


Local Cannabis Policy Landscape: Oregon & Washington



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Public Health Consequences of Changes in the Cannabis Policy Landscape
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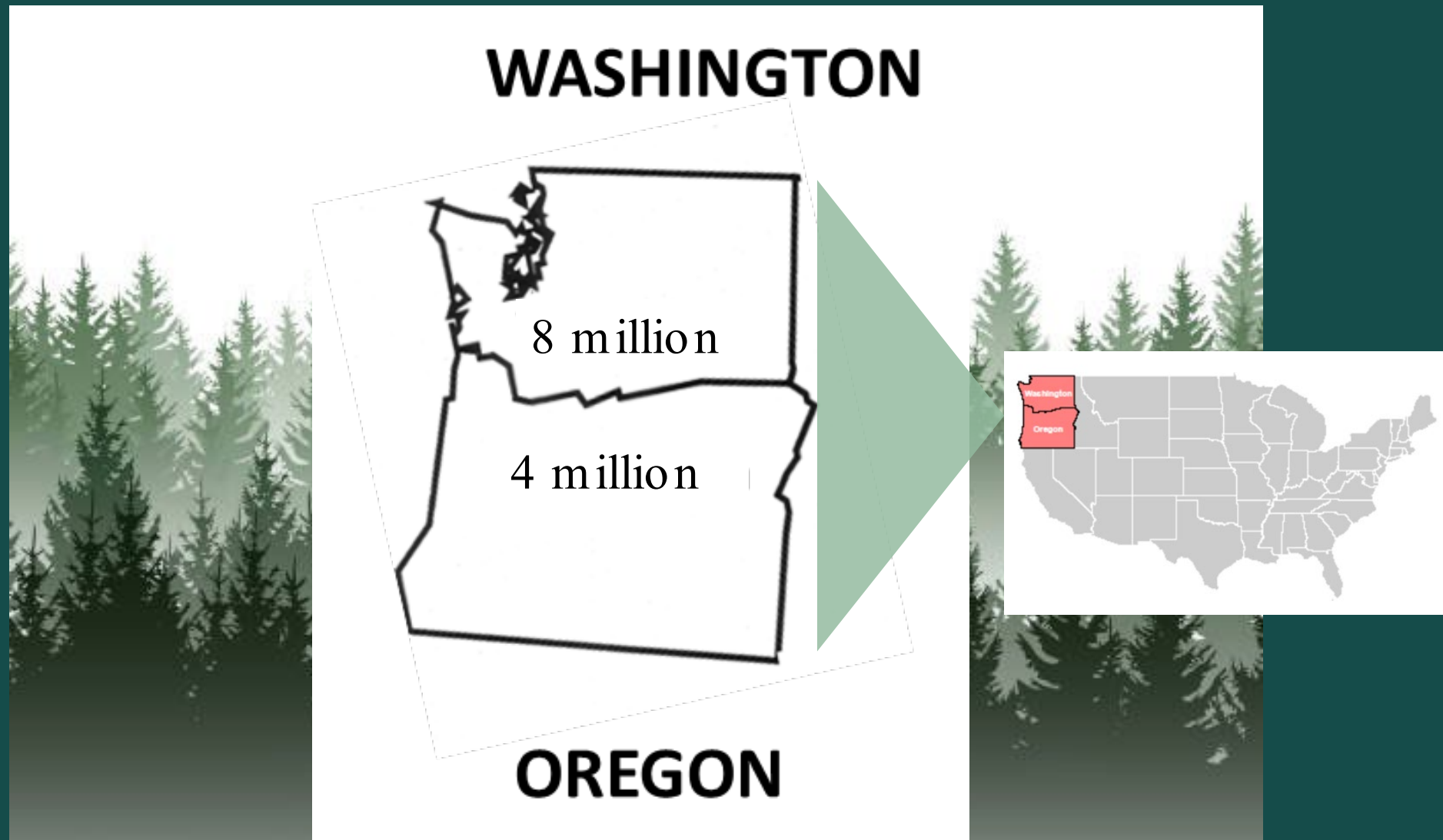
Overview of state/local cannabis landscape

State-to-state variation in policy and implementation

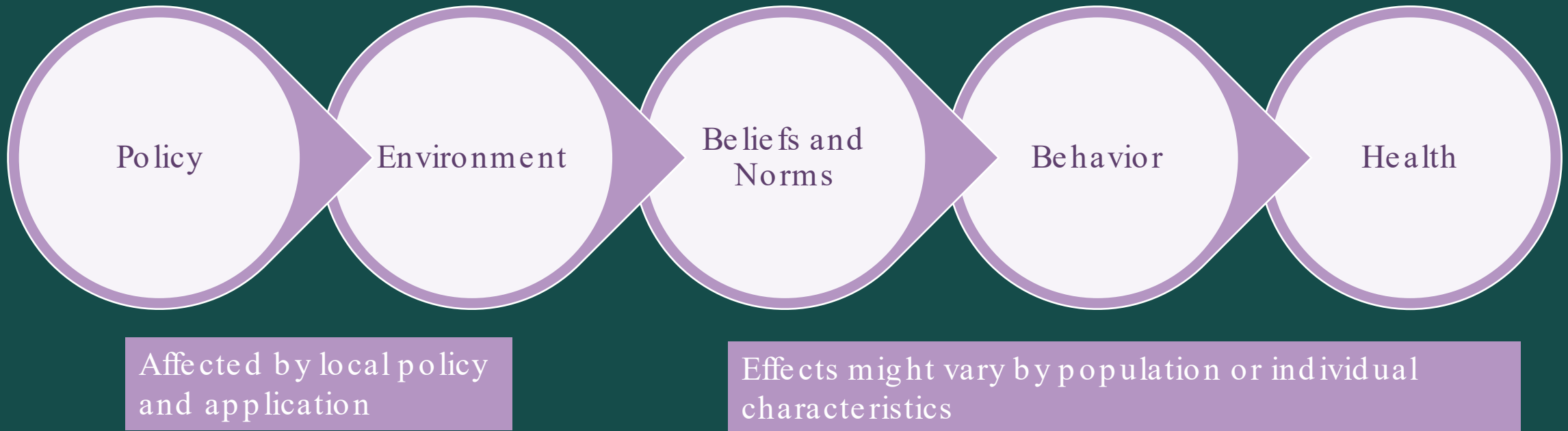
Within-state variation in policy and implementation

Does this matter for public health effects?

