**Washington's Young Adult Health Survey:
8 Years of Trends and Findings**

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Acknowledgements

- Thank you to Sandy Salivaras and Sarah Mariani for the invitation to present to today
- Thank you to CSHRB researchers I've had the honor of collaborating with who continue to advance the science related to cannabis use in a way that impacts the "real world":

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- Mary Larimer

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Why conduct research with young adults between the ages of 18-25?

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Past year cannabis use by age group

Source: SAMHSA 2020 National Survey on Drug Use and Health

Percentage with past year cannabis use

- 12 to 17 year olds: 10.1%
- 18 to 25 year olds: 34.5%
- 26 years and older: 16.3%
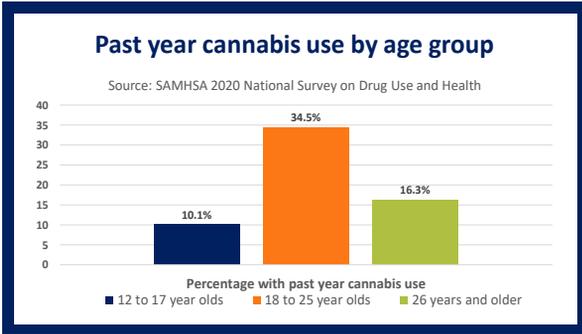
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Washington Young Adult Health Survey (YAHS)

- Funded by Division of Behavioral Health & Recovery (DBHR):
  - Sarah Mariani
  - Sandy Salivaras
- Young Adult Health Survey Team:
  - Jason Kilmer
  - Mary Larimer
  - Isaac Rhew
  - Alice Yan
  - Rose Lyles-Riebli

Washington State Health Care Authority (Division of Behavioral Health and Recovery) (PI: Kilmer).

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Young Adult Health Survey Recruitment

- Aimed to collect all Year One data before the first store opened in July 2014
  - 69.3% collected before the first store opened
  - Remaining 30.7% collected into August 2014
    - Only 18 stores had opened statewide in July
    - Only 31 stores had opened by August

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Young Adult Health Survey Recruitment

- Participants recruited using a combination of direct mail advertising to a random sample from DOL, as well as online advertising (Facebook, Craigslist, Instagram, study web site, etc.)
- Assessed demographics on ongoing basis and modified strategies to recruit under-represented groups
- Convenience sample, not a random sample

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Post-stratification weighting and analyses

- To improve generalizability, used post-stratification weights based on gender, race, and geographic region
- Weighted results are consistently very similar to non-weighted

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Young Adult Health Survey

- Each year we collect data from a new cohort of 18-25 year olds

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Sample sizes over time

- Cohort 1 (2014): 2,101
- Cohort 2 (2015): 1,675
- Cohort 3 (2016): 2,493
- Cohort 4 (2017): 2,342
- Cohort 5 (2018): 2,412
- Cohort 6 (2019): 1,942
- Cohort 7 (2020) 1,643
- Cohort 8 (2021): 1,756
- **TOTAL:** **16,364**

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Young Adult Health Survey

- Each year we follow up with previous cohorts
- Our 9th year of data collection is underway (and the cohort we recruited as 18-25 year olds in 2014 is now 26-33)
- Dr. Katarina Guttmannova applied for and obtained a secondary data analysis grant (NIDA grant R01DA047996, PI: Guttmannova)

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Kilmer, J.R., Rhew, I.C., Guttmannova, K., Fleming, C.B., Hultgren, B., Gilson, M.S., Cooper, R.L., Dilley, J., & Larimer, M.E. (2022). Cannabis use among young adults in Washington State after legalization of nonmedical cannabis. American Journal of Public Health, 112, 638-645.

- n=12,963 young adults in Washington over 6 time points
- Included covariates for:
  - Sex assigned at birth
  - Race
  - Ethnicity
  - Geographic region of the state
  - Age
  - Attending 4 year college
  - Full time employment status
- Computed post-stratification weights to further control for distribution across the samples

Cannabis Use Among Young Adults in Washington State After Legalization of Nonmedical Cannabis

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Kilmer, et al. (2022)

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Any past year cannabis use

Kilmer, et al. (2022)

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At least monthly cannabis use

