

**A Decade of Data:  
Ten Years of Findings from Washington's  
Young Adult Health Survey**

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**Before we get started...**

- Special thank you to:
  - Blair Brooke-Weiss
  - Kevin Haggerty
  - Brittany Cooper
  - Sandy Salivaras
  - Sarah Mariani

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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
  - Rose Lyles-Riebli
  - George Song
  - Isaac Rhew

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

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**Young Adult Health Survey Recruitment...  
A Reminder of the Main Steps**

- 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 sex, 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
- Cohort 9 (2022): 1,110
- Cohort 10 (2023): 1,237
- **TOTAL:** 18,711

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**Young Adult Health Survey**

- Each year we have followed up with previous cohorts (participants in Cohort 1, 18-25 in 2014, are largely 28-35 now)
- In Year 10, we paused on cohorts 2, 3, 4, and 5 (but got follow-up data from cohorts 1, 6, 7, 8, and 9)

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What do we see with ten years of data?

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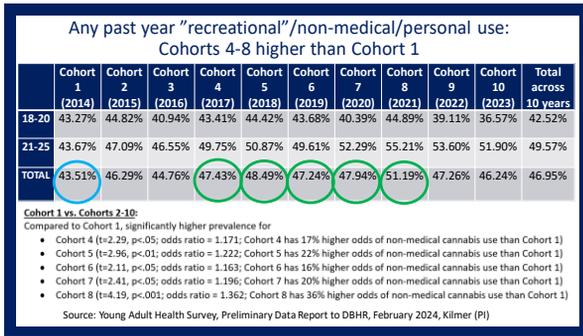
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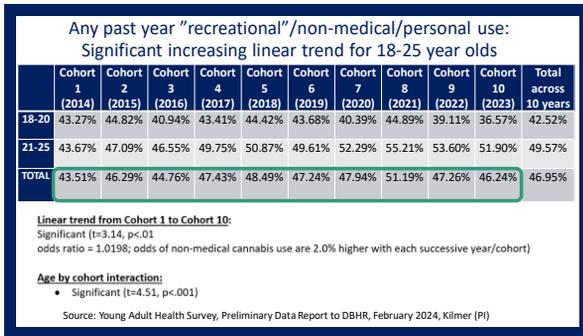
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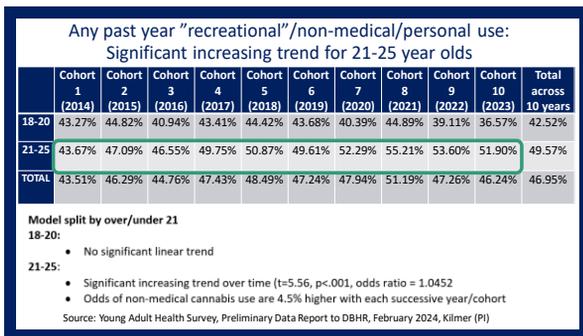
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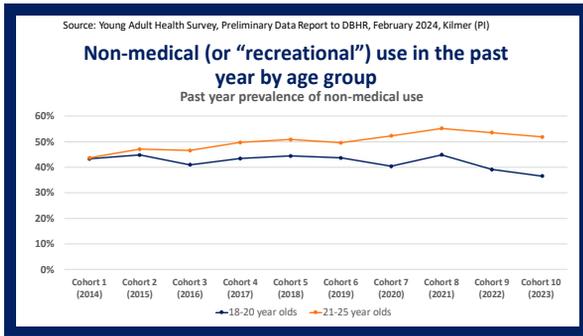
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### At least monthly "recreational"/non-medical/personal use: Cohorts 5-9 higher than cohort 1

	Cohort 1 (2014)	Cohort 2 (2015)	Cohort 3 (2016)	Cohort 4 (2017)	Cohort 5 (2018)	Cohort 6 (2019)	Cohort 7 (2020)	Cohort 8 (2021)	Cohort 9 (2022)	Cohort 10 (2023)	Total across 10 years
18-20	24.08%	24.88%	21.19%	23.56%	27.06%	23.24%	23.17%	24.16%	26.21%	20.15%	23.85%
21-25	23.63%	23.56%	25.12%	28.07%	27.88%	29.55%	33.81%	33.86%	31.65%	30.87%	28.27%
<b>TOTAL</b>	23.81%	24.03%	23.84%	26.46%	27.62%	27.09%	29.90%	30.11%	29.19%	26.87%	26.64%

