



# **10 Years After I-502: Public Health Outcomes in Washington's Legal Market**

**Washington State Liquor & Cannabis Board  
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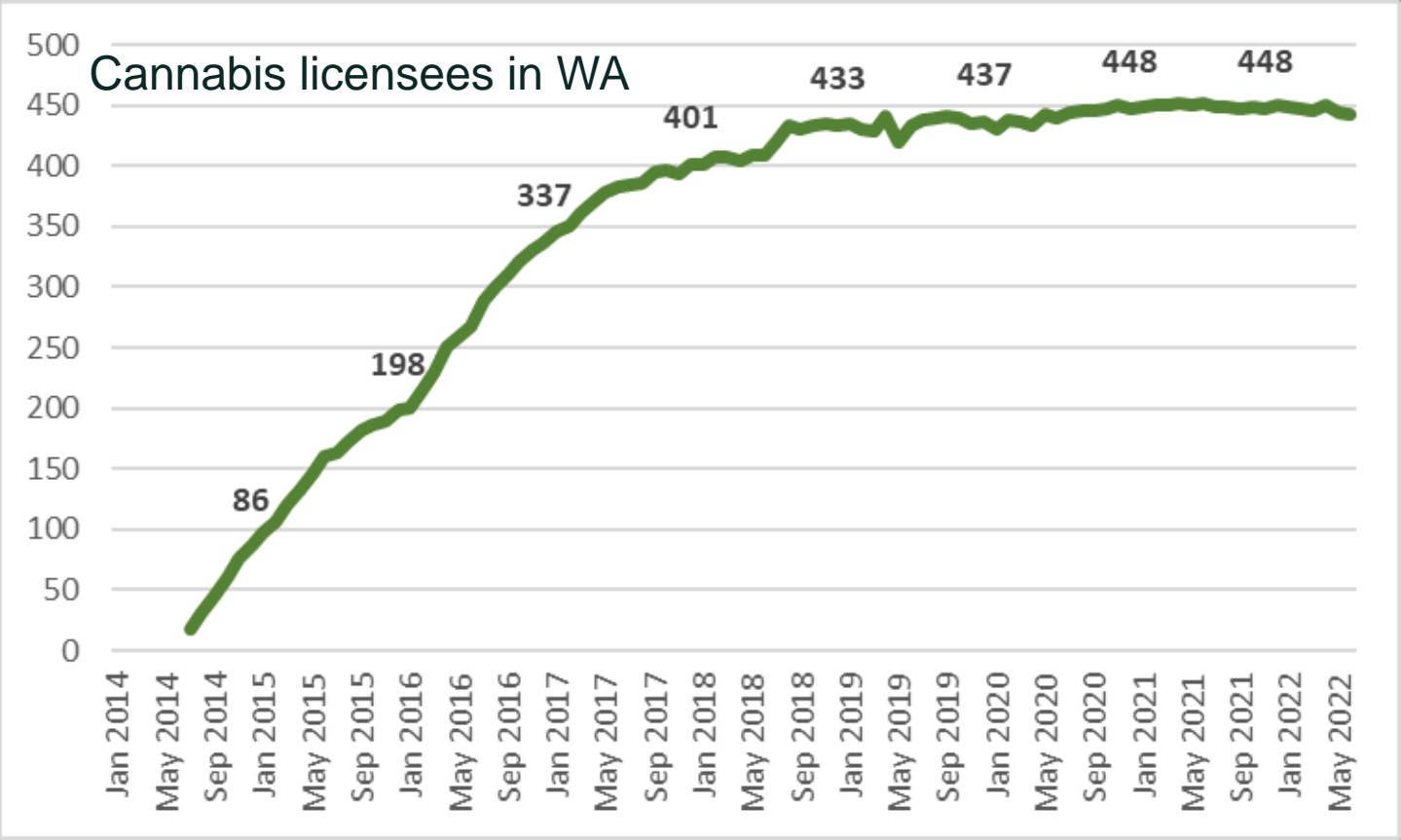
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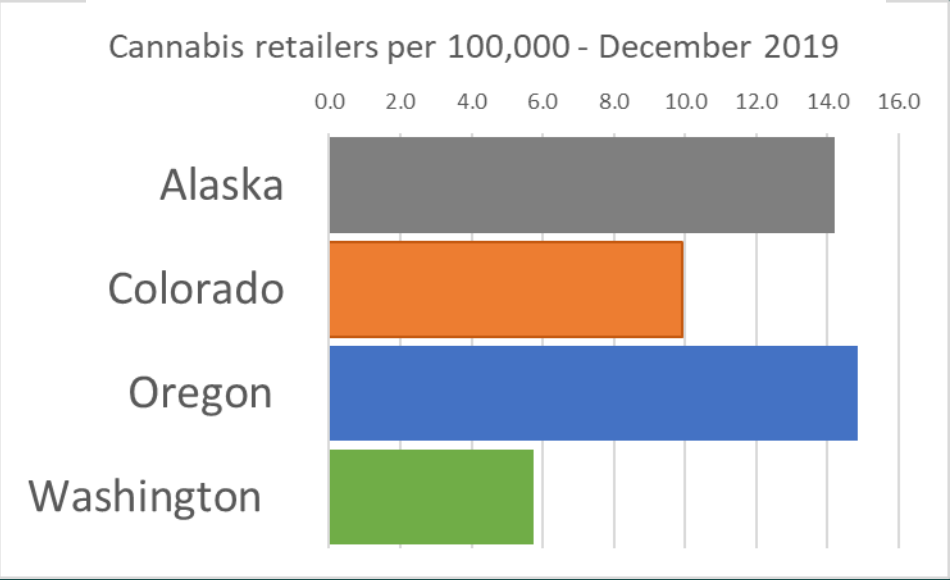
# Public Health data: 10 years since I-502