Kilmer, et al. (2022)
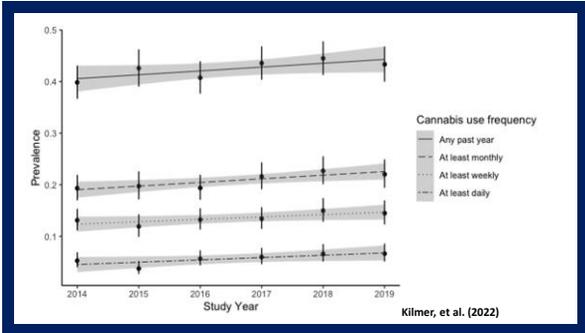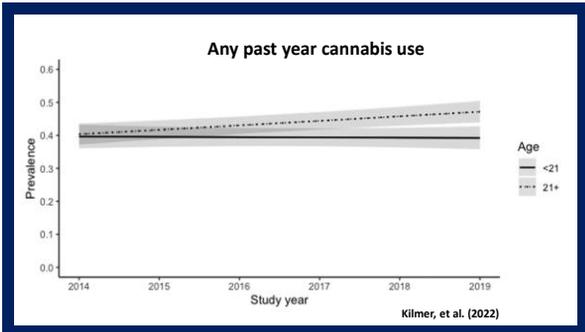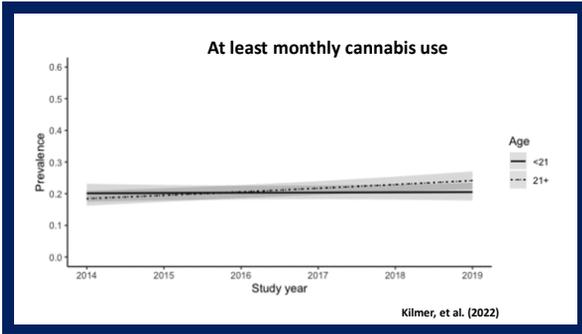
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MaCoun (2013), Frontiers in Psychiatry

Criterion	DSM-IV substance dependence	DSM-5 substance use disorder
Tolerance	✓	✓
Withdrawal	✓	✓
Taken more/longer than intended	✓	✓
Desire/unsuccessful efforts to quit use	✓	✓
Great deal of time taken by activities involved in use	✓	✓
Use despite knowledge of problems associated with use	✓	✓
Important activities given up because of use	✓	✓
Recurrent use resulting in a failure to fulfill important role obligations		✓
Recurrent use resulting in physically hazardous behavior (e.g., driving)		✓
Continued use despite recurrent social problems associated with use		✓
Craving for the substance		✓

DSM-5 Cannabis Use Disorder Criteria

Mild: 2-3 symptoms
Moderate: 4-5 symptoms
Severe: 6+ symptoms

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At least 2 past-year CUD symptoms

Kilmer, et al. (2022)

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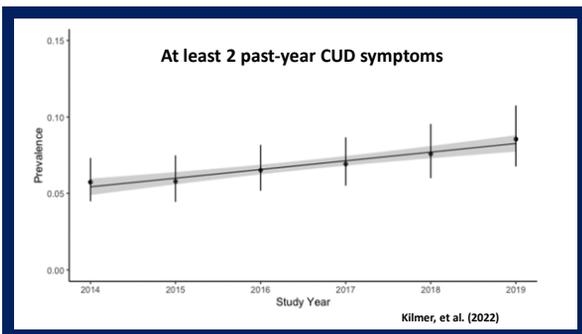
What have trends looked like in the two
years that followed?

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Any past year "recreational"/non-medical/personal use:
Final five cohorts higher than cohort 1

	Cohort 1 (2014)	Cohort 2 (2015)	Cohort 3 (2016)	Cohort 4 (2017)	Cohort 5 (2018)	Cohort 6 (2019)	Cohort 7 (2020)	Cohort 8 (2021)	Total across 8 years
18-20	43.27%	44.82%	40.94%	43.41%	44.42%	43.68%	40.39%	44.89%	43.24%
21-25	43.67%	47.09%	46.55%	49.75%	50.87%	49.61%	52.29%	55.21%	49.15%
TOTAL	43.51%	46.29%	44.76%	47.43%	48.49%	47.24%	47.94%	51.19%	46.99%

