symptoms go away. They require mood stabilizing and anti-psychotic medications to get to a point that they can communicate

coherently enough and trust others enough to participate in therapy. I do think this is related to the increased availability and potency, and this is consistent with the scientific literature.

On a personal note, my 10 and 11 year old children know what cannabis smoke smells like, identifying cannabis in the area rather than wondering if it is a skunk. Public use occurs everywhere. Children call each other, 'vapers,' in their less kind moments, and children with anything green are made fun of. One of my 11 year old's friends since preschool was allegedly expelled for selling cannabis on the 5th grade campus. As a parent, I'm terrified for the future of our children." ²

"...Psychosis and Cannabis is Well Documented...": "We recently reviewed data for patients receiving treatment in the residential portion of our substance abuse treatment center, CeDAR. What we found was that patients who met criteria for a cannabis use disorder were markedly younger than those that did not, were much more likely to have other substance use disorders (an average of 2.8 substance use disorder diagnoses vs 1.9 substance use disorder diagnoses when cannabis use disorder was excluded) and there was a trend towards more mental health pathology in this data set as well.

Anecdotally, I and my colleagues have seen the number of patients with cannabis use disorder admitted to our facility increase over time. The amount of cannabis that patients describe consuming is also increasing, while the age they report first starting to use is decreasing. Overall the severity of cannabis use disorder we see appears more severe as do the psychosocial sequelae of this addiction. The link between psychosis and cannabis is well documented and it is becoming routine to admit young men who have used cannabis since early adolescence and who present with psychosis. Many of these patients may suffer long standing neuropsychiatric symptoms as the result of cannabis use. The burden of this illness is disproportionately falling on our younger population." ³

Case Examples

<u>Colorado Doctor's Warning to Vermont:</u> Dr. Karen Randall, a practicing emergency medicine physician out of Pueblo, CO, described her first-hand experience of how marijuana has affected her community in Pueblo. Dr. Randall tells Vermont voters how the marijuana industry originally lured her community into becoming "the Napa Valley of Pot" by promising jobs and tax income but instead her community received an influx of homeless and low income jobs where workers are a burden on the Medicaid system

and other government assistance programs. Furthermore, she describes how "the number of youth testing positive for marijuana plus methamphetamine and/or heroin" has increased in her hospital as marijuana use becomes "normalized in public by some parents." According to Dr. Randall, in 2016, "257 of 300 community physicians signed an open petition in the paper in support of reversing the marijuana stance in [Pueblo] county." She urges Vermont voters to ask "local professionals how they feel" about the issue before voting.⁴

For Further Information on <u>Treatment</u> See Page 157

Sources

- ¹ Bari K Platter, MS, RN, PMHCNS-BC, Clinical Nurse Specialist, Center for Dependency, Addiction and Rehabilitation (CeDAR), University of Colorado Health, Aurora, Colorado, August 2016.
- ² Laura F. Martin, M.D. Distinguished Fellow of the American Psychiatric Association, American Board of Addiction Medicine Diplomate Medical Director, Center for Dependency, Addiction and Rehabilitation (CeDAR), Associate Professor, Department of Psychiatry, University of Colorado School of Medicine, August 2016.
- ³ Ruth Marie Huhn, M.D., Board Certified Attending Psychiatrist at the Center for Dependency, Addiction and Rehabilitation (CeDAR), Instructor, Department of Psychiatry, University of Colorado School of Medicine, August 2016.
- ⁴ Dr. Karen Randall, *VTDIGGER*, "Karen Randall: Marijuana legalization from a Colorado community member," https://vtdigger.org/2017/06/20/karen-randall-marijuana-legalization-colorado-community-member/#.WcFCX8KWy71 accessed September 19, 2017.

SECTION 7: Diversion of Colorado Marijuana

Some Findings

- In 2016, RMHIDTA Colorado drug task forces completed **163 investigations** of individuals or organizations involved in illegally selling Colorado marijuana both in and out of state.
 - o These cases led to:
 - 252 felony arrests
 - 7,116 pounds (3.5 tons) of marijuana seized
 - 47,108 marijuana plants seized
 - **2,111** marijuana edibles seized
 - 232 pounds of concentrate seized
 - 29 different states to which marijuana was destined
- Highway interdiction seizures of Colorado marijuana **increased 43 percent** in the four-year average (2013-2016) since Colorado legalized recreational marijuana compared to the four-year average (2009-2012) prior to legalization.
- Highway interdiction seizures of Colorado marijuana **increased 20 percent** from **288** in 2013, when recreational marijuana was legalized, to **346** in 2016.
- Of the **346** highway interdiction seizures in 2016, there were **36** <u>different states</u> destined to receive marijuana from Colorado.
 - o The most common destinations identified were Illinois, Missouri, Texas, Kansas and Florida.
 - o Approximately half of all seizures (**48 percent**) containing Colorado marijuana originated from Denver.

Definitions

Colorado Marijuana <u>Investigations</u>: RMHIDTA Colorado drug task forces investigating individual or organizations involved in illegally selling Colorado marijuana, both within and outside of the state. These investigations only include those reported by the ten RMHIDTA drug task forces.

Colorado Marijuana <u>Interdictions</u>: Incidents where state highway patrol officers stopped a driver for a traffic violation and subsequently found Colorado marijuana destined for other parts of the country. These interdiction seizures are reported on a voluntary basis to the National Seizure System (NSS) managed by the El Paso Intelligence Center (EPIC). These are random traffic stops, not investigations, and <u>do</u> not include local law enforcement data.

❖ A Colorado document contained the following statement in one of their presentation slides: "Data prior to 2014 is not comparative due to changes in the reporting. The RMHIDTA began entering seizure data into the NSS beginning January 1, 2014 and that resulted in a spike of seizures being reported. There has not been a discernable upward trend in seizures since retail sales began in 2014."

This statement is inaccurate and misleading. The data used in the Rocky Mountain HIDTA report is <u>only</u> highway patrol seizures and not from any of the task forces or drug units. This is the same dataset that RMHIDTA has been using since 2005.

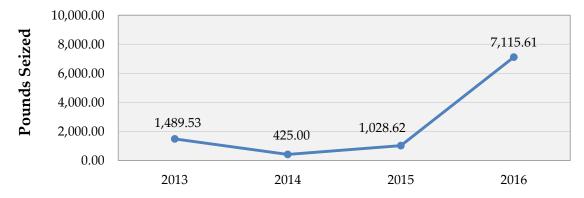
Data on Marijuana Investigations

NOTE: THE CHARTS ONLY INCLUDE COMPLETED INVESTIGATIONS REPORTED BY THE TEN RMHIDTA DRUG TASK FORCES. IT IS UNKNOWN HOW MANY OF THESE TYPES OF INVESTIGATIONS WERE COMPLETED BY NON-RMHIDTA DRUG UNITS OR TASK FORCES.

❖ The RMHIDTA drug task force unit commanders feel that the Colorado marijuana investigations completed in 2016 only impacted a relatively small portion of actual operations involved in illegally selling Colorado marijuana both in and out of state.

In 2016, ten RMHIDTA Colorado drug task forces completed **163 investigations** of individuals or organizations involved in illegally selling Colorado marijuana both within and outside of the state. The task forces seized approximately **3.5 tons of marijuana**; **47,108 plants**; **2,111 edibles**; and **232 pounds of concentrate**. There were **252 felony marijuana arrests** and **29 different states** identified as to where the Colorado marijuana was being sent.

RMHIDTA Colorado Task Forces: Marijuana Investigation Seizures



SOURCE: Rocky Mountain HIDTA Performance Management Process (PMP) Data

RMHIDTA Colorado Task Forces: Marijuana Investigative Plant Seizures



SOURCE: Rocky Mountain HIDTA Performance Management Process (PMP) Data

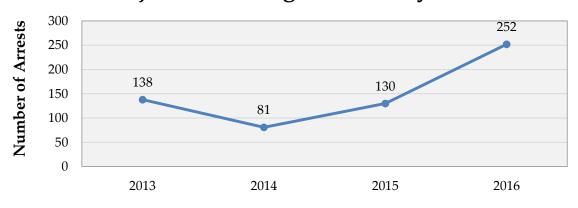
• Marijuana Concentrate Seizures

- o 2016: 232.12 pounds of hash oil (1,099 percent increase from 2015).
- o 2015: 19.36 pounds of hash oil.
- o Data not collected prior to 2015.

• Marijuana Edible Seizures

- o 2016: 2,111 individual edible items (633 percent increase from 2015).
- o 2015: 288 individual edible items.
- o Data not collected prior to 2015.

RMHIDTA Colorado Task Forces: Marijuana Investigative Felony Arrests



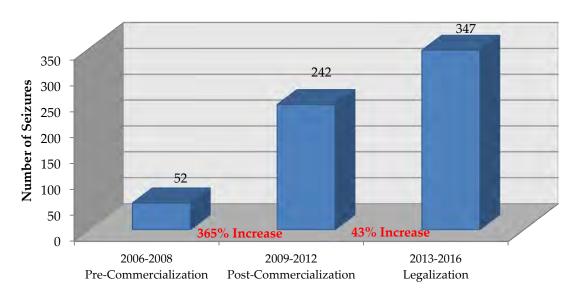
SOURCE: Rocky Mountain HIDTA Performance Management Process (PMP) Data

Data on Highway Interdictions

NOTE: THE CHARTS ONLY INCLUDE CASES WHERE COLORADO MARIJUANA WAS ACTUALLY SEIZED AND REPORTED. IT IS UNKNOWN HOW MANY COLORADO MARIJUANA LOADS WERE NOT DETECTED OR, IF SEIZED, WERE NOT REPORTED.

❖ A 2014 survey of approximately 100 interdiction experts estimates that 10 percent or less of marijuana being trafficked is ceased by state highway patrol agencies.

Average Colorado Marijuana Interdiction Seizures



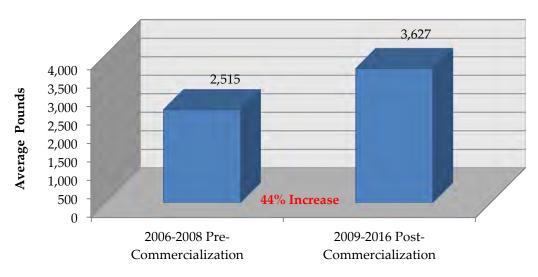
SOURCE: El Paso Intelligence Center, National Seizure System, as of August 28th, 2017

Colorado Marijuana Interdiction Seizures



SOURCE: El Paso Intelligence Center, National Seizure System, as of August 28th, 2017

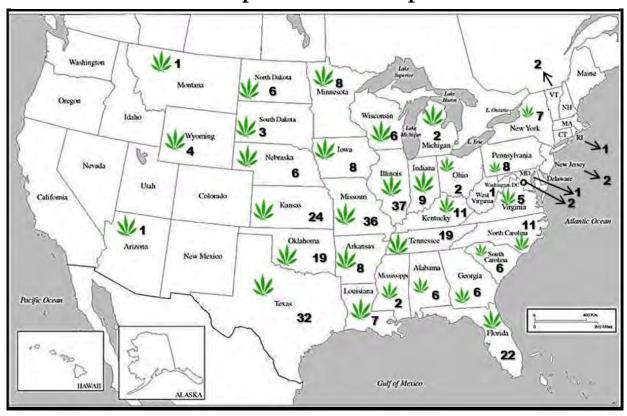
Average Pounds of Colorado Marijuana from Interdiction Seizures



SOURCE: El Paso Intelligence Center, National Seizure System, as of August 28th, 2017

❖ In the four years (2013-2016) of legalized recreational marijuana in Colorado, highway patrol seizures have resulted in over 6 tons of Colorado marijuana being seized (12,873 pounds).

States to which Colorado Marijuana was Destined, 2016 (Total Reported Incidents per State)



❖ There were 15 seizures for which the destination was unknown.

Top Three Cities for Marijuana Origin

Originating City Rank	Number of Seizures from Originating City	Percent
1. Denver	166	48%
2. Colorado Springs	34	10%
3. Aurora	13	4%

^{*} Of the 346 seizures, only 283 seizures had an origin city identified. The numbers above represent the top three cities from which Colorado marijuana originated. The percent was calculated from known origin cities.

SOURCE: El Paso Intelligence Center, National Seizure System, as of August 28th, 2017.

Case Examples of Investigations

NOTE: THE EXAMPLES BELOW ARE ONLY A SMALL SAMPLE OF THE MANY INVESTIGATIONS INVOLVING COLORADO MARIJUANA CITED BY VARIOUS DRUG UNITS.

<u>Dozens of Indictments in Largest Illegal Marijuana Trafficking Ring Bust since</u>
<u>Legalization:</u> Colorado Attorney General Cynthia Coffman announced that the largest illegal marijuana trafficking investigation has resulted in arrests in late June of 2017.

The trafficking organization spanned five states, and the investigation resulted in 62 people having files charged against them. More than 20 law enforcement organizations were involved in the investigation and/or takedown which included the Denver Police Department and the U.S. Drug Enforcement Administration. According to Coffman, this single investigation is a prime example of how the marijuana black market continues to flourish in Colorado.

During raids, agents seized 2,600 marijuana plants and another 4,000 lbs. of marijuana. As a whole, the trafficking ring produced an estimated 100 lbs. of marijuana a month, which is sold for approximately \$2,000 per pound on the black market in Colorado. ¹

Indictment in Colorado Pot Biz's Largest Fraud Case Ever: Scott Pack was indicted by a grand jury in what attorney Matthew Buck referred to as "the largest fraud case in the history of Colorado's marijuana industry." The large operation that distributed Colorado grown marijuana across state lines ended in the indictment of sixteen people. Among those indicted was Renee Rayton, a former Marijuana Enforcement Division employee.

According to attorney Matthew Buck, "There are potentially victims for as much as \$10 million. Scott Pack's company is one of the larger marijuana companies in Colorado. They own a significant number of licenses, and through a series of shell companies, they hold the leases on many buildings across the state."

In the *Westword* article published June of 2017, Buck continued to describe the details of the indictment, and said "[Scott Pack] had a sophisticated understanding of how to use loopholes to get around state law." ²

Arrests Made in South Pueblo County Marijuana Grow: According to a press release by the Pueblo County Sheriff's Office, three individuals were arrested on April 13th, 2016 in connection with an illegal marijuana grow operating from within a Pueblo, CO home. In total, 180 marijuana plants were found growing in the home being occupied by the three individuals.

The three individuals had been living in Florida, but were originally from Cuba. One of the three individuals had recently purchased the home in February of 2016.

Although the press release did not specifically state that the marijuana was being illegally trafficked outside the state, several indicators suggest that the marijuana was intended to leave Colorado. Twelve people, all from Florida, have been arrested in seven separate illegal marijuana grow operations discovered in Pueblo County on March 30th and April 14th, 2016. Five of the twelve individuals were originally from Cuba. ³

Individuals Indicted for an Illegal Home-grow Also Possess Legal Marijuana

<u>Licenses:</u> In March 2017, 16 people were indicted for participating in a massive illicit marijuana home-grow operation. Of the 16, eight are recorded as having active or expired licenses to work in the legal marijuana business including the ringleader, Michael Alan Stonehouse, who acts as a consultant for the marijuana industry in Colorado. According to authorities, the group cultivated their marijuana in properties in Colorado Springs, Castle Rock, Elbert County and Denver and then diverted the marijuana to **Illinois**, **Arkansas**, **Minnesota** and **Missouri** to make a higher profit. ⁴

All in the Family Marijuana Operation: Weld County Drug Task Force received a crime tip that a family was involved in cultivating and distributing marijuana from properties located in Weld County. Information was that they were shipping the marijuana out of state as motor cycle parts using "runners" utilizing parcel post. A search warrant was served on the rural properties of the father and mother where officers discovered 101 marijuana plants and marijuana in vacuum sealed bags. However, the mother and father were able to show they had medical marijuana licensing allowing them to have 50 marijuana plants each and 16 ounces of edibles. A search warrant on the son's and daughter-in-law's rural residence did not have any documentation and led to the seizure of 379 marijuana plants, 70 pounds of marijuana, 13 pounds of edibles, 6 shot guns, 6 rifles, and 6 pistols. One of the "runners" was at the scene and arrested for having multiple pounds of dried marijuana in vacuum sealed containers and edibles hidden in his vehicle. ⁵

<u>Laotian Marijuana Operation</u>: Southern Colorado Drug Task Force managed by DEA began an investigation of a Laotian drug trafficking organization that had relocated to Colorado from Arkansas and California. This organization had 12 different cultivation marijuana sites located in 5 different counties in southeast Colorado. Task force officers served search warrants seizing 2,291 marijuana plants, 2,393 pounds of processed marijuana. Also seized were 4 hand guns and 6 long guns. ⁵

Rental House Remodel: In February 2016, Western Colorado Drug Task Force arrested two Cubans from Florida for illegally growing marijuana for distributions. These two rented a \$750,000 house and modified it to cultivate marijuana at a cost of about

\$50,000. Both subjects obtained medical marijuana cards with a doctor's recommendation for 99 plants each. Agents seized the "first round of plants" (63), equipment for a butane hash-oil lab and a hand gun. ⁵

Florida and Colorado Connection: Southern Colorado Drug Task Force managed by DEA executed search warrants in the Pueblo area targeting a drug trafficking organization that had relocated from Florida to Colorado for sole purpose of setting up a large scale marijuana grow operation. As a result of a search warrant, officers seized 1,900 marijuana plants, 17 pounds of processed marijuana, 2 butane hash oil extraction labs and 9 fire arms. There was an independent seizure in Texas that the group was responsible for which included 12 pounds of marijuana and marijuana shatter. The search warrant resulted in 7 arrests. ⁵

<u>Marijuana and Guns:</u> Southwest DTF with DEA targeted a drug trafficking organization responsible for cultivation and distribution of hundreds of pounds of marijuana outside the state of Colorado. Search warrants were served on a number of residents where officers discovered marijuana cultivation as well as 480 pounds of packaged marijuana, 13 fire arms and numerous expired "medical" marijuana licensing documents. ⁵

<u>Large BHO Lab Seized:</u> West Metro Drug Task Force served a search warrant on a residence in Jefferson County. Officers seized 2 large butane hash oil labs along with 5 five-gallon butane tanks, 271 marijuana plants, hash and numerous guns. Officers also discovered documentation confirming the distribution of hash and marijuana to **Florida.** ⁵

Florida Cuban Drug Trafficking Organization: In May 2016, Southern Colorado Drug Task Force executed search warrants at 5 different residential locations operated by a group of Cubans from Florida. These grow operations were in Pueblo County and offices seized a total of 214 marijuana plants, 55 pounds of processed marijuana and over \$100,000 in grow equipment. ⁵

<u>Mississippi Connection</u>: In August 2016, Western Colorado Drug Task Force arrested two suspects from Mississippi who recently moved to Colorado to cultivate marijuana and to distribute it back to **Mississippi**. They rented an upscale house and made major modifications including theft of electrical power. About 50 percent of the living space of the home was used to cultivate marijuana. Agents seized 306 marijuana plants and turned the three young children who were living in the house over to Child Protective Services. ⁵

Marijuana Bust in Northeast Colorado Springs: In July of 2017, federal agents hauled at least 180 marijuana plants out of a private residence in northeast Colorado Springs. Although authorities did not disclose many details of the investigation, they did disclose that one person was taken into custody, and that they had prior knowledge of the illegal marijuana grow inside the home.

The home was currently being rented, and the owner lived out of state. It wasn't stated whether or not marijuana was being trafficked outside of Colorado, but a 180 marijuana plant operation is certainly enough to contribute significantly to an illegal trafficking operation. ⁶

Colorado Deputy Finds 180 Pounds of Marijuana Mixed in with Tractor Trailer's Onion Load: In December of 2016, a Sheriff's Deputy with Prowers County in southeastern Colorado made an interesting discovery. The truck was pulled over after remaining in the passing lane while traveling from Brighton, CO to Naples, Florida. The driver of the vehicle consented to the search of the vehicle after the deputy issued a warning for the driving infraction. Upon further investigation, the deputy found over 180 lbs. of marijuana mixed in among a load of onions being hauled by a tractor-trailer. In total, there were three trash bags containing marijuana, and eight packages of plastic wrapped marijuana concealed in the trailer.

Case Examples of Interdictions

<u>Tractor-Trailer Marijuana Transport:</u> May 2017, Florida Highway Patrol stopped a semi-truck and trailer traveling southbound through Alachua, FL. Upon search of the vehicle, 170 lbs. of marijuana was located and seized by state troopers. The vehicle was traveling from Colorado to **Florida**. ⁸

Motorhome Carrying 100 Pounds of Pot Seized in Tennessee: In August of 2016, a Tennessee Highway Patrol trooper pulled over a vehicle after observing several indicators of possible criminal activity. After requesting backup and obtaining permission to search the vehicle, law enforcement officials found several duffel bags and boxes filled with marijuana. The various containers of marijuana were located in the bedroom area of the motorhome. In total, the various bags and boxes contained approximately 100 pounds of illegally trafficked marijuana. The driver admitted that he obtained the marijuana in Colorado and he was headed to Florida. ⁹

<u>Texas DPS Seizes Load Destined for Florida:</u> January 2016, the Texas Department of Public Safety stopped a passenger van traveling southbound US-81. The state trooper

developed reasonable suspicion of criminal activity, and searched the vehicle based on verbal consent provided by the driver. Upon search of the vehicle, over 72 lbs. of marijuana was located in the vehicle. The trip originated in Colorado Springs, CO and was destined for **Jacksonville**, **Florida**. ⁸

Reckless Driving Leads to Over 76 lbs of Marijuana: February 2016, Colorado State Patrol stopped a vehicle due to several public complaints of reckless driving. Initially, the driver of the vehicle would not pull over, but eventually pulled to the side of the road. Upon further investigation, the trooper discovered over 76 lbs. of marijuana and over \$20,000 inside the vehicle. Although the driver's travel plans were not made clear, the driver was a Florida resident. ⁸

Colorado Marijuana Variety Headed to Illinois: April 2017, two Illinois residents who recently left Colorado were stopped by Nebraska State Patrol while speeding eastbound along I-80. Upon contact with the driver and passenger, the smell of marijuana was immediately detected by the state trooper. After both occupants admitted that there was marijuana in the vehicle, a thorough search was conducted. Over 4 ounces of marijuana, a limited amount of hash oil infused marijuana, 161 THC infused edibles, marijuana seeds, THC vaporizer oil cartridges, marijuana wax and several items of paraphernalia were discovered in the vehicle. ⁸

<u>Illinois:</u> May 2017, a Dodge Charger was stopped for speeding while traveling eastbound along I-80 in Nebraska. The smell of marijuana was immediately detected as the state trooper approached the vehicle. Upon a probable cause search, the four Illinois residents inside the vehicle were found to be in possession of approximately 1.5 lbs. of marijuana, over a hundred THC edibles, nearly two ounces of THC "shatter," 5 grams of THC "wax," 8 freshly rolled "joints," several recently smoked "joints," and other items of paraphernalia. ⁸

Indiana "Marijuana Head" with Colorado Marijuana: April 2017, a Kansas Highway Patrol Trooper stopped a vehicle traveling from Colorado to Indiana with THC "Shatter," THC "Budder," 54 THC cartridges, 6 lbs. of marijuana, various other marijuana items and a loaded .40 caliber handgun. The suspect claimed all the marijuana was for the consumption of those within the vehicle, and he went on to explain that he is a "marijuana head" and that he had been smoking marijuana since he was a kid. ⁸

<u>Colorado Marijuana to Iowa:</u> February 2016, Colorado State Patrol stopped a vehicle traveling from Brighton, Colorado to **Des Moines, Iowa**. The stop resulted in the arrest of the driver from Des Moines, Iowa, passenger from Clearlake, Iowa and the seizure of

8 lbs. of marijuana, 85.05 grams marijuana concentrate, and a S/W M&P 9mm handgun. The vehicle was initially stopped for a signal violation. The marijuana was located inside a large clothing duffel bag in the vehicle's trunk.¹⁰

<u>Colorado Marijuana Plants to Kentucky:</u> May 2017, a vehicle was stopped in eastern Colorado while traveling eastbound from Boulder, Colorado to Lexington, Kentucky. After the driver provided his consent to search the vehicle, Colorado State Patrol located 288 individual marijuana plants inside the vehicle. ⁸

Colorado Marijuana to Maryland: November 2016, an Ohio State Highway Patrol Trooper stopped a vehicle traveling eastbound along I-80. The driver was a Colorado resident traveling to Maryland. After the driver displayed several indications of criminal activity, a canine was allowed to perform an "exterior sniff" of the vehicle. The canine alerted to the presence of an illegal substance. After a thorough search, law enforcement found a variety of cannabis products in the vehicle (chocolate bars, gummies, etc.). Upon questioning, the driver said that he's from Colorado where it's legal to have marijuana. ¹¹

<u>Maryland:</u> June 2017, an Ohio State Highway Patrol Trooper stopped a car-hauler traveling eastbound along I-70. Upon investigation, the State Trooper became suspicious of both vehicles being transported on the car-hauler. After driver consent and a subsequent external canine search, a probable cause search was performed and approximately 5 lbs. of marijuana along with 108 vials of liquid THC were discovered in one of the vehicles being transported. The vehicle was being shipped from Denver, Colorado to **Bethesda**, **Maryland**. There were no indications that the driver of the carhauler knew he was illegally transporting marijuana. ¹²

Minnesota – Medical Marijuana for Distribution: April 2017, a vehicle was stopped while traveling eastbound along I-80 in North Platte, Nebraska. The driver immediately claimed to be a medical marijuana patient who had been diagnosed with multiple sclerosis. Upon further investigation, the driver was found to be in possession of a substantial amount of marijuana, THC liquid vials, and other edible THC products that were packaged in a way that made the state trooper suspicious that the marijuana was intended for distribution. Several of the bags of THC edibles were actually labeled with individual's names. It is assumed that these individual were the intended recipients of the marijuana infused products. The vehicle was traveling from Colorado to Minnesota.⁸

<u>Destination Unknown</u>: March 2017, Missouri State Highway Patrol stopped a vehicle from Colorado which was southbound I-29. The Colroado driver would not discolse

where he was traveling to. After several indicators of criminal behavior were noted, a search of the vehicle yielded 26 lbs. of marijuana concelaed inside a red duffel bag on the back seat. ¹³

<u>Missouri</u>: May 2017, Kansas Highway Patrol stopped a car hauler traveling from Denver, Colorado to **Missouri**. A subsequent search of one of the vehicles being hauled yielded 50 lbs. of high-grade marijuana. ¹⁴

New York Distribution: January 2016, Ohio State Patrol stopped a vehicle traveling eastbound along I-70 in Madison County, Ohio. After displaying suspicious behavior when interacting with the state trooper, a canine search was performed on the vehicle. The canine indicated a positive response on the vehicle, and a full search ensued. During the search, 123 lbs. of marijuana were discovered in rubber totes in the rear storage area of the vehicle along with a vacuum sealer machine. The vehicle was traveling from Colorado to New York. ⁸

Flying to Buy Colorado Marijuana: April 2016, a Kansas Highway Patrol Trooper stopped an eastbound vehicle traveling along I-70. Upon investigation, the sole occupant was found to be in possession of 4.3 lbs. of marijuana, 158 marijuana edibles, and 8 ounces of a THC infused drink. The driver had flown from his home in Pennsylvania and through a third-party had obtained a one way rental from Aurora, Colorado. After buying the recreational marijuana products, the driver was transporting the product to his home state (**Pennsylvania**). ⁸

Note: Flying to Colorado and driving back home is a common method for illegally transporting marijuana out of state.

<u>South Carolina Dealer Uses Rental Vehicle:</u> March 2017, Kansas Highway Patrol stopped a vehicle traveling eastbound along I-70 in Goodland, Kansas. After a short roadside investigation, the driver of the vehicle was found to be in possession of 13 lbs. of marijuana, 101 THC vapor cartridges, and 378 fl. oz. of THC infused beverages (20 individual drinks). The driver had rented the vehicle four days prior. He had driven from South Carolina to Colorado, and was headed back to **South Carolina** when he had been stopped in Kansas. ⁸

Note: Rental vehicles are commonly used to buy and transport Colorado marijuana out of state.

<u>Marijuana and Concentrate to Iowa:</u> In February 2017, Kansas Highway Patrol stopped a vehicle traveling from Loveland, Colorado to **Iowa**. A search of the vehicle yielded 25 lbs. of marijuana and 1 lb. of THC shatter. ¹⁵

Sources

- ¹ Chuck Hickey, "Dozens of indictments in largest illegal marijuana trafficking ring bust since legalization," KDVR-TV Channel 2 Denver, June 28, 2017, http://kdvr.com/2017/06/28/62-people-12-businesses-indicted-in-largest-illegal-marijuana-ring-bust-in-colorado-history/, accessed June 28, 2017.
- ² Michael Roberts, "Scott Pack Indicted in Colorado Pot Biz's Largest Fraud Case Ever, Attorney Says," *Westword*, June 14, 2017, http://www.westword.com/news/scott-pack-indicted-in-huge-colorado-marijuana-fraud-case-9156890, accessed August 11, 2017.
- ³ Pueblo County Sheriff's Office, April 14, 2016, "Arrests Made in South Pueblo County Illegal Marijuana Grow," http://www.sheriff.co.pueblo.co.us/pio/?p=2405, accessed July 26, 2017.
- ⁴ Jesse Paul, "Eight of 16 people indicted in Colorado marijuana trafficking operation listed as having state pot licenses," *The Denver Post*, March 24, 2017, http://www.denverpost.com/2017/03/24/denver-marijuana-smuggling-operation-medical-marijuana-licenses/, accessed April 19, 2017.
 - ⁵ Rocky Mountain HIDTA Task Force Quarterly Reports, Calendar Year 2016-2017.
- ⁶ Danielle Kreutter, "Marijuana bust in northeast Colorado Springs," July 12, 2017, http://www.kktv.com/content/news/DEA-search-warrant-in--434154383.html, accessed July 26, 2017.
- ⁷ Jesse Paul, "Colorado deputy finds 180 pounds of marijuana mixed in with tractor-trailer's onion load," *The Denver Post*, December 8, 2016, http://www.denverpost.com/2016/12/08/colorado-deputy-finds-180-pounds-of-marijuana-mixed-in-with-tractor-trailers-onion-load/, accessed December 8, 2016.
 - ⁸ El Paso Intelligence Center, National Seizure System. Data pull August 28th, 2017.
- ⁹ The Associated Press, "Motorhome carrying 100 pounds of pot seized in Tennessee," August 28, 2016, http://www.denverpost.com/2016/08/28/motorhome-100-pounds-marijuana-seized-tennessee/, accessed August 28, 2016.

- ¹⁰ RMHIDTA Quarterly Report. Colorado Criminal Interdiction, 1st Quarter 2016.
- ¹¹ Ohio State Highway Patrol Report of Investigation, via e-mail dated July 31st, 2017; accessed August 1st, 2017.
- ¹² Ohio State Highway Patrol Report of Investigation, via e-mail dated July 13th, 2017; accessed July 22nd, 2017.
 - ¹³ Midwest HIDTA Interdiction Bulletin 2017-47.
 - ¹⁴ Midwest HIDTA Interdiction Bulletin 2017-84.
 - ¹⁵ Midwest HIDTA Interdiction Bulletin 2017-26.

