Developing Public Health Regulations for Legal Marijuana

February 11, 2013

#mjRAND
RAND Drug Policy Research Center

• Informing drug policy discussions since 1989

• More than 60 researchers in 6 offices in 3 countries working on substance use and drug policy issues

• Do not (and will not) have an official position on marijuana policy
Today’s Goals

• Highlight regulatory decisions facing jurisdictions that decide to remove the prohibition on marijuana

• Draw lessons from research on alcohol and tobacco

• Avoid questions about whether marijuana should be legal or what the federal government should do
Plan for Today’s Session

• Provide background and summarize some RAND research in this area

• Two 2-hour panels with Q&A
  - Panel A: Licensing, production, distribution
  - 15-minute break
  - Panel B: Restrictions on use, sales, advertising/marketing
Briefing Agenda

• What is happening with marijuana legalization?

• How could marijuana legalization influence consumption?

• How might a jurisdiction legalize marijuana and achieve public health objectives?
Gallup Polls Show National Support For Marijuana Legalization Increasing
Legalization Initiatives That Passed In Colorado and Washington Are Unprecedented

- Allow for-profit commercial enterprises to serve non-medical marijuana market
- Allow for production, distribution, and sale, not just possession
  - Very different from decriminalization
- Was marijuana legalized in The Netherlands or Portugal? NO

Amendment 64 Passes: Colorado Legalizes Marijuana For Recreational Use

Washington Measure 502: Marijuana legalization passes
The Two Initiatives Have Common Themes

<table>
<thead>
<tr>
<th>Embrace a market approach</th>
<th>• State agencies regulate but do not participate in trade</th>
</tr>
</thead>
</table>
| Multiple types of licenses | • **WA**: Producers, processors, retailers  
                             • **CO**: Cultivation, manufacturing, testing facilities, and retail stores |
| Ad valorem taxes         | • **WA**: 3 different 25% taxes at different market levels  
                             • **CO**: <=15% at wholesale level (excluding medical marijuana) |

And both earmark taxes to popular causes
Today, Possession Is Legal Under State Law.

• Both states have legalized possession for those aged 21 and older
  – Can possess up to 1 ounce on non-federal lands

• Colorado legalized grow-your-own, up to 6 plants
  – Can also give up to 1 ounce away to any adult
  – News stories about skirting law with “donations”
Today, Possession Is Legal Under State Law. . .

*but Bigger Change Not Yet Operational*

- Both states have legalized possession for those aged 21 and older
  - Can possess up to 1 ounce on non-federal lands

- Colorado legalized grow-your-own, up to 6 plants
  - Can also give up to 1 ounce away to any adult
  - News stories about skirting law with “donations”

- Regulatory regimes governing licensed commercial activity being discussed right now
Legalization Discussion Is Not Limited to Colorado and Washington

• Legalization bills being introduced in other states
  – E.g., Hawaii, Rhode Island

• Initiatives could be on the ballot in 2014 and 2016
  – Discussion about California seems to suggest 2016

• New federal bills introduced to end federal prohibition

• Discussions not limited to the U.S.
RAND Has Been Involved In Several Projects to Improve Debate About Marijuana Legalization
Briefing Agenda

• What is happening with marijuana legalization?

• How could marijuana legalization influence consumption?

• How might a jurisdiction legalize marijuana and achieve public health objectives?
Legalization May Cause Marijuana Prices to Fall, Perhaps by a Lot

- Prohibiting marijuana production raises costs (Reuter & Kleiman, 1986; Caulkins et al., 2012)
  - By increasing risk of arrest, incarceration
  - By leading to inefficiencies caused by covert production

- Removing prohibition would dramatically reduce production costs (Kilmer et al., 2010)

- How much production costs fall depends on decisions made about production and taxes/fees
If Price Falls, Consumption Will Rise

• Marijuana consumption responds to changes in price, particularly for youth/young adults

• Best estimate: 10% decline in price is likely to lead to a 3% to 5% increase in marijuana initiation
  – Pacula, 2010; Gallet, 2013

