Cannabis Regulation

Costs If You Do – Costs If You Don’t

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Agenda

- Costs When Cannabis is Regulated
  - Overview
  - Medical Marijuana Regulation
  - Adult Use Regulation
  - Taxation
  - Costs
  - Areas of Focus

- Effects on public health and public safety
  - Consumption patterns
  - Youth Use
  - Hospitalizations/Poison Control Center Calls
  - Driving While High
  - Marijuana Arrests
  - Gray Market
Colorado Marijuana Framework & Economy
Amendment 20 (Medical)
Amendment 64 (Retail – Adult Use)

- Criminal Segment
  - Law Enforcement
  - BLACK MARKET

- Private Citizen Segment
  - Law Enforcement
  - CO Dept. of Public Health and Environment
  - LEGAL NON-COMMERCIAL

- Commercial Licensed Regulated Segment
  - CO Dept. of Revenue, Marijuana Enforcement Division
  - Local Licensing Authorities
  - Law Enforcement
  - LEGAL COMMERCIAL MARKET
Colorado Commercial Market

- Two Industry Segments
  - Medical
  - Adult Use / Retail
- Licensee Based
  - State Licensing
  - Local Licensing
  - Regulatory and/or Criminal
- Stores, Cultivations, Infused Manufacturers, Testing Facilities, Operators, Transporters
Guideposts

- Preventing Distribution of Marijuana to Minors
- Preventing the Involvement of Criminal Enterprises, Gangs, and Cartels in the Legal Marijuana Industry
- Preventing the Diversion of Legalized Marijuana to Other States
Highly Collaborative Stakeholder Process

- Use of Stakeholder Work Groups Throughout the Rulemaking Process
  - Law Enforcement
  - Public Health Community
  - Governmental Officials
  - Medical Community
  - Parents’ Groups
  - Licensed Businesses

- Benefits
  - Higher Rate of Voluntary Complicance
  - Negotiated Rulemaking
Comprehensive Regulations

- Regulations Protecting Public Safety
- Regulations Protecting Children
Video Surveillance
Edibles Regulation: Phase I

- Emergency Rules July 31, 2014
- Permanent Rules October 1, 2014
- Compliance by February 2015 to allow for Implementation
  - Child-resistant packaging
  - Serving size limited to 10mg of THC
  - No more than 100mg of THC on a multiple serving edible
  - Physically demarking multiple-serving edible products
  - Incentives for the production of single-serving edibles
  - Labels to include explicit serving size, number of servings and total THC
Edibles Regulation: Phase II

- Effective October 1, 2016
- Attractiveness to Children:
  - Prohibition on “candy” or “candies”
  - Pre-manufactured products prohibited (No Gummy Bears)
- Additional Labeling Requirements
- Purchase Amount Equivalency
- Universal Symbol
Universal Symbol

- October 1, 2016, all marijuana packages and edible products had to be marked with the Universal Symbol
- After December 1, 2016, no marijuana could be sold without the Universal Symbol
Edibles Regulation: Phase III

- October 1, 2017
- Prohibition on Production or Sale of Edible Retail Marijuana Products or Edible Medical Marijuana-Infused Products in the Shape of:
  - Humans
  - Animals
  - Fruit
Regulatory Activities

- Business & Individual Licensing
  - Business
    - Initial applications
    - Renewals
    - Change of Ownerships
  - Individual Licensing
    - Owners
    - Managers & Employees

- Field Enforcement
  - Criminal Investigations
  - Complaint Investigations
  - Compliance Monitoring & Data Analytics
  - Underage Compliance
RFID Tags
Over 1 Million Plants tracked in metrc™
Costs To Regulate

- **MED**
  - 110 Staff
  - Approximately $12.5 Million

- **TAX**
  - 19 Staff
  - Approximately $1.4 Million
Marijuana Taxation

- **Uses**
  - School Construction (BEST)
  - Marijuana Purposes
    - MED and Regulatory Oversight
    - Youth Prevention
    - Substance Abuse Prevention and Treatment
    - Public Education Campaigns

- **Taxes – $565.7 Million to date**
  - Total Tax Collected in FY13-14 $19.5M
  - Total Tax Collected in FY14-15 $88.2M
  - Total Tax Collected in FY15-16 $141.2M
  - Total Tax Collected in FY16-17 $210.4M
  - Total Tax Collected in FY17-18 (to date) $103.2M
On-Going Areas of Focus

- Edibles
- Federal Regulatory Assistance
  - Pesticides
  - Banking
- Diversion
Figure 1. Prevalence of Ever and Current Marijuana Use For High School Students in Colorado Compared to the National Prevalence, 2005-2015.