SECTION 8: Diversion by Parcel

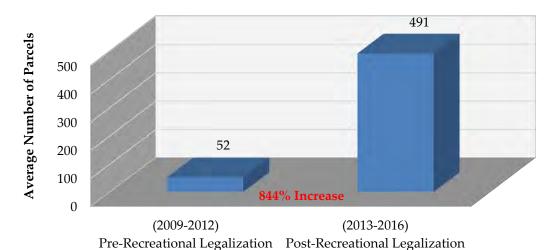
Some Findings

- Seizures of Colorado marijuana in the U.S. mail has **increased 844 percent** from an average of 52 parcels (2009-2012) to 491 parcels (2013-2016) in the four-year average that recreational marijuana has been legal.
- Seizures of Colorado marijuana in the U.S. mail has **increased 914 percent** from an average of 97 pounds (2009-2012) to 984 pounds (2013-2016) in the four-year average that recreational marijuana has been legal.

Data from U.S. Postal Service

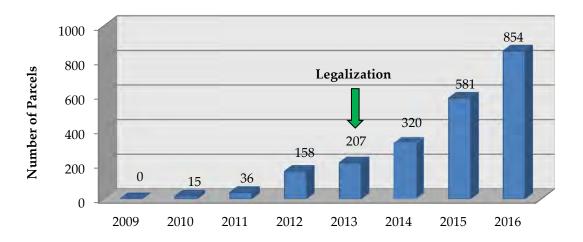
NOTE: THESE FIGURES ONLY REFLECT PACKAGES SEIZED; THEY DO NOT INCLUDE PACKAGES OF COLORADO MARIJUANA THAT WERE MAILED AND REACHED THE INTENDED DESTINATION. INTERDICTION EXPERTS BELIEVE THE PACKAGES SEIZED WERE JUST THE "TIP OF THE ICEBERG."

Average Number of Parcels Containing Marijuana Mailed from Colorado to Another State



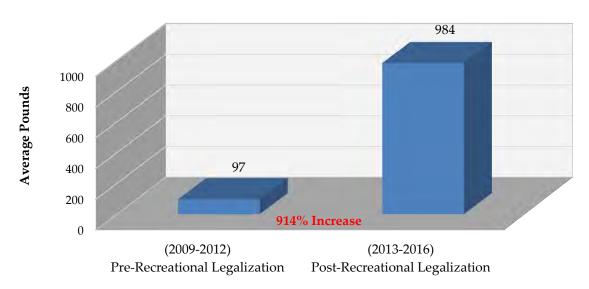
SOURCE: United States Postal Inspection Service, Prohibited Mailing of Narcotics

Parcels Containing Marijuana Mailed from Colorado to Another State



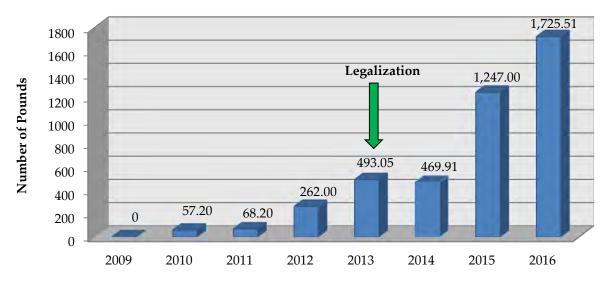
SOURCE: United States Postal Inspection Service, Prohibited Mailing of Narcotics

Average Pounds of Colorado Marijuana Seized by the U.S. Postal Inspection Service



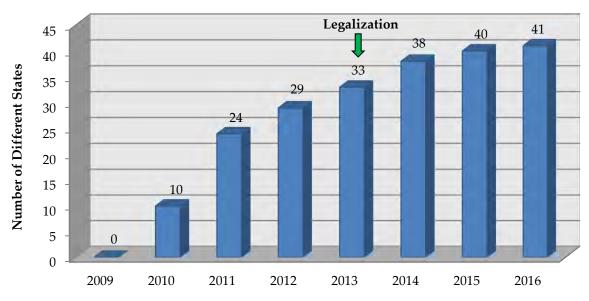
SOURCE: United States Postal Inspection Service, Prohibited Mailing of Narcotics

Pounds of Colorado Marijuana Seized by the U.S. Postal Inspection Service



SOURCE: United States Postal Inspection Service, Prohibited Mailing of Narcotics

Number of States Destined to Receive Marijuana Mailed from Colorado



SOURCE: United States Postal Inspection Service, Prohibited Mailing of Narcotics

Private Parcel Companies

❖ There are courier delivery service companies, with locations throughout the country, from which Colorado marijuana destined for other states has been seized. Unlike the U.S. Postal Service, a central data system does not exist for these various private couriers.

Several HIDTA regions were asked about parcel interdictions of marijuana from Colorado during calendar year 2016. The following data were provided by those HIDTA regions, although they do not represent 100% reporting for any state or region:

<u>Chicago</u>: There were a total of 23 separate parcel interdictions in which Colorado marijuana, edibles, and/or marijuana concentrates (THC/wax) were seized by law enforcement. Totaling more than 47 lbs. of product, Chicago region law enforcement estimates the street value of products seized to be approximately \$420,000.

Houston: 6 packages of Colorado marijuana, weighing 5.3 lbs.

Midwest: 18 packages of Colorado marijuana weighing 9.3 lbs.

North Florida: 25 packages of Colorado marijuana, hashish and concentrated THC were seized, totaling 64 lbs.

<u>Ohio:</u> 15 packages of Colorado marijuana, hash oil, concentrated THC wax and edibles were seized, weighing approximately 30 lbs.

<u>Washington/Baltimore:</u> 25 packages containing over 37 lbs. of Colorado marijuana and/or THC concentrates were seized.

Rocky Mountain: (packages destined outside of Colorado) 75 packages in total, which included 132 lbs. of marijuana products, and 89 individual edible products (brownies, candies, bars, etc.), and 6 live plants.

When asked where the packages were destined, it was reported that these marijuana packages are being shipped all over the United States and out of the country. The furthest destination noted was the United Kingdom.

Case Examples

<u>From the Mountains to the Beach:</u> In March of 2016, over 11 lbs. of high-grade marijuana was seized as it was being transported by FedEx Express. The marijuana was sent from Aspen, Colorado to **Neptune Beach, Florida**. ¹

\$12,000 Worth of Marijuana in the Mail: In December of 2016, over 6 lbs. of marijuana was seized as it was being transported by United Parcel Service (UPS). The marijuana was mailed from Grand Junction, Colorado to **Riviera Beach, Florida**. ¹

New Year's Gift from Longmont, CO: In January of 2017, over 6.5 lbs. of high-grade marijuana were seized as it was being transported by FedEx Express. The marijuana was mailed from Longmont, Colorado to Jacksonville Beach, Florida. ¹

<u>Sending "Green" from Evergreen, CO:</u> In March of 2017, 13 lbs. of high-grade marijuana was seized as it was being transported by UPS. The marijuana was mailed from Evergreen, Colorado to **Atlantic Beach, Florida**. ¹

<u>Headed to the Atlantic:</u> In June of 2017, over 8.5 lbs. of high-grade marijuana was seized as it was being transported by FedEx Ground. The marijuana was sent from Littleton, Colorado to **Jacksonville Beach**, **Florida**. ¹

Arvada Man Gets One Year in Prison for Mailing Edibles: On February 18, 2017, 27 year-old Stephen Paul Anderson was sentenced to serve a year and one day in federal prison and three years of community supervised release for sending boxes of illegal marijuana edibles through the U.S. Postal Service. Anderson, who moved from Texas to Colorado, was manufacturing highly concentrated THC oil in his basement using an open flame fueled by a propane tank. This method of extracting oil has led to multiple fires and explosions throughout the Denver area. ²

<u>Seizure of Marijuana-Filled Parcels Increasing:</u> Police Chief Aaron Jimenez (St. Ann Police, Missouri) was recently interviewed by a St. Louis news media outlet. The article mentioned, "pounds upon pounds of high-grade marijuana are being shipped to the **St. Louis area** from states where the drug is legal."

Jimenez explained how it was not always that way. "We might've had 5 to 10 maybe in a year, but since I've started the narcotics unit here, I can tell you within the last year, these guys probably get one or two a week."

U.S. Postal Inspector Dan Taylor said, "Just here in the St. Louis area, our postal inspectors have seized over 1,200 pounds of marijuana, from the mail, in the last year.

We've become very good at identifying these packages." It is worth noting that this amount of seized marijuana equates to over 32 pounds a day.

According to police, "marijuana is most commonly sent from Colorado and California, but the packages nearly always have fake names and addresses." ³

Second Bust of Illegal Grow, Same Two People Arrested on the Same Property:

"Nearly 150 marijuana plants, packaged marijuana and firearms were seized from a property that has been busted before for illegally growing marijuana. The two arrested were the same two busted nearly a year ago." While the El Paso Sheriff's office led the operation, agents from the Drug Enforcement Administration assisted with the investigation and seizure of the marijuana plants, cash, grow equipment, and four firearms. Of note, investigators found several packages of processed marijuana located in numerous United States Postal Services boxes, which appeared to be nearly ready to ship. According to the August article published by KKTV, the Colorado Springs news outlet, "The DEA estimates there was between \$25,000 to \$30,000 worth of lighting equipment inside the single grow house. The marijuana seized has an estimated value greater than \$125,000." ⁴

<u>Home Improvement Goods:</u> In November of 2016, the North Metro Task Force (NMTF) intercepted a package to be shipped via UPS that contained 18.5lbs of marijuana packaged in a Home Depot bucket. The package was being shipped to an address in **Stanley, North Carolina**. The investigation has resulted in the arrest of two suspects. ⁵

<u>Heading South:</u> In November of 2016, the North Metro Task Force (NMTF) intercepted a UPS shipment that contained 7.5lbs of marijuana and marijuana edibles. The two packages within the shipment were addressed to **Dallas, Texas**, and **Magnolia, Texas**. ⁵

April Fools' Delivery: In April of 2017, the North Metro Task Force (NMTF) intercepted a package shipped via UPS that contained over 23lbs of marijuana. The package was being shipped to an address in **Malden, Massachusetts**. With the help of the Malden Police Department, a coordinated investigation took place which resulted in the arrest of a single suspect. ⁵

Sources

- ¹ North Florida HIDTA Information Bulletins, Package Interdiction Summaries. Received July 25th, 2017.
- ² Kirk Mitchell, "Arvada man who used post office to distribute marijuana edibles sentenced to a year and a day," *The Denver Post*, February 22, 2017, http://www.denverpost.com/2017/02/22/arvada-man-usps-marijuana-edibles/, accessed April 19, 2017.
- ³ Rebecca Roberts, "Seizure of marijuana filled parcels increasing," Fox 2 Now/St. Louis, June 17, 2017, http://fox2now.com/2014/06/17/seizure-of-marijuana-filled-parcels-increasing/, accessed August 17, 2017.
- ⁴ Khloe Keeler, "2nd bust of illegal grow, same 2 people arrested on the same property," KKTV/11 News, August 8, 2017, http://www.kktv.com/content/news/Illegal-grow-bust-guns-and-marijuana-seized-in-El-Paso-County-438387943.html, accessed August 10, 2017.
 - ⁵ Rocky Mountain HIDTA Task Force Quarterly Reports, Calendar Year 2016-2017.

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SECTION 9: Related Data

Topics

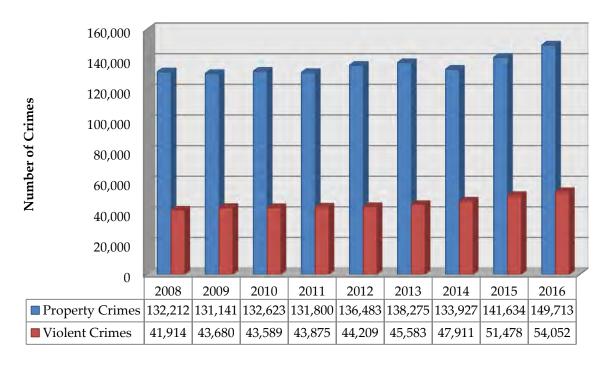
- Crime
- Revenue
- Event Planners' Views of Denver
- Homeless
- Suicides
- THC Potency
- Marijuana Use and Alcohol Consumption
- Medical Marijuana Registry
- Licensed Marijuana Businesses
- Business Comparisons
- Demand and Market Size
- Reported Sales of Marijuana
- Price of Marijuana
- Local Response to the Medical and Recreational Marijuana Industry in Colorado

NOTE: SOME OF THE DATA REPORTED IN THIS SECTION IS BECAUSE THERE HAVE BEEN SO MANY INQUIRIES ON THE PARTICULAR SUBJECT, SUCH AS CRIME AND SUICIDES. THIS IS NOT TO INFER THAT THE DATA IS DUE TO THE LEGALIZATION OF MARIJUANA.

Some Findings

- Crime in Denver **increased 6 percent** from 2014 to 2016 and crime in Colorado **increased 11 percent** from 2013 to 2016.
- Colorado annual tax revenue from the sale of recreational and medical marijuana was **0.8 percent** of Colorado's total statewide budget (FY2017).
- As of June 2017, there were **491 retail marijuana stores** in the state of Colorado compared to **392 Starbucks** and **208 McDonald's**.
- **66 percent** of local jurisdictions have banned medical and recreational marijuana businesses.

Colorado Crime

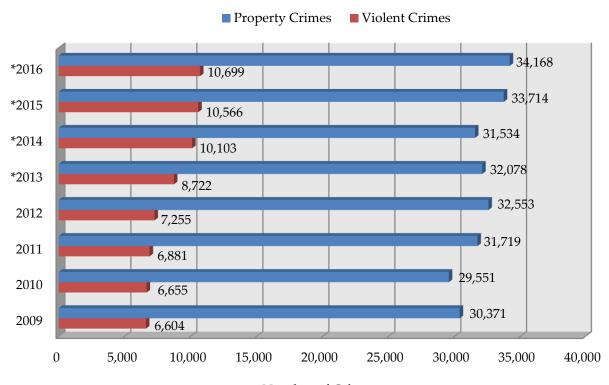


SOURCE: Colorado Bureau of Investigation, http://crimeinco.cbi.state.co.us/

Colorado Crime	From 2009 to 2012	From 2013 to 2016
Property Crime	Increased 4.1%	Increased 8.3%
Violent Crime	Increased 1.2%	Increased 18.6%
All Crime	Increased 3.4%	Increased 10.8%

SOURCE: Colorado Bureau of Investigation, http://crimeinco.cbi.state.co.us/

City and County of Denver Crime



Number of Crimes

*In May 2013 the Denver Police Department implemented the Unified Summons and Complaint (US&C) process. This process unifies multiple types of paper

citations, excluding traffic tickets, into an electronic process. That information is transmitted to the Denver Sheriff, County Court, City Attorney and District

Attorney through a data exchange platform as needed. As a result of this process a reported offense is generated which was previously not captured in

National Incident Based Reporting System (NIBRS).

SOURCE: City and County of Denver, Denver Police Department, Crime Statistics and Maps, April 2016

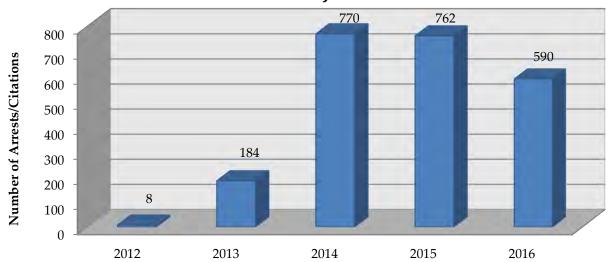
Crime in Denver (City and County)					
	2013	2014	2015	2016	
*All Reported Crimes					
(To include all categories	55,115 **	61,276	64,317	64,736	
listed below)					

*Denver Crime	From 2014 to 2016
Crimes Against Persons	Increased 6%
Crimes Against Property	Increased 8%
Crimes Against Society	Increased 31%
All Other Offenses	Decreased 9%
All Denver Crimes	Increased 6%

^{*} Actual number of crimes in Denver

SOURCE: City and County of Denver, Denver Police Department, Crime Statistics and Maps, April 2016

Denver Police Department Unlawful Public Display/Consumption of Marijuana



SOURCE: Denver Police Department, Traffic Operations Bureau/Vice/Drug Bureau via Data Analysis Unit

^{**} New process began in May 2013 and 2013 data is not comparable to 2014-2016

Boulder Police Department Marijuana Public Consumption Citations



SOURCE: Boulder Police Department, Records and Information Services

NOTE: THE CITY OF BOULDER DID NOT HAVE A MUNICIPAL STATUTE SPECIFIC TO PUBLIC CONSUMPTION OF MARIJUANA UNTIL MID-2013.

Case Examples

<u>"Marijuana is the Gateway Drug to Homicide":</u> After indicting thirteen people involved in illegally distributing around 200 pounds of marijuana District Attorney Dan May stated in a public announcement, "Colorado Springs Police Department... had 22 homicides in Colorado Springs last year, 2016. Eight of those were directly marijuana." During the public announcement May explained that authorities are overwhelmed having to deal with the crime that is associated with marijuana and claimed that "marijuana is the gateway drug to homicide." ¹

Homicides have "Marijuana Nexus": Colorado Springs is Colorado's second largest urban area located in El Paso County. Neither the city nor the county permit the sale of recreational marijuana but both allow medical marijuana. Even so, the Colorado Springs Police Department stated 11 of the 59 homicides that occurred in Colorado Springs between 2015 and early 2017 have a "marijuana nexus." According to the

report, "In most cases robbery of marijuana was a motive or the victim was killed during a marijuana narcotics transaction." ²

Pot Deal Ends in Gunfire when Buyer Realizes they Bought Broccoli: Local Colorado drug dealers, Tercell Davis and Sababu Colbert-Evans, "accepted \$10,000 for a marijuana sale, but Davis substituted broccoli for the pot." Both parties had already driven off when the buyers realized they had actually purchased broccoli instead of marijuana. The buyers noticed they had been duped and arranged another meeting with Davis using a different name. The next night they all met up again and "an argument broke out, and Colbert-Evans and Davis fired 11 shots at the fleeing would-be buyers. One was hit in the torso." ³

Texas Trio Charged with Murder during Marijuana Robbery: Three individuals from Texas were charged with first-degree murder while attempting to rob David Gaytan in May 2017. The shooting that lead to the death of David Gaytan occurred at a mobile home park in Lightner Creek, Colorado. District Attorney Christian Champagne, in a response to the shooting, stated,

Colorado voters have clearly stated they are in favor of legalized marijuana... which makes the state a target for people with nefarious intent from other states. It's a problem; I don't know where the solution is..., I think it's important that we send a message that we're taking it very seriously, and people who come from other states to commit crimes in our community are going to be dealt with very seriously, and that's how we're approaching it. ⁴

At Least Eleven Pot-Related Homicides Since Legalization: In response to the recent conviction of Shawn Geerdes, an owner of a shared marijuana grow who murdered his business partner, a local Colorado District Attorney indicated that there have been "at least eleven pot-related homicides since legalization." District Attorney George Brauchler claimed that "since the passage of Amendment 64, jurisdictions across the state have noted significant violent crime related to marijuana cultivation and distribution." In addition to homicide, he noted that there are additional crimes such as "robbery, burglary, and attempted-murder cases in our community also motivated by marijuana." ⁵

<u>Triple Homicide at Illegal Marijuana Grow:</u> 24-year-old Garrett Coughlin was charged with six counts of first degree murder after being accused of killing 3 people in Boulder County. Police believed "the home was specifically targeted" by Coughlin on April 13, 2017. Witnesses told investigators they "saw Coughlin with large amounts of marijuana packaged in a manner consistent with the marijuana owned by the victims, as well as

large amounts of cash following the homicides." Over 100 plants were found at the murder location.^{6,7}

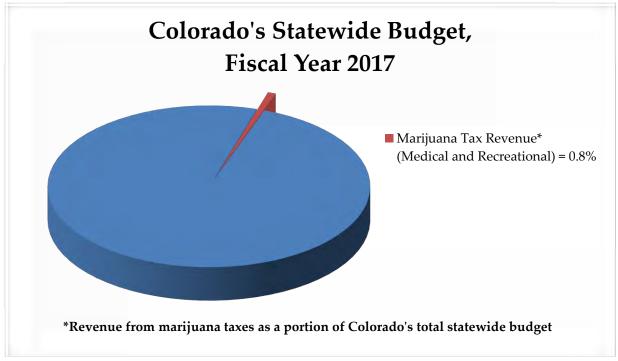
A Troubling Weakness in Colorado Marijuana Enforcement: Former Colorado Marijuana Enforcement Officer, Renee Rayton, was recently indicted due to her involvement in shipping millions of dollars worth of marijuana outside the state. Within weeks after leaving her state employment she was working for a shell company, Harmony & Green. "Harmony & Green...bought legal pot cultivation licenses and tricked investors into helping finance the scheme." In addition to breaking state and federal law by shipping marijuana outside of Colorado, Rayton also breached a specific policy that prevents "former regulators from working in the industries they oversaw for six months."

During her time with Harmony & Green, Rayton reportedly bragged about knowing someone at the Colorado Department of Revenue who would help the company "get legal." According to investigators assigned to the case, it is doubtful that she was unaware of the "duplicitous practices that were lining her pocket," given her vast regulatory field experience.

Although Colorado's Enforcement Division was correct in asking the Colorado Bureau of Investigation to conduct an independent investigation, this example of an Enforcement Officer gone bad highlights the complexities and challenges involved in regulating recreational marijuana. This case made it pretty clear that the "Department of Revenue should launch a review of its enforcement division's practices and ensure, through education and otherwise, that its regulators can be trusted."

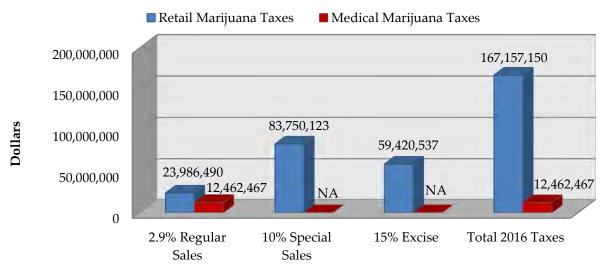
County Official Arrested Over Illegal Pot Grow: According to investigators, Ted Archibeque, the elected Eagle County surveyor, and his brother Thomas Archibeque are "suspected of knowingly allowing the cultivation/manufacturing of marijuana" at an illegal grow. Local officials and the DEA served a warrant to a property owned by Ted Archibeque and found "28 growing plants and 65 pounds of processed marijuana" they also observed "what appeared like recent construction of multiple greenhouses and an airfield." According to Kris Friel, an Eagle County spokeswoman, "Ted is still the county surveyor" because as an elected position "there is no provision for placing the surveyor on administrative suspension." ⁹

Revenue



SOURCE: Governor's Office of State Planning and Budgeting

Total Revenue from Marijuana Taxes, Calendar Year 2016



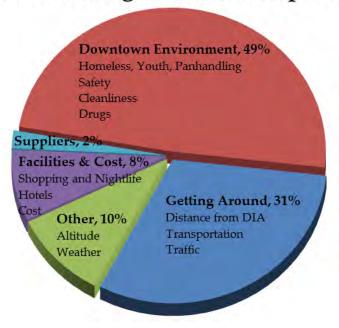
SOURCE: Department of Revenue, Monthly Marijuana Taxes, Licenses and Fees Transfers and Distribution, 2016

NOTE: FIGURES DO NOT INCLUDE ANY CITY TAXES; THE STATE DOES NOT ASSESS OR COLLECT THOSE TAXES.

Case Example

Falling Marijuana Prices Mean Trouble for States that Have Legalized: As more time elapses since marijuana legalization, prices for marijuana are expected to continue to drop. However, states like Colorado "that tax legal marijuana sales based solely on price" may begin to have budgetary issues. "The progression of marijuana prices over time in Colorado perfectly parallels the pattern in Washington after that state legalized: Prices briefly spiked due to initial supply shortages, but then began dropping as the marijuana industry matured and expanded. Wholesale prices in Colorado tumbled 24.5 percent over the past year to \$1,471 per pound." While prices dropping may be good for consumers it may not be good for Colorado as "sinking prices translate automatically into sinking tax revenue per sale." In order for Colorado to compensate for this reduction and ensure that tax revenue remains the same, it will need to "have substantially increased sales volume." However, increasing consumption comes with its own risks "such as more auto accidents by drivers who are stoned, an increase in heavy cannabis users dropping out of school, and so on. If the state adopts measures to cut soaring consumption, it will by definition lose tax revenue, potentially making the recreational marijuana system unable to pay for its own regulatory costs." 10

Negative Meeting Planner Perceptions, 2014



SOURCE: VISIT DENVER, Impacts of the Downtown Environment on the Tourism Industry and Visitor Perceptions report

VISIT DENVER is the marketing organization for the city and it measures, records and reports hundreds of data points, to include safety trends and feedback received from convention and leisure visitors. Based on data collected they came away with three key takeaways:

- 1. "The downtown environment is the #1 complaint from meeting planners, far surpassing any other categories. The severity of this issue has increased and as of 2014 nearly 50% of meeting planners negatively commented on homeless, youth, panhandling, safety, cleanliness, and drugs including public marijuana consumption."
- 2. "Denver ranks very high on walkability, affordability, facilities, and other factors. However, Denver as a 'safe city' ranks significantly lower according to interviews with key convention planners conducted by an independent third-party."
- 3. "Denver is losing visitors and valuable convention business as a result of these overall safety (or perception of safety) issues. Unfortunately, word is beginning to spread among meeting planners about the safety challenges Denver is facing.

As the market organization for the city, we fear not being able to brand Denver away from this growing reputation."

Comments made by the Colorado Convention Center clients and visitors to Denver:

- "I'm sorry but I would never consider putting attendees in danger by holding a convention in your city. We are staying at Embassy Suites downtown on 16th, and last night witnessed a group of about 30 teenagers attack a man walking along 16th street. I am told this is not an unusual occurrence. The homeless situation is very sad, and public streets reek of weed. The Denver police should be more alert to large groups of minors congregating on city streets attacking tourists. My feedback from this meeting will be to never locate here again; I have felt much safer in downtown NYC, Philly, Seattle, and Chicago."
- "I am a 5th generation Colorado native. I am downtown for a national convention and within 10 minutes of walking to the Convention Center I was so disheartened: I didn't feel safe and it was 2:00 in the afternoon. I passed drunks, disheveled people, smelled weed being smoked in the open. It was disgusting and I thought so this is where the current government is taking us. I use [sic] to be so proud of Denver and Colorado; today I was heart sick and embarrassed, knowing I'd be apologizing to colleagues coming from other states that didn't have sanctuary cities, legalized pot etc. Mayor Hancock, you need to rethink what you're doing before the Denver that was beautiful and safe is gone."
- "This client chose to contract with the Hyatt Regency San Antonio. I would like to share with you why Denver dropped off his list. This client does a lot of business in Denver and was disappointed to see, in his opinion, how things have changed in the city since marijuana was legalized. He says he sees lots of people walking around looking 'out of it' and does not want to expose his attendees to this. I hope you don't mind the honestly [sic] but I wanted you to know exactly 'why'."
- "Greetings, we wanted to pass along some comments based on a national meeting we hosted for our industry in Denver in July [2015]. It was held with delegates arriving as early as July 11 and continued through July 15. This is a meeting of industry executives and business owners from around the entire country. The meeting was headquartered at the Sheraton downtown. The chairman commented, 'We will most likely not return to Denver based on the current situation with all the street people.' This was followed up by comments from the President who echoed these comments about a reluctance to return to Denver based on the condition of the City and the abundance of homeless people walking the mall and in and about the downtown area. The

attendees were also less than complementary with Denver and in particular the downtown area. Some of the comments received from attendee in survey after the conference were:

- o 'Denver seems less safe now that pot is legalized.'
- o 'Don't have a meeting in downtown Denver...what a depressing downtown area.'
- o 'The neighborhood had way too many vagrants. I don't remember Denver being that bad.'
- O 'Poor area, lots of crime as we sat outside on a patio on the 16th Street mall on Sunday evening having a beer, I turned my head to look at a television, when I turned back a street person was drinking my beer. I am sure this is not an image Denver wants portrayed around the country.'"

Homeless

How Recreational Weed is attracting People, but Spiking the State's Homeless Rate:

An article written in the summer of 2016 described the journey of a young man from a small town in Texas to the Southern Colorado town of Pueblo. In the first half of a two-part article, Devin Butts describes his journey to Colorado which was made largely due to the current recreational marijuana laws. "He'd come to Colorado...because he'd decided that cannabis would be the only indulgence he would keep as he tore himself away from all the other, far more dangerous substances and habits he was used to."

Devin is not alone in his journey to Colorado; in fact, there are many others that have followed a similar fate and ended up in one of Colorado's overcrowded homeless shelters while trying to make a new future.

At Denver's St. Francis Center day shelter, executive director Tom Luehrs said a survey conducted by a grad student last year found that between 17 and 20 percent of the 350 or so new people the center was seeing each month said they'd come to the area in part because of medical marijuana. If anything, said Luehrs and his colleagues, that figure is low. At the nearby Salvation Army Crossroads Shelter, an informal survey of 500 newcomers in the summer of 2014 determined that nearly 30 percent were there because of cannabis. ¹¹

Marijuana Legalization: Pot Brings Poor People to Colorado, but What's Being Done To Help Them?: In the second part of a summer 2016 article written to describe the journey of a young man to Colorado, Devin Butts describes his newfound perspective. Devin, along with hundreds of other individuals who relocated to Colorado in pursuit of marijuana-related opportunities, found that the journey isn't quite what he was hoping for – especially with regards to finding employment.

The vice president of communications and public policy for the Colorado Coalition for the Homeless spoke about hourly wage requirements to live in Denver, which is bad news for marijuana migrants looking for work. According to Cathy Alderman, "Workers need to make at least \$19 an hour to afford housing in the Denver area. But marijuana trimmers usually start at around \$10 an hour, and budtenders working in the dispensaries often don't make much more than that." This news, along with the fact that Colorado's housing market has been skyrocketing, seems to indicate significant challenges for those hoping to move to Colorado in pursuit of greater futures.

Relatedly, an unexpected consequence of the legalization of recreational marijuana is the surge in the homeless population in many Colorado cities. Recently, the city of Aurora pledged \$4.5 million in cannabis revenue to homeless programs – certainly an unforeseen cost. Although this might seem to be a step in the right direction in order to help those in need, it might also signal a trend in government spending and population dependency at least partially brought-on by the legalization of recreational marijuana. ¹²

Denver on 'breaking point' with homeless population: A Salvation Army Captain recently spoke with reporters about the growing homeless population. Captain Eric Wilkerson said that the cause is most likely what many Denver citizens suspect, the cause is marijuana. "People are coming here from out of state to smoke weed," a trend that hasn't gone unnoticed by many of Colorado's residents.

Additionally, "The city of Denver is not denying legal marijuana has resulted in an increase in homelessness." In an email from a local social services employee, it was said that "While there isn't a formal study on the issue, many service providers for those experiencing homelessness tell us, anecdotally, that 20 (percent) to 30 percent of people they encounter who are moving to Colorado tell them that they are moving here, in part, because of legalized marijuana or to try to find work in the industry."