Cannabis legalization in the Pacific Northwest



Basic theoretical construct



State-to-State Variation

Regulatory elements

Time for market growth and maturity

Retail cannabis size mature markets

Cannabis legalization actions

| | Washington | Oregon |
|---------------------|--|--|
| Passed legalization | Nov 2012 (Initiative 502) | Nov 2014 (Ballot Measure 91) |
| Adult use is legal | December 2012 | July 2015 |
| Retail sales begin | July 2014 | “early sales” Oct 2015 Full retail Oct 2016 |
| Regulatory agency | Washington State Liquor & Cannabis Board (LCB) – also regulates alcohol, tobacco | Oregon Liquor & Cannabis Commission (OLCC) – also regulates alcohol |

Contrast: Relatively Prevention-Aligned Regulations

| Policy factors | Washington ⁺ | Oregon |
|---|-------------------------|--------|
| Non-medical possession and use by people under age 21 is illegal in both states | | |
| Adult use (non-medical) home growing not allowed | ✓ | |
| Caps on number of retail cannabis outlets | ✓ | |
| “Buffers” for retail cannabis licenses Both require 1,000 ft from K12 public schools; WA adds private schools, playground, public transit centers, rec centers, childcare, public parks, library, game arcades - but locals can modify. | ✓ | |
| Restrictions on cannabis advertising (relative strength) | ✓* | |
| Higher cannabis retail sales taxes (37% WA vs. 17-20% OR) | ✓ | |
| Local authority to ban sales, apply other restrictions | ✓ | ✓ |

+ WA legalization simultaneously created structure to control a previously unregulated medical market.

* Following additional restrictions on advertising implemented in 2017

Legal markets in communities: “presence” variation

Olympia, WA (2022)

Portland (left, 2021) and Salem (right, 2022)