Regression models:
Cohort 1 vs. Cohorts 2-8:
Compared to Cohort 1, significantly higher prevalence for
- Cohort 4 (t=2.29, p<.05; odds ratio = 1.171)
- Cohort 5 (t=2.96, p<.01; odds ratio = 1.222)
- Cohort 6 (t=2.11, p<.05; odds ratio = 1.163)
- Cohort 7 (t=2.41, p<.05; odds ratio = 1.196)
- Cohort 8 (t=4.19, p<.001; odds ratio = 1.361)

Source: Young Adult Health Survey,
Preliminary Data Report to DBHR, Kilmer (PI)

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Any past year "recreational"/non-medical/personal use:
Increasing over time

	Cohort 1 (2014)	Cohort 2 (2015)	Cohort 3 (2016)	Cohort 4 (2017)	Cohort 5 (2018)	Cohort 6 (2019)	Cohort 7 (2020)	Cohort 8 (2021)	Total across 8 years
18-20	43.27%	44.82%	40.94%	43.41%	44.42%	43.68%	40.39%	44.89%	43.24%
21-25	43.67%	47.09%	46.55%	49.75%	50.87%	49.61%	52.29%	55.21%	49.15%
TOTAL	43.51%	46.29%	44.76%	47.43%	48.49%	47.24%	47.94%	51.19%	46.99%

Regression models:
Linear trend from Cohort 1 to Cohort 8:
Significant (t=4.27, p<.001)
Odds ratio = 1.030 (odds of recreational marijuana use are 3.0% higher with each successive year/cohort)
Age by cohort interaction:
Significant (t=2.65, p<.01)

Source: Young Adult Health Survey,
Preliminary Data Report to DBHR, Kilmer (PI)

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Any past year "recreational"/non-medical/personal use: Increasing over time

	Cohort 1 (2014)	Cohort 2 (2015)	Cohort 3 (2016)	Cohort 4 (2017)	Cohort 5 (2018)	Cohort 6 (2019)	Cohort 7 (2020)	Cohort 8 (2021)	Total across 8 years
18-20	43.27%	44.82%	40.94%	43.41%	44.42%	43.68%	40.39%	44.89%	43.24%
21-25	43.67%	47.09%	46.55%	49.75%	50.87%	49.61%	52.29%	55.21%	49.15%
TOTAL	43.51%	46.29%	44.76%	47.43%	48.49%	47.24%	47.94%	51.19%	46.99%

Model split by over/under 21
18-20:
No significant linear trend
21-25:
Significant increasing trend over time (t=5.46, p<.001)
Odds ratio = 1.058 (odds of recreational marijuana use are 5.8% higher with each successive year/cohort)

Source: Young Adult Health Survey,
Preliminary Data Report to DBHR, Kilmer (PI)

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Source: Young Adult Health Survey,
Preliminary Data Report to DBHR, Kilmer (PI)

Non-medical (or "recreational") use in the past year by age group

Past year prevalence of non-medical use

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At least monthly "recreational"/non-medical/personal use: Final four cohorts higher than cohort 1

	Cohort 1 (2014)	Cohort 2 (2015)	Cohort 3 (2016)	Cohort 4 (2017)	Cohort 5 (2018)	Cohort 6 (2019)	Cohort 7 (2020)	Cohort 8 (2021)	Total across 8 years
18-20	24.08%	24.88%	21.19%	23.56%	27.06%	23.24%	23.17%	24.16%	23.95%
21-25	23.63%	23.56%	25.12%	28.07%	27.88%	29.55%	33.81%	33.86%	27.87%
TOTAL	23.81%	24.03%	23.84%	26.46%	27.62%	27.09%	29.99%	30.11%	26.45%

Regression models:
Cohort 1 vs. Cohorts 2-8:
Compared to Cohort 1, significantly higher prevalence for
• Cohort 5 (t=2.56, p<.01; odds ratio = 1.221)
• Cohort 6 (t=2.08, p<.05; odds ratio = 1.189)
• Cohort 7 (t=3.73, p<.001; odds ratio = 1.365)
• Cohort 8 (t=3.88, p<.001; odds ratio = 1.379)

Source: Young Adult Health Survey,
Preliminary Data Report to DBHR, Kilmer (PI)

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At least monthly "recreational"/non-medical/personal use: Increasing over time