Although the city of Denver has pledged large sums of money to those in need of affordable housing, a local branding and marketing expert expressed her concern that we get ahead of this growing trend as the last thing she wants is for her city to have the perception of a "homeless problem." 13

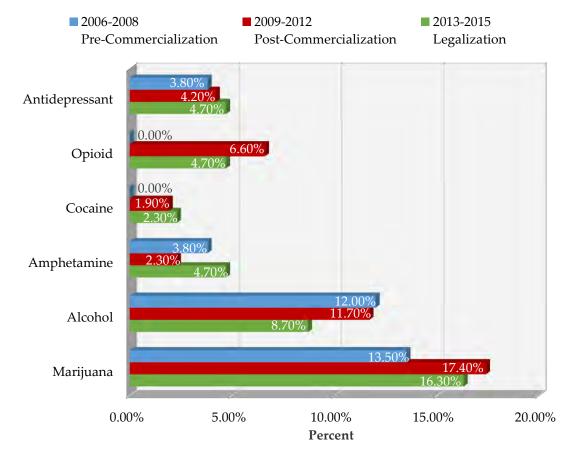
Legalized Marijuana Turns Colorado Resort Town into Homeless Magnet: Several people holding cardboard signs can be seen lining the sidewalks and streets of Durango, CO. Durango is a picturesque, upscale community where many businesses

SECTION 9: Related Data Page | 129

rely on tourism. The city has recently become overrun with transients and panhandlers, many of them people between the ages of 20-30. One resident and business owner mentioned "most of the kids here are from out of state, and I would say it has a lot to do with the legalized pot." The small city has also experienced an increase in crime, placing its property crime rate 12 percent higher than the national average.¹⁴

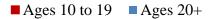
Suicide Data

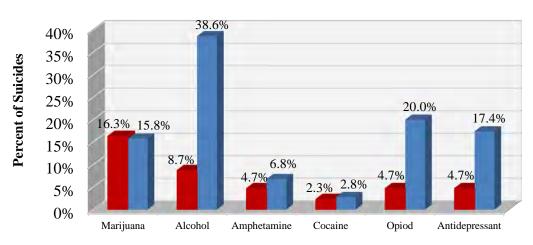
Average Toxicology of Suicides Among Adolescents Ages 10 to 19 Years Old (With Known Toxicology)



SOURCE: Colorado Department of Public Health and Environment (CDPHE), Colorado Violent Death Reporting System

Average Toxicology Results by Age Group, 2013-2015



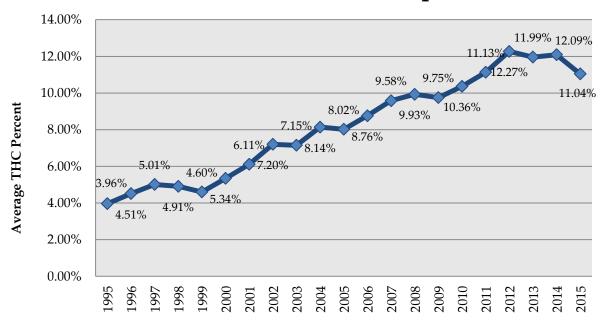


SOURCE:

Colorado Department of Public Health and Environment (CDPHE), Colorado Violent Death Reporting System

❖ Marijuana is the only substance where youth, ages 10 to 19, have a higher percentage than adults, ages 20 and older.

National Average THC Potency Submitted Cannabis Samples

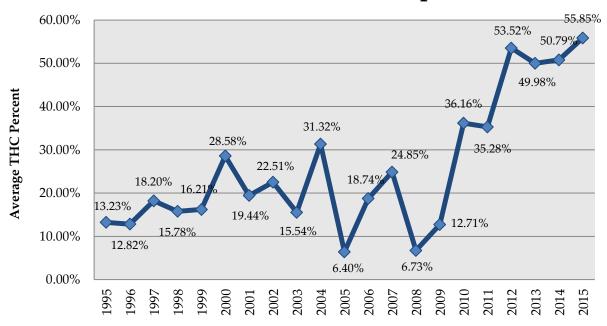


SOURCE:

Potency Monitoring Program, Quarterly Report Number 135, National Center for Natural Products Research (NCNPR) at the University of Mississippi, under contract with the National Institute on Drug Abuse.

❖ The average potency for buds/flower in Colorado is 17.1 percent. ¹⁵

National Average THC Potency Submitted Hash Oil Samples



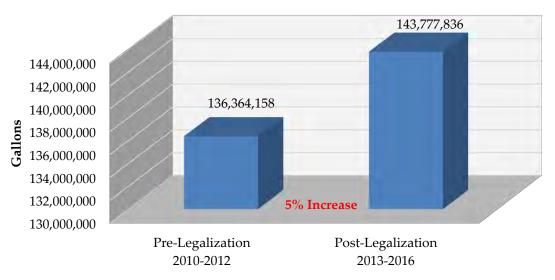
SOURCE:

Potency Monitoring Program, Quarterly Report Number 135, National Center for Natural Products Research (NCNPR) at the University of Mississippi, under contract with the National Institute on Drug Abuse.

❖ The average potency for concentrates in Colorado is 62.1 percent. ¹⁵

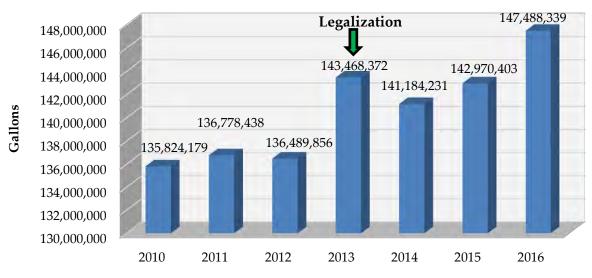
❖ It has been suggested that legalizing marijuana would reduce alcohol consumption. Thus far that theory is not supported by the data.

Colorado Average Consumption of Alcohol



SOURCE: Colorado Department of Revenue, Colorado Liquor Excise Tax

Colorado Consumption of Alcohol



SOURCE: Colorado Department of Revenue, Colorado Liquor Excise Tax

Medical Marijuana Registry ¹⁶

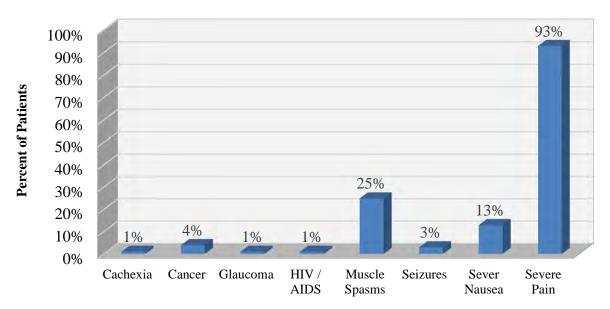
Medical Marijuana Registry Identification Cards

- December 31, 2009 41,039
- December 31, 2010 116,198
- December 31, 2011 82,089
- December 31, 2012 108,526
- December 31, 2013 110,979
- December 31, 2014 115,467
- December 31, 2015 107,534
- December 31, 2016 94,577

Profile of Colorado Medical Marijuana Cardholders:

- Age of cardholder
 - o 63 percent male, with an average age of 43 years
 - o 0.3 percent between the ages of 0 and 17
 - o 46 percent between the ages of 18 and 40
 - 21 percent between the ages of 21 and 30
- Reporting medical condition of cardholder
 - o 93 percent report severe pain as the medical condition
 - \circ 6 percent collectively report cancer, glaucoma and HIV/AIDS
 - o 3 percent report seizures

Percent of Medical Marijuana Patients Based on Reporting Conditions, 2016



SOURCE: Colorado Department of Public Health and Environment, Medical Marijuana Statistics

NOTE: TOTAL DOES NOT EQUAL 100 PERCENT AS SOME PATIENTS REPORT USING MEDICAL MARIJUANA FOR MORE THAN ONE DEBILITATING MEDICAL CONDITION.

Colorado Licensed Marijuana Businesses as of August 1st, 2017 17

Medical Marijuana:

- 759 marijuana cultivation facilities
- 507 medical marijuana centers (dispensaries)
- 255 infused products (edibles) businesses
- 14 testing facilities

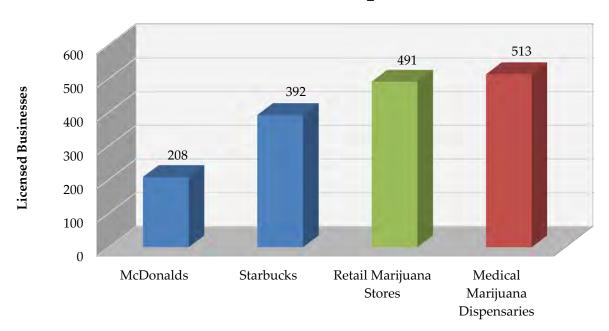
Recreational Marijuana:

- 701 marijuana cultivation facilities
- 498 marijuana retail stores
- 273 infused product (edibles) businesses
- 13 testing facilities

Business Comparisons, June 2017

❖ Figures for business comparisons were all acquired by June of 2017 for comparable data.

Colorado Business Comparisons, June 2017



SOURCE: Colorado Department of Revenue; Starbucks Coffee Company, Corporate Office Headquarters; McDonalds Corporation, Corporate Office Headquarters

Demand and Market Size 18

The Colorado Department of Revenue published a report in July 2014 called, "Market Size and Demand for Marijuana in Colorado." A follow-up to this report showed data for 2015. Some of the information included:

Demand

- In 2015, the established <u>demand</u> for marijuana by <u>Colorado residents</u> 21 years and older is **134.7 metric tons** (**296,962.67 pounds**) of marijuana.
- In 2015, the estimated demand for marijuana by <u>out-of-state</u> visitors 21 years and older is **14.0 metric tons** (**30,864.7 pounds**).

Market Size

- There are an estimated <u>569,000 Colorado adult regular marijuana users</u> (at least once per month).
- <u>Heavy users</u> who consume marijuana nearly daily make up less than **25 percent** of the user population but account for **76.4 percent** of <u>the demand</u> for marijuana.

Marijuana Enforcement Division Reported Sales of Marijuana in Colorado 19, 20

In 2015:

- 144,537 pounds of medical marijuana flower
- 106,932 pounds of recreational marijuana flower
- 2,261,875 units of medical edible products
- 5,280,297 units of recreational edible products

In 2016:

- 159,998 pounds of medical marijuana flower
- 175,642 pounds of recreational marijuana flower
- 2,117,838 units of medical edible products
- 7,250,936 units of recreational edible products
- ❖ A single ounce of marijuana, depending on the solvent type and production method, can produce "between 347 and 413 edibles of 10 mg [THC] strength."¹⁵

2017 Price of Marijuana

Marijuana prices as of July 2017 are based off a compilation of medical and recreational prices from local dispensaries and averaged:

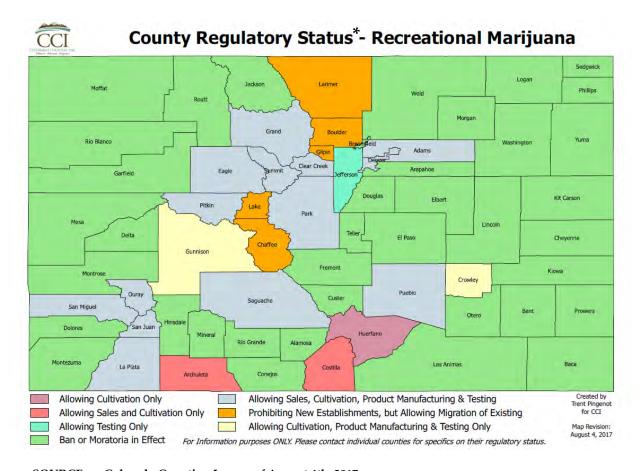
Area	Gram	Ounce
State Average	\$11.00	\$191.00
Denver	\$11.00	\$159.00
Boulder	\$13.00	\$213.00
Fort Collins	\$11.00	\$235.00
Colorado Springs*	\$8.00	\$157.00

^{*}Colorado Springs does not allow selling of recreational marijuana within city limits.

SOURCE: "Colorado marijuana prices for July 2017," Marijuanarates.com, Accessed August 29, 2017

Local Response to Medical and Recreational Marijuana in Colorado

Recreational Marijuana Business and Local Jurisdiction Response: 21, 22

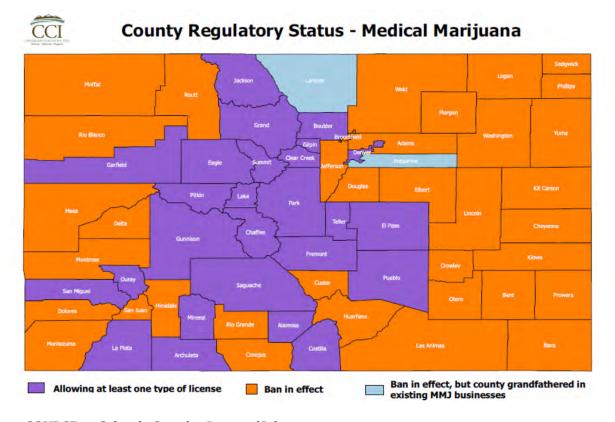


SOURCE: Colorado Counties, Inc.; as of August 4th, 2017

*Note: This map shows the regulatory statuses of unincorporated areas within each county. Municipalities within each county set policy within their boundaries.

- 64 counties*
 - o 61 percent have prohibited or have a moratorium (39)
 - o 39 percent have allowed (25)
- * Broomfield and Denver are both a city and county but included only once in county data.
- 243 municipalities (cities and incorporated areas) have taken action on the issue
 - o 72 percent have prohibited (167) or have a moratorium (8)
 - o 28 percent have allowed (68)

Medical Marijuana Business and Local Jurisdiction Response: 21, 22

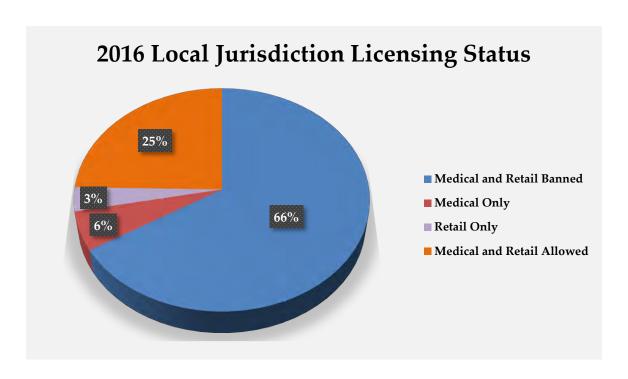


SOURCE: Colorado Counties, Inc.; as of July 31, 2017

*Note: This map shows the regulatory statuses of unincorporated areas within each county. Municipalities within each county set policy within their boundaries.

- 64 counties*
 - o 59 percent have prohibited or have a ban on new businesses (38)
 - o 41 percent have allowed (26)
- * Broomfield and Denver are both a city and county but included only once in county data.
 - 177 municipalities have taken action on the issue
 - o 65 percent have prohibited (115)
 - o 35 percent have allowed (62)

Local Jurisdictions Reporting Marijuana Licensing Status as of December 31, 2016 20				
Medical and Retail Marijuana Banned	212			
Medical Marijuana Licenses Only	18			
Retail Marijuana Licenses Only	11			
Medical and Retail Marijuana Licenses	79			



SOURCE: Marijuana Enforcement Division, 2016 Annual Update

For Further Related Data See Page 158

Sources:

- ¹ Colorado Springs, Colo. (KKTV), "Black market marijuana bust leaves bruises on Colorado's marijuana industry," July 25, 2017, http://www.kktv.com/content/news/Black-market-marijuana-bust-leaves-bruises-on-Colorados-marijuana-industry-436622893.html, accessed July 31, 2017.
- ² Blair Miller, "Colorado Springs Police: 18 Percent of Homicides Since 2015 Have 'Marijuana Nexus'; No State Data." *Denver Channel*, March 15th, 2017, http://www.thedenverchannel.com/news/local-news/colorado-springs-police-18-percent-of-homicides-since-2015-have-marijuana-nexus-no-state-data, accessed August 29th, 2017.
- ³ Kieran Nicholson, "Bogus pot deal, involving broccoli, and gunfire at Aurora mall gets man 16 years in prison," *Denver Post*, http://www.denverpost.com/2017/07/25/aurora-marijuana-deal-broccoli-town-centergunfire-sentenced/, accessed September 12th, 2017.
- ⁴ Shane Benjamin, "Texas trio charged with first-degree murder in Lightner Creek shooting," *Durango Herald*, https://durangoherald.com/articles/164814-texas-trio-charged-with-first-degree-murder-in-lightner-creek-shooting, accessed September 12th, 2017.
- ⁵ George Brauchler, "At Least Eleven Pot-Related Homicides Since Legalization, DA Says," *Westword*, < http://www.westword.com/news/marijuana-related-homicides-in-colorado-since-legalization-9345285>, accessed September 12th, 2017.
- ⁶ Mitchel Byars, "Suspect in Coal Creek Canyon Triple Homicide To Appear in Court Thursday," *Daily Camera*, http://www.dailycamera.com/boulder-county-news/ci_30994865/suspect-coal-creek-canyon-triple-homicide-appear-court?source=pkg, accessed September 11, 2017.
- ⁷ Mitchel Byars, "Garrett Coughlin Charged With 6 Murder Counts in Coal Creek Canyon Killings," *Daily Camera*, http://www.dailycamera.com/boulder-county-news/ci_30996366/suspect-coal-creek-canyon-triple-homicide-charged-six?source=pkg, accessed September 11, 2017.
- ⁸ The Denver Post Editorial Board, "A troubling weakness in Colorado Marijuana enforcement," June 16, 2017, *The Cannabist*,

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http://www.thecannabist.co/2017/06/16/colorado-marijuana-enforcement-indictment-wakeup-call/82104/, accessed September 21, 2017.

- ⁹ Jesse Paul, "Eagle County official and his brother arrested in connection with illegal marijuana grow," *The Denver Post*, December 8, 2016, http://www.denverpost.com/2016/12/08/eagle-county-official-brother-arrested-illegal-marijuana-grow/, accessed September 22, 2017.
- ¹⁰ Keith Humphreys, "Falling marijuana prices mean trouble for states that have legalized," *The Washington Post*, January 18th, 2017, http://www.thecannabist.co/2017/01/18/marijuana-price-drops-state-revenue/71657/, accessed August 3rd, 2017.
- ¹¹ Joel Warner, "Marijuana Legalization in Colorado: How Recreational Weed Is Attracting People, But Spiking The State's Homeless Rate {PART ONE}, *International Business Times*, June 20, 2016, http://www.ibtimes.com/marijuana-legalization-colorado-how-recreational-weed-attracting-people-spiking-2374204, accessed October 9, 2016.
- ¹² Joel Warner, "Marijuana Legalization: Pot Brings Poor People To Colorado, But What's Being Done To Help Them? {PART TWO}, *International Business Times*, June 21, 2016, <http://www.ibtimes.com/marijuana-legalization-pot-brings-poor-people-colorado-whats-being-done-help-them-2378769>, accessed October 9, 2016.
- ¹³ Joe St. George, "Salvation Army: Denver on 'breaking point' with homeless population, Fox31 Denver, July 7, 2016, http://kdvr.com/2016/07/07/salvation-army-denver-on-breaking-point-with-homeless-population/, accessed October 9, 2016.
- ¹⁴ Joseph J. Kolb, "Legalized marijuana turns Colorado resort town into homeless magnet," FoxNews.com, May 17, 2017, http://www.foxnews.com/us/2017/05/17/legalized-marijuana-turns-colorado-resort-town-into-homeless-magnet.html, accessed May 17, 2017.
- ¹⁵ Marijuana Policy Group, "Marijuana Equivalency in Portion and Dosage (as of August 10th, 2015)," https://www.colorado.gov/pacific/sites/default/files/MED%20Equivalency_Final%2008 102015.pdf>, accessed May 12th, 2017.
- ¹⁶ Colorado Department of Public Health and Environment, "Medical Marijuana Registry Program Update (as of December 31st, 2016),"

https://www.colorado.gov/pacific/sites/default/files/CHED_MMR_Report_December_2016.pdf> accessed May 12th, 2017.

- ¹⁷ Colorado Department of Revenue, "Licensees Marijuana Enforcement Division (As of August 1st, 2017)," < https://www.colorado.gov/pacific/enforcement/licensees-marijuana-enforcement-division>, accessed August 31, 2017.
- ¹⁸ Marijuana Policy Group, "The Economic Impact of Marijuana Legalization in Colorado," Marijuana Enforcement Division, received August 1, 2017.
- ¹⁹ Marijuana Enforcement Division, "MED 2015 Annual Update," Colorado Department of Revenue, September 26, 2016.
- ²⁰ Marijuana Enforcement Division, "MED 2016 Annual Update," Colorado Department of Revenue, August 2, 2017.
- ²¹ Colorado Municipal League, "Municipal Retail Marijuana Status," http://www.cml.org/rmj-action-visual/, accessed 8/29/2017>.
 - ²² Colorado Counties Inc., <ccionline.org>, August 28, 2017.

The Legalization of Marijuana in Colorado: The Impact Vol. 5/October 2017

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SECTION 10: Reference Materials

Reports and Articles

Impaired Driving

<u>Higher Levels of THC</u>: In Colorado, the legal limit of THC in a driver's blood is 5ng/mL. However, according to the *Denver Post*, "THC levels in drivers killed in crashes in 2016 routinely reached levels of more than 30 ng/mL... [t]he year before, levels only occasionally topped 5 ng/mL." This trend has coroners concerned because some are "uncertain about listing the presence of THC on a death certificate because of doubts on what constitutes impairment." Police Chief Jackson of Greenwood Village, CO attributes the rise in THC levels of drivers to the rise in THC potency in marijuana oils and concentrates. He states, "This is not your grandfather's weed." ¹

Cannabis-Impaired Driving is a Public Health and Safety Concern: According to a 2015 study which aimed to examine some of the issues surrounding cannabis impaired driving, "The percentage of weekend nighttime drivers with measureable $\Delta 9$ -tetrahydrocannabinol (THC) in blood or oral fluid increased to 12.6%, a 48% increase since 2007." With the recent recreational legalization of marijuana in multiple states, this is likely a national trend we will see continue in the years to come. ²

Controlled Cannabis Vaporizer Administration with and without Alcohol:

Researchers behind a 2015 study examined the vaporization of cannabis both with and without blood alcohol present in the systems of thirty-two regular cannabis smokers. As noted in the *Clinical Chemistry* article, smoking is the most common administration route of cannabis but the use of vaporization is increasing rapidly. The conclusions section of the study stated that the significantly higher blood THC concentration values in combination with blood alcohol "possibly explain[s] increased impairment observed from cannabis-alcohol combinations." The conclusions of this study further underscore the complexities and issues that need to be closely examined, especially when considering drugged driving legislation. ³

Correlates of Marijuana Drugged Driving and Openness to Driving While High: A 2015 study funded and independently conducted by RTI International, a nonprofit research and technical services organization, examined 865 Colorado and Washington residents who self-reported using marijuana in the past 30 days. Two behaviors were looked at among the group of study participants; any instances of driving while high in the last year, and driving within 1 hour of using marijuana 5 or more times in the past month.

Researchers found that the "Prevalence of past-year driving while under the influence of marijuana was 43.6% among respondents." Additionally, "The prevalence of driving within 1 hour of using marijuana at least 5 times in the past month was 23.9%."

Furthermore, it was concluded that "Interventions for reducing the incidence of marijuana DUI are likely to be more successful by targeting safety perceptions related to marijuana DUI rather than knowledge of DUI laws." ⁴

A 2-Year Study of THC Concentrations in Drivers: A recent study aimed to examine police and Drug Recognition Expert (DRE) evaluations with regards to driving under the influence of marijuana. Researchers hoped to determine whether or not a correlation exists between whole-blood THC concentrations and field sobriety test performance. "As suspected, the findings of this study did not find a correlation between performance on field sobriety tests and the concentration of THC tested in whole-blood samples." This information further adds to the discussion around marijuana use and permissible driving limits. Much more research is needed in order to come up with appropriate marijuana driving laws/legislation throughout the country.

Furthermore, the researchers concluded that, "The driving behaviors seen in THC-impaired drivers are similar to those seen in alcohol-impaired drivers." Contrary to anecdotal accounts of "high" drivers being slow and cautious drivers, the most often observed driving behaviors of study participants included speeding, the inability to maintain lane position, and running red lights or stop signs. ⁵

<u>57 Percent of Marijuana Users in Colorado Admit Driving within 2 Hours:</u> A survey conducted by the Colorado Department of Transportation discovered that 57 percent of people who reported using marijuana drove within two hours after consumption. The survey also indicated that, on average, those participants who reported consuming marijuana and then driving within 2 hours did so on 11.7 of 30 days. By comparison, 38 percent of respondents who drank alcoholic beverages reported driving within 2 hours after consumption and only reported doing so on 2.8 of 30 days. ⁶

<u>DRE Examination Characteristics of Cannabis Impairment:</u> The frequently-debated 5ng/mL blood THC *per se* cutoff has been the source of much controversy since

legalized marijuana has hit the scene. In 2016, a study of Drug Recognition Expert (DRE) characteristics of cannabis impairment further highlighted the "limited relevance" of the 5ug/L cutoff. "Combined observations on psychophysical and eye exams produced the best cannabis-impairment indicators." Additionally, "No significant differences were detected between cases with blood THC >5ng/mL versus ≤5ng/mL." More specifically the finger-to-nose test was seen as the best indicator of cannabis impairment, with the values of sensitivity, specificity, predictive value and efficiency being considered. ⁷

<u>Frequent Smokers:</u> A group of researchers interested in examining the severity of psychomotor performance, cognition, and driving ability differences among frequent and occasional users of cannabis found substantial differences among the frequent users and the occasional users. During the study, "fourteen frequent (equal or greater than 4x/week) and 11 occasional (less than 2x/week) cannabis smokers entered a secure research unit approximately 19 hours prior to smoking one 6.8% THC cigarette." Cognitive and psychomotor performance was measured in a variety of ways at certain intervals of time both prior to and after the drug use.

Researchers concluded that there are "significant differences between occasional and frequent cannabis smokers in psychomotor, subjective and physiological effects following cannabis smoking, with weaker effects in frequent smokers suggesting tolerance development. Impairment domains included those that play a key role in driver's ability to accurately control a car or to react to events on the road." ⁸

<u>Users after Acute Drug Use:</u> Although it is commonly accepted that cannabis consumption has the ability to influence cognitive and psychomotor functions, the rules on how to assess the ability to drive while under the influence of cannabis are not very clear. "The psychoactive compound delta-9-tetrahydrocannabinol (THC) impairs cognition, psychomotor behavior and driving performance in a dose-related manner approximately." After researching the time profile related to cannabis consumption and the related physiologic affects (through observation of human volunteers), it is apparent that there is "great individual variability of the kinetic profile of THC in blood..." The research article goes on to describe that "Low blood concentrations of THC close to the limit of detection... are justified in an effective traffic legislation." ⁹

<u>Effect of Blood Collection Time:</u> Drug testing is a highly scrutinized topic when it comes to marijuana use and the operation of motor vehicles. This topic has been made even more controversial as several states have legalized marijuana for medical and/or

recreational use. Therefore, a group of researchers examined the impact of blood collection time on toxicological evaluation for THC.

Researchers found that blood THC concentrations at the time of driving cannot be reliably determined due to individual variances. ¹⁰

Drivers Killed in Crashes More Likely to be on Drugs than Alcohol: A recent study using data available from 2015 indicates that "[d]rivers who are killed in car crashes are now more likely to be on drugs than alcohol." Drugs were present in 43 percent of drivers in fatal accidents compared to 37 percent with alcohol above the legal limit. Additionally, 36 percent of the drivers tested had marijuana present in their system at the time of the accident. In general, traffic fatalities are rising and can be attributed to factors such as improved economy, more distracted drivers, and more drugged drivers. ¹¹

<u>Drug-impaired Driving:</u> In this report, Dr. James Hedlund, under contract with the Governors Highway Safety Association (GHSA), described "the current state of knowledge on drug-impaired driving, including what little is known about the costs and effectiveness of these actions, and identifies actions states can take to reduce drug-impaired driving." The report cites a variety of sources, including the Fatality Analysis and Reporting System (FARS) and various roadside surveys conducted in multiple states. Through these data sources, Dr. Hedlund determined "marijuana is by far the most common drug that is used." He also described that while drug-impaired driving is more complex than alcohol-impaired driving, "43% of fatally-injured drivers with known test results tested positive for drugs or marijuana in 2015, more than tested positive for alcohol". The report pointed out additional differences between alcohol-impaired driving and drug-impaired driving and made recommendations for states to enact education programs, legislation, and officer training programs. ¹²

Youth Marijuana Use

Marijuana Use up among Teens since Legalized in Colorado, Washington:

Researchers at the University of California Davis and Columbia University Mailman School of Public Health conducted a study involving teens' perception of marijuana use before and after recreational marijuana was legalized in their state. The study, which used nation-wide data of nearly 254,000 students who participated in the Monitoring the Future survey, showed that legalization of recreational marijuana significantly reduced perceptions of marijuana's harmfulness by 14 percent in 8th graders and 16 percent in 10th graders in Washington state but not in Colorado. Researchers attribute the lack of change in perception in Colorado to the state's robust medical marijuana industry that was established prior to recreational legalization. Youth were exposed to substantial advertising from the medical marijuana industry and therefore Colorado has had lower rates of perceived harmfulness and higher rates of use compared to Washington state and other states. The researchers recommend that states considering legalizing recreational marijuana should also consider investing in substance abuse prevention programs for adolescents. ¹³

Pot Smoking Common among Pregnant Teens: A recent national survey given to approximately 14,400 pregnant women aged 12-44, found "more than twice as many pregnant 12- to 17-year-olds use marijuana as their non-pregnant peers." This constituted 14% of the surveyed mothers-to-be. Teen pregnancies are already "associated with smaller babies," but there may be other risks to a pregnancy caused by marijuana use. According to Dr. Judy Chang, associate professor of obstetrics, gynecology and reproductive sciences at the University of Pittsburgh, "some of the studies that do exist suggest that there are risks to the pregnancy from pot use." Some of those risks may include "scrawnier babies, kids who have some problems with their thinking and learning abilities, [and] kids who find it harder to do more complicated brain tasks when they are teenagers." Additional evidence may suggest that "there could be a risk of causing brain damage in a developing baby," and that the tetrahydrocannabinol (THC) "may also influence neural development and brain maturation," which could lead to a "long-term risk for addiction." ¹⁴

<u>Unintentional Pediatric Exposures to Marijuana in Colorado, 2009-2015:</u> Colorado researchers examined the effects of the legalization of marijuana on youth in Colorado by analyzing data regarding pediatric marijuana exposures. Specifically, researchers set out to compare the incidence of pediatric marijuana exposures before and after recreational marijuana legalization. Additionally, this study compared Colorado data with nationwide data.