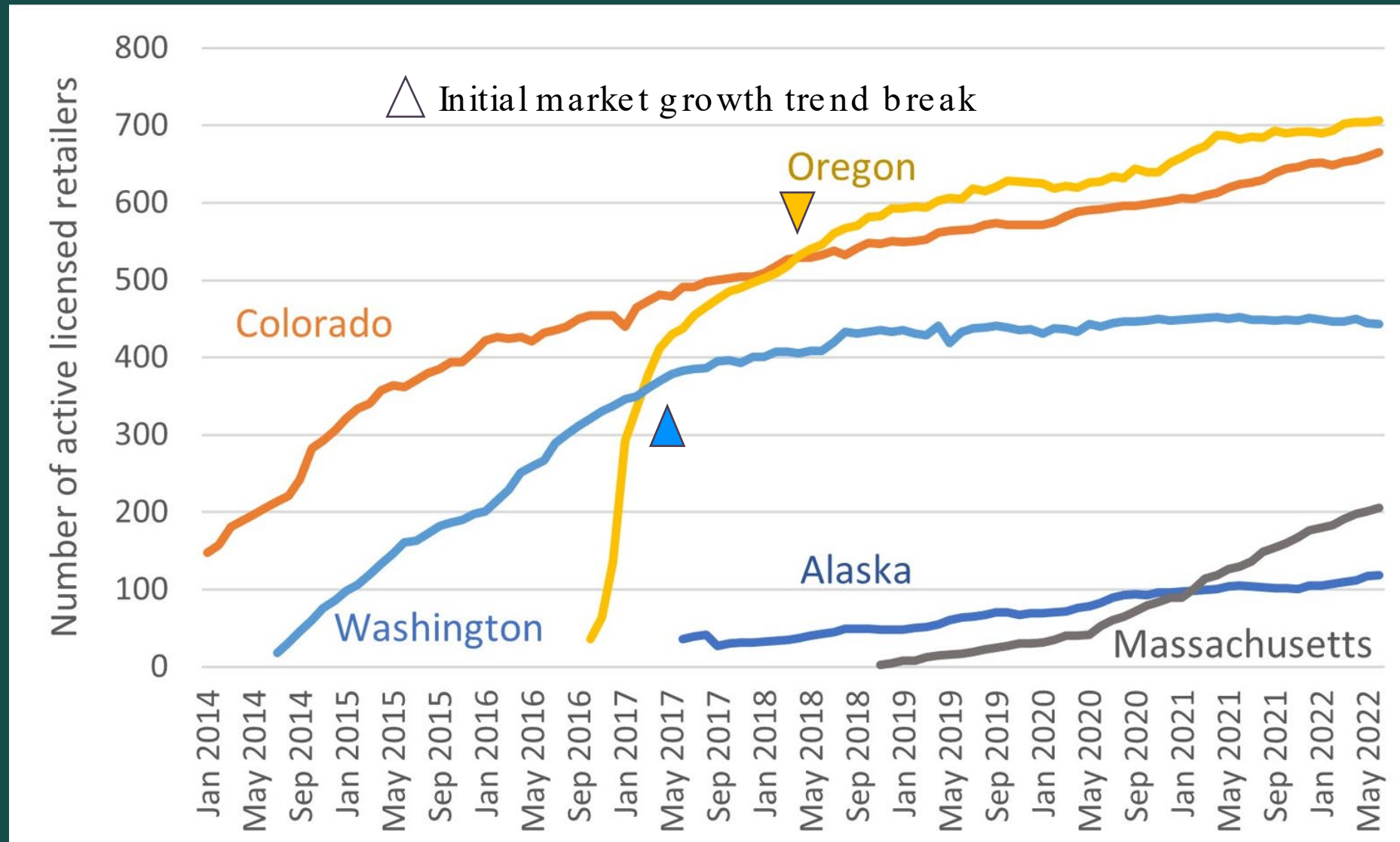


Washington

Oregon

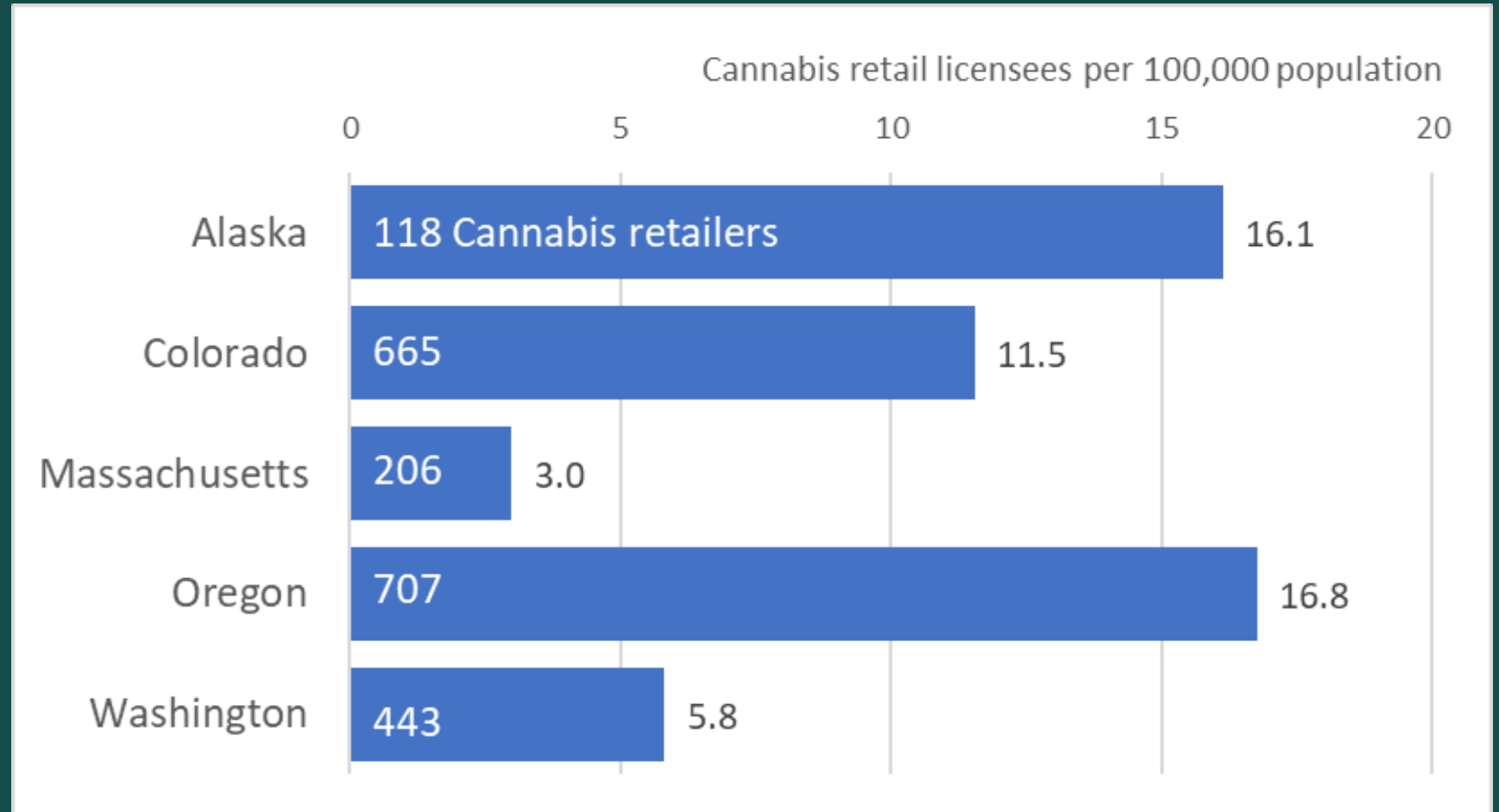


Time to start of sales and market maturity varies by state



Current status: State variation in retail cannabis outlets (June 2022)

Oregon has more licensees and greater number per 100,000 population than Washington (and other states)








Within-state Variation

Local regulatory modifications

Illicit or gray market presence

Adult use cannabis retail exposure

What can cities and counties do? “5 Ps” of policy

| Symbol | Regulatory Components | Description of Regulatory Components |
|---|---------------------------|--|
|  | Public Health and Safety | Requirements that prevent diversion and protect customers |
|  | Placement and Access | Factors affecting individual possession and use; licensing and operations; placement of businesses; expanded privileges |
|  | Products and Potency | Factors affecting what products are allowed, including by potency; packaging and labeling; and purchase limits for specific products |
|  | Promotion and Advertising | Factors affecting design and content, or placement of any advertising |
|  | Pricing | Taxes and other factors related to the cost of products |

- Cities and counties can use local authority:

- Ban or additionally license businesses
- Zoning or siting restrictions
- Hours/days of operation
- Local taxes (and their use)