- **Positive regulatory approaches**
- **Trends in any use, product use**
- **Public health outcomes**

# Active Cannabis Retail Sales Outlets, WA



## Per-capita cannabis licensees in first 4 legalized states, 2019



Cannabis retailers licensed by WA LCB *and* reporting sales per month. Labeled values for December each year. Per capita retailers per 100,000 based on licensing data from regulatory agencies in each state.

# Child-resistant packaging

- **Background.** In 2017, concerns about child exposures led the WA Liquor & Cannabis Board to require “single serve” wrapping for edibles, and to have a label with the poison center phone number on edibles packaging.
- **Methods.** Difference-in-difference methods used to examine trends in US Poison Control Center data on cannabis poisoning with serious health outcomes for WA vs. other states, before and after the policy change.
- **Results.** Policy was associated with 25% reduction in edible poisoning reports for children <10; 51% reduction for ages 10-20, and 23% reduction for adults 55+, relative to pre-policy period and trend in other states.





# Changes in Allowed Advertising to Reduce Youth Appeal

- In Oregon in 2017, 72% of 8<sup>th</sup> grade and 78% of 11<sup>th</sup> grade students saw cannabis ads
  - 85% among 8<sup>th</sup> grade and 87% among 11<sup>th</sup> grade students with a cannabis retail <1 mile from their school
- Washington revised regulations in 2017 - below are now prohibited