It was found that cases for pediatric marijuana exposure increased significantly and at a higher rate than the rest of the United States. "Almost half of the patients seen in the children's hospital in the 2 years after legalization had exposures from recreational marijuana, suggesting that legalization did affect the incidence of exposures." ¹⁵

Pediatricians Warn against Use of Pot: A report released in 2017 from the American Academy of Pediatrics describes why many doctors are now "beefing up warnings about marijuana's potential harms for teens amid increasingly lax laws and attitudes on pot use." This report states that the group "opposes medical and recreational marijuana use for kids." A youth's brain continues to develop through their early 20s, so "the potential short-term and long-term effects of a mind-altering drug" are of great concern. Some of these effects may even be permanent. This is particularly true for frequent users who begin at an early age. "Teens who use marijuana at least 10 times a month develop changes in brain regions affecting memory and the ability to plan" as well as lowered IQ scores in some cases. Also some studies have shown that "starting marijuana use at a young age is more likely to lead to addiction than starting in adulthood." These doctors stress that messaging is particularly important because according to government data "kids 12-17 increasingly think marijuana use is not harmful." ¹⁶

Adult Marijuana Use

Study Finds Increase in Illicit Pot Use, Abuse in States that Allow Medical

Marijuana: "In a study published in the Journal of American Medical Association (JAMA) Psychiatry, researchers noted a significant increase in illegal cannabis use and so-called cannabis-use disorders in states with medical marijuana laws" Although a small minority of the population might potentially benefit from medical marijuana use, this study aims to quantify how much non-medical, illicit use is taking place over a multi-year timespan. The research study defined illegal or illicit use as "obtaining marijuana not from a prescription or a dispensary with the intent of getting high." Those with cannabis-use disorders are described as having withdrawal symptoms, developing a tolerance for the drug, having cravings for the drug, and suffering impaired functioning in daily activities.

The lead author of the study, Dr. Deborah Hasin of the Columbia University Mailman School of Public Health said "[Americans have] come to see cannabis as a harmless drug or harmless substance." More education is certainly needed on the risks associated with marijuana use.

The study examined cannabis use and cannabis use disorder from 1991-1992 through 2012-2013 timeframes. In the *Washington Times* article, Dr. Hasin said "I was somewhat surprised with rates that increased so sharply in Colorado and California, who most experienced increase in dispensaries in 2009 and 2010." ¹⁷

Drug Positivity in U.S. Workforce Rises to Nearly Highest Level in a Decade:

According to the world's leading provider of diagnostic drug testing services, "The percentage of employees in the combined U.S. workforce testing positive for drugs has steadily increased over the last three years to a 10-year high." The three primary diagnostic tests offered by Quest Diagnostics include oral, urine and hair follicle drug tests. Speaking to oral fluid testing, which provides a 24-48 hour history, the positivity rate increased 47 percent in the past three years. According to the diagnostics corporation, "The increase was largely driven by double-digit increases in marijuana positivity during this time period. In 2015, there was a 25 percent relative increase in marijuana detection as compared to 2014." Additionally, "Almost half (45 percent) of individuals in the general U.S. workforce with a positive drug test for any substance in 2015 showed evidence of marijuana use. ¹⁸

Marijuana is Not Safe to Smoke: A study conducted by UC Davis academics found multiple bacterial and fungal pathogens in marijuana that can cause serious infections. The weed tested originated from Northern California dispensaries where the Department of Public Health is working on guidelines for marijuana testing to ensure marijuana is safe. George Thompson III, an associate professor of clinical medicine at the university who helped conduct the study, stressed that "there really isn't a safe way to smoke marijuana buds, even for those who are healthy". Inhaling marijuana smoke leads the pathogens directly into the lungs where they can cause serious illness and even death. ¹⁹

<u>These College Students Lost Access to Legal Pot – and Started Getting Better Grades:</u>

A recent study out of the Netherlands found that "college students with access to recreational cannabis on average earn worse grades and fail classes at a higher rate." Due to a new policy change to cannabis cafes, noncitizens were barred from buying recreational marijuana from the cafes. Due to this policy change, an experiment regarding college students and marijuana use was conducted. "The research on more than 4,000 students... found that those who lost access to legal marijuana showed substantial improvement in their grades. Specifically, those banned from cannabis cafes had a more than 5 percent increase in their odds of passing their courses." ²⁰

More U.S. Women Report Using Marijuana during Pregnancy, Amid Uncertainty on Potential Harms: About 4 percent of pregnant women ages 18 to 44 reported using

marijuana during pregnancy. The study conducted between 2002 and 2014 showed an increase of 62 percent from numbers in 2002 to numbers in 2014. Pregnant women are turning towards marijuana to help alleviate nausea caused during pregnancy even though it is discouraged by the American College of Obstetricians and Gynecologists. Studies show links between prenatal marijuana exposure and impaired functions such as impulse control, visual memory, and attention during school years. Other studies showed smoking marijuana during pregnancy may also lead to restricted fetal growth during pregnancy as well as increased frontal cortical thickness among school-aged children. ²¹

Pregnant Women Turn to Marijuana, Perhaps Harming Infants: Doctors and researchers are concerned that due to "an increased perception of the safety of cannabis use, even in pregnancy," it is becoming more common for people to "presume that cannabis has no consequences for developing infants." Evidence on the effects of prenatal marijuana use has been limited up to this point, which may contribute to the false perception of safety by some. However, preliminary research indicates that marijuana's psychoactive ingredient, tetrahydrocannabinol (THC), can cross the placenta and reach the fetus potentially harming development. In addition, because THC is stored in fat and can linger there for weeks or months, breast milk can contain THC.

Despite evidence being limited, several studies linking maternal marijuana use have found "changes in the brains of fetuses, 18 to 22 weeks old." Additional studies conducted in Pittsburgh and Ottawa show that children whose mothers used marijuana heavily in the first trimester may have difficulty "understand[ing] concepts in listening and reading," and had "lower scores in reading, math and spelling... than their peers." Much of the research that has been done in this area was done when marijuana was far less potent. An epidemiologist with the University of Washington stated "all those really good earlier studies on marijuana effects aren't telling us what we need to know now about higher concentration levels." Not much is known about the lingering effects of marijuana, and whether or not the fetus's exposure is limited to the time a mother feels high. Both the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists advise expecting mothers against the use of cannabis during pregnancy citing cognitive impairment and academic underachievement as areas of concern. ²²

<u>Causal Relationship Identified between Marijuana Use and Numerous Fetal Issues</u> <u>during Pregnancy:</u> Since 2002, there has been a 62% increase in pregnant marijuana users. "Estimates suggest that marijuana use complicates 2% to 5% of all pregnancies" in the United States. The amount of studies regarding marijuana use is limited due to the drug's complicated legal status. However, "evidence has identified a causal

relationship between marijuana use and decreased birth weight, increased spontaneous abortion, impaired neurodevelopment, and functional deficits among children and adults who were exposed [to marijuana] in utero." It is not yet known how exactly fetal development is effected by marijuana which leads obstetricians and gynecologists to "urge their patients who are pregnant or contemplating pregnancy to discontinue marijuana use." Further concern for the effects of marijuana during pregnancy are warranted "due to its lipophilic nature, [it] can easily cross the blood brain barrier and enter the placenta." Additionally, the nature of Tetrahydrocannabinol (THC) is such that it can remain in maternal blood for weeks and "[a]s a result, occasional use of marijuana during pregnancy, as little as once per month, results in fetal exposure that persists throughout the pregnancy." ²³

Emergency Department and Hospital Marijuana-Related Admissions

Marijuana Abuse Linked to Increased Myocardial Infarction (MI) Risk: Cardiology News recently published an article about marijuana being linked with an "eye-opening doubled risk of acute MI." Myocardial infarction (MI) is more commonly known as a heart attack.

The March 2017 article summarized the results of a study led by Dr. Ahmad Tarek Chami: "The link was strongest by far in young adult marijuana abusers, with an adjusted 3.2-fold increased risk of MI in 25- to 29-year-olds with marijuana abuse noted in their medical records, compared with age-matched controls and a 4.56-fold greater risk among the 30- to 34-year-old cannabis abusers." The study examined over 200,000 patients with cannabis abuse noted in their medical records, and spanned a five year period (October, 2011 through September, 2016).

Dr. Chami observed that "Our study raises the possibility [of] an association between cannabis and MI independent of age, hypertension, diabetes, smoking, and abuse of other substances." Admittedly, there is much need for further research on this topic.

"The cannabis plant contains more than 60 cannabinoids. Although marijuana is widely prescribed for treatment of nausea, anorexia, neuropathic pain, glaucoma, seizure disorders, and other conditions, the long-term effects of marijuana on the cardiovascular system are largely unknown." ²⁴

Marijuana Use and Schizophrenia: New Evidence Suggests Link: New research on marijuana use and its connection to schizophrenia shows that "not only are people who are prone to schizophrenia more likely to try cannabis, but that cannabis may also increase the risk of developing symptoms." Cannabis use has been shown to be more common among individuals with psychosis than it is with the general population. This

may be particularly troubling as people with schizophrenia who use cannabis "are more likely to be hospitalized than those with the condition who do not use the drug." Further research is needed to determine if there is a definitive genetic link between marijuana use and schizophrenia. ²⁵

Colorado Cannabis Legalization and Its Effect on Emergency Care: With the early commercialization of marijuana in Colorado dating back to the year 2000, and recreational marijuana being voted into law in 2012, Colorado provides a unique opportunity to educate physicians on the different considerations related to increased marijuana-related emergency department visits. This document not only summarizes the epidemiologic effect of legalization, but also discusses the effect of legalization on emergency care. Specifically, researchers discuss acute marijuana intoxication, cannabinoid hyperemesis syndrome, and pediatric exposures in an effort to educate healthcare providers everywhere. With Colorado leading the way regarding marijuana legalization, Colorado physicians are leading the way with regards to recognizing and addressing the associated healthcare trends noted in the population. ²⁶

Trends and Correlates of Cannabis-involved Emergency Department Visits 2004 to 2011: This study published in the Journal of Addiction Medicine utilized data obtained from the Drug Abuse Warning Network over the period of 2004 to 2011. Trends in cannabis-involved emergency department visits were examined for both cannabis-only and cannabis-polydrug instances. Cannabis-polydrug instances are those in which other drugs were detected in the patient's body, in addition to cannabis. The findings of this study suggest that there is a notable increase in the number of emergency department visits for both cannabis-only and cannabis-polydrug users. In particular, this study highlights the increased numbers for youth and non-Hispanic blacks. ²⁷

Marijuana-Related Exposure

<u>Childhood Poisoning:</u> Dr. Mark S. Gold, a world renowned expert on addiction-related diseases, summarizes a study published in late 2016 that aimed to examine trends and correlates of cannabis-involved emergency department visits in the United States from

correlates of cannabis-involved emergency department visits in the United States from 2004-2011. "The ED visit rate increased for both cannabis-only use (51 to 73 visits per 100,000) and cannabis-polydrug use (63 to 100 per 100,000) in those aged 12 and older. Of note, the largest increase occurred in adolescents aged 12-17, and among persons who identified as non-Hispanic black."

Dr. Gold goes on to highlight the findings of the study which state that "The odds of hospitalization increased with older age users, as compared to adolescent admissions. These data suggest a heavier burden to both the patient and to the health care system as a result of increasing cannabis use among older adults. The severity of the "burden" is associated with the prevalence of cannabis use, specific cannabis potency and dose (which is increasing over time), the mode of administration, and numerous individual risk factors." ²⁸

Treatment

Cannabinoid Hyperemesis Syndrome: Cannabinoid Hyperemesis Syndrome, a relatively new clinical condition, is "characterized by chronic cannabis use, cyclic episodes of nausea and vomiting, and frequent hot bathing." A 2011 study published by the National Institutes of Health explores various aspects of this clinical condition including the associated epidemiology, pharmacology, clinical presentation, and treatment options. This condition has grabbed the attention of emergency room physicians across the country as many physicians fail to diagnose the condition. According to the study, "further initiatives are needed to determine this disease prevalence and its other epidemiological characteristics, natural history, and pathophysiology." ²⁹

Use and Diversion of Medical Marijuana among Adults Admitted to Inpatient

<u>Psychiatry:</u> Many states, including Colorado, have legalized the medical use of marijuana, but it is unclear how much medical marijuana is being diverted from those medical marijuana patients. Furthermore, marijuana is linked to anxiety, depressive, psychotic, neurocognitive, and substance use disorders, but it is also unclear how many psychiatric patients use marijuana. In this study, a group of Colorado researchers aimed to determine the prevalence of medical marijuana use and diversion among psychiatric

inpatients in Colorado. Over 600 participants responded to an anonymous 15-item survey administered at discharge. It was concluded that "medical marijuana use is much more prevalent among adults hospitalized with a psychiatric emergency than in the general population." It was also found that "diversion is common." ³⁰

Related Data

Everything You Need to Know about Pot's Environmental Impact: Indoor marijuana grows are estimated to use a total of one percent of all electricity used in the United States every year. One percent is "about the same amount of electricity consumed by every computer in every home and apartment in the country annually... In order to power all those light fixtures, as well as dehumidifiers and heating and ventilation systems, indoor grow operations use about eight times the amount of energy per square foot as a normal commercial building. That's on par with a modern data center."

In addition to the electricity needed to sustain a marijuana grow, the plants require a significant amount of water to grow. "Some estimates suggest that pot plants use six gallons of water per day per plant over the summer. For reference, it takes about four gallons of water to run an energy-efficient dishwasher once." ³¹

High Time to Assess the Environmental Impacts of Cannabis Cultivation: In an attempt to understand the impact that the cultivation of marijuana has on the environment, researchers "have identified potentially significant environmental impacts due to excessive water and energy demands and local contamination of water, air, and soil with waste products such as organic pollutants and agrochemicals [fungicides, pesticides, etc.]." Additionally, they pointed out that, cannabis plants require "high temperatures..., strong light..., highly fertile soil, and large volumes of water (... around twice that of wine grapes)." Naturally, due to these needs for proper cultivation in either an indoor or outdoor grow requires a significant amount of maintenance and energy. "It has been estimated that the power density of marijuana cultivation facilities is equal to that of data centers." Typically, with new industries, it is the responsibility of U.S. Federal agencies such as the "U.S. Department of Agriculture, Environmental Protection Agency, National Institutes of Health, and Occupation Safety and Health Administration" to research and fund research for what that industry's environmental impact will be and how to reduce the footprint. However, when it comes to the marijuana industry due to "[t]he ambiguous legal status of marijuana in the U.S... [it] has made it historically difficult for those agencies to actively fund research in this field."32

Cartels are Growing Marijuana Illegally in California – and there's a War Brewing:

"Even as California embraces the booming legal marijuana market... it is also seeing an explosion in illegal cultivation, much of it on the state's vast and remote stretches of public land." Growing marijuana on public lands is creating "insidious side effects: The lethal poisons growers use to protect their crops and campsites from pests are annihilating wildlife, polluting pristine public lands, and maybe even turning up in your next bong hit." Some of these poisons are so powerful that they have been "banned in the U.S., Canada and the EU" and "farmers in Kenya have used [them] to kill lions." These toxicants are often used by growers as a means to "keep rodents and other animals from eating the sugar-rich sprouting plants, from gnawing on irrigation tubing, and from invading their campsites in search of food." According to Craig Thompson, a wildlife ecologist working for the U.S. Forest Service "People don't tend to grasp the industrial scale of what's going on. There are thousands of these sites in places the public thinks are pristine, with obscene amounts of chemicals at each one. Each one is a little environmental disaster."

In addition to toxicants, these illegal grows present another environmental problem due to water consumption. "In a controlled setting, a marijuana plant uses about six gallons of water per day... Illegal grows, of course, are another story [its] estimated that trespass grows use 50 percent more water because of less efficient irrigation systems and added stressors like pests, pathogens, and drier weather at higher elevations. Worse, some trespass growers leave their irrigation systems running around the clock throughout the year, even when nothing is growing." ³³

<u>Thousands of Marijuana Plants Found on Forest Land in Pueblo County:</u> According to *Fox31 Denver*, there were more than 7,400 marijuana plants discovered in an illegal grow which included two separate fields. Both of the fields were on U.S. Forest Service land near Rye, Colorado.

The July 2017 article stated, "Narcotics detectives said it was the second-largest operation uncovered in Pueblo County to date and the fifth found in fields on or near the San Isabel National Forest in the past five years. The four previous grows are believed to be connected to a Mexican cartel. Detectives are investigating whether Friday's grow is connected to previous grows."

Pueblo County Sheriff Kirk Taylor reported, "These grows are not indigenous to Colorado and the water and fertilizers required for these grow operations represent a clear environmental hazard for our beautiful Colorado mountains,"

Two of the past incidents within the San Isabel National Forest include an August 2012 operation in which over 9,400 plants were involved, and an October 2015 operation in which 2,400 plants were involved. There are countless other illegal grow operations within U.S. Forest Service land, but limited resources prevent any further action to stop these grows and prevent further environmental impact. ³⁴

Marijuana Grows Leaving More Colorado Homes Filled with Mold: It is unclear how many homes throughout Colorado are being used to grow marijuana, but Denver Detective Brian Matos estimated it could be as high as "one in every 10 homes in [Denver]." When people grow marijuana plants indoors they bring moisture into the home which is likely to cause mold problems especially if it is a large grow. In many cases, these grows are illegal and the homeowner is simply using the home for the purpose of growing marijuana without any concern for the damage caused. The damage is often compared to that of meth labs, but environmental lawyer Timothy Gablehouse disagrees, "Since [meth] labs are smaller now, contamination from meth is usually confined to small areas of the home where it was smoked." Whereas, marijuana grow contamination and destruction can be seen throughout the home. According to the Denver Post, "Illegal growers also sometimes dig into the foundation to tap a power line before the line can reach the meter to ensure they don't have to pay for the electricity they are using." This practice is often associated with punching holes through the walls or ceilings for ventilation. The DEA tells the *Denver Post* that illegal grows are often "expensive properties in upper-middle-class, high-income neighborhoods." Sometimes these homeowners lay a fresh coat of paint on the home and resell the home to unsuspecting buyers. This was the case of David and Christine Lynn who recently purchased a \$388,000 home that turned out to be a former grow and are currently suing the previous homeowners. 35

Mid-Year Update, by the Colorado Department of Revenue, Marijuana Enforcement Division: This report includes information on marijuana business licensing status, number of plants cultivated for medical and recreational purposes, volume of marijuana sold within both recreational and medical markets, units of infused edibles and non-edibles sold, mandatory retail testing for edibles, enforcement activity and administrative actions taken by the state's licensing authority from January through June 2016. ³⁶

Cannabinoid Dose and Label Accuracy in Edible Medical Cannabis Products: A study including 3 California and Washington cities sought to determine the accuracy of dosage labels on edible medical cannabis products. Nine dispensaries selling baked goods, beverages, and candy or chocolate were selected for the study. Individuals with a physician's letter were assigned to purchase a "large variety of products... within budget (\$400/city)." The resulting 75 purchased products were tested by researchers to determine whether the indicated levels of tetrahydrocannabinol (THC) and cannabidiol (CBD) of the edible products were accurate, within 10%.

Of the purchased products, which included 47 different brands, 17% were determined to be accurately labeled, 23 percent were under labeled, and 60 percent

were over labeled for THC content. Forty-four products (59 percent) were found to have detectable levels of CBD, of which only 13 were labeled to include CBD. None of the 13 labels for CBD were accurate, 4 were under labeled, and 9 were over labeled. Inaccurate labeling of products may lead consumers to get more of an effect than desired or not enough to produce the desired medical benefit. ³⁷

Tracking the Money That's Legalizing Marijuana and why it Matters: The National Families in Action (NFIA) released a report in the early part of 2017 regarding the financial support behind marijuana related ballot initiatives. The NFIA tracked the majority of the financial support on these initiatives for the past two decades to three private parties worth billions of dollars. The report outlines how much money per initiative is contributed by the three billionaires compared to other sources. Additionally, the report gives reasons for why the financial contributions of three individuals matter for the overall legalization of marijuana in the nation. ³⁸

<u>Seed to Sale Tracking for Commercial Marijuana:</u> This report examines the concept of seed to sale tracking for marijuana plants. Radio Frequency Identification (RFID) tracking is discussed along with some of the positives and negatives of Inventory Tracking Systems. ³⁹

Houston HIDTA Marijuana Legalization Threat Assessment, "Why Marijuana Legalization is NOT a Good Idea for Texas": This document, put together by the Houston Investigative Support Center, intends to provide easy access to salient facts regarding the serious negative consequences of marijuana legalization in the United States. Topics addressed include public health and safety ramifications, as well as economic and social impacts of marijuana legalization. ⁴⁰

Is the Marijuana Industry Actually Making Money for Alaska? One of the most compelling arguments for marijuana legalization is the amount of tax revenue that marijuana would generate. However, with legalization also comes the need for regulation, which also requires money to maintain. In Alaska, the amount of money generated for the 2017 fiscal year was \$1.75 million, but the amount of money budgeted for regulation by The Alcohol and Marijuana Control Office was \$1.9 million. The goal is that, eventually, the tax revenue generated from the marijuana industry will fully fund the agency. Until then, however, general fund money has to be used to supplement the rest of the budget. From 2015 through 2018 a total of "\$4.57 million has been budgeted from the state's general fund to regulate marijuana." It is the goal of The Alcohol and Marijuana Control Office that by the year 2020 the agency will be self-supported. ⁴¹

Working Paper on Projected Costs of Marijuana Legalization in Rhode Island: This paper was written in an effort to inform Rhode Island legislators about the potential economic impact of marijuana legalization in Rhode Island. The paper indicates that "although a full cost accounting of marijuana legalization would be impossible at present, enough data exists to make rough-and-ready estimates of certain likely direct and short-term costs." Some of the costs covered by the paper include administrative and enforcement costs for regulators, costs from drugged driving, health costs from emergency room visits, potential costs related to homelessness, and costs to employers. Costs reported in this paper are projections based off of figures from states with full marijuana legalization. ⁴²

Monitoring Health Concerns Related to Marijuana in Colorado: This 2016 report was published by the Colorado Department of Public Health and Environment in order to address the changes in marijuana use patterns, provide a systematic literature review, and address possible marijuana related health effects in the state of Colorado. The report covers findings addressed by such surveys as the Behavioral Risk Factor Surveillance Survey (BRFSS), Child Health Survey (CHS), Healthy Kids Colorado Survey (HKCS), and the Pregnancy Risk Assessment Monitoring System (PRAMS). In addition to the survey data, the report covers possible marijuana related health effects in Colorado, specifically looking at data from the Rocky Mountain Poison and Drug Center (RMPDC) and the Colorado Hospital Association (CHA). ⁴³

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Marijuana Use, Alcohol Use, and Driving in Washington State

Emerging Issues With Poly-Drug Use on Washington Roadways

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Glossary

<u>Fatality Analysis Reporting System (FARS)</u> – A national database funded by the National Highway Traffic Safety Administration (NHTSA) containing a census of all fatal traffic crashes occurring in the U.S. Washington State FARS is supplemented with information from toxicology reports, death records, coroner reports, EMS information, vehicle registration, and driver licensing information.

<u>THC</u> – Acronym for <u>Tetrahydrocannabinols</u>. For purposes of this report, the use of THC specifically refers to delta-9-THC, the psychoactive chemical entering the blood and brain immediately after marijuana smoking/consumption.

<u>Carboxy-THC/Hydroxy-THC</u> – The metabolites of delta-9-THC; this metabolite may be detected for up to 30 days after consumption.

<u>Cannabinoids</u> – A class of chemical compounds contained in marijuana. For purposes of this report, cannabinoids are an encompassing term to include any toxicology outcome related to marijuana (THC or carboxy-THC undistinguished).

<u>Marijuana ng/ml of Blood</u> – The unit of measurement used to describe the level of THC and/or carboxy-THC contained in a person's blood.

<u>Other Drugs</u> – Other drugs found in drivers involved in fatal crashes are from discrete drug families including narcotic analgesics, hallucinogens, depressants, stimulants, inhalants, and Phencyclidines (PCP). This report does not include alcohol when referring to other drugs. Detailed THC information was derived from toxicology reports. Descriptions of other drugs in this report relied on existing FARS drug coding.

<u>Poly-Drug Drivers</u> – Drivers involved in fatal crashes that are positive for alcohol and one or more other drugs, or two or more drugs that are not alcohol as confirmed by toxicology testing.

<u>Blood Alcohol Concentration (BAC)</u>, <u>Alcohol Greater Than/Equal to BAC .08</u> – The unit of measurement used to describe the level of alcohol contained in a person's blood; the measurement describes the percent of a person's blood that is alcohol. Alcohol greater than/equal to BAC .08 refers to a driver at or in excess of the per se limit.

<u>Weighted Surveys</u> – Data collected from survey respondents that represent a sample of a larger population are weighted for analysis so that the results better represent the larger population rather than just the sample of respondents.

Report Summary

This report provides select updated fatal crash information originally presented in Washington Traffic Safety Commission's report *Driver Toxicology Testing and the Involvement of Marijuana in Fatal Crashes, 2010-2014*¹ (October 2015). Since that report was published, poly-drug drivers involved in fatal crashes have increased significantly and is described more thoroughly in the present report. For the first time, this report also includes compilations of analyses of Washington's Roadside Self-Report Marijuana Survey, and questions from the Behavioral Risk Factor Surveillance and Healthy Youth Surveys. The following is a summary of key observations from these various data sources.

- Driver impairment due to alcohol and/or drugs is the number one contributing factor in Washington fatal crashes and is involved in nearly half of all traffic fatalities. Poly-drug drivers (combinations of alcohol and drugs or multiple drugs) is now the most common type of impairment among drivers in fatal crashes.
- Among drivers involved in fatal crashes 2008-2016 who were blood tested for intoxicants, 61
 percent were positive for alcohol and/or drugs.
- Among drivers in fatal crashes 2008-2016 that tested positive for alcohol or drugs, 44 percent tested positive for two or more substances (poly-drug drivers). The most common substance in poly-drug drivers is alcohol, followed by THC. Alcohol and THC combined is the most common poly-drug combination.
- Although research-based estimates of the risks posed by THC have varied greatly, all studies
 included in this report agree that combining alcohol and THC will only further inflate the level of
 impairment and crash risk. The deadly consequences of combining these two impairing
 substances and driving are already apparent in Washington fatal crash data.
- For the first time in 2012, poly-drug drivers became the most prevalent type of impaired drivers involved in fatal crashes. Since 2012, the number of poly-drug drivers involved in fatal crashes have increased an average of 15 percent every year.
- By 2016, the number of poly-drug drivers were more than double the number of alcohol-only drivers and five times higher than the number of THC-only drivers involved in fatal crashes.
- According to the biological results of Washington's Roadside Survey, nearly one in five daytime
 drivers may be under the influence of marijuana, up from less than one in 10 drivers prior to the
 implementation of marijuana retail sales.

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¹ Available at http://wtsc.wa.gov/

- According to Washington's Roadside Self-Report Marijuana Survey:
 - 39.1 percent of drivers who have used marijuana in the previous year admit to driving within three hours of marijuana use. This is similar to the results from Washington's Behavioral Risk Factor Surveillance Survey (33.5 percent).
 - More than half (53 percent) of drivers ages 15-20 believe marijuana use made their driving better. This is a significantly higher rate than drivers ages 21-25 (13.7 percent) and drivers ages 26-35 (17.4 percent).
 - o Among drivers who have used marijuana in the past year, only 36.6 percent believe that it is very likely or likely that marijuana impairs a person's ability to drive safely if used within two hours of driving, compared to 77 percent of drivers who have not used marijuana in the previous year.
 - 53.5 percent of drivers who have used marijuana in the past year believe it is very likely or likely to be arrested for impaired driving after using marijuana within two hours of driving, versus 70.2 percent of drivers who have not used marijuana in the previous year.
- According to Washington's Behavioral Risk Factor Surveillance Survey, drivers who admit to driving within three hours of marijuana use in the previous year are also more likely to:
 - o Drive after having perhaps too much to drink (14.5 percent).
 - o Not always wear a seatbelt (15.2 percent).
 - o Binge drink (45.1 percent).
- According to Washington's Healthy Youth Survey:
 - One in four 12th graders, one in six 10th graders, and one in ten 8th graders report riding in a vehicle with a driver who had been using marijuana.
 - Slightly more than 16 percent of 12th graders and 9 percent of 10th graders who have used marijuana admitted to, at least once, driving a vehicle within three hours of using marijuana.
- From 2008-2016, 76 drivers ages 16-18 involved in fatal crashes tested positive for alcohol and/or drugs. One in four of these young drivers were positive for multiple substances (polydrug drivers).
- While driving under the influence of alcohol remains a significant issue, the interplay of drugged driving must be equally considered if we are ever to reach our goal of zero fatalities and serious injuries on Washington roadways. This complex issue will require government, non-profit, corporate, and community response to reverse a rapidly increasing trend.

Background and Literature Review

On November 6, 2012, Washington voters approved Initiative 502 legalizing recreational use of marijuana. In July 2014, the first recreational marijuana stores opened. Initiative 502 included the establishment of a blood per se level of 5ng/ml for driving under the influence of marijuana. In Washington State, marijuana's involvement in fatal crashes had been tracked for decades based on the availability of toxicology results of fatal crash involved drivers and mainly as part of the bigger drugged driving issue. After legalizing and making marijuana readily available, it was vital to understand what the impact would be on traffic safety and impaired driving. Even before recreational use was made legal, marijuana was second to alcohol as the most frequently detected drug among fatal crash involved drivers and that continues to be true after legalization. In fatal crashes, the frequent co-occurrence of marijuana with other substances known to cause driver impairment, such as alcohol, is a contributing factor in the rising poly-drug issue.

Performance and Other Effects of Combining Marijuana and Alcohol

Driver impairment due to alcohol and drugs is the number one contributing factor in Washington fatal crashes and is involved in nearly half of all traffic fatalities in the state. The single most prevalent substance found in drivers in fatal crashes remains alcohol, but drugged driving (positive for any drugs) has surpassed alcohol impaired driving in recent years. After alcohol, the most prevalent drug is marijuana, which is more likely to be paired with alcohol than to appear as a single impairing substance among fatal crash-involved drivers. While the crash risk posed by alcohol is fairly well understood, it is critically important that we come to a better understanding of how THC and alcohol combine to increase crash risk in drivers.

The impairing effects of alcohol on motor vehicle drivers have been well documented. Scientific measurement of this impact began in 1935, when Richard Holcomb of the Northwestern Traffic Safety Institute began a case-control study in Illinois to compare alcohol-involved drivers in injury crashes with a random sample of drivers not involved in crashes (Holcomb, 1938). Since that study was published, crash risk estimates associated with driver BAC have evolved to a high degree of refinement (Peck et al., 2008). However, the same cannot be said about crash risk estimates for drivers with THC blood levels.

Numerous studies from the 1980s, 1990s, and early 2000s concluded that consuming marijuana alone resulted in trivial or no significant impacts to crash risk, largely because the data they used included drivers testing positive for THC, the primary psychoactive ingredient in marijuana, but also drivers testing positive for only carboxy-THC, the inactive metabolite of THC. Thus, unknown numbers of drivers without active THC in their blood were identified as cannabis or marijuana positive, so the lower risks they posed were mixed with those of higher risk THC positive drivers. A number of these studies relied on urine tests to identify marijuana positive drivers, which is a test that does not distinguish THC from carboxy-THC and does not provide a drug level. FARS data is also an unreliable source of marijuana information because it does not distinguish between THC and carboxy-THC. Therefore, a number of older studies aiming to measure THC's impact on crash risk arrived at flawed conclusions (Ramaekers et al., 2004).

More recently, however, awareness of the data problem has resulted in studies taking better care to use data based only on drivers testing positive for THC. As a result, much more realistic risk estimates regarding cannabis impairment have appeared. In 2012, two separate published meta-studies (Asbridge et al., 2012, Li et al., 2012) relied on studies using better-quality data and each concluded that crash risk roughly doubles for drivers with active THC in their blood (compared to THC-free drivers). The consistency of findings in these two studies has yielded a more confident awareness of the crash risk posed by THC involved driving, especially within the first two or three hours after using.