Source: A toolkit for the Northwest (HHS Region 10) Prevention Technology Transfer Center (PTTC) Network. Reports and resources posted on this site were co-authored by Dilley and Segawa. Published October 2020. Available at <https://pttcnetwork.org/centers/northwest-pttc/hhs-r10-cannabis-toolkit-resources>

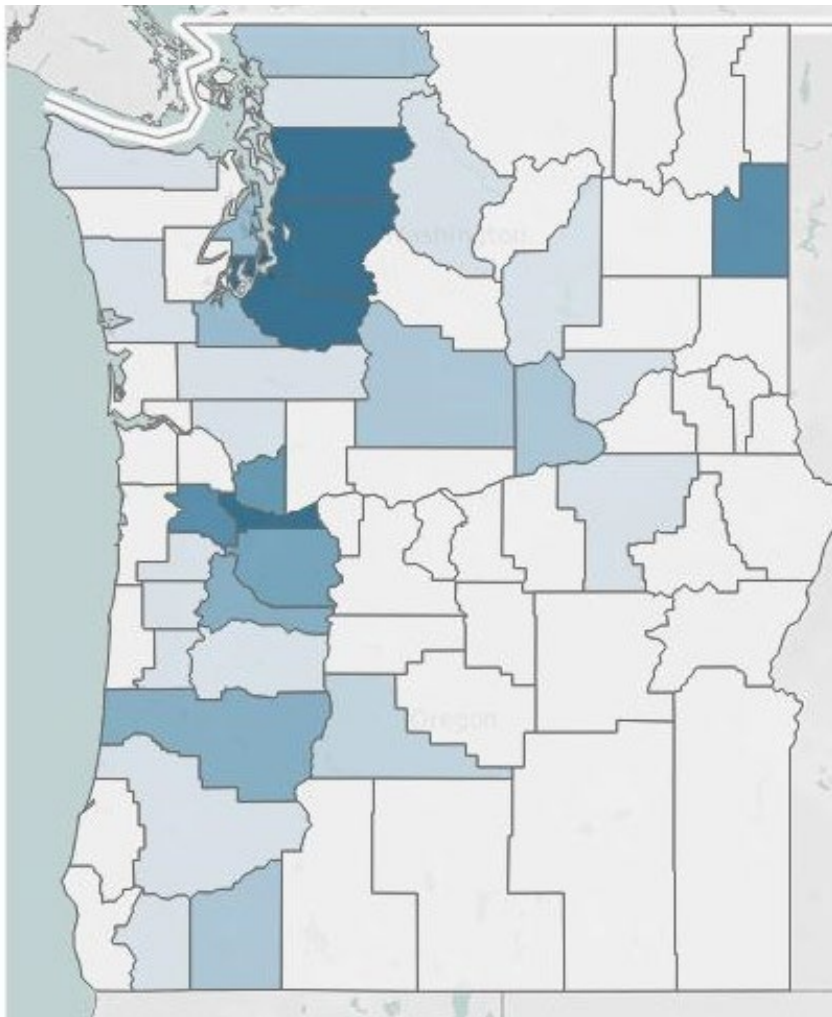
Methods: Assessment of Local Cannabis Policies

- “Policy surveillance” annually from legalization through December 2022
- Collected policies
 - All counties
 - Cities 2,000+ residents (98% of state pop)
- Recorded policy details and dates of implementation using a codebook
- Focused on policies to regulate business (not individual penalties)