	Cohort 1 (2014)	Cohort 2 (2015)	Cohort 3 (2016)	Cohort 4 (2017)	Cohort 5 (2018)	Cohort 6 (2019)	Cohort 7 (2020)	Cohort 8 (2021)	Total across 8 years
18-20	24.08%	24.88%	21.19%	23.56%	27.06%	23.24%	23.17%	24.16%	23.95%
21-25	23.63%	23.56%	25.12%	28.07%	27.88%	29.55%	33.81%	33.86%	27.87%
TOTAL	23.81%	24.03%	23.84%	26.46%	27.62%	27.09%	29.99%	30.11%	26.45%

Regression models:
Linear trend from Cohort 1 to Cohort 8:
Significant (t=5.53, p<.001)
Odds ratio = 1.053 (odds of recreational marijuana use are 5.3% higher with each successive year/cohort)
Age by cohort interaction:
Significant (t=3.90, p<.001)

Source: Young Adult Health Survey,
Preliminary Data Report to DBHR, Kilmer (PI)

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At least monthly "recreational"/non-medical/personal use: Increasing over time

	Cohort 1 (2014)	Cohort 2 (2015)	Cohort 3 (2016)	Cohort 4 (2017)	Cohort 5 (2018)	Cohort 6 (2019)	Cohort 7 (2020)	Cohort 8 (2021)	Total across 8 years
18-20	24.08%	24.88%	21.19%	23.56%	27.06%	23.24%	23.17%	24.16%	23.95%
21-25	23.63%	23.56%	25.12%	28.07%	27.88%	29.55%	33.81%	33.86%	27.87%
TOTAL	23.81%	24.03%	23.84%	26.46%	27.62%	27.09%	29.99%	30.11%	26.45%

Model split by over/under 21
18-20:
No significant linear trend
21-25:
Significant increasing trend over time (t=6.82, p<.001)
Odds ratio = 1.083 (odds of recreational marijuana use are 8.3% higher with each successive year/cohort)

Source: Young Adult Health Survey,
Preliminary Data Report to DBHR, Kilmer (PI)

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At least monthly non-medical (or "recreational") use by age group

Source: Young Adult Health Survey,
Preliminary Data Report to DBHR, Kilmer (PI)

At least monthly prevalence of non-medical use

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At least weekly "recreational"/non-medical/personal use: Final two cohorts higher than cohort 1

	Cohort 1 (2014)	Cohort 2 (2015)	Cohort 3 (2016)	Cohort 4 (2017)	Cohort 5 (2018)	Cohort 6 (2019)	Cohort 7 (2020)	Cohort 8 (2021)	Total across 8 years
18-20	16.51%	13.43%	13.30%	15.40%	18.56%	14.41%	15.21%	16.86%	15.57%
21-25	16.86%	16.21%	18.55%	18.42%	19.22%	21.39%	24.07%	24.59%	19.67%
TOTAL	16.72%	15.23%	16.85%	17.37%	19.03%	18.59%	20.84%	21.62%	18.18%

Regression models:
Cohort 1 vs. Cohorts 2-8:
Compared to Cohort 1, significantly higher prevalence for
- Cohort 7 (t=2.86, p<.01; odds ratio = 1.311)
- Cohort 8 (t=3.37, p<.001; odds ratio = 1.374)

Source: Young Adult Health Survey,
Preliminary Data Report to DBHR, Kilmer (PI)

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At least weekly "recreational"/non-medical/personal use: Increasing over time

	Cohort 1 (2014)	Cohort 2 (2015)	Cohort 3 (2016)	Cohort 4 (2017)	Cohort 5 (2018)	Cohort 6 (2019)	Cohort 7 (2020)	Cohort 8 (2021)	Total across 8 years
18-20	16.51%	13.43%	13.30%	15.40%	18.56%	14.41%	15.21%	16.86%	15.57%
21-25	16.86%	16.21%	18.55%	18.42%	19.22%	21.39%	24.07%	24.59%	19.67%
TOTAL	16.72%	15.23%	16.85%	17.37%	19.03%	18.59%	20.84%	21.62%	18.18%

Regression models:
Linear trend from Cohort 1 to Cohort 8:
Significant (t=4.95, p<.001)
Odds ratio = 1.055 (odds of recreational marijuana use are 5.3% higher with each successive year/cohort)
Age by cohort interaction:
Significant (t=2.00, p<.05)

Source: Young Adult Health Survey,
Preliminary Data Report to DBHR, Kilmer (PI)

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At least weekly "recreational"/non-medical/personal use: Increasing over time