Nonetheless, the wide range of risk estimates attributed to THC only drivers has continued to puzzle researchers. Moreover, the number of well-constructed studies yielding reliable estimates of the risks posed by THC and alcohol in combination is quite small. The following section provides a summary of results from these few studies of the combined effects of THC and alcohol.

Crash Risk Estimates: Culpability, Case-Control, and Case-Crossover Studies

The five risk studies included here were of three basic study designs. Three of them (Biecheler et al., 2008, Drummer et al., 2004, Longo et al., 2000) employed versions of culpability analysis (sometimes referred to as responsibility analysis) in which a rigorous review is conducted of involved factors, including potentially mitigating factors in each crash. Involved drivers are then labeled as culpable, nonculpable, or partially culpable for contributing to the crash. This last group of drivers was generally excluded from the analyses. The assumption underlying culpability analysis is that "if drugs are contributing to crash causation, it would be expected that they would be overrepresented in the culpable or responsible group" (Robertson & Drummer, 1994, p. 243). All three studies presented oddsratios (OR) for culpable drivers in the THC-only, alcohol-only, and THC with alcohol conditions.

One of the two remaining studies (Pulido et al., 2011) used a case-crossover design in which the subjects participated in interviews, and then completed follow-up interviews one year later. The study's authors tested the association between driver self-reported marijuana consumption during the hour before crashing, alcohol consumption during the two hours prior to crashing, and involvement in a crash resulting in non-fatal injury to the driver. A related association was also tested for the combination of alcohol with marijuana in which relative-risk (RR) estimates were derived. This study was referenced in a recent comprehensive review of research regarding the impacts of marijuana on driving performance (Hartman & Huestis, 2013). The last of the five studies was of a case-control investigation in which 321 drivers under age 27 were treated in the emergency room for a non-fatal crash injury; controls were 310 licensed drivers also treated in the emergency room for injuries unrelated to traffic (Mura et al., 2003).

The risk estimates in these studies are quite variable, ranging from an OR of 1.8 for drivers with a blood-THC level of 2 ng/mL, to a RR of 5.8 for self-reported cannabis use during the hour before suffering a crash injury. Likewise, estimates for combined THC and alcohol ranged from an OR of 4.6 to an OR of 17.4. The results and other details of these studies are summarized in Table 1.

Table 1: Studies Estimating THC Risk, Alone and in Combination with Alcohol

Study and Country	Design/Type	Target Measure	Cases / Controls	THC and Alcohol Levels	OR/RR (THC only)	OR/RR (Alc only)	OR/RR (THC+Alc)	Risk Increase w/ Alcohol
Pulido et al., 2011 Spain	Case- Crossover	Driver RR of suffering a non-fatal crash injury while drug and alcohol-free free or after self-reported drug / alcohol use	Out of 503 young drivers who completed the study, 68 young drivers who suffered a non-fatal crash injury requiring medical care were cases and controls	Self-reported cannabis use w/in 1 hr Self-reported alcohol use w/in 2 hrs	5.8 (2.4 - 14)	N/A	10.9 (1.3 - 88)	1.88
Biecheler et al., 2008 France	Culpability Index (simple ratio: culpables / controls)	OR of a culpable driver in a fatal crash testing positive for drugs or alcohol (e.g., at specific blood levels)	Out of 9,998 drivers with known culpability and drug/alcohol results; culpable drivers were cases and non-culpable drivers were controls	THC ≥1 ng/mL Alc ≥.05 mg/L	2.3	9.4	14.1	6.13
Drummer et al., 2004 Australia	Culpability	OR of a culpable driver killed in a crash testing positive for drugs or alcohol (e.g., at specific blood levels)	Out of 3,398 fatally-injured drivers, culpable drivers were cases and non-culpable drivers were controls	THC >0 ng/mL >5 ng/mL Alc >.05 mg/L	2.7 (1.02 - 7.0) 6.6 (1.5 - 28)	6 (4.0 - 9.1)	17.4	6.44

95% Confidence intervals shown in parentheses when available. RR=Relative Risk OR=Odds Ratio Alc=Alcohol

Study and Country	Design/Type	Target Measure	Cases / Controls	THC and Alcohol Levels	OR/RR (THC only)	OR/RR (Alc only)	OR/RR (THC+Alc)	Risk Increase w/ Alcohol
Mura et al., 2003 France	Case-Control	Injured driver OR of testing positive for THC / alcohol related to injury in non-fatal crashes	Cases: 321 drivers (<age (<age="" 27)="" 310="" after="" causes<="" controls:="" crashes="" drivers="" er="" for="" in="" licensed="" non-crash="" non-fatal="" td="" treated=""><td>THC >1 ng/mg Alc ≥.05 mg/L</td><td>2.5 (1.5 - 4.2)</td><td>3.8 (2.1 - 6.8)</td><td>4.6 (2.0 - 10.7)</td><td>1.84</td></age>	THC >1 ng/mg Alc ≥.05 mg/L	2.5 (1.5 - 4.2)	3.8 (2.1 - 6.8)	4.6 (2.0 - 10.7)	1.84
Longo et al., 2000 Australia	Culpability	OR of a culpable driver in a fatal crash testing positive for drugs or alcohol (e.g., at specific blood levels)	Out of 2,500 drivers injured in crashes, culpable drivers were cases and non-culpable drivers were controls	THC \leq 2 ng/mL THC >2 ng/mL Alc \geq 0	0.5 1.8	4.8	6.2	3.44

95% Confidence intervals shown in parentheses when available. RR=Relative Risk OR=Odds Ratio Alc=Alcohol

Laboratory/Simulator Studies

A great advantage of simulator studies is that they yield precise estimates derived from controlled research conditions, such as ongoing alcohol and drug levels during a series of performance trials. Simulator studies often reveal the specific human skills and abilities compromised by impairing substances. The psychomotor and neurocognitive faculties comprising the core of competencies vital to the driving task are highly vulnerable to impairment.

The standard deviation of lane position (SDLP) is an exquisitely sensitive measure of the driver's ability to gauge and maintain consistent control of a vehicle's position and trajectory in the roadway. Other critical skills tests are the divided attention test (DAT), which measures the subject's ability to process and coordinate multiple information streams within the same time frame. All of these inputs must be registered and prioritized in time to make needed adjustments to one's vehicle operation in order to maintain generally safe travel. Critical tracking (CT) represents the human ability to remain focused on important visual objects moving about in the visual field — and making ongoing adjustments accordingly. Other important measures used in laboratory and simulator studies include lateral acceleration (the ability to adjust vehicle speed and steering wheel in order to safely control turning), time-out-of-lane (another measure of lateral control), reaction time (usually assessed by the stop-signal test), and working memory (a neurocognitive function measured by specific memory tests).

The results and other details of a sample of these studies is summarized in Table 2.

Table 2: Laboratory Studies Measuring Driving Performance as Impacted by THC and Alcohol

Study and Country	Design/Type (included laboratory and driving components)	Target Measures	Subjects	Findings
Desrosiers	Double-blind,	Performance	14 frequent	THC only: THC alone induced
et al., 2015	placebo-	on CT, DA,	(<u>></u> 4x/week) and	performance deficits in CT, DA, LC,
	controlled,	SS, WM, RT	11 infrequent	and SS tests in both groups but
USA, France,	balanced-block	tests	(<2x/week)	particularly for occasional users.
Netherlands	design		cannabis users (8	
			males, 4 females)	
Ramaekers	Double-blind,	Performance	12 occasional	THC only: THC alone induced
et al., 2009	placebo-	on CT, DA,	and 12 heavy	performance deficits in CT, DA, CF,
	controlled,	SS, RT tests	cannabis users (8	and SS tests in occasional users, but
Netherlands	mixed-model		males, 4 females)	CT and DA were not impacted in
& Germany	design			heavy users.

<u>Abbreviations -</u> CT: critical tracking; DA: divided-attention; WM: working memory; RT: reaction time; SS: stop-signal; SDLP: standard deviation of lane position; LA: lateral acceleration; LD: lane departure; CF: cognitive function; LC: loss of control

Study and Country	Design/Type (included laboratory and driving components)	Target Measures	Subjects	Findings
Hartman et	Six-way	Effects of	Self-reported	Low-level THC alone significantly
al., 2015	crossover in	THC and	cannabis users:	affected SDLP only, but alcohol-only
	which each	alcohol on	13 males and 5	impacted all three measures.
USA	subject participated in placebo and low- and high- THC/Alcohol conditions	SDLP, LA, and LD	females between 21 and 37 years of age	Combining low-dose alcohol (0.05 BAC) with 5 ng/mL THC resulted in impairment similar to that of 0.08 BAC alcohol. Results did not confirm a true interaction between THC and alcohol.
Ramaekers et al., 2011	Double-blind, placebo- controlled,	Performance on CT, DA, RT, SS tests	Heavy cannabis users (daily): 15 males and 6	Heavy users did not show performance deficits with THC alone on CT, SS, and CF tests, but
Netherlands & Germany	three-way design	11,33 tc3t3	females between 19 and 38 years of age	DA, LC, and RT were impacted. However, alcohol alone resulted in significant decrements in CT, DA, RT, and SS tests. Data modeling also revealed THC-alcohol interaction (and greater performance deficits) for combined THC and alcohol.
Ramaekers et al., 2000 Netherlands	Six-way crossover in which each subject participated in placebo and low- and high- THC/Alcohol conditions	Performance on CT, DA, RT, SS, LD tests	Current alcohol (1X/wk) and cannabis (1X/mo) users: 9 males and 9 females between 20 and 28 years of age	Both THC and alcohol alone each significantly affected SDLP though less for THC than alcohol. Combining alcohol and THC resulted in severe loss of CT performance and sizeable rises in SDLP. Even at low THC levels, alcohol at the 0.05 BAC level resulted in deficits typically observed in drivers with a BAC of 0.09.

<u>Abbreviations -</u> CT: critical tracking; DA: divided-attention; WM: working memory; RT: reaction time; SS: stop-signal; SDLP: standard deviation of lane position; LA: lateral acceleration; LD: lane departure; CF: cognitive function; LC: loss of control

Simply converting the findings from laboratory and simulator studies to on-road driving performance effects has resulted in unwarranted conclusions. Nonetheless, these studies have given researchers the chance to understand the effects of both smoking and ingesting marijuana in a careful, dose-related manner, and also to predict how driving performance is likely to be altered (smoking results in elevated plasma-THC levels within seconds and maximum values within 15 minutes, whereas ingestion results in lower maximum values that peak in around 1 hour). All of these capabilities are even more strongly compromised by the added presence of alcohol. Even low doses of THC in combination with a 0.04% BAC produced road-tracking impairment to a degree similar to a BAC of 0.09% (Hartman & Huestis, 2013). Likewise, chronic and heavy users of marijuana, who often show reduced performance deficits

owing to drug tolerance, become seriously degraded after drinking alcohol. In part, this reversal occurs because alcohol erases the ability of even strongly habituated marijuana users to compensate for their performance decrements.

A link between THC blood levels and impairment may never be developed comparable to the relationship that exists for alcohol. Alcohol and marijuana are very distinct in terms of chemical makeup, body metabolism, and psychomotor impairment and therefore should not be compared. Strategies implemented to reduce alcohol impaired driving are not likely to have the same impact on reducing drugged drivers. More research and information are needed before researchers can definitely understand the link between marijuana use and increased crash risk.

Research Complications

There is currently wide variability of risk estimates related to THC and THC combined with alcohol. Crash risks among THC positive drivers remain variable owing to an array of factors, e.g., individual human responses to THC vary tremendously and regular users become tolerant to drug effects over time. Age and gender themselves are potential confounding variables, since adolescents are highly sensitive to potential rewards and thus more susceptible to the dangers of dependency and addiction, and women produce lower levels of gastric alcohol dehydrogenase and so wind up with higher BAC levels resulting from a given dose of alcohol than men do (Baraona et al., 2001).

Risk estimates also widely vary due to study design differences. For instance, culpability studies typically underestimate the risks posed by drugs and alcohol because even non-culpable drivers involved in fatal crashes are more likely to engage in risky behaviors than controls who have never been involved in crashes. Sample size differences are also likely sources of variability and some study designs are better able to control for potential confounders than other designs. Other significant research limitations include lack of complete and reliable data, differences in toxicological blood testing methods and sensitivity, and the vast variety of marijuana potency and consumption methods. Research studies relying on simulator and controlled dose designs are limited because the flower marijuana used in those studies (ranging from 3-8% THC concentration) is not representative to the flower product available in legal recreational use states (ranging from 10-30% THC concentration).

Conclusions

Although research-based estimates of the risks posed by THC have varied greatly, all studies included in this review agree that giving alcohol to drivers who are already compromised by THC will only further inflate the level of that risk. The epidemiologic studies reviewed here estimate that drinking to a BAC level of 0.05% will increase the driver risk of crashing (and of being responsible for a crash) by a factor of between 1.84 and 6.44. One additional recent research finding by Hartman et al., 2015(b), is that the presence of alcohol increases blood levels of both carboxy-THC and hydroxy-THC, the metabolites of THC. The authors of that study have proposed that their finding may serve to clarify the reasons for alcohol's disabling impact on THC-positive subjects. Ultimately, there are still many unknowns regarding the interaction between THC and alcohol and crash risk, but the deadly consequences of combining these two impairing substances and driving are already apparent in Washington fatal crash data.

Alcohol, Marijuana, and Other Drugs in Fatal Crash-Involved Drivers

The <u>Revised Code of Washington 46.52.065</u> requires that "a blood sample be taken from all drivers and all pedestrians who are killed in any traffic [crash] where the death occurred within four hours" for analysis by the state toxicologist "to determine the concentration of alcohol and, where feasible, the presence of drugs or other toxic substances." This statute has led to statewide testing rates for deceased drivers of almost 90 percent. Failure to test a deceased driver most often results from either a long-time lag between crash and death or from some other barrier to obtaining a viable sample for testing. Unfortunately, a similar law does not exist for surviving drivers involved in fatal crashes. Therefore, testing rates among this group are much lower and rely on the reasonable suspicion of impairment by the investigating law enforcement parties.

Washington State has a centralized toxicology laboratory. This means that all drivers suspected of driving under the influence (DUI), either in traffic or as part of a crash investigation where a blood/specimen was collected, are tested by the Washington State Patrol (WSP) Toxicology Lab. The WSP Toxicology Lab's reporting thresholds for THC have varied in the past from one to two nanograms per milliliter of blood (ng/mL). On January 1, 2013, the WSP Toxicology Lab reset the THC reporting threshold to one ng/mL and began conducting full panel (alcohol and drug) tests on all traffic crash blood sample submissions. Prior to this date, the Lab tested blood for the presence of alcohol first. Only if blood alcohol concentrations were under 0.10, the Lab then conducted drug testing. In addition, full panel alcohol and drug testing was only performed when a driver was involved in vehicular homicide/assault and/or underwent a Drug Recognition Expert examination. The Lab change to full panel testing after 2013 had a minor impact on the data used in this report (Table 4). Drivers with only alcohol screening were therefore excluded.

Table 3: Toxicology Testing of Surviving and Deceased Drivers in Fatal Crashes, 2008-2016

2008-2016	Any Toxicology Testing	No Toxicology Testing	Total Drivers in Fatal Crashes	% Tested
Surviving Drivers	1,085	2,090	3,175	34.2%
Deceased Drivers	2,465	270	2,735	90.1%
Total Drivers	3,550	2,360	5,910	60.1%

<u>Toxicology Testing of Drivers in Fatal Crashes</u>

In Washington State between 2008 and 2016, a total of 5,910 drivers were involved in fatal crashes. Overall testing rates of drivers involved in fatal crashes remained stable 2008-2013, and then declined in 2014. From 2008-2013, the average testing rate was 63.2 percent. From 2014-2016, the average testing rate of drivers involved in fatal crashes declined to 54.8 percent. Tables 4 and 5 describe the type, frequency, and outcomes of toxicology tests among drivers involved in fatal crashes.

Table 4: Toxicology Testing of Drivers in Fatal Crashes by Year

	Alcohol Test ONLY	Drug Test ONLY	Alcohol and Drug Test	Not Tested	% Tested	Total Drivers
2008	30	5	402	275	61.4%	712
2009	37	0	369	227	64.1%	633
2010	22	1	377	219	64.6%	619
2011	36	0	344	226	62.7%	606
2012	21	0	345	225	61.9%	591
2013	7	0	373	212	64.2%	592
2014	5	1	342	275	55.9%	623
2015	12	0	396	359	53.2%	767
2016 ²	9	0	416	342	55.4%	767
Total	179	7	3,364	2360	60.1%	5,910

Table 5: Toxicology Outcomes of Drivers in Fatal Crashes by Year

	Total Drivers	Alcohol and Drug Test	Positive for Alcohol or Drugs	% of Tested Drivers Positive	% of Total Drivers Positive
2008	712	402	252	62.7%	35.4%
2009	633	369	236	64.0%	37.3%
2010	619	377	231	61.3%	37.3%
2011	606	344	191	55.5%	31.5%
2012	591	345	196	56.8%	33.2%
2013	592	373	225	60.3%	38.0%
2014	623	342	225	65.8%	36.1%
2015	767	396	248	62.6%	32.3%
2016 ²	767	416	269	64.7%	35.1%
Total	5,910	3,364	2,073	61.6%	35.1%

For the remainder of this report, only drivers that were tested for both alcohol and drugs are included.

Toxicology Outcomes of Drivers in Fatal Crashes

From 2008-2016, more than one-third of drivers in fatal crashes were positive for alcohol or drugs. During this time period, drivers in fatal crashes testing positive for both alcohol and drugs or multiple drugs (poly-drug drivers) have increased. Table 6 categorizes fatal crash involved drivers into mutually exclusive groups (meaning each driver is counted in only one category), based on alcohol and drug outcomes.

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² At the time of this analysis, data for 2016 was still preliminary but complete.

Table 6: Categorization of Drivers in Fatal Crashes Testing Positive for Alcohol or Drugs, 2008-2016

TEST STATUS	Driver Category 1	Sample	Driver Category 2	Sample	Driver Category 3	Sample
Not Tested	Not Tested	2,360	Not Tested	2,360	Not Tested	2,360
Tested - Negative	No Drugs, No Alcohol	1,288	No Drugs, No Alcohol	1,288	No Drugs, No Alcohol	1,288
	Alcohol Only	671	Alcohol Only <.079	96	Alcohol Only <.079	96
	Alcohol Olly	0/1	Alcohol Only ≥.08	575	Alcohol Only ≥.08	575
	Cannahinaids Only	275	THC Only	118	THC Only	118
	Cannabinoids Only		Carboxy-THC Only	70	Carboxy-THC Only	70
	Cannabinoids + Alcohol Only Cannabinoids + Drugs + Alcohol		THE Alaskal	107	THC + Alcohol <.079	25
Tested – Positive			THC + Alcohol	187	THC + Alcohol >.08	162
(2,073)			Carboxy-THC + Alcohol	88	Carboxy-THC + Alcohol	88
Excluding Alcohol Test Only (179),		103	THC + Drugs + Alcohol	66	THC + Drugs + Alcohol <.079	14
Drug Test Only (7), Tested with Unknown Results					THC + Drugs + Alcohol ≥.08	52
(3)			Carboxy-THC + Drugs + Alcohol	37	Carboxy-THC + Drugs + Alcohol	37
	Cannabinoids +	422	THC + Drugs	76	THC + Drugs	76
	Drugs Only	132	Carboxy-THC + Drugs	56	Carboxy-THC + Drugs	56
	Other Drugs Only	502	Other Drugs Only	502	Other Drugs Only	502
	Other Drugs + Alcohol Only	202	Other Drugs + Alcohol Only	202	Other Drugs + Alcohol Only	202
Total Driver Sample	e, 2008-2016		•			5,910

The remainder of this section focuses on poly-drug drivers (drugs and alcohol or multiple drugs), with comparisons to alcohol-only and THC-only drivers. For purposes of this report, carboxy-THC is excluded from the remainder of this report since carboxy-THC does not always indicate recent marijuana use.

The Rising Incidence of Poly-Drug Drivers in Fatal Crashes

The frequency of poly-drug drivers in fatal crashes has increased at a steady rate over the past several years. The number of drivers testing positive for multiple substances reached the highest point in history in 2013, and that number has increased every year since, reaching unprecedented levels. Most polydrug drivers combine alcohol with another drug. From 2008-2016, 44 percent of fatal crash-involved drivers testing positive for substances were poly-drug drivers.

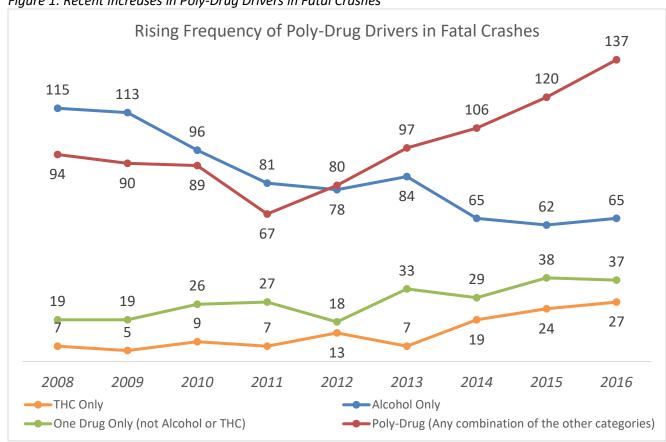
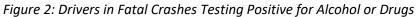
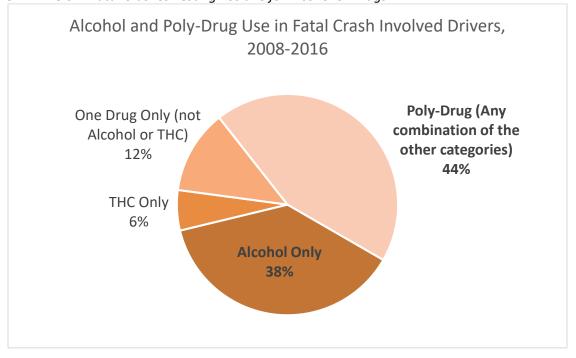


Figure 1: Recent Increases in Poly-Drug Drivers in Fatal Crashes





Males have always been the dominate gender among drivers involved in fatal crashes. This is also true among drivers in fatal crashes testing positive for drugs or alcohol. While still predominately male, drivers positive for other drugs (not THC or alcohol) or poly-drugs have a higher proportion of female drivers than alcohol-only or THC-only drivers. Among the other drugs and poly-drug drivers, one in four are female.

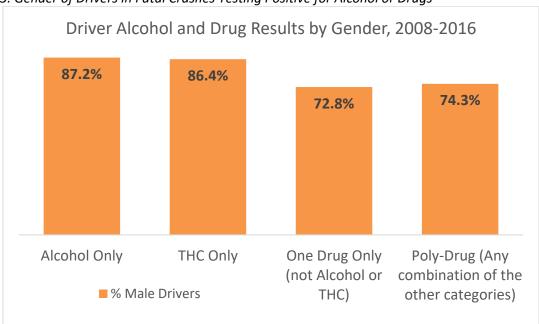


Figure 3: Gender of Drivers in Fatal Crashes Testing Positive for Alcohol or Drugs

The figure on the following page shows age group comparisons. Other-drug and poly-drug drivers also span age groups more evenly than alcohol-only or THC-only drivers. Among THC-only drivers in fatal crashes, more than half (56.8 percent) were age 30 or younger. Similarly, 45 percent of alcohol-only drivers were age 30 or younger. The dominate age group for THC-only were drivers ages 20 and younger, comprising nearly a quarter of all THC-only drivers. For alcohol-only, the dominate age group was ages 21-25 comprising over 20 percent.

For drivers testing positive for other drugs-only, only one in four are ages 30 or younger. The dominate age group for other drugs-only are drivers ages 71 and older, comprising one in five other-drug drivers. Drivers that do not test positive for THC or alcohol, but do test positive for another drug, and only one other drug, are likely prescription drug users. Given the older dominate age in this group, it is possible that the majority of these drivers are taking prescription drugs. However, it is unknown if the prescriptions are impairing or are being abused. What we do know is that this population is not mixing drugs.

Among poly-drug users, 37 percent are age 30 or younger. The younger (age 20 or younger) and older (age 61 or older) poly-drug drivers are the minority ages in this driver group, whereas every age group in between are more equally represented than in the other driver categories. One in five poly-drug drivers were ages 31-40, similar to alcohol-only drivers.

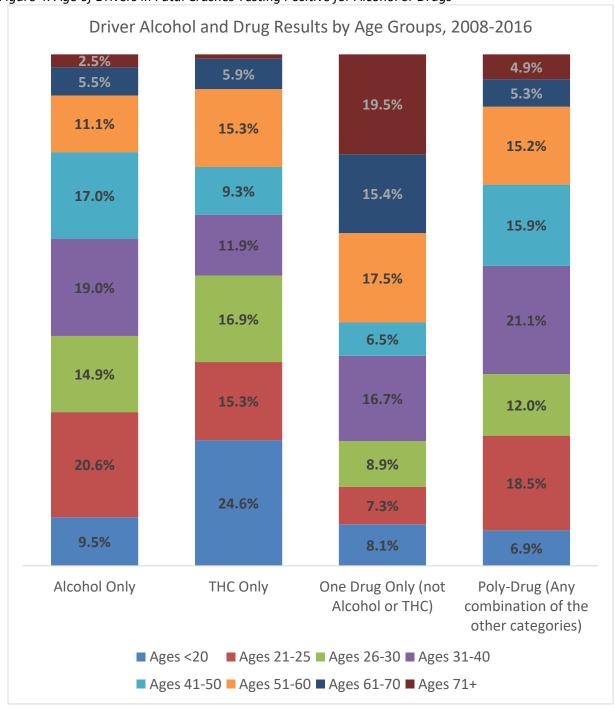


Figure 4: Age of Drivers in Fatal Crashes Testing Positive for Alcohol or Drugs

Alcohol is the deadliest substance involved in fatal crashes. Drivers under the influence of alcohol, alone or in combination with other drugs, emerge as the most high-risk drivers ultimately being involved in fatal crashes. More than half of alcohol-only drivers were speeding, followed by 45 percent of poly-drug drivers. These two driver groups also had the highest rates of not using a seatbelt. Interestingly, nearly one out of three THC-only drivers were speeding, and had the highest rate of distraction at 26 percent. Poly-drug users had the highest rate of not having a valid license at the time of the fatal crash.

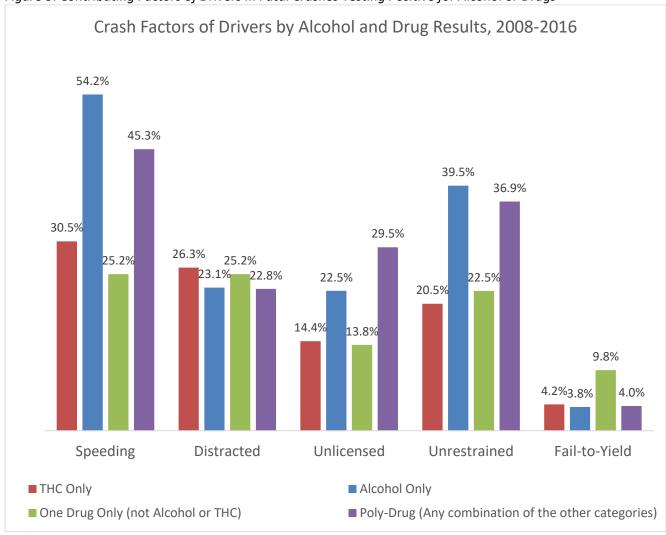


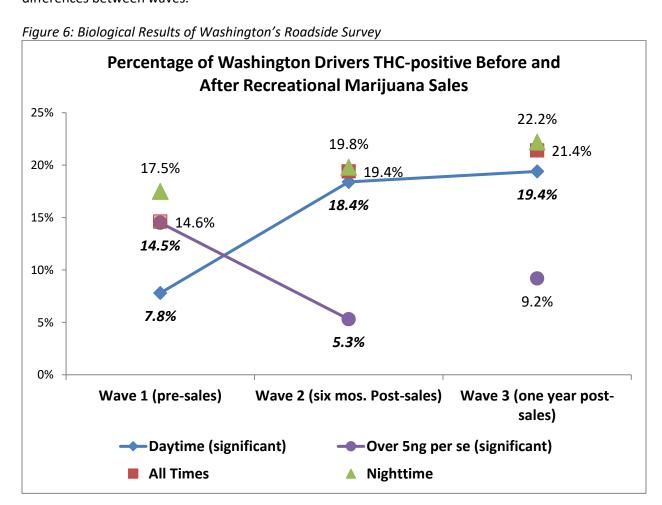
Figure 5: Contributing Factors of Drivers in Fatal Crashes Testing Positive for Alcohol or Drugs

Drug and/or alcohol positive drivers involved in fatal crashes commit more driver errors than 'clean' drivers involved in fatal crashes. These drivers are also more likely to be the only vehicle in the crash. Although alcohol often emerges and the most dangerous of drugs involved in fatal crashes, THC and other drugs, including prescription drugs, also pose significant risk. The increasing trend of poly-drug drivers in fatal crashes is certainly cause for concern as drug combinations, especially with alcohol, may amplify impairment.

Washington's Roadside Surveys 2014-2015

In partnership with NHTSA and the Pacific Institute for Research and Evaluation (PIRE), a roadside survey modeling the National Roadside Survey (NRS) was conducted in Washington State. The survey collected biological (blood and oral fluid) samples and self-report survey information from drivers randomly selected from active traffic flow. This information was collected in three waves; one month prior to retail sales, six months following retail sales (the opening of the first retail store for recreational purchases), and twelve months following retail sales. More information about this effort and the full results of the analysis of the biological samples can be found by reviewing Ramirez et al. (2016).

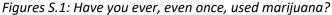
Figure 6 was developed from information presented in Ramirez et al. (2016). After marijuana retail stores opened there were significant increases in daytime prevalence of THC-positive drivers on Washington roadways. According to the biological survey, nearly one in five daytime drivers may be under the influence of marijuana, up from less than one in ten drivers prior to retail sales. The number of drivers exceeding the five ng/mL marijuana per se limit significantly decreased six months after retail sales began, but this effect was gone by 12 months post-sales. There were no other significant differences between waves.

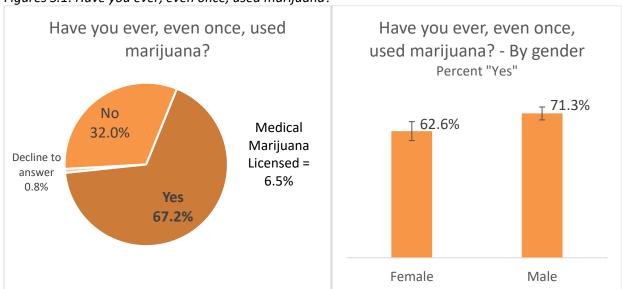


Self-report Marijuana Survey

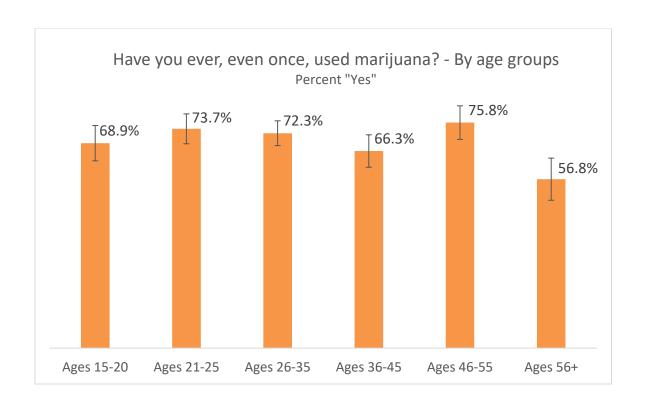
The Washington Traffic Safety Commission, in partnership with analysts from PIRE, the AAA Foundation for Traffic Safety, and the Insurance Institute for Highway Safety, analyzed the self-report marijuana survey information collected as part of the roadside survey. The full marijuana survey is available in Appendix B. Analyses of this survey were not included in the Ramirez et al. (2016) report. This team of analysts applied a post-stratification weighting adjustment to the design weights calculated for analysis of the biological specimens. The weight adjustment was based on Washington licensed driver demographics for age and gender. This adjustment provided greater generalizability to the licensed driver population in Washington. This weighting method is described fully in Appendix C.

