MARIJUANA LEGALIZATION:
DESIGN CONSIDERATIONS & DATA NEEDS
Marijuana Legalization: Design Considerations & Data Needs

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About RAND

- Non-partisan, non-profit research organization with largest PhD in Policy Analysis program in the U.S.
- About 1,800 staff from 45+ countries
- Focus on the major policy issues of our time
- Do not have an official position on marijuana
Roadmap

• Unprecedented changes in marijuana policy
• Design considerations for legal marijuana
• Thinking seriously about data collection
Definitions matter

Prohibition  Decriminalization  Medical  Legalization
Definitions matter

Prohibition
Decriminalization
Medical
Legalization

- Reduce penalty for small transactions
- Possession of small amounts a civil rather than criminal offense
Definitions matter

- **Prohibition**: Possession of small amounts a civil rather than criminal offense
- **Decriminalization**: Reduce penalty for small transactions
- **Medical**: Legal to possess, distribute, and produce
- **Legalization**: Legal to possess, distribute, and produce

Definitions matter.
### Definitions matter

<table>
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<td>Reduce penalty for small transactions</td>
<td>Remove criminal sanctions for medical use</td>
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<td>Possession of small amounts a civil rather than criminal offense</td>
<td>Access through home cultivation and/or dispensaries</td>
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What is happening in the U.S. is unprecedented
Not even the Netherlands goes this far
Voters in Alaska and Oregon also passed initiatives to create for-profit marijuana industry
Voters in Washington DC passed an initiative to legalize home growing and “gifting”
Other states will consider legalization

- State legislators in U.S. could also introduce bills
- Will likely be on the ballot in California and other states in 2016
But this is still **illegal** under U.S. federal law

- U.S. Department of Justice has decided not to block implementation

- Federal policy can change

- Sent a signal to other states and other countries
Not just a U.S. phenomenon
Roadmap

• Unprecedented changes in marijuana policy

• Design considerations for legal marijuana
Design considerations: The 10 P’s

1. Production
2. Profit Motive
3. Promotion
4. Prevention & Treatment
5. Policing & Enforcement
6. Penalties
7. Potency
8. Purity
9. Price
10. Permanency
Design considerations: The 10 P’s

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Is the commercial alcohol model desirable?

• Heavy users drive market for alcohol
  – 80/20 rule (Cook, 2008)
  – Same for marijuana (Kilmer et al., 2014)

• Creates strong profit motive for private companies to maintain and nurture heavy users

• Powerful lobby that fights regulations and taxes
Many alternatives to status quo prohibition

Prohibit but decrease sanctions

Communal own-grow & distribution

Govt. operates the supply chain

Non-profit organizations

Very few monitored for-profit licensees

Repeal-only of state prohibition

Prohibit and increase sanctions

Allow adults to grow their own

Retail sales only ("Dutch model")

Public authority ("Near monopoly")

For-benefit companies

Standard commercial model

Source: Caulkins, Kilmer, Kleiman et al., 2015
Commonly-discussed options in the US

Prohibit but decrease sanctions

Standard commercial model

Source: Caulkins, Kilmer, Kleiman et al., 2015
Middle-ground options (small scale)

Communal own-grow & distribution

Allow adults to grow their own

Retail sales only ("Dutch model")

Source: Caulkins, Kilmer, Kleiman et al., 2015
Middle-ground options (large scale)

- Govt. operates the supply chain
- Non-profit organizations
- Very few monitored for-profit licensees
- Public authority (“Near monopoly”)
- For-benefit companies

Source: Caulkins, Kilmer, Kleiman et al., 2015
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Price matters

- Influences consumption and revenues

- 10% decline in price leads to ~3% increase in marijuana participation (Pacula, 2010; Gallet, 2013)
  - Would be better if we had price per unit of THC
Options to elevate price

- Require product testing
- Reduce competition
- Impose taxes
Need to think hard about marijuana taxes

• If taxes are too high, there will be evasion

• Will taxes be applied to the medical market?

• There are alternatives to taxing by value
  – E.g., By weight, % THC, THC:CBD ratio
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How easy will it be to change policies?

• Early adopters will probably suffer growing pains and want to make changes

• Raises questions about how much flexibility to build into the taxation and regulatory regime
Another idea to consider: Sunset clause

- As sunset date approaches, legislature or voters could vote to sustain the law or try something else.

- Would give jurisdictions an escape clause, a chance—by simply sitting still—to overcome the lobbying muscle of the new industry.
Roadmap

- Unprecedented changes in marijuana policy
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- Thinking seriously about data collection
Data needs if you are thinking about policy change

• What is the size of the market?
  – Total amount consumed
  – Total expenditures
Data needs if you are thinking about policy change

- What is the size of the market?
- How reliable are your drug use surveys?
  - Critical for sizing the market
  - Important for policy evaluation
Data needs if you are thinking about policy change

- What is the size of the market?
- How reliable are your drug use surveys?
- What is the price per unit of THC?
  - Must think beyond price per gram
  - Critical for making realistic projections
Concluding thoughts

- You will continue to hear a lot about marijuana
Concluding thoughts

• You will continue to hear a lot about marijuana

• Reasonable people can disagree about marijuana
Concluding thoughts

• You will continue to hear a lot about marijuana

• Reasonable people can disagree about marijuana

• These “10 P’s” are a good place to start for those who want to engage in debate, design, and analysis
Estimating the size of a marijuana market

Begin with national drug survey

Adjust for survey bias

Determine how much marijuana is consumed on a “use day”
¿Cuánta marihuana usa usted en un día normal? (How much marijuana do you use in a typical day?)