Source: Lacey WA, August 2016; photo Dilley



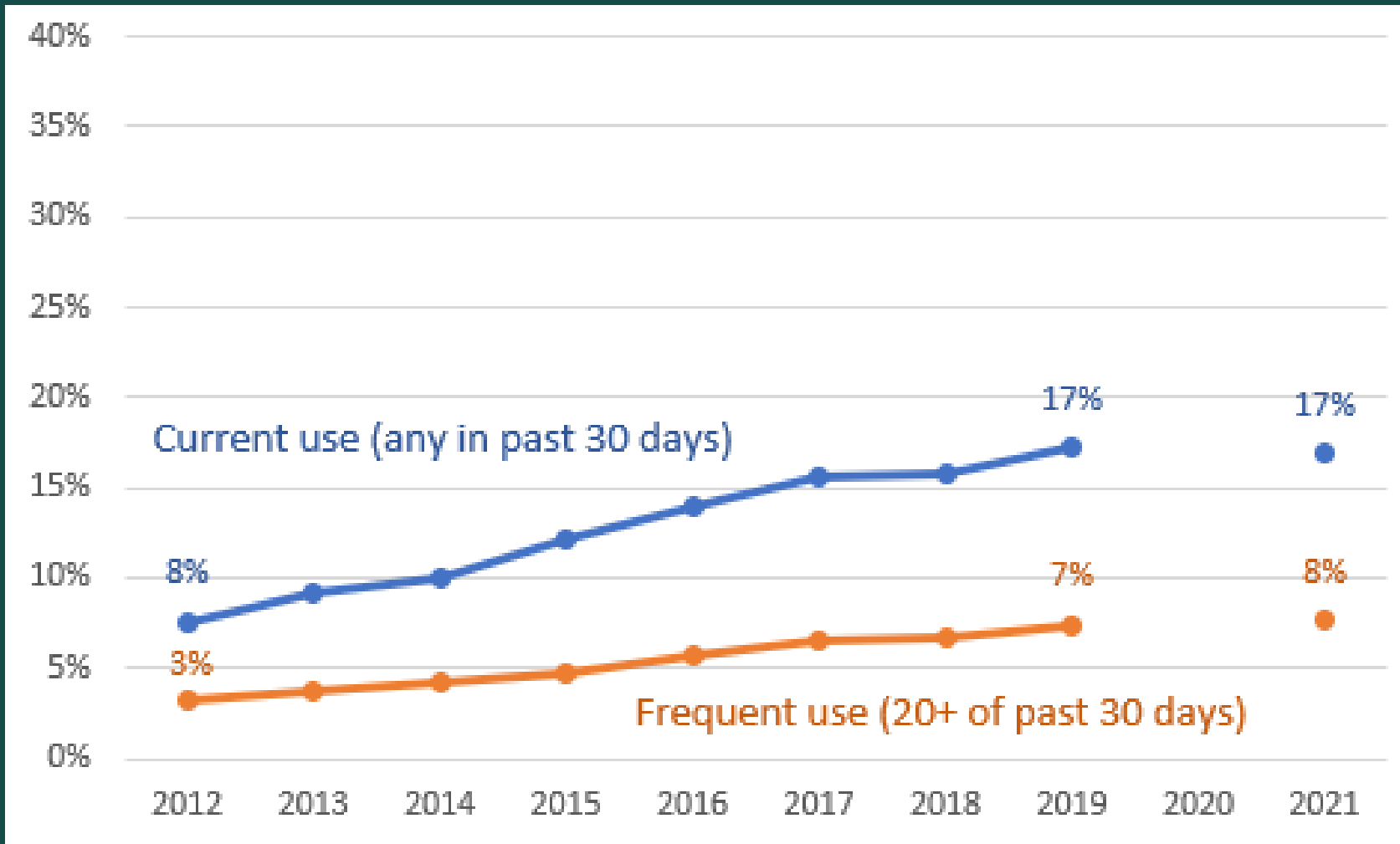
Source: Tacoma WA, March 2017; photo Tacoma News Tribune

# Trends in cannabis use

Adults: Behavioral Risk Factor Surveillance System (BRFSS)

Youth: Washington State Healthy Youth Survey (HYS)