**Regression models:**  
Cohort 1 vs. Cohorts 2-10:  
Compared to Cohort 1, significantly higher prevalence for

- Cohort 5 (t=2.56, p<.01; odds ratio = 1.221, Cohort 5 has 22% higher odds of non-medical cannabis use than Cohort 1)
- Cohort 6 (t=2.08, p<.05; odds ratio = 1.189, Cohort 6 has 19% higher odds of non-medical cannabis use than Cohort 1)
- Cohort 7 (t=3.73, p<.001; odds ratio = 1.365, Cohort 7 has 37% higher odds of non-medical cannabis use than Cohort 1)
- Cohort 8 (t=3.88, p<.001; odds ratio = 1.379, Cohort 8 has 38% higher odds of non-medical cannabis use than Cohort 1)
- Cohort 9 (t=2.99, p<.01; odds ratio = 1.320, Cohort 9 has 32% higher odds of non-medical cannabis use than Cohort 1)

Source: Young Adult Health Survey, Preliminary Data Report to DBHR, February 2024, Kilmer (PI)

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### At least monthly "recreational"/non-medical/personal use: Significant increasing trend for 18-25 year olds

	Cohort 1 (2014)	Cohort 2 (2015)	Cohort 3 (2016)	Cohort 4 (2017)	Cohort 5 (2018)	Cohort 6 (2019)	Cohort 7 (2020)	Cohort 8 (2021)	Cohort 9 (2022)	Cohort 10 (2023)	Total across 10 years
18-20	24.08%	24.88%	21.19%	23.56%	27.06%	23.24%	23.17%	24.16%	26.21%	20.15%	23.85%
21-25	23.63%	23.56%	25.12%	28.07%	27.88%	29.55%	33.81%	33.86%	31.65%	30.87%	28.27%
<b>TOTAL</b>	23.81%	24.03%	23.84%	26.46%	27.62%	27.09%	29.90%	30.11%	29.19%	26.87%	26.64%

**Linear trend from Cohort 1 to Cohort 10:**  
Significant increasing trend over time (t=5.10, p<.001; Odds ratio = 1.036)

**Age by cohort interaction:**  
Significant (p<.001)

Source: Young Adult Health Survey, Preliminary Data Report to DBHR, February 2024, Kilmer (PI)

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**Non-medical use, categories of frequency, whole sample**

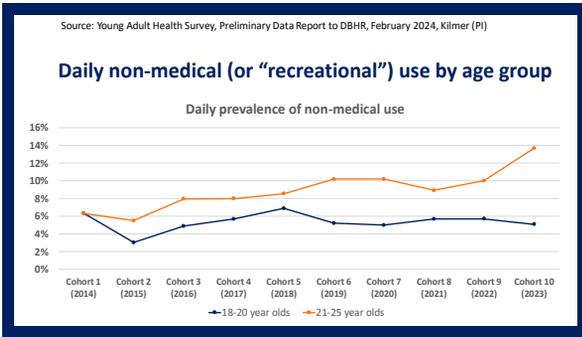
	Cohort 1 2014	Cohort 2 2015	Cohort 3 2016	Cohort 4 2017	Cohort 5 2018	Cohort 6 2019	Cohort 7 2020	Cohort 8 2021	Cohort 9 2022	Cohort 10 2023
Never	56.49%	53.71%	55.24%	52.57%	51.51%	52.76%	52.06%	48.81%	52.74%	53.76%
Once a year	7.53%	8.28%	8.00%	6.36%	6.67%	6.41%	5.86%	7.13%	5.70%	5.75%
2-3x/year	8.58%	9.60%	9.72%	10.21%	10.52%	9.77%	8.76%	9.79%	9.23%	9.38%
Every other month	3.59%	4.38%	3.20%	4.40%	3.68%	3.97%	3.42%	4.15%	3.13%	4.25%
Once a month	3.15%	3.55%	3.06%	3.58%	3.24%	3.72%	4.29%	3.67%	2.87%	2.33%
2-3x/month	3.94%	5.24%	3.94%	5.51%	5.35%	4.77%	4.77%	4.82%	6.86%	3.70%
1x/week	2.49%	2.75%	2.90%	2.38%	2.61%	2.92%	3.36%	3.23%	3.12%	3.43%
More than 1x/wk	5.26%	4.39%	4.63%	4.29%	4.81%	4.63%	5.25%	6.36%	5.16%	4.37%
Every other day	2.63%	3.44%	2.35%	3.55%	3.60%	2.85%	3.93%	4.29%	3.06%	2.64%
Every day	6.34%	4.65%	6.97%	7.14%	8.01%	8.19%	8.30%	7.74%	8.14%	10.39%

Cohort 4-10 all significantly higher odds of more frequent cannabis use than Cohort 1.