	Cohort 1 (2014)	Cohort 2 (2015)	Cohort 3 (2016)	Cohort 4 (2017)	Cohort 5 (2018)	Cohort 6 (2019)	Cohort 7 (2020)	Cohort 8 (2021)	Total across 8 years
18-20	16.51%	13.43%	13.30%	15.40%	18.56%	14.41%	15.21%	16.86%	15.57%
21-25	16.86%	16.21%	18.55%	18.42%	19.22%	21.39%	24.07%	24.59%	19.67%
TOTAL	16.72%	15.23%	16.85%	17.37%	19.03%	18.59%	20.84%	21.62%	18.18%

Model split by over/under 21
18-20:
No significant linear trend
21-25:
Significant increasing trend over time (t=5.62, p<.001)
Odds ratio = 1.078 (odds of recreational marijuana use are 7.8% higher with each successive year/cohort)

Source: Young Adult Health Survey,
Preliminary Data Report to DBHR, Kilmer (PI)

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Source: Young Adult Health Survey, Preliminary Data Report to DBHR, Kilmer (PI)

At least weekly non-medical (or "recreational") use by age group
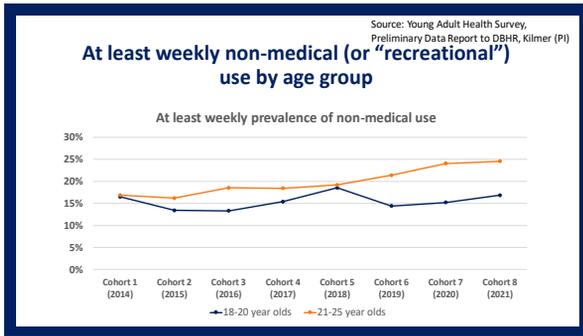
At least weekly prevalence of non-medical use

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Perceptions of non-medical cannabis use

	Cohort 1 2014	Cohort 2 2015	Cohort 3 2016	Cohort 4 2017	Cohort 5 2018	Cohort 6 2019	Cohort 7 2020	Cohort 8 2021	
Never	2.41%	2.42%	1.61%	2.31%	2.06%	1.50%	2.38%	1.92%	Although 21.62% use at least weekly (meaning most don't), 68.48% think the typical person their age uses weekly
Once a year	1.82%	2.10%	1.74%	1.92%	1.27%	0.75%	1.32%	1.15%	
2 to 3 times a year	8.22%	10.12%	6.73%	6.40%	3.89%	3.31%	2.23%	3.87%	
Every other month	6.98%	7.29%	5.32%	4.59%	3.14%	3.90%	4.42%	3.48%	
Once a month	9.74%	11.15%	10.41%	9.07%	6.88%	5.51%	6.39%	7.07%	
2-3x/month	17.98%	19.68%	19.83%	18.91%	13.47%	13.93%	14.32%	14.04%	
Once per week	12.65%	12.72%	15.43%	13.89%	14.28%	12.91%	12.64%	14.11%	
More than 1x/wk	22.08%	20.70%	21.42%	23.94%	27.12%	25.90%	28.57%	29.17%	
Every other day	9.27%	6.87%	8.56%	8.65%	11.10%	12.25%	13.10%	10.45%	
Every day	8.84%	6.95%	8.96%	10.31%	16.79%	20.03%	14.62%	14.75%	

** In ordinal logistic models, Cohort 4 (t=2.57, p<.01), Cohort 5 (t=10.66, p<.001), Cohort 6 (t=12.35, p<.001), Cohort 7 (t=9.72, p<.001), and Cohort 8 (t=9.02, p<.001) have higher perceived recreational marijuana norms compared to cohort 1; but cohort 2 has lower norms compared to cohort 1 (t= -3.35 p<.001) **
** Overall, a significant increasing linear trend over time (t=18.28, p<.001) **