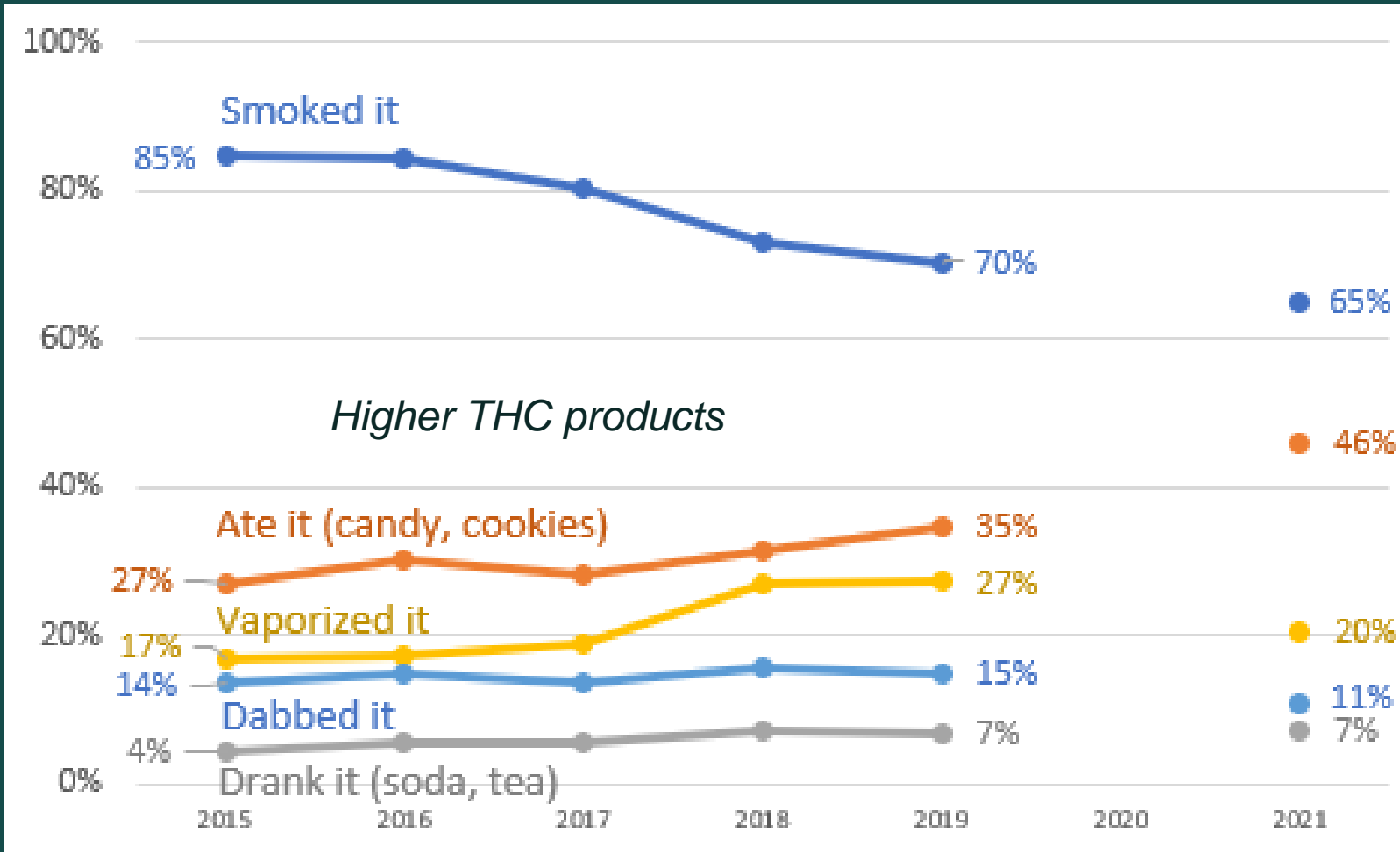
# Cannabis use in the past 30 days among Washington State adults, 2012-2021



- Increased current use and frequent use since legalization
- Stabilizing trend in past few years, including post-pandemic?