Note: \*\* Daily use is higher in Cohort 10 than at any time \*\*

Linear trend from Cohort 1 to Cohort 10:  
Significant increasing trend over time (t=4.70, p<.001, Odds ratio = 1.028)

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**Perceived norms of non-medical cannabis use**

PERCEPTIONS OF NON-MEDICAL CANNABIS

	Cohort 1 2014	Cohort 2 2015	Cohort 3 2016	Cohort 4 2017	Cohort 5 2018	Cohort 6 2019	Cohort 7 2020	Cohort 8 2021	Cohort 9 2022	Cohort 10 2023
Never	2.41%	2.42%	1.61%	2.31%	2.06%	1.50%	2.38%	1.92%	3.05%	2.44%
Once a year	1.82%	2.10%	1.74%	1.92%	1.27%	0.75%	1.22%	1.15%	1.37%	1.01%
2 to 3 times a year	8.22%	10.12%	6.73%	6.40%	3.89%	3.31%	2.23%	3.87%	3.95%	4.53%
Every other month	6.98%	7.29%	5.32%	4.59%	3.14%	3.90%	4.42%	3.48%	2.93%	3.37%
Once a month	9.74%	11.15%	10.41%	9.07%	6.88%	5.51%	6.39%	7.07%	6.63%	6.66%
2-3x/month	17.98%	19.68%	19.83%	18.91%	13.47%	13.93%	14.32%	14.04%	14.38%	12.69%
Once per week	12.65%	12.72%	15.43%	13.89%	14.28%	12.81%	12.64%	14.11%	13.24%	11.51%
More than 1x/wk	22.08%	20.70%	21.42%	23.94%	27.12%	25.90%	28.57%	29.17%	25.76%	26.73%
Every other day	9.77%	6.87%	8.56%	8.65%	11.10%	12.25%	13.10%	10.45%	13.14%	12.03%
Every day	8.84%	6.95%	8.96%	10.31%	16.79%	20.03%	14.62%	14.75%	15.57%	19.02%

\*\* In ordinal logistic models, Cohort 4 (t=2.57, p<.01), Cohort 5 (t=10.67, p<.001), Cohort 6 (t=12.36, p<.001), Cohort 7 (t=9.72, p<.001), Cohort 8 (t=9.02, p<.001), Cohort 9 (t=8.10, p<.001), and Cohort 10 (t=9.55, p<.001) have higher perceived non-medical cannabis 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=18.72, p<.001) \*\*

**In Cohort 10, 20.84% use at least weekly (meaning most don't), yet 69.29% think the typical person their age uses weekly**

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**DRIVING AFTER CANNABIS USE**

**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	Cohort 9 2022	Cohort 10 2023
Never	50.59%	55.29%	58.19%	58.56%	58.73%	61.80%	65.00%	66.38%	64.64%	68.69%
1 time	14.13%	13.13%	12.50%	12.85%	12.11%	8.32%	9.56%	10.25%	10.27%	7.70%
2-3 times	13.28%	12.34%	11.97%	11.98%	10.59%	11.66%	11.24%	10.51%	11.50%	9.83%
4-5 times	6.43%	4.35%	3.48%	4.48%	6.04%	4.00%	4.51%	4.39%	2.53%	3.40%
6 or more times	15.57%	14.88%	13.85%	12.12%	12.52%	14.21%	9.69%	8.47%	11.05%	10.38%

*\*\*There are declines in driving after cannabis use between cohorts 3-10 and cohort 1 (cohort 3, p<.05; cohort 4, p<.01; cohort 5, p<.05; cohort 6, p<.01; cohort 7, p<.001; cohort 8, p<.001; cohort 9, p<.001; cohort 10, p<.001), as well as a significant linear trend (p<.001). \*\**

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**Medical cannabis**

- Cohort 9 past year medical cannabis use (11.96%) is significantly lower than Cohort 1 (14.74%)
- Same difference on overall frequency such that Cohort 9 is different than Cohort 1
- Perceptions of medical use increasing significantly (both a linear trend, and past 7 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
  - Heroin use, at least once in the past year

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