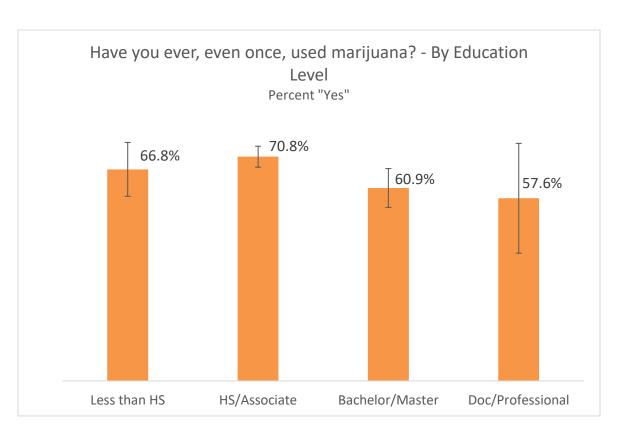
Initial analyses of the self-report survey did not reveal any significant changes in self-reported information by wave. Therefore, the data was combined into a single sample with sufficient sample sizes to perform demographic analyses. Those results are presented in this section. The following figures show the weighted responses to the self-report marijuana survey collected as part of Washington's roadside survey. Only noteworthy outcomes by age, gender, and education level are presented.





The majority of people self-reported that they have tried marijuana at least once. A higher majority (71.3 percent) of males have tried marijuana compared to 62.6 percent of the females. The charts on the following page show persons aged older than 56 have the lowest majority of lifetime use (56.8 percent), whereas the age group 46-55 has the highest (75.8 percent). Majority of lifetime use also decreases with higher education status, although these differences are not significant.





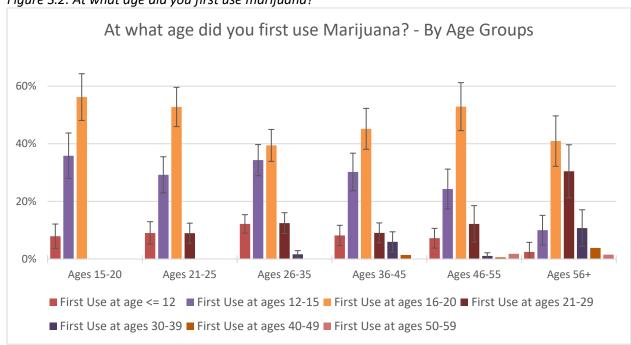
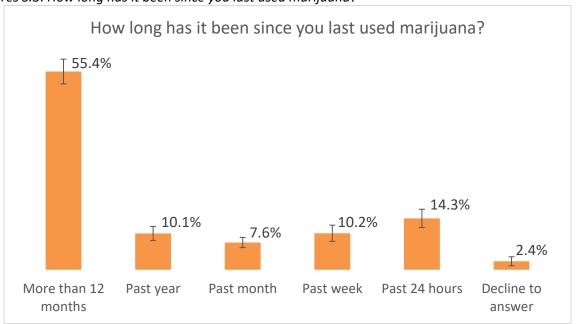


Figure S.2: At what age did you first use marijuana?

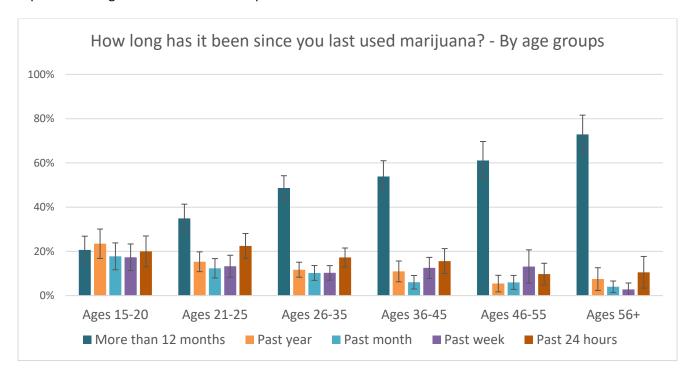
Among all age groups, the most common age of first use was ages 16-20. Among people who have used marijuana younger than age 56, a smaller but significant proportion reported age of first use was ages 12-15. Age of first use is largely consistent between generations. Based on this survey, it appears that few middle-aged and older persons used marijuana for the first time as a result of legalization.



Figures S.3: How long has it been since you last used marijuana?

The majority of persons who have ever used marijuana have not used it in the previous year. However, nearly 15 percent of lifetime users report using marijuana in the previous day. The older age groups

were more likely to report not using marijuana in the previous year, whereas the age groups 15-25 reported the highest rates of use in the previous 24 hours.



The remainder of this section only includes persons who have used marijuana at least once in the previous year.

How often do you currently use marijuana? 22.7% 19.1% 16.7% 11.0% 9.2% 7.9% 7.9% 5.4% Once a 12 times 4 times or 2 or less 3-4 times a 5 or more Everyday Decline to or less a week year or less a times a times a answer less month week week year

Figure S.4: How often do you currently use marijuana?

The majority of marijuana users could be considered casual users. Just over 40 percent of marijuana users report using marijuana once a month or less. However, the next highest group are every day users, or chronic users; 16.7 percent reported using marijuana daily.

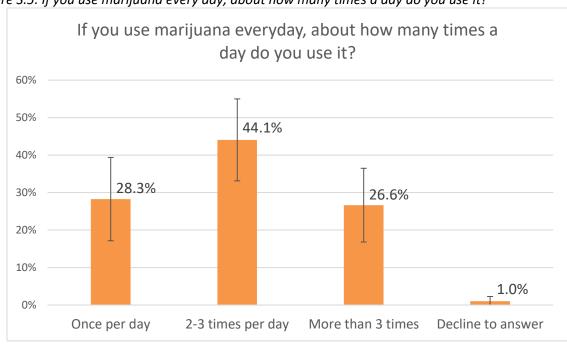


Figure S.5: If you use marijuana every day, about how many times a day do you use it?

Among daily users of marijuana, the majority (44.1 percent) reported using it two to three times per day. An additional 28.3 percent report using marijuana only once a day and another 26.6 percent report using marijuana more than three times every day.

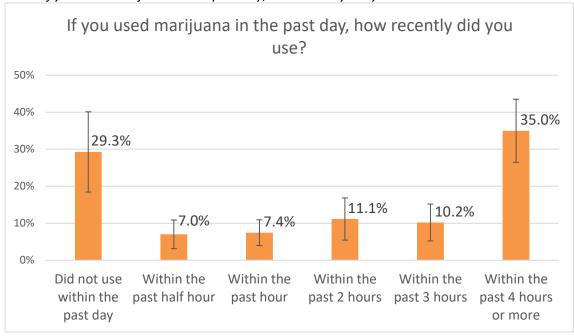
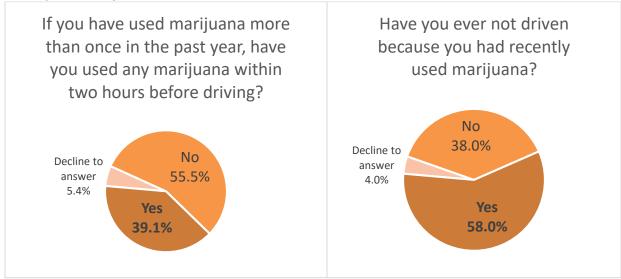


Figure S.6: If you used marijuana in the past day, how recently did you use?

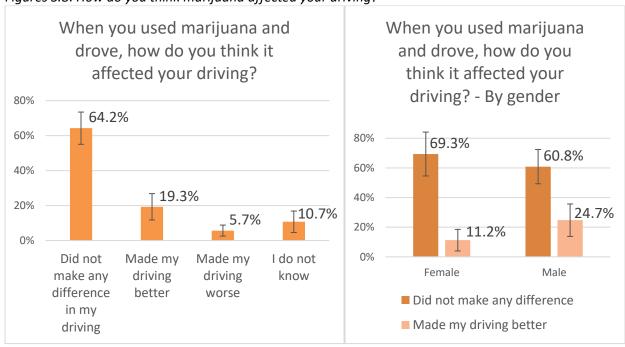
The majority of respondents reported not using marijuana in the previous four hours (64.3 percent). However, nearly 36 percent of daily users reported using within the previous three hours (including use

in the past half hour, hour, two hours, and three hours in Figure S.6). All respondents were recruited from the roadside, meaning they were all driving just before participating in the survey. Alarmingly, 7 percent reported use in the previous half hour, indicating some may have even been using marijuana while driving. In fact, 39.1 percent of drivers admitted to driving within three hours of using marijuana at least once in the previous year. Despite this admission, 58 percent of drivers also admit not driving due to recent marijuana use.

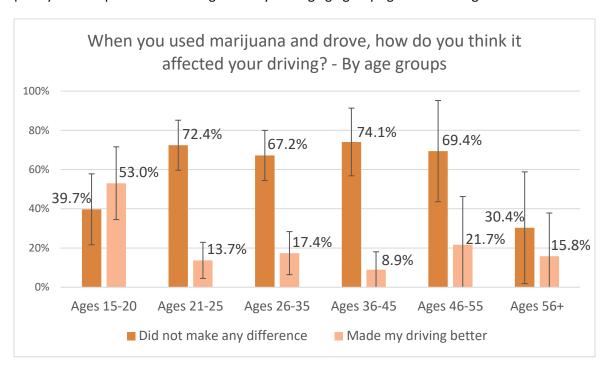
Figures S.7: Have you used marijuana within two hours before driving? Not driven because you had recently used marijuana?



Figures S.8: How do you think marijuana affected your driving?



Among marijuana users admitting to driving within three hours of marijuana use, two out of three did not think the marijuana use made any difference in their driving. One in five drivers actually reported that they thought marijuana use made their driving better. One in four men felt marijuana use made them better drivers, compared to just over one in ten women. As shown in the chart below, novice drivers ages 15-20 hold the majority opinion that marijuana use made their driving better. The frequency of this opinion declined significantly among age groups greater than age 21.



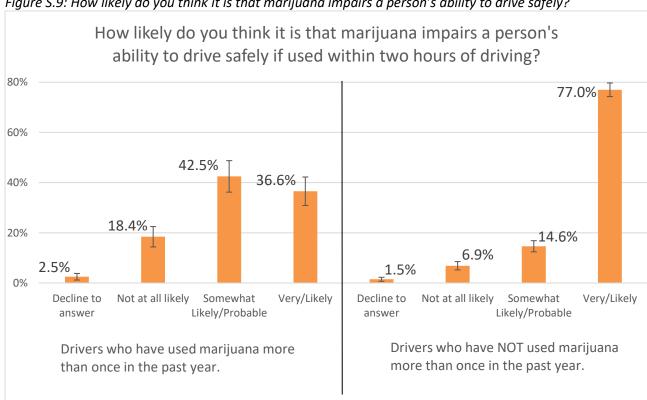


Figure S.9: How likely do you think it is that marijuana impairs a person's ability to drive safely?

There are significant differences of opinion between persons who have used marijuana in the past year and those who have not. The majority (77 percent) of persons who have not used marijuana in the previous year believe that it is very/likely that marijuana impairs a person's ability to drive safely if consumed within two hours of driving. By comparison, only 36.6 percent of drivers who have used marijuana at least once in the previous year believe it is very/likely to impair driving ability. Nearly one in five of this group do not think marijuana use impairs driving ability at all, versus only 6.9 percent of persons who have not used marijuana in the previous year.

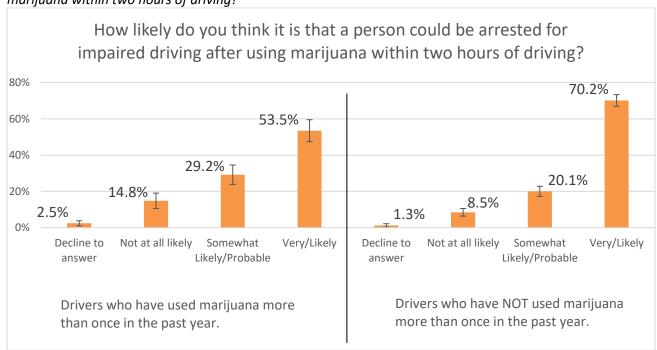


Figure S.10: How likely do you think it is that a person could be arrested for impaired driving after using marijuana within two hours of driving?

Drivers who have not used marijuana in the previous year thought it was more likely to be arrested for impaired driving after using marijuana than drivers who have used marijuana in the previous year. Only 8.5 percent of drivers who had not used marijuana in the previous year thought it was not at all likely to be arrested for impaired driving after using marijuana, compared to 14.8 percent of previous year marijuana users.

Roadside Surveys: The Importance of Continued Data Collection

Just after Washington completed the roadside study presented here, NHTSA was prohibited by Congress to spend federal money on national roadside survey data collection efforts. NHTSA has encouraged states to conduct similar prevalence studies to measure the prevalence of drugged driving on roadways, while admitting national data will no longer be available. (Compton, 2017.)

While Washington has been fortunate to have the roadside data collected pre- and post- recreational marijuana legalization, it is unlikely we will be able to continue this effort without NHTSA's research resources and federal funding support. As a result, Washington will have to rely on other self-report survey information to continue monitoring the impact of marijuana legalization. These other surveys are presented in the following section.

Washington's Self-Report Health Surveys

Behavioral Risk Factor Surveillance System (BRFSS)

Washington's Behavioral Risk Factor Surveillance Survey (BRFSS) is managed by the Washington Department of Health under a grant from the Centers for Disease Control and Prevention (CDC), contributing to the national survey compiled by the CDC. The Washington BRFSS provides opportunity for stakeholders to add additional questions to this survey, thereby taking advantage of large survey sample sizes, robust weighting procedures, and multiple cross-analyses with other BRFSS modules. Since 2014, the WTSC has sponsored a traffic safety module on the BRFSS survey to include a question about driving within three hours of using marijuana. If a respondent admits to using marijuana in the past 30 days, those respondents are then also asked about driving within three hours of marijuana use.

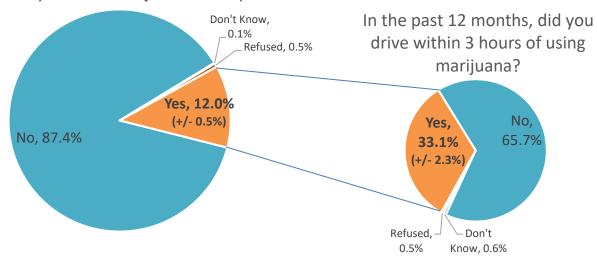
Table 7: WA BRFSS Traffic Safety Module Driving After Marijuana Use

If WA9.2 (MJPAST30) = 1 or WA9.4 (MEDMJ) = 1, continue, otherwise skip to next section		
TSMJDRV	WA13.5 Thinking about the last TWELVE months, did you ever drive within approximately three hours after using marijuana or hashish?	1 = Yes 2 = No 7 = Don't Know 9 = Refused

The following analysis combines three years of BRFSS data (2014-2016)³ in order to provide reliable estimates of driving after marijuana use by various subgroupings, such as demographics and other highrisk behaviors. Approximately one-third of persons reporting past month marijuana use also report driving within three hours of marijuana use.

Figure B1: Driving Within 3 Hours of Marijuana Use: WA BRFSS 2014-2016

Have you used Marijuana in the past 30 days?



³ Data Source: Washington State Department of Health, Center for Health Statistics, Behavioral Risk Factor Surveillance System, supported in part by the Centers for Disease Control and Prevention, Cooperative Agreement U58/SO000047-4, 3U58SO000047-03W1 (2014) U58/DP006066-01 (2015) NU58/DP006066-02-02 (2016).

As shown in the roadside survey results, persons reporting driving after marijuana use are more frequently male and under age 35. Over half of persons reporting driving after marijuana use were ages 18-34.

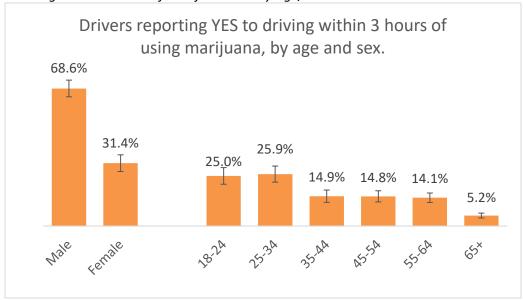


Figure B2: Driving Within 3 Hours of Marijuana Use by Age/Gender: WA BRFSS 2014-2016

According to the BRFSS survey, the majority (58.6 percent) of persons reporting driving within three hours of using marijuana have at least some college education and 40.3 percent make more than \$50,000 per year. This conflicts with the findings from the roadside self-report survey, even though those results were not significant.

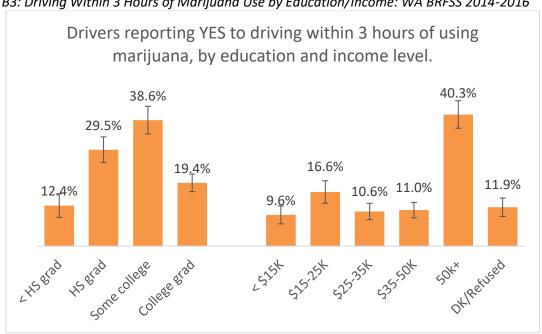


Figure B3: Driving Within 3 Hours of Marijuana Use by Education/Income: WA BRFSS 2014-2016

Persons who drive within three hours of marijuana use are significantly more likely to also drink and drive compared to those who do not report driving within three hours of marijuana use. Nearly one in six drivers who report driving within three hours of marijuana use also report driving after having perhaps too much to drink, compared to less than one in twenty drivers who do not report driving within three hours of marijuana use. Fifteen percent of drivers who have driven within three hours of using marijuana report not always wearing a seatbelt, compared to only 8.5 percent of drivers who report not driving after marijuana use. Finally, persons who drive within three hours of marijuana use also have higher rates of binge drinking.



Figure B4: Driving After Marijuana Use and Other High-Risk Behaviors: WA BRFSS 2014-2016

Healthy Youth Survey (HYS)

The Washington Healthy Youth Survey (HYS)⁴ is a collaborative effort between the Office of Superintendent of Public Instruction, the Department of Health, the Department of Social and Health Services, and the Liquor and Cannabis Board. The Survey is financially supported by the state, and in 2016 the survey was funded by the State Dedicated Marijuana Account. The HYS is administered every other year to Washington students in grades 8, 10, and 12 during class time and measures health risk behaviors that contribute to morbidity, mortality, and social problems among youth in Washington

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⁴ http://www.askhys.net/Home/AboutHYS

State. In 2016, over 230,000 students from all 39 counties participated in HYS. In 2014, questions about marijuana and driving were added to the survey. The HYS marijuana and driving questions were modeled after the HYS drinking and driving questions.

There was no significant change between 2014 and 2016 when students were asked about riding with a driver who had been using marijuana. One in four 12th graders reported having ridden with a driver who had been using marijuana. Students in 10th and 8th grades have lower rates, one in six and one in ten respectively. This difference between grades could be due simply to awareness and that 12th graders are more likely to be riding with peers.

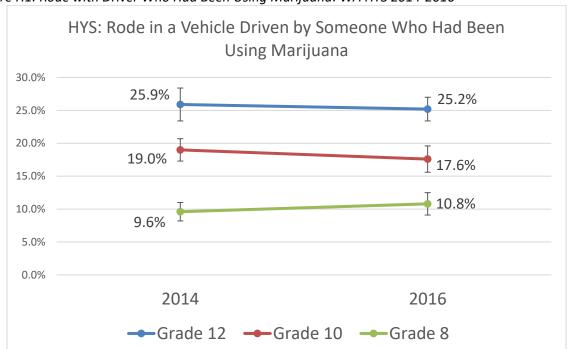


Figure H1: Rode with Driver Who Had Been Using Marijuana: WA HYS 2014-2016

There was also no significant change from 2014 to 2016 when students were asked about driving themselves after marijuana use, but the results are alarming. One in six 12th graders report driving at least once within three hours of using marijuana. Nearly one in ten 10th graders report the same. These results are shown in Figure H2.

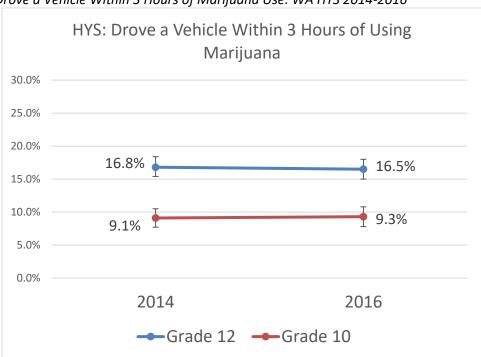


Figure H2: Drove a Vehicle Within 3 Hours of Marijuana Use: WA HYS 2014-2016

As shown in the self-report roadside survey, younger drivers are the least likely age group to believe that marijuana impairs driving, and even more concerning is more than half feel that marijuana use actually makes their driving better. It is important to address these misconceptions about marijuana's ability to impair driving in order to decrease the prevalence of young drivers driving after marijuana use. Novice drivers already have an increased crash risk and adding any drug or alcohol use significantly increases that risk. From 2008-2016, 76 drivers ages 16-18 were involved in fatal crashes after consuming drugs and/or alcohol (Table 8). Fifty-four of these drivers lost their lives and 22 contributed to the death of another, in some cases their own family and close friends. Poly-drug use is also an alarming trend among this novice driver population.

Table 8: Number of Drivers Ages 16-18 Involved in Fatal Crashes 2008-2016 with Drugs/Alcohol

Drug/Alcohol Status of Drivers in Fatal Crashes	Number of Drivers Ages 16-18	Driver Deceased	Driver Involved in the Death of Another Person
One Drug Only	8	5	3
Only Alcohol	32	20	12
Only THC	16	12	4
Poly-Drug	20	17	3
Total Alcohol/Drug Drivers	76	54	22

Summary and Conclusions

Poly-drug drivers, or drivers who have consumed two or more substances, have emerged as the most common type of impaired drivers involved in Washington fatal crashes in just the past five years. In 2012, and for the first time, there were more poly-drug drivers involved in fatal crashes than drivers who had consumed only alcohol, only marijuana, or only one other type of drug. Since 2012, the number of poly-drug drivers involved in fatal crashes continues to increase every year at an average rate of 15 percent per year. This alarming trend comes at a time when traffic fatalities are on the rise, jumping almost 20 percent in 2015 alone. The recent rise in traffic fatalities is most certainly due in part to an increase in poly-drug use among drivers on Washington roadways. While alcohol is still the most common substance mixed with other drugs among this high-risk group, alcohol-specific countermeasures alone will not be sufficient for impacting this emerging issue. While it is still largely unknown what role marijuana alone plays in fatal crash risk, it is clear that marijuana mixed with other substances, most commonly alcohol, is contributing to fatal crashes in Washington State.

Information from several self-report surveys indicate that not only is driving after marijuana use quite prevalent, many drivers do not believe that marijuana actually impairs driving. This misperception is especially prevalent among young drivers who also use marijuana. More than half of drivers under the age of 20 that report driving after recent marijuana use actually believe the marijuana use makes their driving better. This is an especially dangerous opinion if, for example, a driver might use marijuana to compensate for the consumption of another substance, such as alcohol, that clearly creates a driving deficit. It is these poly-drug drivers that we see more and more of in fatal crashes every year.

Funding to implement traffic safety countermeasures to combat the increase in drugged driving is limited as there are no specific federal programs addressing drugged driving like there is for alcohol driving. National fatal crash data is a limited resource for studying drugged driving trends due to the extreme variability between states in drug testing, reporting, and laboratory procedures (such as which drugs are included on common screening panels and reporting thresholds for certain drugs). Now that the National Roadside Surveys have been defunded, it will be harder than ever to track the evolution of this deadly issue. Regardless, the Washington Traffic Safety Commission, along with our many state, federal, and community partners, continue to develop innovative and new countermeasures and data collection efforts to combat drugged driving within an environment of limited resources. While alcohol driving very much remains a significant issue, the interplay of drugged driving must be equally considered if we are ever to reach our goal of zero fatalities and serious injuries on Washington roadways. This complex issue will require government, non-profit, corporate, and community response to reverse a rapidly increasing trend.

Appendix A: Reference Summaries

Asbridge M, Hayden JA, & Cartwright JL (2012). Acute cannabis consumption and motor vehicle collision risk: systematic review of observation studies and meta-analysis. *British Medical Journal.* **344**:e536.

This systematic review and meta-analysis of nine studies (selected from a pool of just under 3,000 studies) regarding motor vehicle crash risk resulting from driver consumption of cannabis found that driving under the influence of THC was associated with roughly a doubled risk of crashing compared to controls (OR=1.92, 1.35-2.73). These studies included cohort designs, case-control designs, and cross-sectional designs.

Baraona E, Abittan CS, Dohmen K, Moretti M, Pozzato G, Chayes ZW, Shaefer C, & Lieber CS (2001). Gender differences in pharmacokinetics of alcohol. *Alcoholism: Clinical and Experimental Research*. **25**:502-507.

This study investigated the possible source of gender differences in alcohol metabolism. It is known that "for an equal alcohol intake, women develop higher blood alcohol levels than men" and that women demonstrate "a faster rate of ethanol elimination" (502). One hour after a 'standard fatty meal' 22 male and 23 female subjects were randomly given, either orally (10% solution) or intravenously (5% solution), an alcohol dose of 300 mg/kg body weight.

Biecheler M-B, Peytavin J-F, the SAM Group, Facy F, & Martineau H (2008). SAM survey on "drugs in fatal accidents": search of substances consumed and comparison between drivers involved under the influence of alcohol or cannabis. *Traffic Injury Prevention*. **9**:11-21.

To estimate the added culpability risk of combining alcohol with THC, this study relied on complete and accurate alcohol and drug data, as required by law, for all drivers involved in French fatal crashes. Culpability analysis and calculation of odds ratios revealed that culpable drivers (cases) were 2.3 times more likely (than controls) to have blood-THC at levels above 1 ng/mL, 9.4 times more likely to have a BAC of 0.05 or higher, and 14.1 times more likely to have combined THC with alcohol.

Compton (2017). Marijuana-Impaired Driving – A Report to Congress. U.S. Department of Transportation, Washington D.C. Report Number DOT HS 812 440.

This report was prepared in response to a federal requirement directing the U.S. DOT to examine issues related to marijuana-impaired driving, provide a report to Congress, and in the report provide recommendations.

Desrosiers NA, Ramaekers JG, Chauchard E, Gorelick DA, & Huestis MA (2015). Smoked cannabis' psychomotor and neurocognitive effects in occasional and frequent smokers. *Journal of Analytical Toxicology*. **39**:251-261.

This study compared tolerance to cannabis intoxication among frequent and infrequent users, as measured in laboratory and simulator testing of critical tracking (CT), divided attention (DA), and working memory (WK). Authors found 'significantly impaired psychomotor function' as late as 3.5 hours after smoking, especially for infrequent users but for frequent users as well (p. 256).

CT and DA were particularly comprised in infrequent users during the initial hour post-smoking. Minimal impact was found on WM. Overall, results confirm significant tolerance in frequent users compared to infrequent ones.

Drummer OH, Gerostamoulos J, Batziris H, Chu M, Caplehorn J, Robertson MD, & Swann P (2004). The involvement of drugs in drivers of motor vehicles killed in Australian road traffic crashes. *Accident Analysis and Prevention*. **36**:239-248.

This study of 3,398 drivers killed in Australian road crashes conducted a culpability review (see Robertson and Drummer, 1994, for a description of this procedure) and then determined the odds-ratios of finding drugs and alcohol in the blood of culpable versus non-culpable drivers.

Hartman RL, Brown TL, Milavetz G, Spurgin A, Pierce RS, Gorelick DA, Gaffney G, & Huestis MA (2015a). Cannabis effects on driving lateral control with and without alcohol. *Drug and Alcohol Dependence*.**154**:25-37.

This study investigated the impact of THC on one measure of driver lateral control (SDLP) at various blood levels instead of as a dose-response effect (as in many earlier studies). At a THC blood-level of 8.2 ng/mL the authors found a substantial increase in SDLP, roughly equivalent to that observed among subjects testing at the 0.05% Breath Alcohol Concentration (BrAC) level. Combining 5 ng/mL THC with 0.05% BrAC produced SDLP increases similar to those with a BrAC of 0.08%.

Hartman RL, Brown TL, Milavetz G, Spurgin A, Gorelick DA, Gaffney G, & Huestis MA (2015b). Controlled cannabis vaporizer administration: blood and plasma cannabinoids with and without alcohol. *Clinical Chemistry*.**61**:850-869.

This study scrutinized blood and plasma cannabinoid level changes in 32 adult cannabis users (≥1/every 3 months) who inhaled vaporized placebo, low-dose, or high-dose cannabis 10 minutes after drinking placebo or low-dose alcohol (0.065% peak breath alcohol). The study found that adding doses of alcohol to THC-positive subjects increases levels of 11-OH-THC, the very potent psychoactive metabolite which is intermediate between THC and carboxy-THC.

Hartman RL & Huestis MA (2013). Cannabis effects on driving skills. Clinical Chemistry. 59:478-492.

This is a comprehensive review of results from epidemiologic, culpability, case-control, laboratory, and driving-simulator studies regarding the impacts of THC on human performance.

Holcomb, RL (1938). Alcohol in relation to traffic accidents. *Journal of the American Medical Association*. **111**:1076-1085.

The author's investigation represents the first case-control study of the relationship between alcohol levels and crash risk.

Li M-C, Brady JE, DiMaggio CH, Lusardi AR, Tzong KY, & Li G (2012). Marijuana use and motor vehicle crashes. *Epidemiologic Reviews*. **34**:65-72.

This systematic review and meta-analysis of nine studies (selected from a pool of just under 3,000 studies) regarding motor vehicle crash risk resulting from driver consumption of cannabis

found that driving under the influence of THC was associated with roughly a doubled risk of crashing compared to controls (OR=2.66). These studies included cohort designs, case-control designs, and cross-sectional designs.

Longo M, Hunter CE, Lokan R, White JM, & White MA (2000). The prevalence of alcohol, cannabinoids, benzodiazepines and stimulants among injured drivers and their role in driver culpability. Part2: the relationship between drug prevalence and drug concentration, and driver culpability. *Accident Analysis and Prevention*. **32**: 623-632.

This culpability study of 2,500 drivers injured in Australian crashes found that drivers testing positive for THC (up to 2 ng/mL) had a lower odds ratio (OR) of being culpable than drug-free drivers. Drivers with THC levels of 2.1 ng/mL and above showed an OR of 1.8. Alcohol-only drivers had a culpability OR of 4.8, whereas drivers who combined THC with alcohol showed an OR of 6.2. Thus, the low culpability of THC-only drivers was greatly inflated by the presence of alcohol.