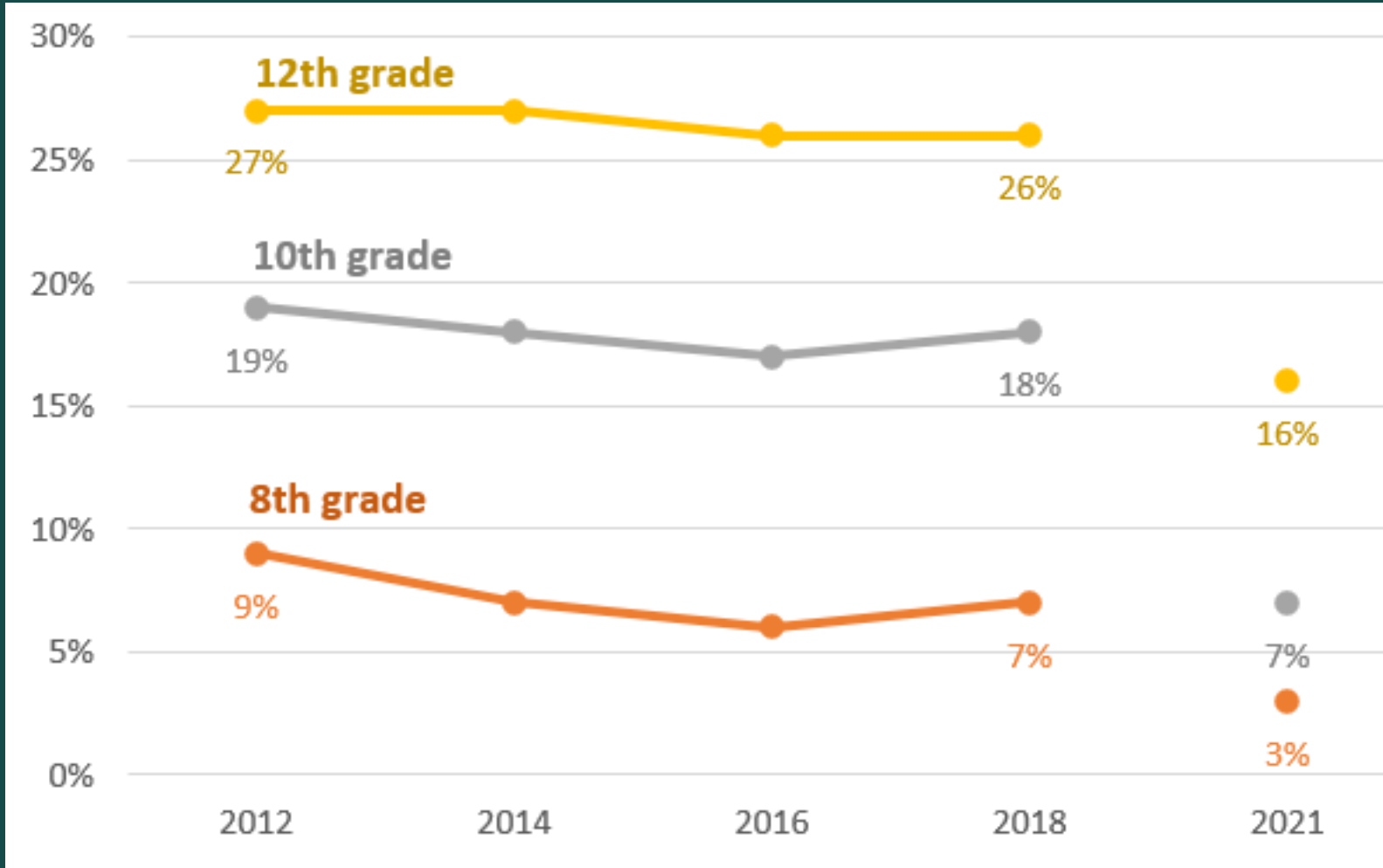
# Cannabis product types used (multi-select), among adults currently using cannabis, Washington, 2015-2019



- Declines in smoking cannabis
- Inclines in edible use
- Inclines in vaping use through 2019, drop in 2021

Source: Washington State Behavioral Risk Factor Surveillance System (BRFSS)