Population, place, and policy variation

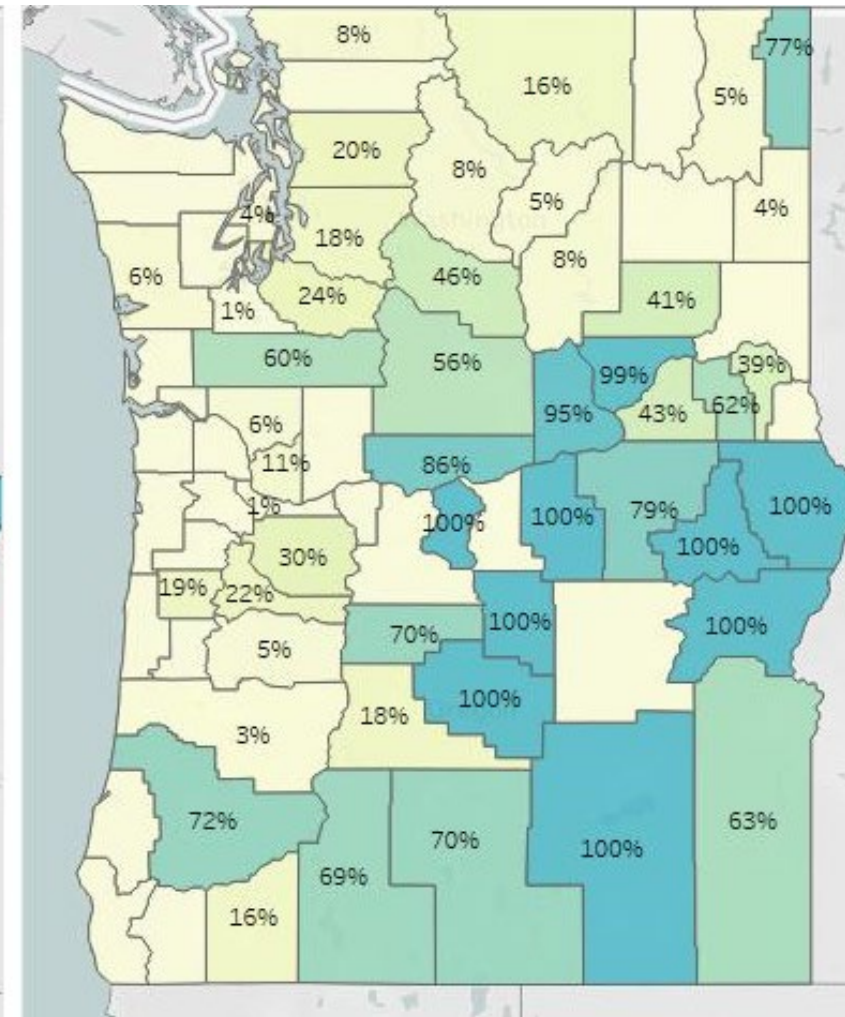
County populations, 2020



County retail bans December 2022



% county populations covered by bans



Local policies in Washington & Oregon, December 2022

| | | Washington | | | Oregon | | |
|---|--|------------|------------|---------------------|----------|------------|---------------------|
| # of cities* or counties with the policy shown (% of N) | | # Cities | # Counties | % state pop covered | # Cities | # Counties | % state pop covered |
| Broad regulation of retail sales/siting | | N=165 | N=39 | | N=122 | N=36 | |
| | Permanent or temporary retail ban | 66 (40%) | 9 (23%) | 20% | 35 (29%) | 15 (42%) | 15% |
| | Zoning regulations applied on retail | 80 (48%) | 26 (67%) | 75% | 77 (63%) | 18 (50%) | 80% |
| | No local policy actions (“silent”) | 19 (12%) | 4 (10%) | 5% | 10 (8%) | 3 (8%) | 5% |
| Specific retail regulations | | N=99 | N=30 | | N=87 | N=21 | |
| | Local marijuana-specific bus. License | 5 (5%) | 0 (0%) | 14% | 20 (23%) | 0 (0%) | 34% |
| | Local tax | N/A | N/A | | 79 (91%) | 12 (57%) | 72% |
| | Cap on retail facilities > than state | 6 (6%) | 0 (0%) | 6% | 0 | 0 | |
| | Marketing restrictions noted | 14 (14%) | 3 (10%) | 26% | 28 (32%) | 2 (10%) | 18% |
| | Place buffers/setbacks noted | 61 (62%) | 13 (43%) | 60% | 64 (73%) | 14 (67%) | 64% |
| | Place buffers/setbacks stronger than state | 15 (15%) | 9 (30%) | 24% | 49 (56%) | 12 (57%) | 40% |
| Commercial Production/Growing | | N=165 | N=39 | | N=122 | N=36 | |
| | All activities banned | 62 (38%) | 7 (18%) | 18% | 36 (30%) | 15 (42%) | 18% |
| | Outdoor banned | 99 (60%) | 13 (33%) | 45% | 76 (62%) | 16 (44%) | 50% |

* Cities with <2,000 population were not included, this was <2% of each state’s population

% of state populations covered by local cannabis retail sales bans

| | Washington | Oregon |
|---|------------|--------|
| Soon after implementation: 2016 (WA*) and 2017 (OR) | 30% | 17% |
| After market maturity: 2022 | 20% | 15% |

* 2016 WA data from Dilley JA, Hitchcock L, McGroder N, Greto LA, Richardson SM. Community-level policy responses to state marijuana legalization in Washington State. Int J Drug Policy. 2017 April ; 42: 102–108. available online at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5473373/pdf/nihms864551.pdf>