Mura P, Kintz P, Ludes B, Gaulier JM, Marquet P, Martin-Dupont S, Vincent F, Kaddour A, Goullé JP, Nouveau J, Moulsma M, Tilhet-Coartet S, & Pourrat O (2003). Comparison of the prevalence of alcohol, cannabis and other drugs between 900 injured drivers and 900 control subjects: results of a French collaborative study. *Forensic Science International*. **133**:79-85.

This case-control study examined drivers \geq 18 years of age treated in emergency rooms (ERs) in France. Cases consisted of 321 drivers ages 18-27 admitted to ERs with non-fatal crash injuries and controls consisted of licensed drivers (also ages 18-27) admitted to ERs with non-fatal injuries sustained for other causes. The blood of both cases and controls were tested for THC (>1 ng/mg) and alcohol (>.05 mg/L).

Peck RC, Gebers MA, Voas RB, & Romano E (2008). The relationship between blood alcohol concentration (BAC), age, and crash risk. *Journal of Safety Research*. **39**:311-319.

This study reanalyzed data originally collected and reported in the 2005 Long Beach-Fort Lauderdale study of crash risk arising from different levels of driver alcohol impairment at different BAC levels. The authors used conditional logistic regression analysis, a method sensitive to variable interactions, in this specific case to that between age and BAC in producing crash risk. Notably, the study found that drivers under age 21 with a BAC of 0.08 are 4.5 times more likely to crash than drivers ages 21 and over at the same BAC level. That risk ratio increases to 9.6 for a BAC of 0.12 – and to 20.3 at 0.16.

Pulido J, Barrio G, Lardelli P, Bravo MJ, Espelt MTBA, & De la Fuente L (2011). Cannabis use and traffic injuries. *Epidemiology*. 22:609-610.

This study recruited subjects from a population of young regular cocaine users in three large Spanish cities. The authors obtained baseline data and follow-up questionnaires for a sample of 503 subjects. For their cannabis study, researchers used a case-crossover design to examine the relationship between driver cannabis intoxication and the risk of a traffic-related injury during the two hours after use. The "self-matching" feature of this study design offered "complete"

adjustment for all confounders that remain stable over time," such as personality traits, driving ability, physical limitations, or the presence of other drugs. Thus, this design represented an improvement over earlier observational studies that were only partly successful in controlling for confounders. The 68 subjects who reported sustaining injuries after driving a motor vehicle became the core subjects for this study. The results showed a relative-risk (RR) of 5.8 during the first hour after cannabis use among subjects who had ingested cannabis but were free of other drugs or alcohol (compared to the control period for the same drivers, in which they were free of all psychoactive substances), which rose to 10.9 for subjects who had ingested alcohol as well as cannabis. The RR for both groups dropped to 2.2 and 1.9, respectively, during the second hour of this study. Thus, combining alcohol with cannabis resulted in an 88 percent increase in the risk of sustaining an injury while driving.

Ramaekers JG, Theunissen EL, De Brouwer M, Toennes SW, Moeller MR, & Kauert G (2011). Tolerance and cross-tolerance to neurocognitive effects of THC and alcohol in heavy cannabis users. *Psychopharmacology*. **214**:391-401.

This double-blind, placebo-controlled study investigated the hypothesis, based largely on numerous animal studies, that heavy cannabis users develop cross-tolerance to the impairing effects of alcohol. The authors administered critical tracking (CT), divided attention (DA), stop-signal (SS), and Tower of London (CF) tests to 21 daily cannabis users over a seven-hour period, during which the subjects drank alcohol in placebo, low-level, and high-level concentrations. The authors hypothesized, based on animal testing data, that cannabis users who are highly tolerant to the effects of THC may also be cross-tolerant to the effects of alcohol. However, while the study found that THC generally did not affect neurocognitive performance in heavy users, alcohol strongly affected it. Moreover, combining alcohol with THC resulted in diminished performance on DA test compared to alcohol alone conditions.

Ramaekers JG, Kauert G, van Ruitenbeek P, Theunissen EL, Toennes SW, & Moeller MR (2009). Neurocognitive performance during acute THC intoxication in heavy and occasional cannabis users. *Journal of Psychopharmacology*.**23**:266-277.

This study used a double-blind, placebo-controlled, mixed-model design to quantify the relationship between tolerance (in experienced users) to THC and the apparent reduction in the observed degree of performance deficit. It also confirmed that THC alone generated performance deficits for occasional users in critical tracking, divided attention capability, reaction time, and cognitive function. By contrast, neither CT nor DA capabilities were compromised by the same doses in heavy users.

Ramaekers JG, Berghaus G, van Laar M, & Drummer OH (2004). Dose related risk of motor vehicle crashes after cannabis use. *Drug and Alcohol Dependence*.**73**:109-119.

This study reviewed earlier studies and found that all those relying on carboxy-THC as a measure of driver impairment (e.g., based on urine-testing) found odds-ratios of about 1.0 and below, thereby driving the erroneous conclusion that cannabis is not impairing.

Ramaekers JG, Robbe HWJ, & O'Hanlon JF (2000). Marijuana, alcohol, and actual driving performance. *Human Psychopharmacology*. **15**:551-558.

In this study the authors tested 18 participants (9 males and 9 females between 20 and 28 years of age in six different THC and alcohol conditions. The study found that alcohol and THC alone caused significant SDLP increases, though the size of the deficit caused by THC was much than that created by alcohol. Moreover, combining THC and alcohol led to a 'severe' loss of critical tracking ability. Combining low-levels of THC with alcohol sufficient to create a BAC 0.05 led to impairment deficits generally observed in drivers with a BAC level of 0.09%.

Ramirez A, Berning, A, Carr K, Scherer M, Lacey JH, Kelley-Baker, T, & Fisher DA (2016). Marijuana, other drugs, and alcohol use by drivers in Washington State (Report No. DOT HS 812 299). Washington, DC: National Highway Traffic Safety Administration.

National roadside surveys have been conducted nearly every decade since the 1970s. The Washington State roadside study used a similar research design and tested biological samples for more than 70 over-the-counter, prescription, and illegal drugs that may impair driving. The main objective of this study was to examine whether the percent of drivers positive for marijuana increased after sales of the drug became available in July 2014. The study found a statistically significantly increase in daytime prevalence of THC-positive drivers between the six months prior to retail sales (7.8 percent) and the 12 months following retail sales (18.9 percent).

Robertson MD & Drummer OH (1994). Responsibility analysis: a methodology to study the effects of drugs in driving. *Accident Analysis and Prevention*. **26**:243-247.

The authors describe a formal method for assigning responsibility (often called culpability in more recent studies) to drivers involved in injury and fatality crashes through a close examination of eight separate factors involved (including mitigating ones). This particular study is based on the assumption that "if drugs are contributing to accident causation, it would be expected that they would be overrepresented in the culpable or responsible group" (243).

Appendix B: Roadside Survey Self-Report Marijuana Survey

The following questions ask about marijuana, driving, and laws regarding marijuana. In this voluntary survey when we say "marijuana" we are including cannabis and hashish as well as any product that has marijuana in it (including foods and beverages). When we ask about "using" marijuana we include smoking, eating, or any other way you might consume or ingest it. All your answers are anonymous and confidential. This survey is for research purposes only. You may skip any question and stop participating at any time.

1.	. Have you ever, even once, used marijuana?	
	☐ Yes ☐ No ☐ Decline to answer	
lf	f Yes, when did you first use marijuana?	
	Age □ Decline to answer	
	(If No or Decline to answer, please skip to item #10)	
2.	How long has it been since you last used marijuana?	
	□ Past 24 hours → see "If past 24 hours" below	
	□ Past week	
	□ Past month	
	□ Past year	
	☐ More than 12 months → Skip to item #8	
	□ Decline to answer	
lf	f in the past 24 hours – If used in the past day, how recently did you use?	
	□ Within the past ½ hour (30 minutes)	
	□ Within the past hour	
	☐ Within the past 2 hours	
	□ Within the past 3 hours	
	□ Within the past 4 hours or more	
	□ Did not use within the past day	
3.	How often do you currently use marijuana?	
	□ Everyday → see "If every day" below	
	□ 5 or more times a week	
	□ 3-4 times a week	
	□ 2 or less times a week	
	□ 4 times or less a month	
	□ 12 times or less a year	
	☐ Once a year or less → Skip to item #8	
	□ Decline to answer	
ľ	If every day, on days you use marijuana, about how many times a day do you use it? (select or	ıe)
	□ Once per day	
	□ 2-3 times per day	
	☐ More than 3 times per day	
	□ Decline to answer	

1	In the nast year	have you us	sed any marijuana wi	thin two hours hefo	re driving?
₹.	□ Yes	nave you us	sea arry marijaana wi	timi two nours belo	C diffing :
	\square No \rightarrow Skip to	item#7			
	□ Decline to answ				
5.	When you used marijuana and drove, how do you think it affected your driving?				
•-	☐ Made my driving better				
	□ Made my driving worse				
	□ Didn't make any difference in my driving				
	□ I don't know				
	□ Decline to answ	ver			
6.	Have you used a	ny marijuan	a TODAY that you th	ink may affect your	driving?
	=	No	☐ Decline to answe		•
7.	Have you ever N	OT driven b	ecause you had rece	ntly used marijuana	?
	□ Yes □	No	☐ Decline to answe	r	
8.	How do you usua	ally get you	r marijuana?		
	☐ Licensed distrib	utor/retailer	☐ Other:		
	☐ Grow my own☐ Friend		□ Decline to answe	<u>-</u> r	
9.	Where was the last place you used marijuana?				
	☐ My home	. □ Car	-		
	☐ Friends home	□ Oth	er		
	☐ School/Dorm	□ Dor	n't remember	_	
	□ Bar/Club	□ Dec	clined to answer		
	☐ Park/Other pub	lic place			
10.	Are you currently	y authorized	d /licensed to purcha	se medical marijuan	a?
	□ Yes □	No	☐ Decline to answe	r	
lf	Yes, have you use	d your autho	rization /license to pur	chase marijuana?	
	□ Yes □	No	☐ Decline to answe	r	
lf '	Yes, you are auth	orized/ licen	nsed, what year did yo	u receive your permit	?
	Year:		☐ Decline to answe	r	
11.	How likely do yo	— u think it is	that marijuana impai	rs a person's ability	to drive safely if used
	within two hours	•			
	□ Very likely		at all likely		
	☐ Likely		cline to answer		
	☐ Somewhat likely	y			
12.			that a person could I nours of driving?	oe arrested for impa	ired driving after
	□ Very likely	□ Not	at all likely		
	□ Likely	□ Dec	cline to answer		
	□ Somewhat likely	y			

Appendix C: Post-stratification Weighting Methodology

The Washington roadside survey followed the same sampling method from the 2007 and 2013-2014 National Roadside Surveys. The sampling procedure is a multistage sampling strategy employing four nested sampling frames:

- Primary Sampling Units (PSUs) = 6 of 39 counties selected
- Random selection of 1-mile² grids = 30 grids per county selected
- Semi-random selection of survey sites within grids (1 site per grid, 1 site per PSU) = 6 sites
- Random selection of vehicles at the survey site

The above method was used across all three waves. Some sites were used between different waves, but not all. At each of the six sites, five two-hour data collection periods commenced during each wave.

From the roadside survey data provided by NHTSA and PIRE, every observation within a specified site/time had the same weight, indicating the weight as a design (site-level) weight rather than a respondent (person-level) weight. The 2007 NRS methodology identifies PSU population density, number of fatal crashes, number of injury crashes, and select socioeconomic conditions as site selection factors. It is unclear based on the available materials if these factors are also used in deriving the design weights, or if the design weights are just simply selection probabilities based on total PSUs and total observed vehicle counts during data collection. As reported in the 2007 NRS Drug Results report, the probability of selection within each of the four nested sampling frames was known; therefore the weight was the inverse of the product of the four probabilities.

Assuming the Washington roadside survey weights are also the inverse of the product of the four sampling probabilities, then a post-stratification adjustment based on the licensed driver population by age and gender may increase the representativeness of the sample to the Washington licensed driver population for the self-report survey analysis.

Licensed Driver Population information was provided by the Department of Licensing (DOL) for calendar year 2014 and included counts by age, gender and county. The driver and passenger demographic data was initially grouped by age using self-reported driver age. However, 98 records were missing self-reported driver age, therefore age was regrouped to follow the categorization of the surveyor-reported age groups (five age groups). Self-reported age was used first, and if missing then the surveyor-reported age group was used. For records missing both the age variables, age was considered UNK. There were 16 records missing either gender, or both age variables. Since there were only 16 records out of 2,532 missing the post-stratification age/gender information, the adjustment factor was set to one, which resulted in no adjustment to the design weight for these records.

Using the DOL information, licensed driver population proportions by age and gender were derived. These proportions are shown in the table below.

Weight Adjustment DOL Driving Population Proportions by Age/Gender Groupings				
	Male	Female	UNK	
16-20	0.026486	0.025693	Equal to sample proportion (post-strat	
21-34	0.135495	0.122655		
35-50	0.149209	0.134749	adjustment = 1, no adjustment to design weight)	
51-64	0.122566	0.1183		
65+	0.082862	0.081986		
UNK	Equal to sample proportion (post-strat adjustment = 1, no adjustment to design weight)			

Sample proportions by the above age and gender categories were also derived. The post-stratification (PS) weighting adjustment was calculated by dividing the DOL population age/gender proportion by the sample age/gender proportion. This result was multiplied by the design weight to derive the new post-stratification weights for self-report survey analysis.

$$PS_{Weight} = \left(\frac{Proportion_{Population}}{Proportion_{Sample}}\right) * Design_{Weight}$$

Pot During Pregnancy? Not A Lot Is Known, But New CU Research Suggests A

Risk by John Daleymay 4, 2018



A woman smokes pot in her home on the first day of legal

possession of marijuana for recreational purposes, Thursday, Feb. 26, 2015, in Washington, D.C.

New research from the University of Colorado Anschutz Medical Campus shows that pregnant women who use cannabis are more likely to have babies who weigh less.

Researchers from the <u>Colorado School of Public Health</u> found the prevalence of marijuana use during pregnancy in the state was 5.7 percent, about 2.7 percent in the third trimester. Prenatal cannabis use was associated with a 50 percent increased likelihood of low birth weight. That was regardless of maternal age, race/ethnicity, level of education, and tobacco use during pregnancy. <u>Tessa Crume</u>, the lead author of <u>the study</u> published in the Journal of Pediatrics, said low birth weight can set a baby up for future health problems. "So it clearly indicates that there is something going on with some adverse effect of marijuana use during pregnancy during gestational development," Crume said.

Their findings dovetail with other studies, but there is still a lot researchers don't know, Crume said. However, what is known, she said, "is that cannabis use during pregnancy is associated with adverse brain development."

The research is based on data from about 3,200 women who took 2014 and 2015 surveys that were part of the **Colorado Pregnancy Risk Assessment Monitoring System**.

"Other states that have legalized marijuana should be assessing prenatal exposures," Crume said. "This is something that we need to keep an eye on as this new substance has been introduced into our population," Research published in late 2017 does say more soon-to-be mothers are using marijuana, perhaps to deal with things like nausea, morning sickness or anxiety. The California research found the prevalence of use in women of all ages is on the rise, especially among women younger than 24.

<u>Dr. Larry Wolk</u>, executive director and chief medical officer of the state health department isn't surprised by the findings. He said it matches <u>other research</u> linking maternal marijuana use and low birth weight.

"The THC in marijuana likes to be absorbed by the fat cells and a baby's developing brain is the best place for that fat to deposit," said Wolk, who's a pediatrician. "So not only would fat be depositing in the baby's brain, but THC from marijuana would be depositing along with it."

His best advice for pregnant moms-to-be is to avoid marijuana. "Why take that chance? Why risk impacting or impairing your baby's development and their brain when you can just avoid it," Wolk said.

The state's chief medical officer noted marijuana use is much less prevalent among pregnant women compared to other substances. In 2017, Colorado found that 17 percent of pregnant women drank alcohol, and nearly seven percent smoked tobacco in the last three months of pregnancy.

One prominent marijuana industry representative declined an interview for this story, but did say pregnant women should discuss any questions they have with their doctor. He notes that packaging is required to warn of potential health risks for pregnant women. Still, he believes there may be some benefits for pregnant women in low doses. All sides agree that much more research is needed.

https://www.cpr.org/news/story/pot-during-pregnancy-not-a-lot-is-known-but-new-cu-research-suggests-a-risk

City Of Evart Approves Medical Marijuana Ordinance

http://www.9and10news.com/2017/09/14/city-evart-approves-medical-marijuana-ordinance/September 14, 2017

Taylor Jones

Lots of support in Evart led the city to approve an ordinance allowing medical marijuana facilities.

Michigan cities get to opt-in to the new laws allowing the facilities.

The city of Evart in Osceola County conducted an online survey on the issue and they saw a huge response.

About 63 percent of the community that responded to the survey are in support of the medical marijuana ordinance.

In response to those numbers, council members voted four to one, approving it.

"When we closed the survey, we noticed that 339 people had responded to it. That's probably the most in the history that have responded to a survey that the city of Evart did," says Zack Szakacs, city manager.

Survey votes came from inside and outside city limits.

A week later, the city approved four grow facilities, four processors, two provision licenses, two transportation licenses and two facility licenses.

"I'm looking at it from an economic development opportunity for the city of Evart. We're a small community and we're always looking for a revenue source," says Szakacs.

Investors of the facilities will still have to get licenses with the state and there are some already in the process.

Thursday we spoke with community members.

Many were in favor of the ordinance.

"It will help out a lot especially with illness. It's been proven medically since 1960 to have abilities that other medicines just can't touch," says Shane Patterson, Evart resident.

Others are concerned those with medical marijuana cards may abuse it.

"I don't think it will just stay with the medical people, I think it's going to be used for people just being on it, the kids will get a hold of it, I think it's something that they can't control," says James Robinson. Overall city leaders feel this is going to benefit Evart.

"Strictly medical marijuana, economic opportunity and we're hoping it can bring 60 to 80 new jobs," says Szakacs.

Facilities are not able to operate until December.

Date: July 12, 2017

To: City Commission

From: Nicholas Madaj, City Commissioner

Chair, Michigan Medical Marihuana Facilities Licensing Act (MMMFLA) Ad Hoc

Committee

Subject: Ad Hoc Committee recommendation

On behalf of the Michigan Medical Marihuana Facilities Licensing Act (MMMFLA) Ad Hoc Committee, let me express our appreciation for the opportunity to review and provide a recommendation on this important issue. The committee has engaged with dozens of stakeholders since May in the preparation of this report. We have also researched how other Michigan communities are responding to the MMMFLA as well as the experience of other states who have legalized medical marijuana and/or recreational marijuana.

The committee recommendation is premised upon providing local patient access to medical marijuana via provisioning centers and creating economic development opportunity through all five facility types while simultaneously mitigating any adverse impacts these uses might pose to adjacent uses – particularly residential neighborhoods and schools. To that end, the committee recommends permitting the facility types not accessed by patients in Industrial areas only and prohibiting provisioning centers adjacent to K-12 schools. The committee also recommends that all five facility types be treated as special uses under the zoning ordinance; this will not only ensure that facility approvals are subject to public scrutiny but also provide the Planning Commission with the ability to impose appropriate conditions to safeguard the community.

Preliminary information obtained from the Michigan Department of Licensing and Regulatory Affairs indicates that the state will be promulgating limited "emergency" rules regulating the five facility types during at least the first year. The committee recommendation was adjusted on that basis to ensure critical issues such as odor control and security lighting were addressed. The committee further recommends that growers be permitted only within enclosed buildings; this will provide enhanced security and odor control while also increasing the potential property tax revenues from that facility type.

The committee also feels a limitation on the number of provisioning centers was warranted to ensure the community is not overwhelmed with a disproportionate number of those facilities and so that the City can learn through experience with them over the coming year and beyond. Although some members continue to feel that the license cap should be lower or higher, the consensus of the committee is that 10 is an appropriate starting point.

The committee recognizes the unique and important nature of this issue to the Mt. Pleasant community and respectfully submits the following recommendation and report for consideration by the City Commission.

City of Mt. Pleasant Michigan Medical Marihuana Facilities Licensing Act (MMMFLA) Ad Hoc Committee

Recommendation on the regulation of facilities permitted under the MMMFLA

July 12, 2017

Committee members:

Voting

Nicholas Madaj, Chair, City Commissioner
Lori Gillis, City Commissioner
Lesley Hoenig, Planning Commissioner
William Joseph, Planning Commissioner
Angel Foster, City Resident
James Kridler, City Resident
Brandon McQueen, City Resident

Non-voting
Nicholas Curcio, City Attorney
Jacob Kain, City Planner
Paul Lauria, Director of Public Safety / Police Chief

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II. RECOMMENDATION

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V. STAKEHOLDER MAILINGS

VI. COMMUNICATIONS RECEIVED

VII. TOWN HALL VIDEO

I. CHARGE:

- Research MMMFLA and provide recommendation to City Commission on the suggested parameters and elements to include in a draft ordinance(s) with reasons why and potential implications
- Research to include but not be limited to:
 - o Review of the law
 - o What other Michigan communities have done or plan to do
 - o Input from a couple of cities in other states to learn from their experience
 - o Obtain input from:
 - City Prosecutor
 - County Prosecutor
 - Federal Prosecutor
 - Tribal Representatives
 - CMU Representatives
 - Chamber of Commerce
 - Tax Increment Finance Authority/Principal Shopping District (TIFA/PSD)
 - Downtown Development Authority (DDA)
 - Industrial Park South Property Owners Group
 - Neighborhood Associations
 - Proponents/Interested Facility Providers
 - Other Law Enforcement
 - Pharmacists
- Hold a town hall type meeting to obtain input from residents
- After general agreement by the City Commission on the recommended parameters, provide a draft ordinance(s) for consideration by the City Commission and Planning Commission

II. RECOMMENDATION:

Permit all five facility types authorized under the MMMFLA within the following parameters:

Provisioning Centers

- Allow in Commercial and Industrial zoning districts subject to special use permit.
- Limit the number of facilities to 10 with review of the appropriateness of that limit by the City Commission 12 months after adoption.
- Prohibit the location of provisioning centers adjacent to K-12 schools.
- Implement special use criteria requiring that provisioning centers implement odor control measures and provide security lighting.

Processors

- Allow in Industrial zoning districts subject to special use permit.
- No prescribed limit on the number of facilities.
- Implement special use criteria requiring that processors implement odor control measures and provide security lighting.

Safety Compliance Facilities

- Allow in Industrial zoning districts subject to special use permit.
- No prescribed limit on the number of facilities.
- Implement special use criteria requiring that safety compliance facilities provide security lighting.

Secure Transporters

- Allow in Industrial zoning districts subject to special use permit.
- No prescribed limit on the number of facilities.
- Implement special use criteria requiring that secure transporters provide security lighting.

Growers

- Allow in Industrial zoning districts subject to special use permit.
- No prescribed limit on the number of facilities.
- Implement special use criteria requiring that grow operations occur within an enclosed building, implement odor control measures, and provide security lighting.



ABOUT

The City of Mt. Pleasant is currently reviewing ordinances related to the Michigan Medical Marihuana Facilities Licensing Act (MMMFLA).

These ordinances would "opt in" to the state law allowing medical marihuana facilities to operate within the City subject to certain limitations.

Public input is being sought regarding the draft ordinances before the City Commission makes a final decision.

The Planning Commission held a public hearing on the draft ordinances in early May and provided the City Commission with comments and recommendations following that public hearing. The draft ordinances have been revised to reflect the recommendations made by the Planning Commission.

DATES TO REMEMBER

Tuesday, May 29, 2018 at 6:30 p.m. City Commission Public Hearing on the proposed ordinances.

Monday, June 4, 2018 at 6:30 p.m.

City Commission Work Session to discuss the outcomes of the public hearing process and next steps.

ADDITIONAL INFORMATION

The FAQs are a summary of the draft medical marihuana facilities ordinances. The complete draft of the ordinances and other information can be found at www.mt-pleasant.org/MMMFLA.

If you have additional questions, please contact City Planner Jacob Kain at (989) 779-5346 or jkain@mt-pleasant.org.

*The City is not accepting applications for medical marihuana facilities at this time.

Medical Marihuana Facilities FAQs

What medical marihuana facility types would be allowed in the City?

- All 5 types of facilities would be allowed: growers, provisioning centers, processors, secure transporters, and safety compliance.
- No more than 3 growers would be allowed.
- No more than 3 provisioning centers would be allowed.
- If more than 3 applications are received for growers or provisioning centers, a public meeting will be held to randomly select 3 of the applicants to continue the approval process.

Where would medical marihuana facilities be located?

- All types of facilities would be permitted in the industrial zone.
- Provisioning centers would be allowed in commercial zones within designated areas, including portions of Downtown, Mission and Pickard.
- A facility could not be located within 1,000 feet of a public or private K-12 school, unless the facility is located north of Broadway in the Central Business District / Tax Increment Finance Authority.
- A facility could not be located within 500 feet of Central Michigan University, unless the facility is located east of the CMU main campus, east of Mission of Street.

What other regulations would be in place for medical marihuana facilities?

- Each facility would be required to adhere to standards regulating odor, lighting, signage, storage, exterior and interior appearance, hours of operation and more.
- On-site consumption of marihuana would be prohibited on the premises of any facility.

How would medical marihuana facilities receive approval to operate?

Applicants must complete the following steps before beginning to operate:

- 1. Apply to the Michigan Department of Licensing and Regulatory Affairs (LARA) for prequalification
- 2. Apply to the City of Mt. Pleasant to operate a facility*
- 3. Obtain a special-use permit for the location of the facility
- 4. A public hearing would be held with the Planning Commission to approve the facility location. Notifications for all public hearings would be sent to property owners and occupants within 300 feet of the proposed location of the facility, as well as shared with the general public through the City's communication channels.
- 5. Complete the state licensing process

How can I give my input?

- A public hearing will be held before the City Commission on Tuesday, May 29, 2018 at 6:30 p.m. at City Hall.
- If you are unable to attend the public hearing, opinions can be expressed by mail, email or phone to City Manager Nancy Ridley to be shared with the City Commission. Contact the City Manager's office by calling (989) 779-5323, emailing manager@mt-pleasant.org or visiting City Hall at 320 W. Broadway.



Battle Creek City Planning Commission Staff memo for the December 13th, 2017 meeting

To: Planning Commissioners

From: Eric Feldt, AICP, CFM Planner

Date: December 6, 2017

Subject: Draft Ordinance Medical Marihuana

Summary

Adopt new zoning regulations to enable regulating medical marihuana pursuant to the Michigan Medical Marihuana Facilities Licensing Act (MMFLA) of 2016 and subsequent amendments.

Background

With the adoption of the MMA (Michigan Medical Marihuana Act of 2008) and MMFLA (Michigan Medical Marihuana Facilities Licensing Act of 2016 and subsequent amendments), communities across the state are deciding to allow or prohibit any of the five state medical marihuana facility licenses: 1) Growing, 2) Processing, 3) Safety Compliance Facility (Testing), 4) Secure Transporters (transporting & storage), and 5) Provisioning Centers (selling).

After multiple workshops on the issue, staff provided a month-long survey throughout October asking City residents and business owners if they support any of the five licenses, and any restrictions or additional concerns. Tallying over 700 submittals, 82% of which stated they were City residents, a majority do support allowing all five medical marihuana licenses. Also, many support limitations be applied to those licenses. See attached survey results.

After tallying the survey, staff was instructed to write the subject draft zoning ordinance to permit all five state license medical marihuana businesses with limitations (see attached draft ordinance beginning on page 4 of this memorandum. Below is a brief summary of the proposed draft ordinance.

Summary of Zoning Regulations

In the following sections, staff has provided a brief summary of proposed zoning regulations of each of the five medical marihuana licenses of the MMFLA. Staff has noted MMFLA requirements and additional City of Battle Creek limitations. The setbacks stated below are specific to the City but are similar to other neighboring community's draft medical marihuana ordinances.

1) Medical Marihuana Growers (See 'Grower & Processor Map' for permitted locations.) Pursuant to MMFLA, a Grower can cultivate, dry, trims, or cures and packages marihuana for sale to a Processor or Provisioning Center. Further, MMFLA allows growing of medical marihuana in Industrial and Agricultural zoning districts with approved State and City license. The City is recommending that Growers would be allowed in the I-1 & I-2 zoning districts. A grow operation consists of growing and limited processing entirely inside a building, and therefore, is similar to an Industrial operation. Allowing Growers in the city's Agriculture district, however, would not meet the purpose of the Agriculture district because this district is primarily dedicated for openair farming, livestock, and field crops. Also, their relatively remote agriculture properties do not have the city utilities that would likely be needed for growing more than 1,500 plants. And those remote locations may have slow public safety response times.

Unlike the MMFLA, the city has recommended that all Growers be located at least 1,000 feet away from schools, parks, churches, residences, and daycares. Under the MMFLA, grow facilities may obtain a Class A license to grow 500 plants; Class B license to grow 1,000 plants; Class C license to grow 1,500 plants; or multiple Class C license to grow more than 1,500 plants. The City would permit all Classes and multiple thereof. Lastly, under the MMFLA, a property may have a licensed Grow and Processor operations (called collocation) to enable growing and processing of medical marihuana. This will support efficiencies in business operations. The City will allow this form of collocation.

2) Medical Marihuana Processors (See 'Grower & Processor Map' for permitted locations.) According to the MMFLA, a processor purchases medical marihuana from a grower and extracts resin from the marihuana or creates a marihuana-infused product for sale and transfer in packaged form to a provisioning center. The MMFLA does not restrict the location of a processor. The city, however, is recommending that Processors would be allowed in the I-1 & I-2 Industrial zoning districts with an approved State and City license because Processors have an industrial-like operation. Like Growers, Processors must be setback at least 1,000 feet away from schools, parks, churches, residences, and daycares Also, a property containing a Processor may collocated with a Grow operation, as noted above under Growers.

3) Medical Marihuana Safety Compliance Facilities (Testing) (See 'Safety Compliance Facilities Map' for permitted locations.)

Pursuant to the MMFLA, a Safety Compliance Facility receives marihuana from a marihuana facility or registered primary caregiver (Primary Caregiver - MMA 2008), tests it for contaminants and for THC and other cannabinoids, returns the test results, and may return the marihuana to the facility. The MMFLA does not restrict the location of a Safety Compliance Facilities, but the city is treating it as a testing lab and therefore would allow it in the I-1 & I-2 Industrial districts, and C-3 & C-4 Commercial districts with an approved State and City license. Like the above facilities,

Safety Compliance Facilities must be setback at least 1,000 feet away from schools, parks, churches, residences, and daycares.

Pursuant to the MMFLA, a Safety Compliance Facility cannot have an interest in a state licensed Grower, Processor, or Provisioning Center. This is likely to reduce the possibility of skewing favorable testing results or unlawfully benefitting a specific operation/ company.

4) Medical Marihuana Secure Transporters (Transportation & Storage) (See 'Secure Transporters Map' for permitted locations.)

Pursuant to the MMFLA, a Secure Transporter transports marihuana between marihuana facilities for a fee and may store marihuana. The Secure Transporter must submit a dedicated driving route and plan to the State. The MMFLA does not restrict the location of where a Secure Transporter can store medical marihuana, but the City would allow it in the I-1, I-2, and C-3 Commercial districts with an approved State and City license. General storage is currently allowed in those districts. Like the other marihuana facilities, the location of stored marihuana must be setback at least 1,000 feet away from schools, parks, churches, residences, and daycares.