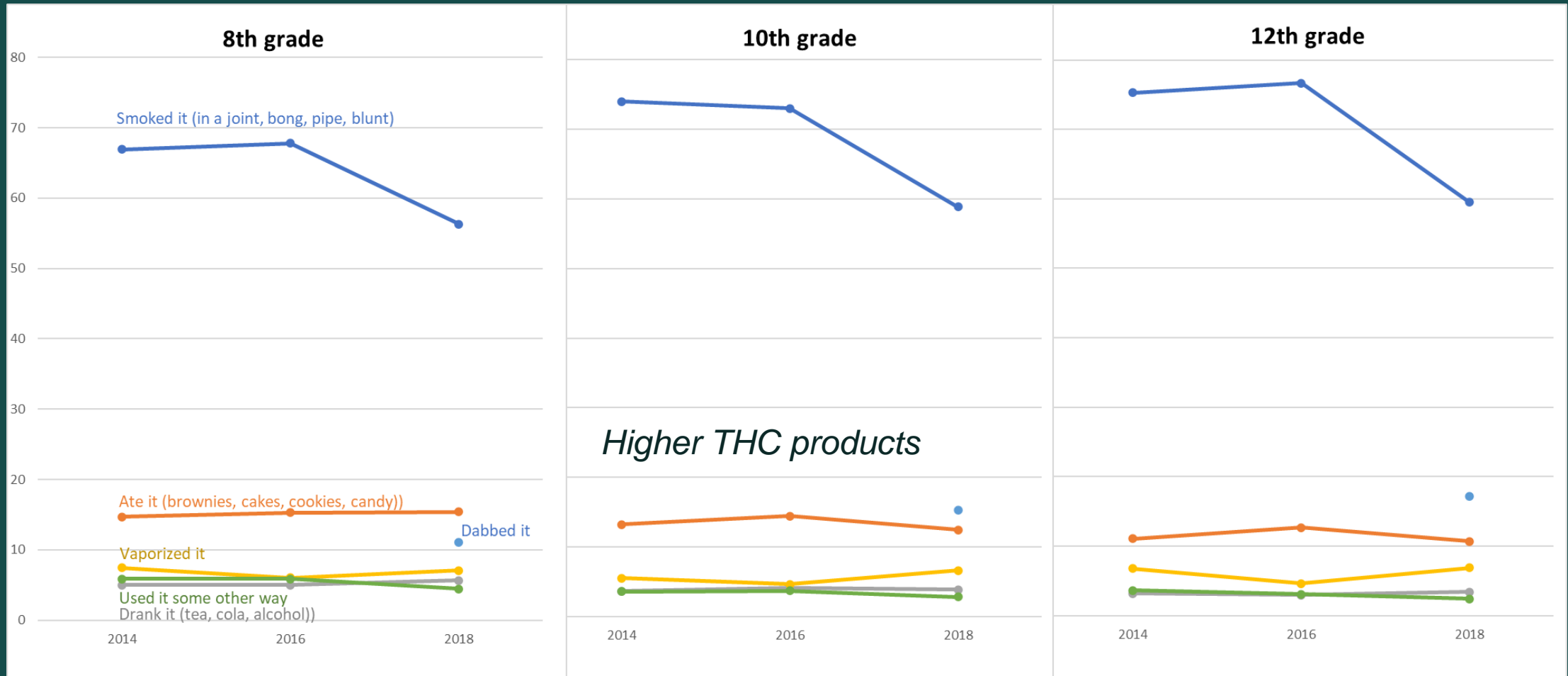
# Current cannabis use (any use in past 30 days) among Washington youth 2012-2021



- Generally, not increases in cannabis use among youth
- We have seen increases in some groups
  - Youth with part-time jobs (Graves 2019)
  - Youth with cannabis retail outlets near their school (Dilley 2022)
- 2021 data were impacted by pandemic and change in survey methods