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	Cohort 1 2014	Cohort 2 2015	Cohort 3 2016	Cohort 4 2017	Cohort 5 2018	Cohort 6 2019	Cohort 7 2020	Cohort 8 2021
From friends	72.86%	76.24%	69.68%	77.40%	63.75%	60.74%	66.87%	65.62%
Gave money to someone	23.29%	26.47%	34.72%	41.45%	39.29%	43.17%	40.55%	39.80%
Got it from someone w/ medical mj. card	17.60%	14.12%	4.30%	5.24%	2.79%	2.82%	4.27%	4.58%
Got it from a med. dispensary	13.65%	18.99%	5.58%	4.72%	6.50%	8.28%	8.41%	12.03%
Got it at a party	22.99%	22.14%	23.08%	24.92%	20.12%	22.91%	8.82%	24.67%
Got it from family	5.65%	5.18%	11.75%	9.75%	11.24%	10.92%	13.49%	7.09%
Got it some other way	11.64%	4.12%	6.12%	9.02%	7.30%	6.21%	5.04%	6.24%
Bought from retail store	0.99%	4.58%	1.73%	1.92%	2.03%	3.55%	1.58%	1.03%
Got it from parents w/ permission	5.75%	6.02%	12.33%	10.44%	11.69%	12.91%	13.08%	13.91%
Grew it themselves	1.91%	1.15%	1.65%	0.23%	1.47%	2.78%	1.64%	0.42%
Stole it from store/dispensary	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.16%	2.40%

Where people get cannabis
For 18-20 year olds...

Decreasing
* Getting it from friends
* Getting it from someone with a medical marijuana card

Increasing
* Giving money to someone
* Getting it from parents with permission
* Stole it from a store/dispensary

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	Cohort 1 2014	Cohort 2 2015	Cohort 3 2016	Cohort 4 2017	Cohort 5 2018	Cohort 6 2019	Cohort 7 2020	Cohort 8 2021
From friends	67.50%	54.89%	42.78%	36.51%	33.80%	25.72%	20.26%	26.44%
Gave money to someone	19.87%	10.72%	8.10%	5.64%	4.97%	3.63%	5.08%	4.61%
Got it from someone w/ medical mj. card	18.85%	9.41%	2.53%	2.02%	0.17%	0.65%	0.27%	0.62%
Got it from a med. dispensary	20.65%	13.03%	12.60%	9.96%	10.15%	14.23%	14.71%	15.62%
Got it at a party	11.81%	10.76%	10.93%	8.06%	6.54%	5.76%	1.57%	7.12%
Got it from family	11.48%	8.26%	4.08%	7.04%	5.76%	4.37%	4.02%	5.52%
Got it some other way	5.13%	6.68%	3.29%	3.41%	3.71%	3.71%	1.24%	2.13%
Bought from retail store	8.80%	51.86%	72.60%	76.31%	80.06%	78.03%	77.27%	74.42%
Got it from parents w/ permission	4.56%	3.50%	2.02%	4.28%	4.47%	3.15%	2.75%	4.75%
Grew it themselves	1.51%	3.01%	1.49%	1.82%	1.81%	0.71%	1.11%	1.74%
Stole it from store/dispensary	2.84%	0.17%	0.60%	0.29%	0.17%	0.11%	0.97%	0.43%

Where people get cannabis
For 21-25 year olds…

Decreasing
* Getting it from friends
* Gave money to someone
* Getting it from someone with a medical marijuana card
* Getting it at a party
* Getting it from family
* Getting it some other way

Increasing
* Bought from a retail store

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Driving after cannabis use

"During the past 30 days, how many times did you drive a car or other vehicle within three hours after using cannabis (e.g., marijuana, hashish, edibles)?"

	Cohort 1 2014	Cohort 2 2015	Cohort 3 2016	Cohort 4 2017	Cohort 5 2018	Cohort 6 2019	Cohort 7 2020	Cohort 8 2021
Never	50.59%	55.29%	58.19%	58.56%	58.73%	61.80%	65.00%	66.38%
1 time	14.13%	13.13%	12.50%	12.85%	12.11%	8.32%	9.56%	10.25%
2-3 times	13.28%	12.34%	11.97%	11.98%	10.59%	11.66%	11.24%	10.51%
4-5 times	6.43%	4.35%	3.48%	4.48%	6.04%	4.00%	4.51%	4.39%
6 or more times	15.57%	14.88%	13.85%	12.12%	12.52%	14.21%	9.69%	8.47%

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Medical cannabis

- No significant differences in any past year use nor overall categories of use
- Perceptions of medical use increasing significantly (both a linear trend, and past 5 cohorts higher than cohort 1)

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Other substances

- Significant decreasing trend in:
  - Alcohol, at least once in past year
  - Alcohol, at least monthly
  - Cigarettes, at least once in the past year
  - Pain relievers to get high, at least once in the past year
  - Opiates, at least once in the past year