• But uncertain how much consumption will rise, as previous elasticity estimates based on small price changes
There Can Be Non-Price Effects on Consumption

- Removal of risk of arrest & stigma (DeSimone and Farrelly, 2003; MacCoun, 2010)

- Removal of “forbidden fruits” effect (MacCoun, 1993)

- Changes in availability, disapproval, and perceived harmfulness (Bachman et al., 1981; 1998)

- Promotion and advertising (Saffer 1996; Collins et al., 2005; Shadel et al., 2008)

- Investment in prevention and public health messaging (Farrelly et al., 2002; Longshore et al., 2006)
Who Is Using Marijuana? (% of Total Marijuana Use Days in 2010 NSDUH)

- Those Under the Age of 21: 23%
- Those with HS Education or Less: 56%
- Those with Substance Abuse/Dependence Problems*: 46%

*Abusing/dependent on any substance, not just marijuana
Briefing Agenda

• What is happening with marijuana legalization?

• How could marijuana legalization influence consumption?

• How might a jurisdiction legalize marijuana and achieve public health objectives?
Determining Public Health Impact of Legalizing Marijuana Is Complicated

• From cost-benefit perspective, research and data are insufficient to say if legalization is net good or bad

• Both sides generally agree about:
  – Wanting to reduce and prevent youth consumption
  – Keeping intoxicated drivers off the road

• But cannot ignore potential benefits of legalization
  – Could increase access for medicinal purposes
  – *May* reduce harmful drinking
Heavy Alcohol Use Imposes More Social Costs Than Heavy Marijuana Use

• Heavy marijuana use causes problems for some users, but harms pale compared to alcohol (Room et al., 2010)

• Many issues with these COI studies, but if legalization influences alcohol consumption by 10%, it could swamp effects on marijuana alone (Caulkins et al., 2012)

• The problem: We do not know if alcohol and marijuana are substitutes or not, and if it differs by type of user
Literature on Cross-Price Elasticities Is Inconclusive & Incomplete

- Few studies examine how changes in the *money price* of marijuana influences alcohol consumption
  - Many look at “decriminalization”, or effect of alcohol prices on marijuana use; both problematic
- Studies of U.S. either produce inconsistent results or find that the effect is close to zero
- Few studies focus on measures of use *on the same occasion*
- Unclear about applicability post-prohibition
What Are Some Public Health Objectives Associated with Legalizing Marijuana?

• Prevent youth access and use

• Prevent excesses of commercialization

• Regulate product content and form

• Manage when and where marijuana is sold and used

Others?
Purpose of Today’s Panel Discussions

• Hear from alcohol/tobacco experts about which regulations have (have not) helped achieve public health goals
  – Panel A: Licensing, production, distribution
  – Panel B: Restrictions on use, sale, advertising, promotion

• Consider extent to which strategies for alcohol and tobacco could be applied to marijuana

• Other strategies also important to discuss (e.g. prevention), so we hope this is just the start of this sort of discussion
How Will Q&A in Panel Discussions Work?

• Questions from onsite and online participants

• Will monitor questions on Twitter with #mjRAND

• Will take 2 from DC, 2 from web, 2 from DC, etc.

• Those in DC will be written on postcards, collected, and submitted to the chair
Drug Policy Research Center

The RAND Corporation is a nonprofit institution that helps improve policy and decisionmaking through research and analysis.

This electronic document was made available from www.rand.org as a public service of the RAND Corporation.

Support RAND

Browse Reports & Bookstore
Make a charitable contribution

For More Information

Visit RAND at www.rand.org
Explore the RAND Drug Policy Research Center
View document details

Presentation

RAND presentations may include briefings related to a body of RAND research, videos of congressional testimonies, and a multimedia presentation on a topic or RAND capability. All RAND presentations represent RAND’s commitment to quality and objectivity.

Limited Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Unauthorized posting of RAND electronic documents to a non-RAND website is prohibited. RAND electronic documents are protected under copyright law. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use. For information on reprint and linking permissions, please see RAND Permissions.