Pursuant to the MMFLA, a Secure Transporter cannot have an interest in a state licensed Grower, Processor, Provisioning Center or Safety Compliance Facility. This is likely to reduce the possibility excessive control of one medical marihuana business, or to force greater business diversity within the overall medical marihuana industry.

5) Medical Marihuana Provisioning Centers (Selling; Dispensaries) (See 'Provisioning Centers Map' for permitted locations.)

According to the MMFLA, a Provisioning Center purchases marihuana from a Grower or Processor and sells, supplies, or provides marihuana to registered qualifying patients, directly or through their registered primary caregivers. Provisioning Centers sell marihuana to qualifying patients or primary caregivers only; not to the general public. The MMFLA does not restrict the location of Provisioning Centers. The City, however, would allow them only in the C-2, C-3, C-4, C-6, & C-7 Commercial zoning districts; and in the I-1 & I-2 districts only when collocated with a Grower and Processor on the same property.

The City's locational restriction in the Commercial districts is primarily due to by treating Provisioning Centers as pharmacies because the marihuana is for medical purposes only and for a specific customer base. As such, the city would allow them in the same commercial districts as pharmacies. The City's collocation restriction of Provisioning Centers in the I-1 & I-2 districts is to 1) enable additional business operation efficiencies; 2) recognize that this retail component is not likely to be expansive; and 3) the retail size is insignificant compared to the overall site's growing and processing operations. A stand-alone Provisioning Center in the Industrial districts would not meet the purpose of the Industrial district (as defined above) and properties best used by large industrial operations. The City is not treating Provisioning Centers entirely equal to pharmacies because of the nature of the product being sold, and will require all Provisioning Centers be located at least 1,000 feet away from other permitted Provisioning Centers. Staff estimates a full market build out scenario of 44 Provisioning Centers. Lastly, per the MMFLA, a location where a qualified patient receives medical marihuana through their primary caregiver in accordance with the 2008 MMA is not a Provisioning Center.

Permit Process, Required

An applicant wishing to development any medical marihuana facility must obtain the following approvals in the order shown below:

- 1) Required Licenses.
 - (1) An approved medical marihuana license from the City pursuant to Chapter 833 Medical Marihuana; and
 - (2) An approved medical marihuana operating license from the State.

2) Required Permits.

- (1) Approved Building permit & Occupancy Permit. All medical marihuana facilities shall require an approved Building permit showing compliance with applicable zoning and building codes. A Certificate of Occupancy shall be issued once all applicable inspections show satisfactory compliance with all zoning and building codes.
- (2) Approved Site Plan Application. Certain medical marihuana facilities shall require gaining an approved Site Plan Application pursuant to Chapter 1294 Site Plan Review.
- (3) Approved Special Use Permit. Certain medical marihuana facilities shall require an approved Special Use Permit pursuant to Chapter 1290 Special Land Uses.

This proposed ordinance will amend the following sections of Chapter 12 *Planning & Zoning Code*:

- Ch. 1230 General Provisions and Definitions
- Ch. 1262 C-2 General Business Districts
- Ch. 1264 C-3 Intensive Business Districts
- [Staff note: Not amending C-4 because MMFLA uses permitted in C-4 are permitted through the C-3 district see 1266.02(a)]
- Ch. 1270 C-6 Major Highway Interchange Business Districts
- Ch. 1271 C-7 Street-Level Retail District
- Ch. 1272 I-1 Light Industrial District
- Ch. 1274 I-2 Heavy Industrial District
- Ch. 1290 Special Uses and Land Development
- Ch. 1299 Medical Marihuana NEW

Neighboring Community's Actions

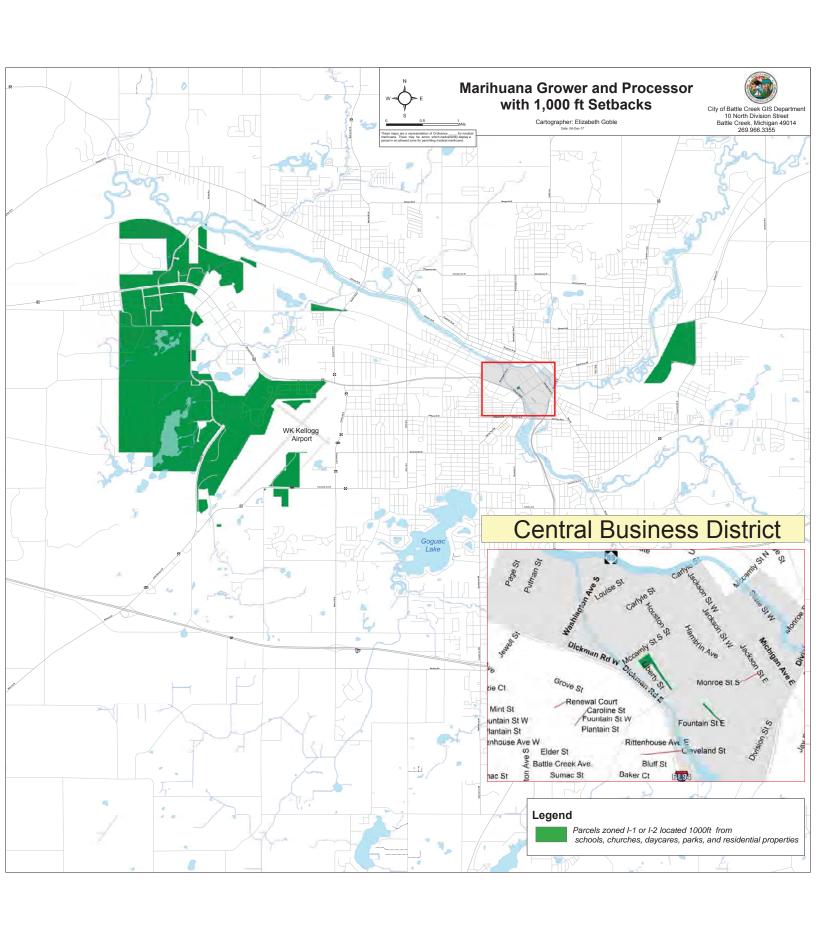
Neighboring communities such as, Kalamazoo, Portage, Comstock Twp, etc. are drafting new ordinances to permit medical marihuana facilities. Some of the setbacks and allowed districts stated earlier are similar to what those communities are using. Of these, as of this memo, only Marshall has adopted an ordinance addressing these types of facilities. You can see a summary of those community's views on allowing medical marihuana facilities in the attached excel document.

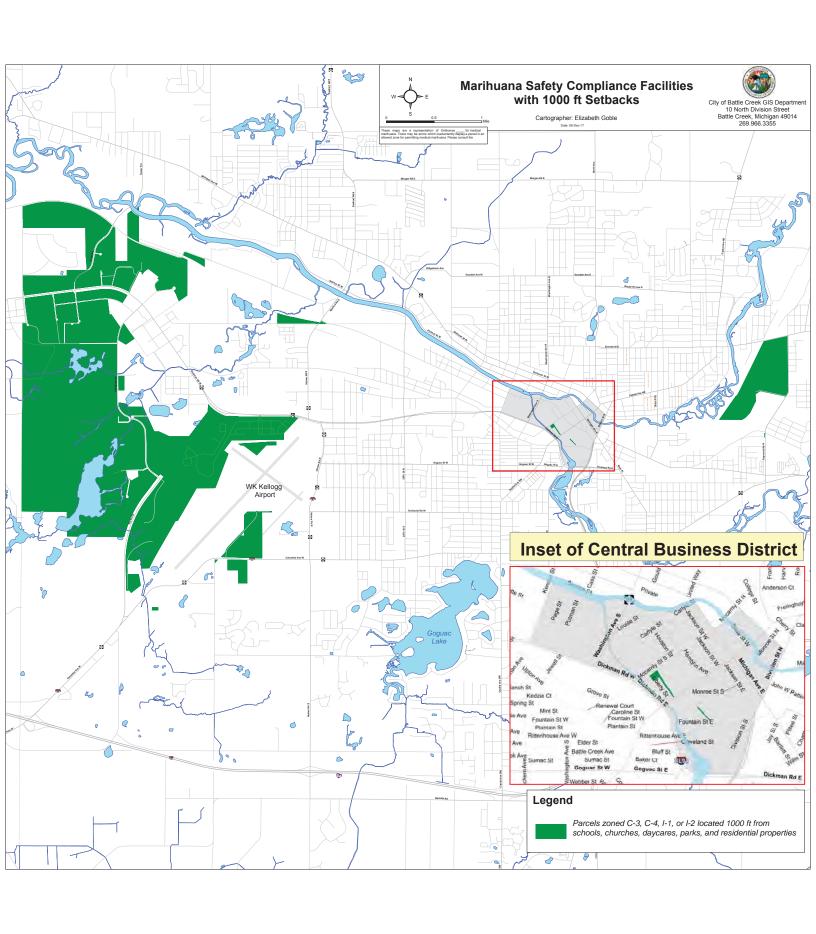
New Regulatory Tools

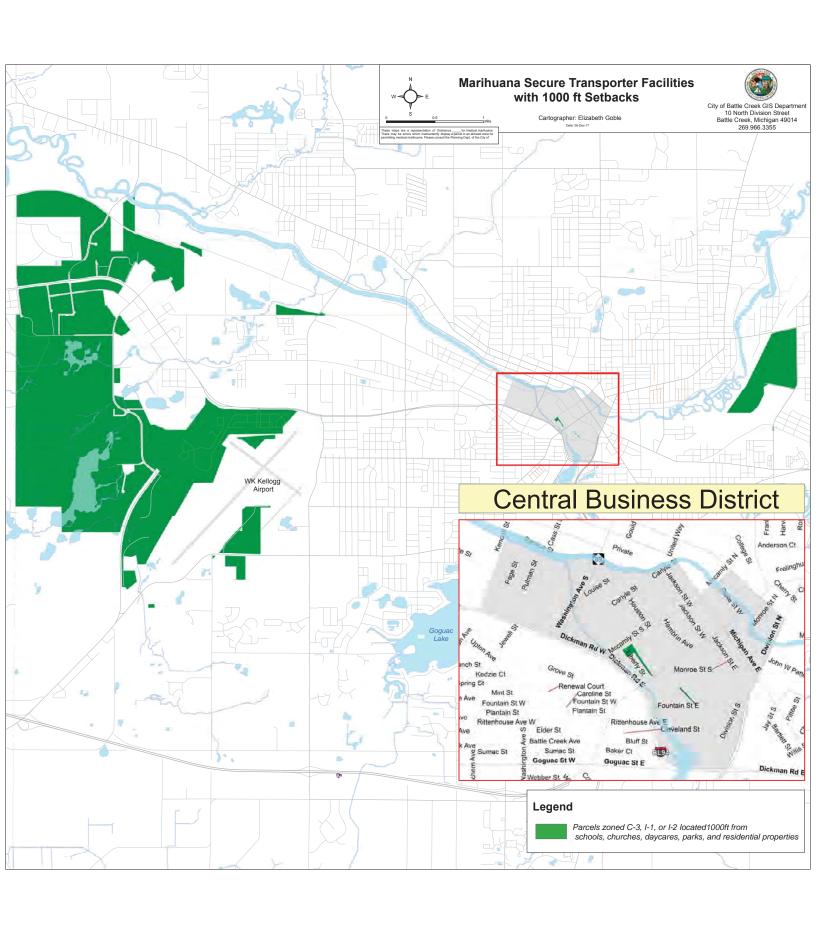
In addition to the new State's rules for medical marihuana facilities, the City will adopt new zoning regulations (subject draft ordinance) and a new City Medical Marihuana Facility license (New Chapter 833) that will work in tandem. This new license will contain rules affecting where medical marihuana can be grown, rules on transportation, security measures, ventilation controls, and other elements to preserve public safety, reduce neighborhood and environmental impacts. The State released these rules on December 4th and city staff is currently drafting the new City Medical Marihuana licensing ordinance.

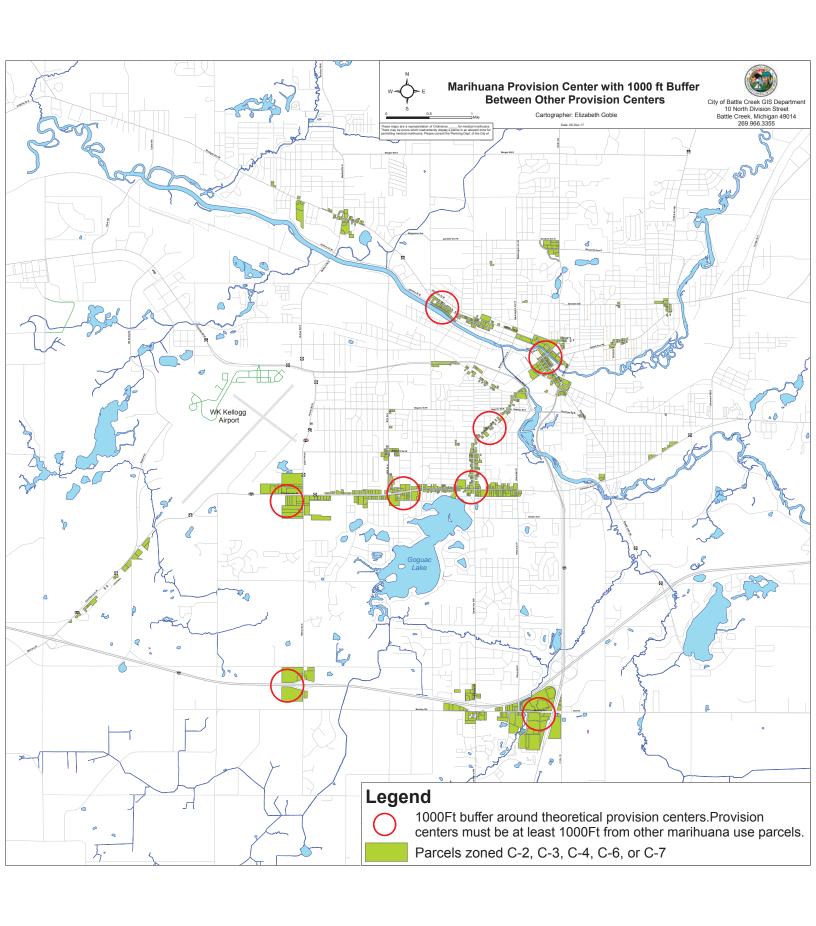
Next Steps

Planning staff recommends the Planning Commission take action recommending to the City Commission approval of the package of ordinances. With this support, staff will present it to the City Commission at their December 19, 2017 meeting for introduction. At this point, the draft zoning ordinance will be held until such time a licensing ordinance can be drafted. Multiple departments will soon be meeting to discuss potential licensing regulations, and that draft ordinance will be presented to City Commission review in the upcoming weeks. The new license and draft ordinance will both be presented to the City Commission for final adoption at a future date.



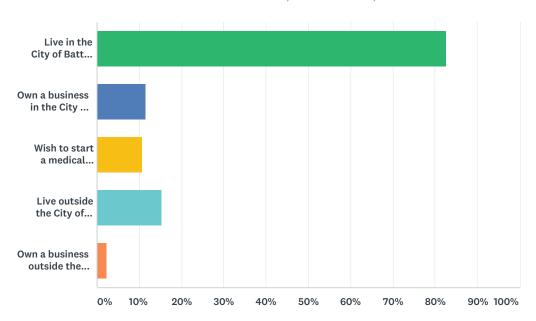






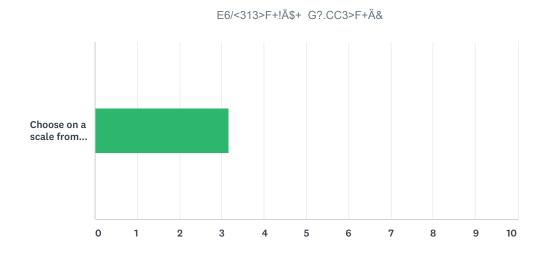
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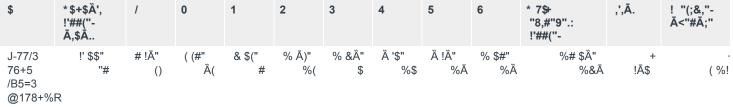




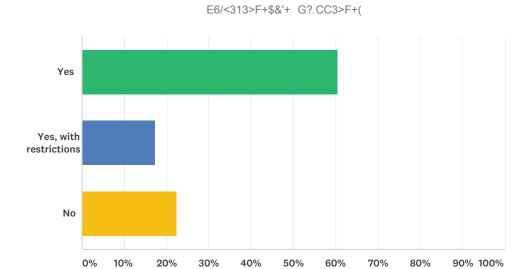
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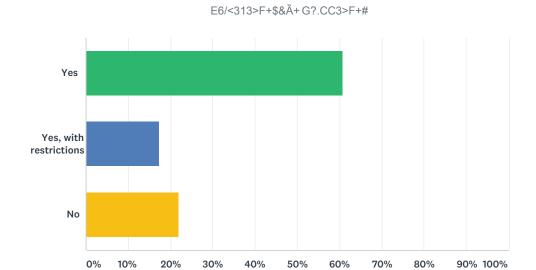


*(+S7+470+/0CC71;+P17<.6P+@5B.=.;.3/+.6+K5;;=3+J133?Q



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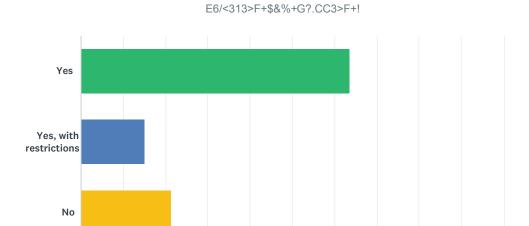
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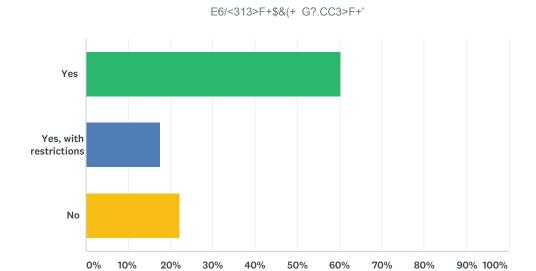
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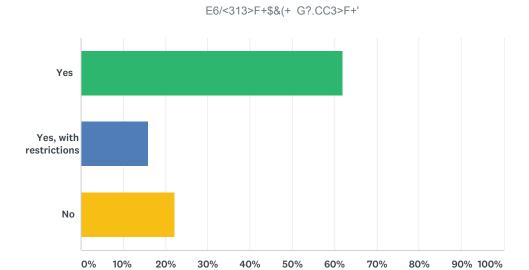
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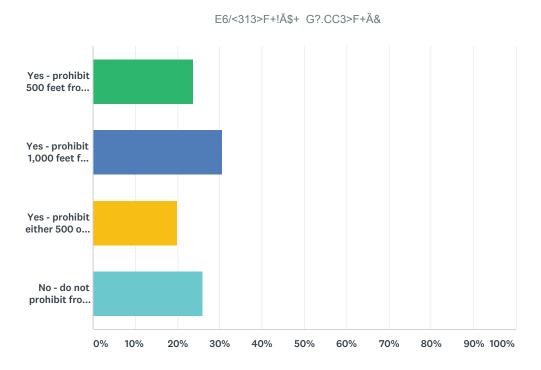
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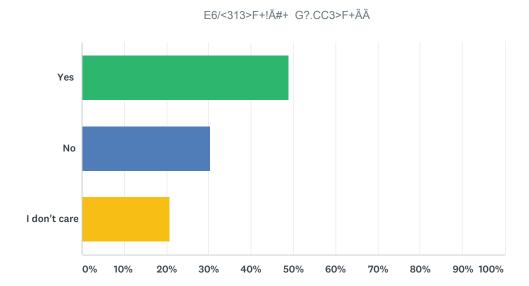
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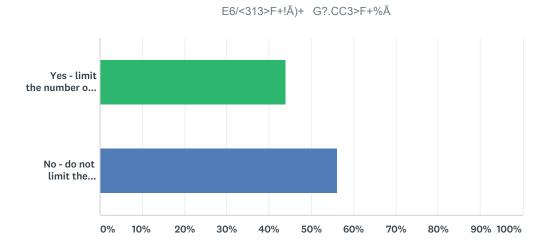
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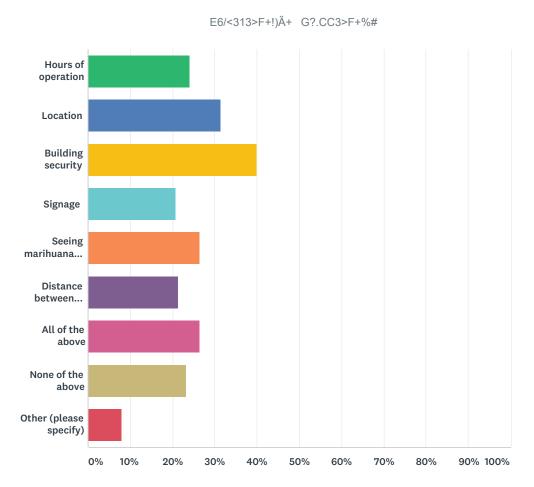
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G:	A+\$),!+)!;9!O++!H%)*	ÄEDSED EÄF!F9ES!8F
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GF	A+\$),! B@9!`+(!M/(,'\$(!+(!&3.>#\$!4+)C,!%##+67`!A+\$\);9!`+(!&3.>#*!4+)C,!%##+67`!A+\$), BÄE9!`+(!4+)C,!%##+6`!A+\$),!BÄÄ9!`+(!4+)C,!%##+6`!P\$)\$(%#\$);9!`K%4!34\$%5!)+6!.+(\$ >\$+>#\$!6+)C,!6+(=7!K/&3)\$&&!4+!)+,!6%),!#3%23#3,*JJ`	ÄEDSED EÄF!F9EE!8H
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G;	!!6+/#4)C,!&\$\$!%&!./-'!+M!%!>(+2#\$.!63,'!&\$##3)L!,'(+/L'!%)+;\$(!2/&3)\$&&5!&/-'!%&!%!#%(L\$(.%(=\$,5!+(!>'%(.%-*7	ÄED @D EÄF!ÄÄ9?:!8ŀ
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FÄ	!!>\$(&+)%##*!=)+6!&+.\$+)\$!6'+!3&!/&3)L!.%(3T/%)%!M+(!.\$43-%#\+&\$&5!2/,!&'\$!3&!%2/&3)L!3,!%)4	<u> </u>

F	$\begin{split} &!!\%.!'\$\%03\#^*!-+)-\$()\$4!\%2+/,!\%)^*!(\$\&,(3-,3+)\&!4/\$!,+!>(+V3.3^*;!+M!A'/(-'$\&7!Q/(!h)3,\$4!<,\%,\$\&A+)\&,3,/,3+)!'+\#4\&!,'\$!03\$6!\%)4!>(\%-,3-\$!+M!\&\$>\%(\%,3)L!A'/(-')$^*/3,\%,$7!8)^*!(\$\&,(3-,3+)\&!2\%\&\$4!+) \\ &!+(\%\#^*)-1,3,(3-,3+)&!3\&!3)!03+\#\%,3+)!+M!,'3&!0\%\#/\$!\%)4\#\%67+13\&!+M!&/-'!L+$&!2$*+)4!,'$ \\ &0\%\#/\$!+M!!)43034/\%\#!(3L',&]!3)!M\%-,5!3,!2#$$4&!3),+!,'$!N&$+;-(5!6'3-'!'\&.!-\%)!'\%0$ \\ &/)M+(\$\&\$\$)!-+)\&\$R/\$)-\$\&!+M!+>>+(,/)3,^*!\$0\%>+(\%,\$7!W'\$)!\%)!+0$(6$#.3)L!.\%T+(3,^*!'\%4\%>>(+0$4!,'3&!\%65!O'$!W3\#!+M!,'$!"\$+>\$!'\%4!&>+=$)!+)!,\&\$73\B\$73\B\$8.\$1,'\0!\0!-+)&\$R/$)-$&7 \\ &M!+)\$!63\#\#3)L!-'++&\$&!,+!&\$\#1+/,!,+!\$3.3,$4!\$+22*3&,5$!\$\$5\$-,+(\%,$!63\$#!,\%=$!)+,3-$!\%)4!,\%=$ \%-,3+)7 \\ \end{split}$	ÄED GD EÄF!Ä9S;!"H
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È	I!%.!L#%4!,'%,!K%,,#\$!A(\$\$=!3&!,%=3)L!,'3&!&\$(3+/&#*7!\%)/%)=!</td><td>ÄED;D EÄF!Ä9S;!"H</td></tr><tr><td>?Ä</td><td>P\$)\$(%##*5!!!,'3)=!6\$!&'+/#4!,\$)4!,+!2\$!#\$&&!(\$&,(3-,30\$89%3##*!%)4!%44!(\$&,(3-,3+)&!#%,\$(!3M!>(+2%)(3&\$7</td><td>?#\$€&;D EÄF!Ä9 S!"H</td></tr><tr><td>?</td><td>I!(\$%##*!6+/#4!#3=\$!,+!&\$\$!K%,,#\$!A(\$\$=!\$.2(%-\$!,'3&!2/&\Day\Day\Day\B\K%,,#\$!A(\$\$=!4+\$&!.+0\$!M+(6%(4!I'+>\$!,'\$*!#++=!,+!6+(=!63,'!%&!.%)*!#+-%#!2/&3)\$&&\$&!%&!,'\$*!-\Day\Day\Day\Day\B\R\G\Relation(4!G3,'!)\$\\B\R\G\Relation(4!,3.\$!63,'!K%),#\$!A(\$\$=!5!&'+/#4!2\$!(\$6% (4!63,'!,'\$!M3(&,!(3L',!,+!,(*!,+\$V>%)4!,'\$3(!2/&3)\$&&\Day\B\R\B\R\H\B\R\H\B\R\G\R\B\R\B\R\B\R\B\R\B\B\R\B\B\R\B\B\R\B\B\R\B\B\B\R\B</td><td>ÄED;D EÄF!Ä9Ä:!"H</td></tr><tr><td>?S</td><td>8L%3)!'+6!-%)!%!&,%,\$!.%=\$!#\$L%#!%!4(/L!&,3##!2%))\$4!M\$#\$()%#3&!3&!%!M%-,+(*!&,%,\$7!P#%4!)+,!6+(=3)L!3)!+)\$!%(+/)4!&+.\$+)\$!6'+!3&!'3L'</td><td>IÄED;D EÄF!Ä9Ä:!"H</td></tr><tr><td>??</td><td>H\$43-%#!.%(3T/%)%!&'+/#4!2\$!6\$#-+.\$4!%)4!%\$>,\$4!\$0\$(*6'\$(\$\frac{1}{3})}</td><td>ÄED;D EÄF!Ä9E !"H</td></tr><tr><td>?:</td><td>X+!-+)-\$()&5!,'3&!3&!%!0%#/%2#\$!>#%),!,+!,(\$%,!>%3)7</td><td>ÄED;D EÄÄÄ 9:;!"H</td></tr><tr><td>?G</td><td>IM!+/(!-3,*!4+\$&!)+,!%##+6!,'\$&\$!2/&3)\$&&\$&!,+!+>\$)5!HH8!3\$),&!63##!-+),3)/\$!,+!&>\$)4!,'\$3(.+)\$*!+/,&34\$!+M!-3,*!#3=\$!8))!8(2+(5!Z%)&3)L5!%)4!U\$,(+3,7\728;=\$\$>!+/(!.+)\$*!'\$(\$J</td><td>ÄED;D EÄF!Ä 9:G!"H</td></tr><tr><td>?F</td><td>I!-%)!/)4\$(&,%)4!6'*!&+.\$!(\$&34\$),&!.%*!M\$\$#!'\$&3,%),!+(!M\$%M/#!+M!%!.%(3'/%)%!.%(=\$,!3)!K%,,#\$ A(\$\$=5!2/,!I!2\$#3\$0\$!,'+&\$!M\$%(&!%(\$!/)M+/)4\$47!8##+63)L!!'\$%#\$&%#\$!+M!.%(3'/%)%!3)!K%,,#\$</td><td>ÄED;D EÄF!Ä 9?Ä!"H</td></tr></tbody></table>	

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		Growing allowed		Processing allowed		Transporting allowed		Testing allowed Provisioning	Provisioning	Provision Center	Restrict #	Sotharke Adonted	Adonted?
Communities	Growing	where?	Processing	where?	Transporting	where?	Testing	where?	Center	allowed where?	licenses?	SetDacks:	Adopted:
State of MI	Хех	Industrial & Agriculture ZDs	Yes	Industrial & Agriculture ZDs	Yes	No Restriction	Yes	No Restriction	Yes	Industrial & Agriculture ZDs	No		
Marshall	Yes	Industrial ZDs	Yes	Industrial ZDs	Yes	Industrial ZDs	Yes	Industrial ZDs	No	N/A	Yes	Yes	Yes
City of Kalamazoo	sәД	Manufacturing ZDs	Yes	Manufacturing ZDs	Yes	Commercial & Manuf.	Yes	Commercial & Manuf.	Yes	Commercial ZDs	Yes; 7	Yes	No
Portage	Yes	Industrial ZD	No	N/A	No	N/A	No	N/A	Yes	Business ZD	Yes, 4	Yes	No
Emmett Twp	May be		May be		May be		May be		Мау be				No
City of Springfield	oN	N/A	No	N/A	No	N/A	No	N/A	No	N/A			No
City of Adrian	Yes	Industial / Manufacturing ZDs	Yes	Industial / Manufacturing ZDs	Yes	Industial / Manufacturing ZDs	Yes	Industial / Manufacturing ZDs	Yes	Business ZD	ځ	خ	Mid-Dec?
Pennfield Twp	No Draft	N/A	No Draft	N/A	No Draft	N/A	No Draft	N/A	No Draft				
City of Jackson	No Draft	N/A	No Draft	N/A	No Draft	N/A	No Draft	N/A	No Draft				
Comstock	Yes	Agriculture, Manufacturing ZDs	Yes	Industial / Manufacturing ZDs	Yes	Industial / Manufacturing ZDs	Yes	Industial / Manufacturing ZDs	Yes	Business ZDs	May be	Yes	No
Battle Creek	Yes	Industrial ZDs	Yes	Industrial ZDs	Yes	Commercial & Ind.	Yes	Commercial & Ind.	Yes	Commercial & Ind.	No	Yes	No

s: Only 2 Transporters; 2 Testers

es: 1/2 mile setback between any Growers and Processors

es: Provisioning Centers: 1 per 10,000 (7 licer
es: Any MM building must be 500ft away from Res. 2D; 500ft between Testing and any other MM facility; 500ft between Provision Center any other MM facility; 600ft between Provision Center and key intersections; any MIM m.

res: Allow only 4 Growing and 4 Provisioning Center Licenses; Only allow Class A Growing License; No Greenhouse

Ves: 1,500ft setback from each other; 1,000ft setback from churches, libraries, substance abuse/ recovering centers, parks; cannot abut a Residential ZD

: They may consider a cap on any of the MM li

lg Center must be at least 1,000ft away from one-, two-family residential property; Provisioning Centers must be at least 500ft away from any MM facility, All MM facility building shall be at least 1,000ft away from schools, parks/ playg

frounds, libraries, places of worship, child care centers, recreational use w/ childrens activities, and any Comstock Community Center property.