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Perceived risk of cannabis use keeps decreasing

- **Cannabis**
  - Physical risk of occasional cannabis use
  - Psychological/emotional risk of occasional cannabis use
  - Physical risk of regular cannabis use
  - Psychological/emotional risk of regular cannabis use
- **Alcohol**
  - Physical risk of 2 drinks every day
  - Psychological risk of 2 drinks every day
  - Physical risk of 5+ drinks every weekend
  - Psychological risk of 5+ drinks every weekend

Gilson, Kilmer, Fleming, Rhew, Calhoun, & Guttmannova (2022)

** significant decreasing linear trend **
** significant increasing linear trend **

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Next (and current) steps

- Collecting data for Year 9 through mid-December
- Dr. Katarina Guttmannova received a second secondary data analysis grant (NIDA R01DA057705) focusing on changes before to during the COVID-19 pandemic among young adults
  - Findings from this project will inform tailoring and development of prevention and intervention efforts aimed at reducing health risk behaviors and improving public health
- Included new items (e.g., CBD only, Delta-8 only)
- Stay tuned for new findings in early 2023!
- And, while you're supporting young adults in Washington…

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Thank you!

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- CSHRB:
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- DBHR:
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Slides added during Q&A

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Screening

- **Screening suggestions**
  - **Cannabis Use Disorder Identification Test-Revised (CUDIT-R)**
    - http://www.warecoveryhelpline.org/wp-content/uploads/2018/04/CUDIT.pdf

The Cannabis Use Disorder Identification Test - Revised (CUDIT-R)

Have you used any cannabis over the past six months?   Yes_____   No _____

If you answered "Yes" to the previous question, please answer the following questions about your cannabis use. Circle the response that is most correct for you in relation to your cannabis use over the *past six months*.

1. How often do you use cannabis?

Never	Monthly or less	2-4 times a month	2-3 times a week	4+ times a week
0	1	2	3	4

2. How many hours were you "stoned" on a typical day when you had been using cannabis?

Less than 1	1 or 2	3 or 4	5 or 6	7 or more
0	1	2	3	4

3. How often during the past 6 months did you find that you were not able to stop using cannabis once you had started?

Never	Less than monthly	Monthly	Weekly	Daily/almost daily
0	1	2	3	4

4. How often during the past 6 months did you fail to do what was normally expected from you because of using cannabis?

Never	Less than monthly	Monthly	Weekly	Daily or almost daily
0	1	2	3	4

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5. How often in the past 6 months have you devoted a great deal of your time to getting, using, or recovering from cannabis?

Never	Less than monthly	Monthly	Weekly	Daily/almost daily
0	1	2	3	4

6. How often in the past 6 months have you had a problem with your memory or concentration after using cannabis?

Never	Less than monthly	Monthly	Weekly	Daily or almost daily
0	1	2	3	4

7. How often do you use cannabis in situations that could be physically hazardous, such as driving, operating machinery, or caring for children?

Never	Less than monthly	Monthly	Weekly	Daily/almost daily
0	1	2	3	4

8. Have you ever thought about cutting down, or stopping, your use of cannabis?

Never	Yes, but not in the past 6 months	Yes, during the past 6 months
0	2	4

This questionnaire was designed for self-administration and is scored by adding each of the 8 items:

Question 1-7 are scored on a 0-4 scale
Question 8 is scored 0,2, or 4

Score:_____

Scores of 8 or more indicate hazardous cannabis use, while scores of 12 or more indicate a possible cannabis use disorder for which further intervention may be required.

Adamson SJ, Kay-Lambkin FJ, Baker AL, Lewin TJ, Thornton L, Kelly BJ, and Sellman JD. (2010). An Improved Brief Measure of Cannabis Misuse: The Cannabis Use Disorders Identification Test - Revised (CUDIT-R). Drug and Alcohol Dependence 110:137-143.

Source:
Washington
Recovery
Helpline

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Percentage endorsing item as a function of having a past year cannabis use disorder or no past year substance use disorder

- Past year cannabis use disorder
- No past year substance use disorder

	Serious thoughts of suicide	Made any suicide plan	Attempted suicide
Past year cannabis use disorder	18.7	5.6	2.1
No past year substance use disorder	3.2	0.8	0.3

Source: SAMHSA, 2021, Table 8.61B

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