“bans” includes both temporary and permanent prohibition of retail sales

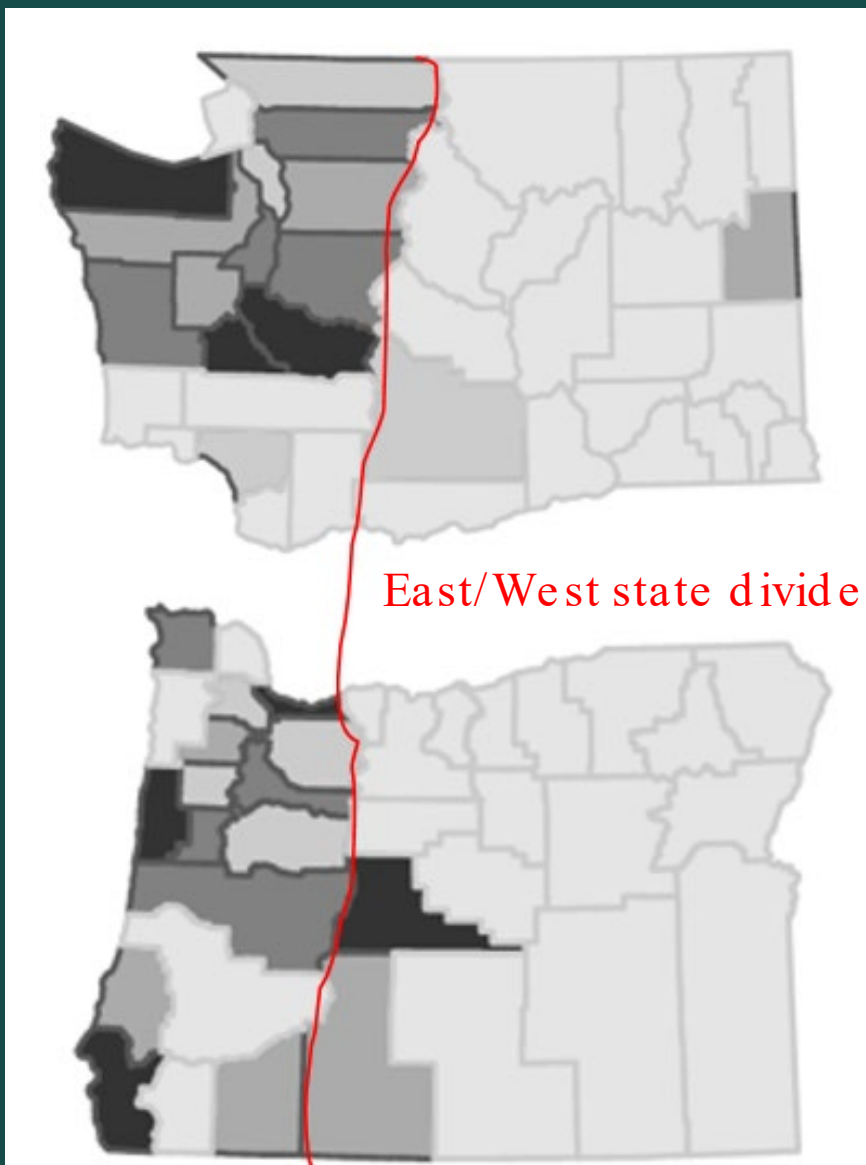
“Gray market” 2013

Both states had unregulated medical dispensaries operating prior to adult-use legalization.

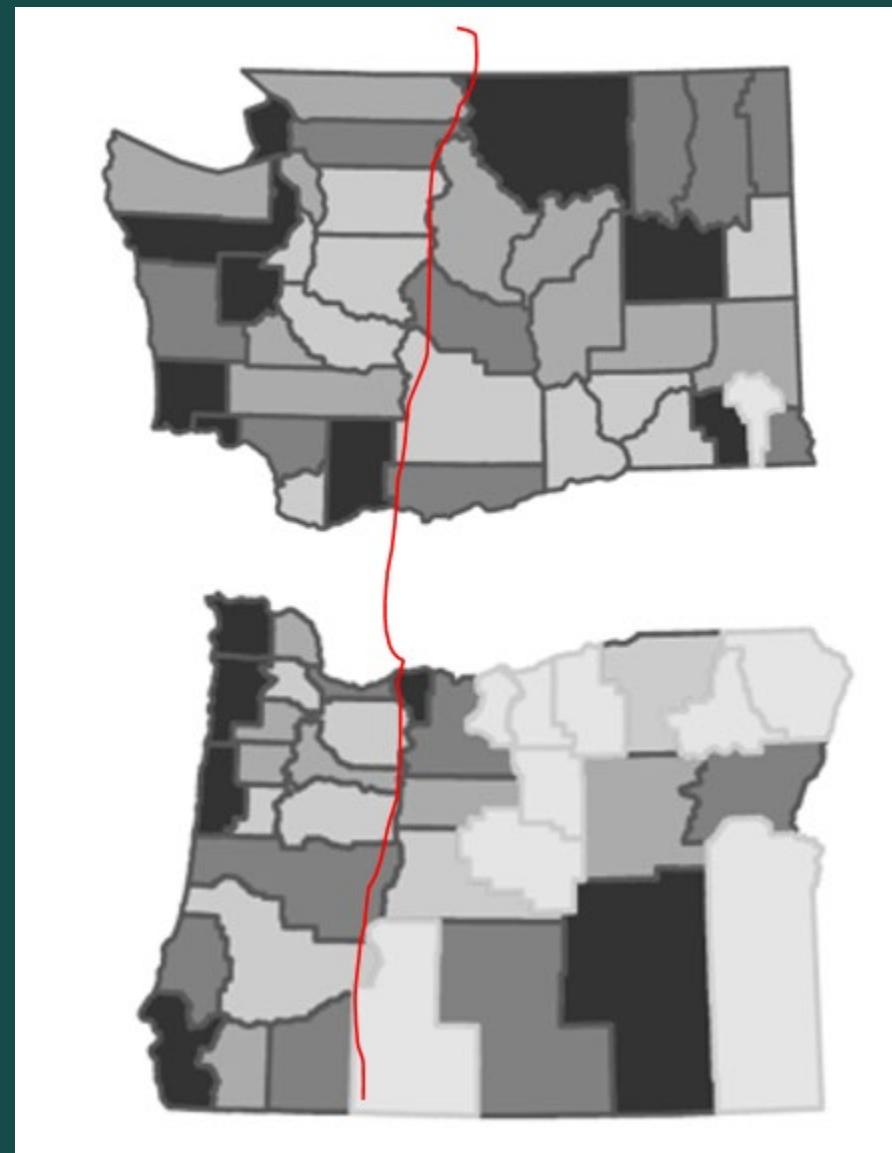
Both states increased cannabis sales outlets post-legalization, especially in Eastern regions (more rural, conservative)

WA: 153 to 335 tracts with outlets (2x as many census tracts with sales)