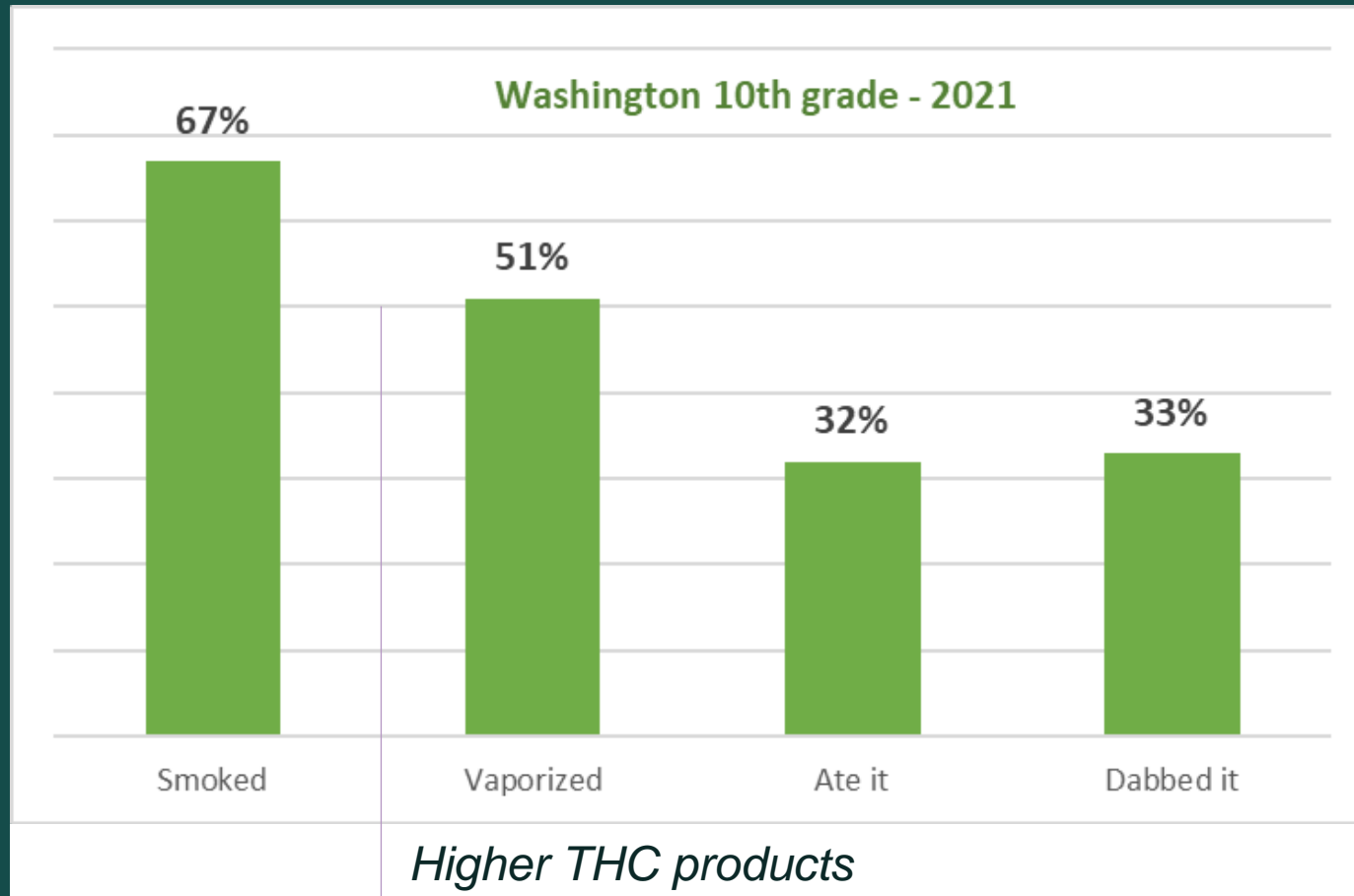
Source: Washington State Healthy Youth Survey, 2012, 2014, 2016, 2018, 2021; state sample

# “Usual way cannabis used” (single answer), among youth who used cannabis in past 30 days, Washington State



Source: Washington State Healthy Youth Survey, 2014, 2016, 2018; census dataset

**“Any way cannabis used”** (multi answer),  
among youth who used cannabis in past 30 days,  
Washington State 2021



# Other cannabis-related public health & safety measures

- **Emergency Department (ED) visits:** among Medicaid enrollees for 2006-2015, cannabis-related visits increased during the period, biggest increases in 2014-2015 (Hong 2018)
- **Hospitalizations:** Cannabis-related hospitalizations increased overall, including significantly among adults ages 51+, especially after markets opened. The percentage of cannabis-related hospitalizations that were for older adults increased from 2% in 1998 to 33% after 2014 (Close 2020)
- **Treatment admissions:** WSIPP study found no change in public-paid treatment for cannabis use disorder after legalization; a preliminary study from our research team suggests increases are seen among people who live close to cannabis retail outlets
- **Traffic crashes:** Multiple studies have examined this, including studies led by Banta-Green (2016). Increases noted in the percentage of drivers in fatal crashes who tested positive for Delta-9 THC (from 8-10% in 2008-2013 to 26% in 2017), but presence *does not confirm cannabis use caused or contributed to* the crash. Pandemic changes in traffic patterns further complicate understanding effects.

# Conclusions

- Cannabis regulations that prioritize public health and safety have mitigated harms
- Adult use has increased *overall*, including frequent use
- Youth use has *not* increased *overall*
- Examples of potential challenges ahead
  - Addressing changing products on the market and their increased use, especially with higher-THC concentration
  - Addressing risks identified for specific populations – youth who live close to cannabis retail outlets, older adults



# Thank you

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