Produced by: EEOHT, CDPHE 2016

*Black bars indicate margins of error (95% Confidence Intervals).

†Ever Use is defined as marijuana use at least one time during a student's lifetime and Current Use is defined as marijuana use at least once in the past 30 days.

‡Data Source: Healthy Kids Colorado Survey (HKCS) prevalence estimates for 2005-2015 and Youth Risk Behavioral Survey prevalence estimates for 2005-2015. Note: Data for the year 2007 was not included due to low sample size.
Past 30-day Marijuana Use: 12 – 17 Years Old

NSDUH: Past 30-day marijuana use, 12-17 years old, 2005/06-2015/16

Source: Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health (2017).
School Suspension Rate

Total and drug suspension rate, per 100,000 students

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<tbody>
<tr>
<td><strong>Drug suspension rate</strong></td>
<td>443</td>
<td>437</td>
<td>414</td>
<td>400</td>
<td>391</td>
<td>506</td>
<td>551</td>
<td>534</td>
<td>500</td>
<td>538</td>
<td>509</td>
<td>471</td>
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<tr>
<td><strong>Total suspension rate</strong></td>
<td>13,445</td>
<td>13,267</td>
<td>13,618</td>
<td>12,796</td>
<td>12,632</td>
<td>11,542</td>
<td>11,094</td>
<td>10,454</td>
<td>9,301</td>
<td>8,396</td>
<td>9,058</td>
<td>8,931</td>
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Note: Marijuana was broken out separately for the first time in 2015-16. There were 2,657 marijuana suspensions (296 per 100,000 pupils) in 2015-16 that accounted for 63% of all drug suspensions.

Source: Colorado Department of Education.
School Discipline for Marijuana 2015-16

- 2015-16 first year of separate reporting for marijuana
- **2,657 suspensions for marijuana**
  - 296 marijuana suspensions per 100,000 pupils
  - 3% of all suspensions
  - 63% of all drug suspensions
- **195 expulsions for marijuana**
  - 22 marijuana expulsions per 100,000 pupils
  - 20% of all expulsions
  - 58% of all drug expulsions
- **832 law enforcement (LE) referrals for marijuana**
  - 93 marijuana LE referrals per 100,000 pupils
  - 22% of all LE referrals
  - 73% of drug LE referrals

Source: Colorado Department of Education
Past 30-day Marijuana Use: 18-25 Years Old

NSDUH: Past 30-day marijuana use, 18-25 years old, 2005/06-2015/16
Past 30-day Marijuana Use; 26 Years and Older

**NSDUH: Past 30-day marijuana use, 26 years and older, 2005/06-2015/16**

<table>
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<tr>
<th>Year</th>
<th>Colorado</th>
<th>U.S.</th>
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<tbody>
<tr>
<td>2005/06</td>
<td>5.4%</td>
<td>4.1%</td>
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<tr>
<td>2006/07</td>
<td>5.8%</td>
<td>4.0%</td>
</tr>
<tr>
<td>2007/08</td>
<td>6.8%</td>
<td>4.1%</td>
</tr>
<tr>
<td>2008/09</td>
<td>7.3%</td>
<td>4.7%</td>
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<tr>
<td>2009/10</td>
<td>8.9%</td>
<td>4.4%</td>
</tr>
<tr>
<td>2010/11</td>
<td>8.2%</td>
<td>4.8%</td>
</tr>
<tr>
<td>2011/12</td>
<td>7.6%</td>
<td>5.1%</td>
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<td>2012/13</td>
<td>10.1%</td>
<td>5.5%</td>
</tr>
<tr>
<td>2013/14</td>
<td>12.4%</td>
<td>6.1%</td>
</tr>
<tr>
<td>2014/15</td>
<td>14.7%</td>
<td>6.6%</td>
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<tr>
<td>2015/16</td>
<td>14.0%</td>
<td>6.9%</td>
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Source: Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health (2017).
Marijuana Exposure Calls to Poison Center, by Age Group of Case, 2000-2016