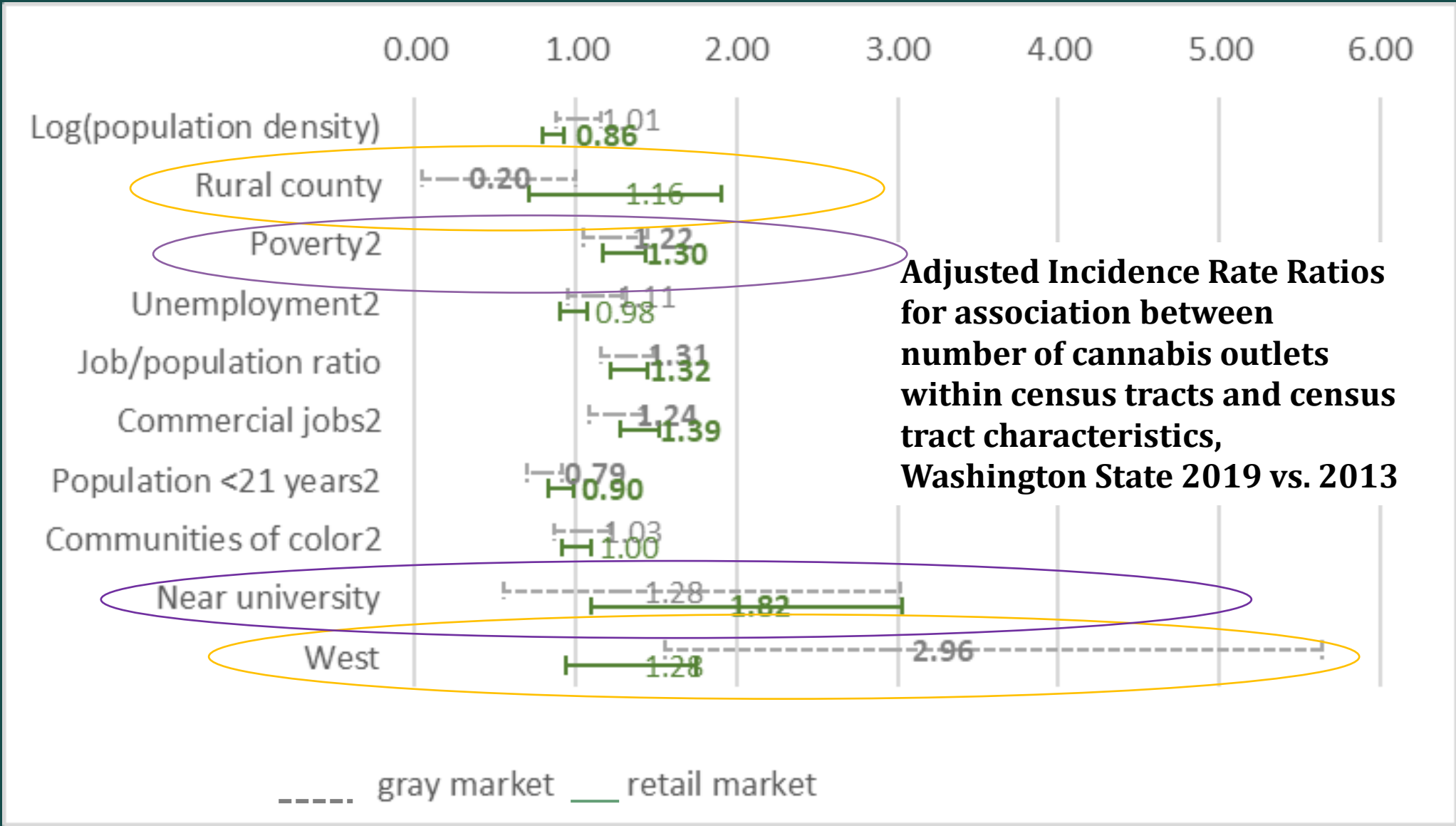
OR: 92 to 308 tracts with outlets (3x as many census tracts with sales)



“Green market” 2019



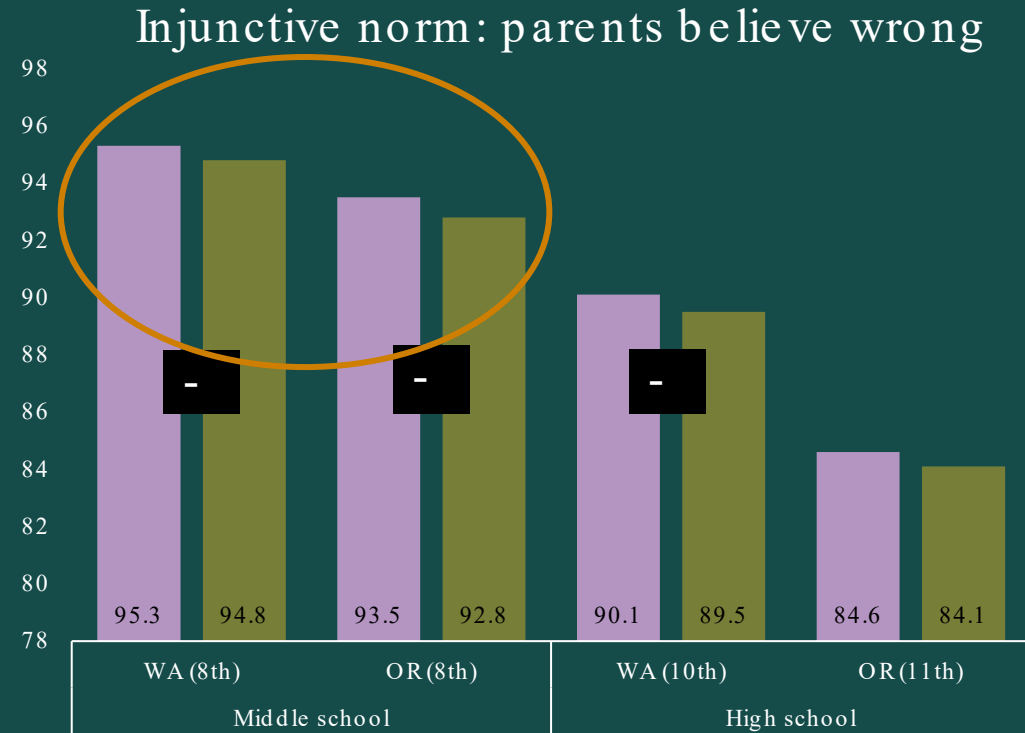
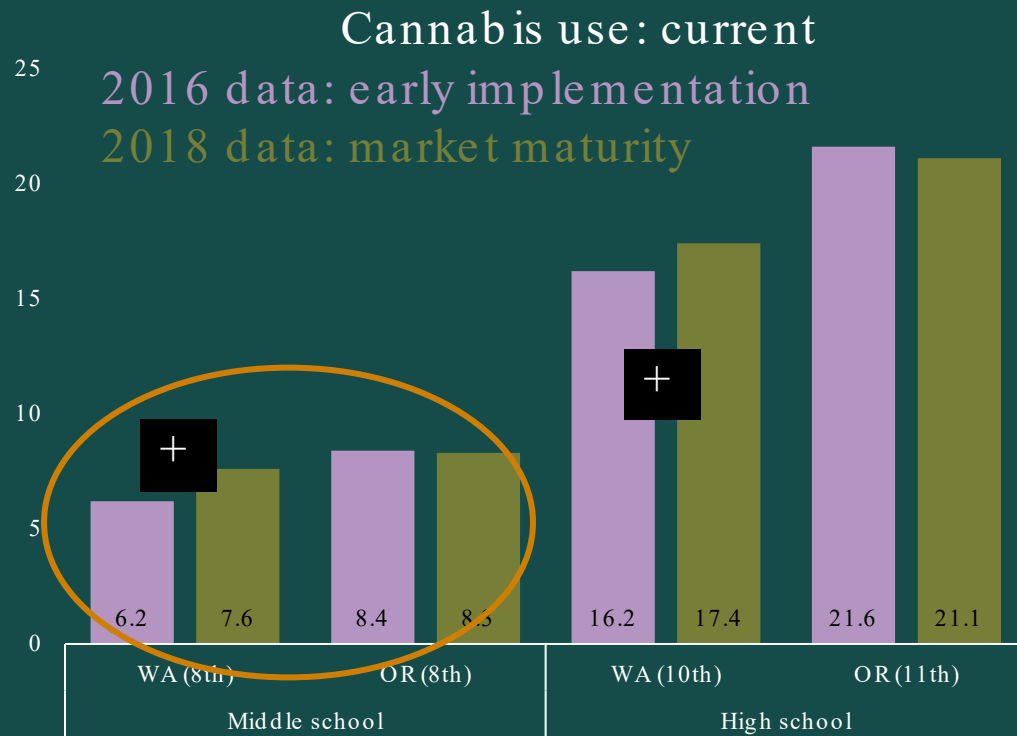
Rural and Eastern area communities are more affected by change;
Low income communities, university areas are consistently affected



Public Health Effects?

Youth cannabis use

General trends in cannabis risks among youth, middle and high school students, WA and OR (examples)



OR has slightly greater risks at both time periods vs. WA among 8th grade youth

+ statistically significant increase
- statistically significant decrease

Assessing behaviors associated with presence of local cannabis retail outlets (driven by local policies)

- Local area, time-varying exposure to cannabis retail (different metrics)
- Adults in Washington (see Everson, Dilley, et al., 2019)
 - Among adults living in communities <.8 miles from nearest retailer, current use increased (OR 1.45) and use on 20+ days/month increased (OR 1.43)
 - No increase in current use among adults living in communities averaging 18+ miles from retail
- Repeated methods for youth in OR & WA
 - Examined 8-9 outcomes: 2 measures of cannabis use (any, frequent), six (OR) to seven (WA) norms measure, and perceived access

Associations with retail proximity

| Adjusted odds for outcome associated w/ retail proximity* | Middle School | | High school | |
|--|--------------------|--------------------|---------------------|---------------------|
| Significant associations (OR with p<.05) are shown in bold | WA 8 th | OR 8 th | WA 10 th | OR 11 th |
| Cannabis use Values > 1 are “worse” | | | | |
| Current use (past 30 days) | 1.06 | 1.09 | 1.07 | 1.10 |
| Frequent use (10d+ WA, 20+ times OR) | 1.08 | 1.16 | 1.15 | 1.11 |
| Injunctive norms Values < 1 are “worse” | | | | |
| Youth personally believe it’s wrong to use | .95 | .95 | .92 | .95 |
| Friends believe it’s wrong | .94 | .92 | .92 | .93 |
| Parents believe it’s wrong | .92 | .93 | .91 | .89 |
| Adults in community think it’s wrong | .94 | n/a | .90 | n/a |
| Descriptive norms Values < 1 are “worse” | | | | |
| Great risk to try | .92 | .92 | .94 | .94 |
| Great risk to use regularly | .96 | .94 | .98 | .97 |
| Access Values > 1 are “worse” | | | | |
| Easy to get | 1.05 | 1.09 | 1.08 | 1.04 |

*proximity conceived as the inverse distance from school to nearest cannabis retailer. Dille, Guttmanova, et al. (in submission)

Summary of associations with retail presence

of significant associations that are “worse” from a prevention lens (prior table)

| Outcome domain | WA 8 th grade | OR 8 th grade | WA 10 th grade | OR 11 th grade |
|-----------------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|
| Cannabis use | 0/2 | 1/2 | 2/2 | 2/2 |
| Injunctive norms (“wrongness”) | 1/4 | 2/3 | 4/4 | 2/3 |
| Descriptive norms (“risk”) | 1/2 | 2/2 | 0/2 | 0/2 |
| Access | 0/1 | 1/1 | 1/1 | 0/1 |
| Total | 2/9 | 6/8 | 7/9 | 4/8 |

*proximity conceived as the inverse distance from school to nearest cannabis retailer. Dilley, Guttmanova, et al. (in submission)

Summary

“Legalization” (and expected effects) of cannabis policy change can vary

- By state: regulatory elements, dates of implementation and time to mature markets
- Within state: by city/county regulatory action, subsequent exposure to retail cannabis outlets
- Other factors matter, including prior (and later) presence of illicit or gray markets
 - also factors such as medical cannabis, prices, product types
- Effects of policy change might vary by specific populations (e.g., Graves et al., 2019)

Consider such variations when assessing evidence about associations between legalization and public health outcomes

Thank you

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Program Design & Evaluation Services

A shared unit of Multnomah County Health Department and Oregon Health
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