- 0-8 years old
- 9-17 years old
- 18-24 years old
- 25 years and older
- Unknown

Produced by: Colorado Department of Public Health & Environment, Environmental Epidemiology, Occupational Health and Toxicology Branch (2016).
Data Source: National Poison Data System (NPDS) closed, human, marijuana exposure calls in Colorado from 2000 to 2016, n=1,578.
Number of Human Marijuana Exposure Calls† Compared to the Number of Human Alcohol‡ Exposure Calls to Rocky Mountain Poison and Drug Center (RMPDC) from January 1, 2000 to December 31, 2015 in Colorado

No. Exposes Calls

Marijuana Exposures
Alcohol Exposures

6762, 7639, 7701, 7421, 7404, 6468, 6351, 6347, 6751, 6486, 6393, 6598, 6122

54, 62, 76, 81, 68, 75, 45, 69, 62, 44, 95, 86, 110, 127, 223, 230

*EEOHT, CDPHE 2016
†Human marijuana exposure calls to RMPDC were determined by the presence of the generic code Marijuana - 0083000 from the National Poison Data System and questionable exposures were validated with a records review.
‡Human alcohol exposure calls to RMPDC were determined by the presence of the generic code Ethanol (Beverages)-0019140 from the National Poison Data System.
DUI Citations: Colorado State Patrol

Note: Drug impairment determination is based on trooper’s informed perception and not toxicology results.
Fatalities on Colorado Roadways

Note: A positive test for cannabinoids may be the result of active THC or one of its inactive metabolites and does not necessarily indicate impairment. Source: Data provided by Colorado Department of Transportation, 8/4/2016.

2015 DATA ARE PRELIMINARY AND SUBJECT TO CHANGE
Marijuana Arrests

Source: Colorado Bureau of Investigation, National Incident-Based Reporting System.
Marijuana Arrest Rates (per 100,000) by Race

Source: Colorado Bureau of Investigation, National Incident-Based Reporting System; U.S. Census Bureau, 2015 American Community Survey.
Marijuana Arrests by Age Group

<table>
<thead>
<tr>
<th>Age Group</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
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<tr>
<td>10 to 17</td>
<td>3,235</td>
<td>3,125</td>
<td>3,400</td>
<td>2,481</td>
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<tr>
<td>18 to 20</td>
<td>3,347</td>
<td>2,277</td>
<td>2,244</td>
<td>1,709</td>
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<tr>
<td>21 or older</td>
<td>6,312</td>
<td>1,100</td>
<td>1,360</td>
<td>1,195</td>
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</tbody>
</table>

Source: Colorado Bureau of Investigation, National Incident-Based Reporting System.
Marijuana Gray Market: The Routes to the Gray Market

**Amendment 20**

- Medical
  - Amendment 20 allows for patients and patient’s caregivers to home grow marijuana plants

**Doctors**

- Doctors may recommend patients up to 6 plants with up to 3 flowering. This may be increased up to 99 as medically necessary

**Caregivers**

- Each caregiver can cultivate up to 99 plants for patients (SB 15-1514)
- Each patient can cultivate up to 6 plants (up to 3 flowering) or up to 99 as medically necessary

**Patients**

- +99

**Amendment 64**

- Recreational
  - Amendment 64 allows for individuals and cooperatives to home grow marijuana plants

**Cooperatives**

- Residents get together and “assist” each other in growing allotted six plants. They may not operate in the same location as caregivers. Otherwise, they are unregulated so there is, theoretically, no limit to the number of individuals and plants

**Individuals**

- Each individual can cultivate up to 6 plants with up to 3 flowering
- +Unknown Limitation
- +6

**Gray Market**

When combined, recreational and medical marijuana legalization has contributed to a large, unregulated market with gray marketeers operating under the guise of caregivers, cooperative members, or law abiding residents.
Thank You

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